

April 21, 2008

Mr. Charles G. Pardee
Chief Nuclear Officer (CNO) and Senior Vice President
Exelon Generating Company, LLC
Chief Nuclear Officer (CNO)
AmerGen Energy Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: OYSTER CREEK GENERATING STATION - NRC INTEGRATED INSPECTION
REPORT 05000219/2008002

Dear Mr. Pardee:

On March 31, 2008, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oyster Creek Generating Station. The enclosed integrated inspection report documents the inspection results, which were discussed on April 17, 2008, with Mr. T. Rausch, Site Vice-President, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The report documents one NRC-identified finding of very low safety significance (Green) that was determined not to be a violation of NRC requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

I appreciate your cooperation. Please contact me at (610) 337-5200 if you have any questions regarding this letter.

Sincerely,

/RA/

Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

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

Mr. C. Pardee

2

Enclosure: Inspection Report 05000219/2008002
w/ Attachment: Supplemental Information

cc w/encl:

T. Rausch, Site Vice President, Oyster Creek Nuclear Generating Station, AmerGen
J. Randich, Plant Manager, Oyster Creek Generating Station, AmerGen
J. Kandasamy, Manager Regulatory Assurance, Oyster Creek Generating Station
M. Pacilio, Chief Operating Officer, AmerGen
R. DeGregorio, Senior Vice President - Mid Atlantic Operations, AmerGen
S. Lendahl, Senior Vice President - Operations Support, AmerGen
K. Jury, Vice President - Licensing and Regulatory Affairs, AmerGen
P. Cowan, Director, Licensing and Regulatory Affairs, AmerGen
D. Helker, Manager Licensing, AmerGen
B. Fewell, Associate General Counsel, AmerGen
Correspondence Control Desk, AmerGen
P. Baldauf, Assistant Director, Radiation Protection and Release Prevention, State of NJ
P. Mulligan, Chief, NJ Bureau of Nuclear Engineering, Dept of Environmental Protection
Mayor of Lacey Township
N. Cohen, Coordinator - Unplug Salem Campaign
W. Costanzo, Technical Advisor - Jersey Shore Nuclear Watch
E. Gbur, Chairwoman - Jersey Shore Nuclear Watch
E. Zobian, Coordinator - Jersey Shore Anti Nuclear Alliance

Mr. C. Pardee

3

Mr. Charles G. Pardee
Chief Nuclear Officer (CNO) and Senior Vice President
Exelon Generating Company, LLC
Chief Nuclear Officer (CNO)
AmerGen Energy Company, LLC
200 Exelon Way
Kennett Square, PA 19348

SUBJECT: OYSTER CREEK GENERATING STATION - NRC INTEGRATED INSPECTION REPORT 05000219/2008002
Dear Mr. Pardee:

On March 31, 2008, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oyster Creek Generating Station. The enclosed integrated inspection report documents the inspection results, which were discussed on April 17, 2008, with Mr. T. Rausch, Site Vice-President, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

The report documents one NRC-identified finding of very low safety significance (Green) that was determined not to be a violation of NRC requirements.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

I appreciate your cooperation. Please contact me at (610) 337-5200 if you have any questions regarding this letter.

Sincerely,
Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

Distribution w/encl: (VIA E-MAIL)

S. Collins, RA
M. Dapas, DRA
D. Lew, DRP
J. Clifford, DRP
R. Bellamy, DRP
S. Barber, DRP
A. Rosebrook, DRP
M. Ferdas, DRP, Senior Resident Inspector

J. Kulp, DRP, Resident Inspector
J. DeVries, DRP, Resident OA
S. Williams, RI OEDO
H. Chernoff, NRR
E. Miller PM, NRR
T. Valentine, Backup PM (Interim), NRR
ROPreports@nrc.gov (**All Inspection Reports**)
Region I Docket Room (with concurrences)

SUNSI Review Complete: AAR (Reviewer's Initials)

DOCUMENT NAME: G:\DRP\BRANCH6\+++OYSTER CREEK\OC INSPECTION REPORTS 2008\OC0802REPORTR1.DOC

After declaring this document "An Official Agency Record" it **will** be released to the Public.

ML081140111

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure
"E" = Copy with attachment/enclosure "N" = No copy

G:\DRP\BRANCH6\+++Oyster Creek\OC Inspection Reports 2008\OC0802Reportr1.doc

OFFICE	RI:DRP	RI:DRS	RI:DRP	R1: DRP
NAME	MFerdas/AAR for MF	ARosebrook/AAR	SBarber/SB	RBellamy/RRB
DATE	04/16/08	04/16/08	04/21/08	04/22 /08

OFFICIAL RECORD COPY

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-219

License No.: DPR-16

Report No.: 05000219/2008002

Licensee: AmerGen Energy Company, LLC (AmerGen)

Facility: Oyster Creek Generating Station

Location: Forked River, New Jersey

Dates: January 1, 2008 – March 31, 2008

Inspectors: M. Ferdas, Senior Resident Inspector
R. Treadway, Resident Inspector
O. Ayegbusi, Resident Inspector (Acting)
R. Nimitz, Senior Health Physics Inspector
S. Pindale, Senior Reactor Inspector
J. Schoppy, Senior Reactor Inspector
A. Rosebrook, Project Engineer
L. Casey, Reactor Inspector
A. Patel, Reactor Inspector

Approved By: Ronald R. Bellamy, Ph.D., Chief
Projects Branch 6
Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS	3
1. REACTOR SAFETY	4
1R01 Adverse Weather Protection	4
1R04 Equipment Alignment	5
1R05 Fire Protection	5
1R07 Heat Sink Performance	6
1R11 Licensed Operator Requalification Program	7
1R12 Maintenance Effectiveness	7
1R13 Maintenance Risk Assessments and Emergent Work Control	8
1R15 Operability Evaluations	10
1R18 Plant Modifications	11
1R19 Post-Maintenance Testing	11
1R22 Surveillance Testing	12
1EP6 Drill Evaluation	13
2. RADIATION SAFETY	13
2OS1 Access Control to Radiologically Significant Areas	13
2OS2 ALARA Planning and Controls	14
2OS3 Radiation Monitoring Instrumentation and Protective Equipment	15
2PS2 Radioactive Material Processing and Transportation	16
4. OTHER ACTIVITIES [OA]	16
4OA2 Identification and Resolution of Problems	16
4OA3 Event Followup	20
4OA5 Other	22
4OA6 Meetings, Including Exit	22
4OA7 Licensee-Identified Violations	22
ATTACHMENT: SUPPLEMENTAL INFORMATION	22
SUPPLEMENTAL INFORMATION	A-1
KEY POINTS OF CONTACT	A-1
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED	A-1
LIST OF DOCUMENTS REVIEWED	A-2
LIST OF ACRONYMS	A-11

SUMMARY OF FINDINGS

IR 05000219/2008002; 01/01/2008 - 03/31/2008; AmerGen Energy Company, LLC, Oyster Creek Generating Station; Maintenance Risk Assessments and Emergent Work Control.

The report covered a 3-month period of inspection by resident inspectors, a project engineer, regional reactor inspectors, and an announced inspection by a senior health physics inspector. One Green finding (FIN) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or 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 4, dated December 2006.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

Green. The inspectors identified that AmerGen performed an inadequate risk assessment for a planned, but not yet commenced, maintenance activity on the Bank 6 startup transformer in February 2008; which resulted in an under-estimation of the risk associated with performing the activity. This finding was determined not to be a violation of NRC requirements. AmerGen's corrective actions for this issue included reassessing the risk for the activity and discussing this issue with work management personnel.

The finding was more than minor because the risk assessment did not account for the unavailability of a single train of a system that provides a shutdown key safety function. This finding was also similar to more than minor example 7.e in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because when the activity was correctly assessed the plant would have been in a higher, licensee-established risk category. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the inspectors evaluated the significance of this issue and determined that the incremental core damage probability deficit (ICDPD) associated with this activity was less than 1.0 E-6 and noted that the incorrectly assessed maintenance activity did not occur. Therefore, in accordance with Appendix K this finding screened as very low safety significance. The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not plan a maintenance activity, consistent with nuclear safety because risk insights were not properly incorporated into the work planning [H.3(a)]. (Section 1R13)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

The Oyster Creek Generating Station (Oyster Creek) began the inspection period operating at 92% power. In December 2007, AmerGen determined that Oyster Creek would operate at reduced power for an extended period of time until troubleshooting and repairs to the turbine control system could be completed. Additional information on this issue is contained in NRC inspection report 05000219/2007005, dated January 25, 2008.

On January 11, 2008, operations personnel performed an unplanned downpower to approximately 67% after identifying a leak on the service water supply pipe to the reactor building closed cooling water (RBCCW) and turbine closed cooling water (TBCCW) heat exchangers. Operations personnel terminated the downpower after the condition was evaluated by AmerGen personnel and determined that the service water system was capable of performing its function. On January 12, 2008, the plant was returned to 92% power after operations personnel implemented a plan developed by engineering personnel which allowed connecting the emergency service water (ESW) system to the RBCCW heat exchangers and removing the service water system from service. On January 14, 2008, maintenance personnel completed repairs (insert plate with full penetration welding) to the service water pipe and returned the system to service.

On February 29, 2008, operations personnel performed a planned downpower to 70% to perform control rod scram time testing, turbine control valve testing, and a control rod pattern adjustment. The plant returned to 92% power on March 1, 2008.

Oyster Creek operated at 92% power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

a. Inspection Scope (1 site specific sample)

The inspectors performed one site specific weather-related inspection. The inspectors reviewed AmerGen's response to cold weather conditions on February 11, 2008. During that period of time, the PJM Interconnection, L.L.C., declared a cold weather alert. The inspectors ensured that temperatures for equipment and areas in the plant were maintained within procedural limits, and when necessary, compensatory actions (i.e., additional heating) were properly implemented in accordance with procedures. The inspectors performed a walkdown of areas that could be potentially impacted by the cold weather conditions, such as the emergency diesel generator (EDG) building, condensate transfer pump building, and the fire diesel pump building. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04)a. Inspection Scope (71111.04S - 1 sample; 7111104Q - 4 samples)

The inspectors performed one complete and four partial equipment alignment inspections. The partial equipment alignment inspections were completed during conditions when the equipment was of increased safety significance, such as would occur when redundant equipment was unavailable during maintenance or adverse conditions, or after equipment was recently returned to service after maintenance. The inspectors performed a partial walkdown of the following systems and, when applicable, the associated electrical distribution components and control room panels to verify the equipment was aligned to perform its intended safety functions:

- RBCCW system on January 11, 2008;
- Service water system on January 15, 2008;
- #1 EDG on February 4, 2008; and
- Core spray system #1 on February 11, 2008.

The inspectors also performed a complete system alignment inspection on the core spray system to determine whether the system was aligned and capable of performing its design function to provide emergency core cooling in the event of a postulated design basis accident. The inspectors reviewed selected procedures, piping, and instrumentation drawings; the applicable equipment lineup list; and interviewed the system engineer. The inspectors also reviewed corrective action program condition reports documenting core spray system deficiencies to verify that identified problems were being evaluated and corrected.

Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05)a. Inspection Scope (71111.05A - 1 sample; 71111.05Q - 8 samples)

The inspectors observed one plant fire drill and performed a walkdown of eight plant areas to assess their vulnerability to fire. The inspectors observed an unannounced fire drill on February 24, 2008, to assess the readiness of AmerGen's fire brigade to respond to fires within the plant. The drill scenario involved a simulated fire in the lower cable spreading room (fire zone OB-FZ-4). The inspectors attended AmerGen's drill critique to evaluate its adequacy in assessing personnel performance in responding to the postulated fire.

During plant walkdowns, the inspectors observed combustible material control, fire detection and suppression equipment availability, visible fire barrier configuration, and the adequacy of compensatory measures (when applicable). The inspectors reviewed “Oyster Creek Fire Hazards Analysis Report” and “Oyster Creek Pre-Fire Plans” for risk insights and design features credited in these areas. Additionally, the inspectors reviewed corrective action program condition reports documenting fire protection deficiencies to verify that identified problems were being evaluated and corrected. The following plant areas were inspected:

- Reactor building equipment drain tank (RBEDT) room on January 10, 2008;
- Control room on Jan 30, 2008;
- Refueling floor on Jan 30, 2008;
- Control rod drive (CRD) pump room on February 1, 2008;
- Fire diesel pump house on February 6, 2008;
- ‘A’ 480V switchgear room on February 7, 2008;
- Upper cable spreading room on February 12, 2008; and
- ‘A/B’ battery room on February 21, 2008.

Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07)

a. Inspection Scope (71111.07A - 1 sample)

The inspectors verified heat exchanger performance by reviewing the results of one heat exchanger performance test. The inspectors reviewed the test data collected from the containment spray system #1 heat exchanger performance test on January 24, 2008, to verify that the heat exchanger was capable of performing its safety function. In addition, the inspectors reviewed the test procedure and results to verify that appropriate test controls were incorporated correctly into the procedure, test acceptance criteria were consistent with technical specification and Updated Final Safety Analysis Report (UFSAR) requirements, and that AmerGen identified any potential heat exchanger deficiencies during testing. Documents reviewed are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Regualification Program (71111.11)a. Inspection Scope (71111.11Q - 1 sample)

The inspectors observed one simulator training scenario on February 4, 2008, to assess operator performance and training effectiveness. The scenario involved an electric pressure regulator (EPR) failure, loss of RBCCW, anticipated transient without scram (ATWS), and a steam leak inside containment. The inspectors assessed whether the simulator adequately reflected the expected plant's response, operators appropriately implemented procedures, and the simulator instructor's critique identified crew performance problems. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)a. Inspection Scope (3 samples)

The inspectors performed three maintenance effectiveness inspection activities. The inspectors reviewed AmerGen's performance monitoring of the control room heating, ventilation, and air conditioning (HVAC) system to determine whether AmerGen was adequately monitoring equipment performance to ensure that maintenance was effective. The inspectors also reviewed the following degraded equipment performance issues:

- Service water pipe leak on January 11, 2008 (IR 720730); and
- 'A' ESW pump discharge head leak on January 24, 2008 (IR 726021).

The inspectors verified that the systems or components were being monitored in accordance with AmerGen's maintenance rule program requirements. The inspectors compared documented functional failure determinations and unavailable hours to those being tracked by AmerGen. The inspectors reviewed completed maintenance work orders and procedures to determine if inadequate maintenance contributed to the equipment performance issue. The inspectors also reviewed applicable work orders, corrective action program condition reports, operator narrative logs, and vendor manuals. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)a. Inspection Scope (7 samples)

The inspectors reviewed seven on-line risk management evaluations through direct observation and document reviews for the following plant configurations:

- 'A' instrument air compressor and 'A' standby liquid control (SLC) pump unavailable due to planned maintenance on January 10, 2008;
- Emergent activity to cross connected ESW to the RBCCW heat exchanger on January 12, 2008;
- Planned activity to establish service water to the RBCCW heat exchanger and remove ESW connection to RBCCW on January 14, 2008;
- 'A' CRD pump and '1-2' TBCCW pump unavailable due to planned maintenance on February 6, 2008;
- '1-2' TBCCW heat exchanger and Bank 6 startup transformer unavailable due to planned maintenance on February 15, 2008 (involved review of work before commenced);
- #1 EDG, #2 combustion turbine, '1-1' RBCCW heat exchanger, and 'C2' 125V battery charger unavailable due to planned maintenance on March 18, 2008; and
- '1-1' RBCCW heat exchanger, #2 combustion turbine, and 'C2' 125V battery charger unavailable due to planned maintenance on March 19, 2008.

The inspectors reviewed the applicable risk evaluations, work schedules, and control room logs for these configurations to verify the risk was assessed correctly and reassessed for emergent conditions (when applicable) in accordance with AmerGen's procedures. AmerGen's actions to manage risk from maintenance and testing were reviewed during shift turnover meetings, control room tours, and plant walkdowns. The inspectors also used AmerGen's on-line risk monitor (Paragon) to gain insights into the risk associated with these plant configurations. Additionally, the inspectors reviewed corrective action program condition reports documenting problems associated with risk assessments and emergent work evaluations. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

Introduction. The inspectors identified that AmerGen performed an inadequate risk assessment for a planned, but not yet commenced, maintenance activity on the Bank 6 startup transformer in February 2008, which resulted in an under-estimation of the risk associated with performing the activity. This finding was of very low safety significance (Green) and determined not to be a violation of NRC requirements.

Description. On February 12, 2008, during a plant status review of upcoming maintenance activities, the inspectors noted that AmerGen had scheduled a maintenance activity for February 15, 2008, which involved replacing the Bank 6 startup transformer 'C' phase voltage regulator controller (work order C2016760). The work activity did not include tagging-out the startup transformer, but required that the voltage regulator be in manual and an operator stationed at the voltage regulator. The

inspectors reviewed the risk assessment performed by AmerGen for this activity and noted that the risk assessment indicated that the startup transformer would remain operable and available; and overall plant risk would remain “green” per AmerGen’s procedure WC-OC-101-1001, “On-Line Risk Management and Assessment.”

The inspectors discussed with engineering and work management personnel that they believed the risk assessment for the work on February 15, 2008 was incorrect because the startup transformer could not be considered operable or available during the planned maintenance activity. AmerGen personnel reviewed the inspectors concerns and agreed that an incorrect risk assessment was performed because work management personnel incorrectly assumed that the voltage regulator would remain available. AmerGen’s risk engineer clarified to work management personnel that with the voltage regulator in manual, the startup transformer would not be able to mitigate a plant trip under all analyzed grid voltage conditions (degraded grid voltage) and recover the vital bus voltage to above the degraded grid set point within the design basis limit of ten seconds; and therefore should be considered inoperable. The risk engineer further stated operator action could not be used to maintain availability in this situation because the operator could not perform the required actions in the time specified to ensure availability of the startup transformer (i.e., 10 seconds). The risk engineer also concluded that the overall plant risk should have been ‘yellow’ during the activity per Oyster Creek’s computerized risk assessment tool (PARAGON).

AmerGen documented this issue in corrective action program condition report IR 739069 and concluded that the work management personnel had insufficient knowledge of the impact to the plant when the voltage regulator is placed in manual. Previous controller replacements were done under a work clearance which resulted in the startup transformer being inoperable and unavailable.

Work order C2016760 was rescheduled prior to execution. The inspectors verified that the work order was properly assessed for risk and that risk management actions were properly implemented when the work was performed on February 26, 2008.

The performance deficiency associated with this finding involves AmerGen not correctly performing a risk assessment during the work management planning process for maintenance on a startup transformer in February 2008. AmerGen’s procedure WC-OC-101-1001, states that when a probabilistic risk assessment review is required, it should be performed by risk analysis personnel with input from work management personnel; and that the review should include determining the risk level, identifying significant contribution to risk, and identifying mitigative strategies. The risk assessment performed by AmerGen for the planned maintenance activity was not adequate because it did not identify a significant contribution to the risk which resulted in an under-estimation of the risk associated with performing the maintenance activity. Specifically, the startup transformer needed to be considered inoperable and unavailable during the maintenance activity. AmerGen’s corrective actions for this issue included correctly reassessing the risk for the activity, discussing this issue with work management personnel, and recommending enhancing the on-line work management procedure to provide guidance on assessing the availability of a startup transformer in manual control.

Analysis. The finding was more than minor because the risk assessment did not account for the unavailability of a single train of a system that provides a key shutdown safety function. This finding was also similar to more than minor example 7.e in NRC Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix E, "Examples of Minor Issues," because when the activity was correctly assessed the plant would have been in a higher, licensee-established risk category. In accordance with IMC 0609, Appendix K, "Maintenance Risk Assessment and Risk Management Significance Determination Process," the inspectors evaluated the significance of this issue and determined that the incremental core damage probability deficit (ICDPD) associated with this activity was less than 1.0 E-6 and noted that the incorrectly assessed maintenance activity did not occur. Therefore, in accordance with Appendix K this finding screened as very low safety significance.

The performance deficiency had a cross-cutting aspect in the area of human performance because AmerGen did not plan a maintenance activity, consistent with nuclear safety because risk insights were not properly incorporated into the work planning [H.3(a)].

Enforcement. A violation of regulatory requirements did not occur per the guidance contained in the "Nuclear Regulatory Commission Enforcement Manual," dated September 28, 2006, section 7.11, "Actions Involving the Maintenance Rule." Specifically, the manual states that failing to perform an adequate assessment that is questioned and corrected prior to commencement of maintenance activities is not a violation of 10 CFR 50.65 (a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants." This issue is being treated as a performance deficiency (finding) of very low safety significance and AmerGen has entered this issue into their corrective action program in condition report IR 739069.

(FIN 05000219/2008002-01, Inadequate Risk Assessment Identified Prior to Commencement of Maintenance)

1R15 Operability Evaluations (71111.15)

a. Inspection Scope (7 samples)

The inspectors reviewed seven operability evaluations for degraded or non-conforming conditions associated with:

- A lowering level in the carbon dioxide tank for 'C/D' 4160V switchgear room on January 7, 2008 (IR 716647);
- Instrument air leak at intake control panel on January 11, 2008 (IR 720841);
- 'C' ESW ground sensing relay tripped on January 16, 2008 (IR 722887);
- #2 EDG loading outside acceptance band during testing on February 4, 2008 (IR 731075);
- Spurious open alarm on the standby liquid control (SLC) squib valve on February 27, 2008 (IR 741435);
- 'A' control room heating, ventilation, and air conditioning (HVAC) cooling capability on March 4, 2008 (IR 744793); and

- Reactor building deluge system actuation on March 31, 2008 (including potential impact of water spray on equipment important to safety) (IR 756924).

The inspectors reviewed the technical adequacy of the operability evaluations to ensure the conclusions were technically justified. The inspectors also walked down accessible portions of equipment to corroborate the adequacy of AmerGen's operability evaluations. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18)

a. Inspection Scope (1 Temporary Modification sample)

The inspectors reviewed one temporary plant modification installed in the plant by AmerGen. The plant modification involved:

- Reconfiguring the main steam isolation valve (MSIV) closure scram signal for the reactor protection system to utilize the 5% closure switches, instead of the 10% closure switches. (ECR OC 07-01018-001)

The inspectors verified that the modification did not adversely affect the availability, reliability, or functional capability on the system being modified. Specifically, the inspectors verified that the modification was consistent with the design and licensing bases of the affected system; and the modification was installed and operated in accordance with modification documents, work instructions, and procedures. The inspectors reviewed post-installation test results to assess the capability and functionality of the modification. The inspectors verified that the modification was being controlled in accordance with AmerGen's procedures. The inspectors also performed a plant walk down of accessible components associated with the modification to assess the adequacy of the modification. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope (10 samples)

The inspectors observed portions of and/or reviewed the results of ten post-maintenance tests on the following equipment:

- '1-1' TBCCW system heat exchanger on January 8, 2008 (WO R2105755);
- Service water pipe repair on January 15, 2008 (WO C2016635);

- Containment spray system #1 torus cooling isolation valve 'V-21-5' on January 17, 2008 (WO A0707702);
- '1-3' TBCCW pump on January 29, 2008 (WO A2160454);
- Standby gas treatment system (SBGT) exhaust fan 'EF-1-9' on January 30, 2008 (WO A2162616);
- #2 EDG lube oil circulating pump replacement on February 5, 2008 (WO 2016311);
- 'A' CRD pump inboard and outboard mechanical seal replacement on February 6, 2008 (WO R2112773);
- 'D' core spray booster pump breaker maintenance on February 11, 2008 (WO C2015966, R2112773);
- 'D' electromatic relief valve (EMRV) resistor replacement on February 21, 2008 (WO C2015576); and
- '1-1' SBGT exhaust fan 'EF-1-8' on March 6, 2008 (WO R2100256).

The inspectors verified that the post-maintenance tests conducted were adequate for the scope of the maintenance performed and reasonably ensured the components' functional capability after maintenance. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope (9 samples - 4 IST, 4 Routine Surveillance, and 1 RCS leakage)

The inspectors observed portions of or reviewed the results of nine surveillance tests:

- Unidentified leak rate flow integrator surveillance test on January 2, 2008;
- 'C' 125V battery (safety-related) monthly surveillance test on January 8, 2008;
- 'A' Isolation condenser valve operability and in-service test (IST) on January 8, 2008;
- Remote shutdown panel functional test on January 17, 2008;
- 'A' ESW pump operability and IST on January 26, 2008;
- '1-2' diesel driven fire pump functional test on January 29, 2008;
- Core spray system #2 instrument channel and level bistable calibration and surveillance test on February 13, 2008;
- Control rod drive scram time testing and IST on March 1, 2008; and
- Torus to drywell vacuum breaker operability and IST on March 10, 2008.

The inspectors verified that test data were complete and met procedural requirements to demonstrate the systems and components were capable of performing their intended function. The inspectors also reviewed corrective action program condition reports that documented deficiencies identified during these surveillance tests. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness [EP]

1EP6 Drill Evaluation (71114.06)

a. Inspection Scope (1 EP Drill sample)

The inspectors observed one site EP drill. The inspectors observed the EP drill from the technical support center (TSC) on March 19, 2008. The inspectors also monitored communications between the control room simulator, TSC, and emergency operations facility (EOF). The inspectors evaluated the conduct of the drill; and performance related to developing classifications and protective action recommendations by AmerGen personnel. The inspectors observed AmerGen's drill critique of the TSC facility to ensure AmerGen appropriately identified performance issues. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety [OS]

2OS1 Access Control to Radiologically Significant Areas (71121.01)

a. Inspection Scope (3 samples)

The inspectors reviewed activities and associated documentation in the area of access control to radiologically significant areas. The evaluation of AmerGen's performance was against criteria contained in 10 CFR 19 ("Notices, Instructions and Reports to Workers; Inspection and Investigations"), 10 CFR 20 ("Standards for Protection Against Radiation"), technical specifications, and AmerGen procedures. Documents reviewed for this inspection activity are listed in the Supplemental Information attached to this report.

The inspectors walked down radiological controlled areas at Oyster Creek. The inspectors reviewed housekeeping, material conditions, postings, barricades, and access controls to determine if radiological controls were acceptable in the areas. The inspectors conducted independent radiation surveys with a survey instrument to evaluate ambient conditions and adequacy of applied radiological controls in selected areas during the plant walkdown. The inspectors observed and reviewed radiological controls and worker performance on the following on-going radiological work activities: characterization of a radioactive waste liner for handling; loading and packaging for shipment of a second waste liner, and conduct of work activities within the condenser

bay. The inspectors determined if prescribed radiation work permits (RWP) and procedure requirements were being appropriately implemented and that adequate radiological controls were established. The inspectors also attended the radiological job briefing provided to workers involved in transporting and packaging a radioactive waste liner for shipment. During plant walkdowns, the inspectors also reviewed and discussed the implementation of high radiation area controls (postings, barricading and locking of high radiation areas) with in-field, lead radiological controls technicians.

The inspectors reviewed AmerGen's evaluations associated with radiological source term and the applicable measurement controls. The inspectors reviewed internal dose assessments performed in 2007 and 2008, to identify apparent occupational internal doses greater than 50 millirem committed effective dose equivalent (CEDE). The review included assessing the adequacy of airborne radioactivity controls and potential intakes associated with hard-to-detect radionuclides (e.g., transuranics). The inspectors also reviewed any instances of personnel contamination.

The inspectors reviewed self-assessments, audits, and corrective action program condition reports, which involved access control to radiologically significant areas to determine if issues were being properly evaluated and corrective actions were appropriately prioritized. The review included an assessment to determine if repetitive issues existed. The review also included an evaluation to determine if radiological issues had occurred which impacted NRC performance indicators (PI).

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls (71121.02)

a. Inspection Scope (2 samples)

The inspectors reviewed activities and documentation to determine if AmerGen was implementing operational, engineering, and administrative controls to maintain personnel occupational radiation exposure as low as is reasonably achievable (ALARA). The inspectors evaluated AmerGen's performance against criteria contained in 10 CFR 19, 10 CFR 20, applicable industry standards, and AmerGen procedures. Documents reviewed for this inspection activity are listed in the Supplemental Information attached to this report.

The inspectors reviewed pertinent information regarding Oyster Creek's collective dose history, current exposure trends, and ongoing and planned activities in order to assess current performance and exposure challenges. The inspectors determined the site's specific trends in collective exposures using plant historical data and NUREG-0713, "Occupational Radiation Exposure at Commercial Nuclear Power Reactors and Other Facilities." The inspectors reviewed Oyster Creek procedures associated with maintaining occupational exposures ALARA.

The inspectors reviewed ALARA planning and preparations, for an activity involving waste handling and loading operations (as discussed in Section 2OS1). The inspectors

reviewed the planning and preparation for the work activity to determine if ALARA requirements were integrated into the work procedure and RWP documents. The inspectors also reviewed station ALARA committee (SAC) meeting minutes and reviewed departmental occupational exposure dose reduction plans and Oyster Creek's five year exposure reduction plan.

The inspectors evaluated the use of ALARA controls for the work activities described in Section 2OS1, and reviewed AmerGen's oversight of the work activities to ensure they were conducted in a dose efficient manner (e.g., work crew size minimized, workers properly trained, and proper tools and equipment utilized).

The inspectors reviewed AmerGen's evaluations in the area of source term controls. Specifically, the inspectors reviewed source term reduction efforts as described in Oyster Creek's source term reduction plans (2008-2012).

The inspectors observed radiation workers and radiation protection technician performance during work activities being performed in radiological controlled areas. The inspectors reviewed activities that presented the greatest radiological risk to workers to determine if workers demonstrated ALARA practices (e.g., were workers familiar with the work activity scope and tools to be used, were workers utilizing ALARA low dose waiting areas) and work activity controls were being properly implemented.

The inspectors reviewed self-assessments and audits related to the ALARA program to determine if identified problems were being entered into the corrective action program for resolution. The inspectors also reviewed corrective action program condition reports to determine if issues were being properly evaluated and corrective actions were appropriately prioritized. The review included an assessment to determine if repetitive issues existed. The inspectors also reviewed dose significant post-job (work activity) reviews and post-outage ALARA report critiques of exposure performance, to determine if identified problems were properly characterized, prioritized, and resolved.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

a. Inspection Scope (2 samples)

The inspectors reviewed activities and documentation associated with radiation monitoring, instrumentation, and protective equipment. The inspectors evaluated AmerGen's performance against criteria contained in 10 CFR 20, technical specifications, and AmerGen procedures.

The inspectors reviewed radiation monitoring and measurement instrumentation used to access radiation or radioactive contamination levels, including airborne contamination collection and analysis. The inspectors reviewed calibration, operability determination, and expected response for instruments based on expected source terms. The inspectors reviewed radiation survey instrumentation used during ongoing work. The

following instruments were reviewed: Telepole (79460), RM-14 (74059), SAC-4 (78466), and electronic personnel dosimetry (35127, 114025, 28368, 114073, and 27915).

The inspectors reviewed audits and self-assessments in the area of radiation monitoring equipment and protective equipment to determine if issues in these areas were being entered into the corrective action program. The inspector also reviewed corrective action program condition reports to evaluate AmerGen's threshold for identifying, evaluating, and resolving problems in this area.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety [PS]

2PS2 Radioactive Material Processing and Transportation (71122.02)

a. Inspection Scope (1 sample)

The inspectors reviewed activities and documentation associated with radioactive material processing and transportation. Specifically, the inspectors reviewed the packaging and shipment preparation of a non-exempt radioactive material shipment (OC-4004-08). The review included packaging and vehicle radiation dose rates, placement of placards on the vehicle, completion of applicable shipping papers, qualification of personnel overseeing and processing shipment, emergency instructions, general truck and trailer condition, and closure and use requirements.

The inspector also reviewed training provided to AmerGen personnel relative to 49 CFR 172 ("Hazardous Materials Table, Special Provisions Hazardous Materials Communications, Emergency Response Information, and Training Requirements") and NRC Bulletin 79 -19 ("Packaging of Low-Level Radioactive Waste for Transport and Burial").

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES [OA]

4OA2 Identification and Resolution of Problems (71152)

.1 Review of Items Entered Into the Corrective Action Program

The inspectors performed a daily screening of items entered into AmerGen's corrective action program to identify repetitive equipment failures or specific human performance issues for follow-up. This was accomplished by reviewing hard copies of corrective action program condition reports, attending daily screening meetings, or accessing AmerGen's computerized database.

.2 Annual Sample Review

a. Inspection Scope (2 Annual samples)

The inspectors reviewed AmerGen's evaluation and corrective actions associated with the following two issues. Documents reviewed for this inspection activity are listed in the Supplemental Information attachment to this report.

Implementation of Overtime at Oyster Creek. The inspectors performed a review to assess AmerGen's implementation of their overtime policy at Oyster Creek. The inspectors reviewed overtime records from July 2007 thru January 2008 to verify that overtime controls were being implemented in accordance with site procedures, technical specification 6.2.2.2i, "Facility Staff," and NRC Generic Letter 82-12, "Nuclear Plant Staff Working Hours," dated June 15, 1982. The inspectors also reviewed corrective action program condition reports associated with control of overtime issues identified at other AmerGen/Exelon facilities', and previously identified minor violations documented in NRC inspection report 05000219/2006004, dated October 24, 2006.

Meteorological Data System and Backup Generator Performance. The inspectors reviewed AmerGen's evaluations and corrective actions associated with functional failures of the meteorological data system and equipment deficiencies on the backup generator to the meteorological tower (IR 455020 and 505342). The meteorological tower provides environmental data (wind speed, wind direction, temperature, etc) for the conditions at the site which is used for determining protective action recommendations during an event. The inspectors reviewed relevant corrective action program condition reports to ensure that issues associated with the meteorological data system and backup generator were fully identified, appropriate evaluations were performed, and corrective actions were specified and prioritized. The inspectors discussed the issue with engineering personnel and reviewed work orders, trouble shooting action plans, and maintenance procedures on the meteorological data system and backup generator.

b. Findings and Observations

Implementation of Overtime at Oyster Creek. No findings of significance were identified. However, the inspectors identified several minor violations of NRC requirements associated with control of overtime.

For the period of July 2007 thru January 2008, the inspectors reviewed approved overtime deviation forms, and noted an increasing trend in the use of overtime deviations by operations personnel in order to maintain required shift coverage staffing levels. Specifically, twenty-one overtime deviations were granted to provide normal shift coverage for operations personnel to work greater than the limitations (72 hours in a 7 day period) imposed in Oyster Creek technical specification 6.2.2.2.i and NRC Generic Letter (GL) 82-12. AmerGen procedure LS-AA-119, "Overtime Controls," states, that overtime hours worked for activities such as vacation coverage, and normal shift coverage, do not constitute very unusual circumstances, and overtime worked for these types of activities should not exceed NRC GL 82-12 limitations. The inspectors determined that, based on procedure LS-AA-119, shift coverage does not constitute a very unusual circumstance and an overtime deviation should not be granted. Based on

the inspectors' review of previous plant status, some of the deviations could be properly justified by providing additional reasoning (call outs, emergent maintenance, plant transients) for the overtime deviation; however, the deviations were approved without these details. In addition, the inspectors identified the following minor violations of Oyster Creek technical specification 6.2.2.2.i, because deviations were approved for reasons not permitted by LS-AA-119:

- On January 15, 2008, an overtime deviation was granted to support shift coverage to cover for vacation and supervisor development training (non required training);
- On January 23, 2008, an overtime deviation was granted for shift coverage to support two operations personnel taking supervisor development training (non required training);
- On October 28, 2007, an overtime deviation was approved for four operations personnel due to a change in shift turnover time. Three of the four personnel had thirty minutes of overtime approved, while the other person had nine hours of overtime. The inspectors concluded that the fourth individual's overtime was inappropriately approved as needed for a change of shift turnover time when it appeared due to the length of time that the approval was for a different reason; and
- On December 20, 2007, an overtime deviation was approved even though no reason or safety-related task was provided as a justification.

The inspectors also noted that in October 2007, Nuclear Oversight (NOS) identified that several overtime deviations were approved after the overtime hours were worked. Specifically, deviations in May, July, and October 2007 were approved or submitted for approval after the overtime limitations were exceeded. In February 2008, NOS identified three additional occurrences between October and December 2007. In accordance with procedure LS-AA-119, deviations are to be submitted and approved prior to exceeding the overtime limits to ensure the worker's fitness for duty (FFD) is properly evaluated. The inspectors determined that this was a licensee identified minor violation of Oyster Creek technical specification 6.2.2.2.i because deviations were not approved in accordance with procedure LS-AA-119. This issue was considered minor because no fatigue-related performance issues resulted from these instances, compensatory actions were in place to monitor operators for FFD, and corrective actions have been put in place to correct this issue.

The minor violations identified during this inspection and the corrective actions taken by AmerGen are documented in corrective action program condition report IR 742782.

The inspectors also performed a review of corrective actions taken by AmerGen which addressed minor violations documented in NRC inspection report 05000219/2006004, dated October 24, 2006, related to potential FFD concerns among radiation protection personnel. The inspectors noted that corrective actions have been effective in reducing the need for overtime deviations in the radiation protection department and the need for forced overtime to cover required on site emergency response organization positions. This was demonstrated by a reduction in the overtime deviations approved for radiation protection personnel from August 2007 thru January 2008 when compared to the number of overtime deviations between March 2006 and June 2006.

In addition, the inspectors reviewed corrective action program condition report IR 741233, which documented recent operating experience related to the control of overtime during refueling outages. The corrective actions for this issue included revising AmerGen procedure LS-AA-119 by removing sections which were in conflict with the guidance contained in NRC Generic Letter 82-12, and evaluating staffing requirements for upcoming maintenance and refueling outages to ensure compliance with the revised procedure.

During review of corrective action program condition report IR 741233, the inspectors noted that Oyster Creek did allow overtime deviations (84 hours in a 7 day period) for selected outage personnel during their fall 2006 refueling outage. The inspectors determined that the overtime was approved because the refueling outage was treated as an unusual circumstance. The inspectors determined that this was not a violation of Oyster Creek technical specifications because, even though AmerGen deviated from the NRC Generic Letter 82-12 guidance, procedure LS-AA-119 permitted this deviation. In addition, Oyster Creek technical specifications permits deviations in accordance with approved procedures and with documentation for the basis for granting the deviation. Unlike other AmerGen/ Exelon facilities, Oyster Creek technical specifications do not explicitly commit to following NRC Generic Letter 82-12 guidance. The basis of LS-AA-119 is to conform with the guidance in NRC Generic Letter 82-12 and NRC NUREG 737, "Clarification of TMI Action Plan Requirements." However, these two guidance documents treat refueling outages differently; NRC NUREG 737 permits overtime deviations for refueling outages, while NRC Generic Letter 82-12 does not. Therefore, while this practice was not consistent with NRC Generic Letter 82-12 guidance, the inspectors determined that a violation of technical specification 6.2.2.2 did not occur and corrective actions have been implemented to clarify implementation of the overtime requirements during a refueling outage.

Meteorological Data System and Backup Generator Performance. No findings of significance were identified.

The inspectors determined that, in general, the corrective actions taken to address the functional failures of the meteorological data system were reasonable and adequate. However, in the case of the meteorological tower backup generator, corrective actions have not proven to be effective to address equipment deficiencies. The backup generator to the meteorological tower has been unavailable since August 3, 2007. AmerGen has been unsuccessful at identifying and correcting the cause of overheating issues on the backup generator. In addition to the backup generator, the meteorological tower is equipped with a three-hour battery which can supply power to operate the tower if offsite power was not available. The backup generator also provides a backup source of power to a radio repeater located on the tower. This repeater is one of six communications channels credited in the UFSAR for communications to achieve plant shutdown during an Appendix R fire scenario with a loss of offsite power. The inspectors noted that the power system (batteries or backup generator) are not scoped into the maintenance rule for monitoring. AmerGen documented this observation in corrective action program condition report IR 749595 to evaluate the need to scope the power supply components into the maintenance rule.

4OA3 Event Followup (71153) (3 samples)

The inspectors performed three event followup inspection activities. Documents reviewed for this inspection activity are listed in the Supplemental Information attached to this report.

.1 Service Water Pipe Leak

On January 11, 2008, operations personnel in the control room responded to a service water pipe leak (approximately 500 gpm). Operations personnel responded in accordance with abnormal operating procedure (ABN) -18, "Service Water Failure," and performed a power reduction. Operations personnel halted the power reduction at 67% after it was determined that service water system pressure and other plant parameters were not adversely impacted by the service water leak. AmerGen personnel performed additional evaluations of the condition and took actions to mitigate the impact of the service water leak on other equipment in the area.

The inspectors responded to the control room following notification by operations personnel of the service water leak, monitored plant conditions, and observed the response of operations personnel to the event. At the time of the event the inspectors verified that conditions did not meet the entry criteria for an emergency action level (EAL) as described in the Oyster Creek EAL matrix. The inspectors reviewed 10.CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," to verify that conditions did not require notification to the NRC. The inspectors also performed a walkdown of the service water system and intake structure to assess the impact of the water leak on equipment in the area.

On January 12, 2008, engineering personnel completed a procedure change which allowed connecting the safety-related ESW system #1 to the RBCCW heat exchanger. Operating procedure 322, "Service Water System," at the time only allowed aligning ESW to the RBCCW heat exchanger during refueling outages. Engineering personnel performed a technical evaluation (A2185795) and a 10 CFR 50.59 evaluation (OC-2008-E-0001), which authorized revising the operating procedure to allow connecting the ESW system #1 to the RBCCW heat exchanger at power. The inspectors observed the plant onsite review committee (PORC), which reviewed and approved the proposed procedure change recommended by engineering personnel. The inspectors also reviewed the technical evaluation and 50.59 evaluation prepared by engineering personnel to ensure that the condition was appropriately evaluated and that the procedures were properly revised.

On January 12, 2008, operations and maintenance personnel implemented the revised operating procedure and connected ESW system #1 to the RBCCW heat exchanger, and removed the service water system from service in order to perform repairs. The inspectors observed this activity and reviewed it in accordance with NRC inspection procedure (IP) 71111.13, "Maintenance Risk Assessments and Emergent Work Control." The inspectors reviewed technical specification requirements to ensure Oyster Creek appropriately implemented technical specification requirements when they were in this configuration. Operations personnel returned the plant to 92% after this activity.

On January 14, 2008, maintenance personnel completed repairs on the service water pipe, and operations personnel returned the service water system in its normal configuration per operating procedure 322. The inspectors observed these activities and reviewed it in accordance with NRC IP 71111.13 and 71111.04, "Equipment Alignment."

The inspectors reviewed process plant computer (PPC) data, control room logs, system drawings, and discussed the event with AmerGen personnel to gain an understanding of how operations personnel and plant equipment responded during the event. The inspectors also reviewed AmerGen's evaluation (IR 720730) into the cause of the service water pipe leak (see section 1R12 for inspection details).

b. Findings

No findings of significance were identified.

.2 Instrument Air Transient

a. Inspection Scope

On March 24, 2008, operations personnel responded to an increase in instrument air (IA) demand and a decrease in IA system pressure. In accordance with ABN-35, "Loss of Instrument Air," and operating procedure 334, "Instrument and Service Air System," operators responded to and diagnosed the cause of the IA transient. Operations personnel determined that during repairs of an air leak on the '1A3' high pressure feedwater heater level controller, an additional air leak developed on the 'C/D' air dryer (due to a failed purge valve) which caused a decrease in IA pressure to approximately 82 psig. Operations personnel isolated the 'C/D' air dryer, in accordance with operating procedures, and the IA system pressure increased to approximately 94 psig. Maintenance personnel completed a temporary repair to the feedwater heater level control valve and IA system pressure returned to its normal value of approximately 100 psig on March 25, 2008. On March 26, 2008, maintenance personnel completed repairs to the 'C/D' air dryer (work order C2017285).

The inspectors responded to the control room following a site announcement of a loss of IA, monitored plant conditions, and observed the response of operations personnel to the event. The inspectors also reviewed PPC data, operator logs, procedures, and discussed the event with AmerGen personnel to gain an understanding of how operations personnel and plant equipment responded during the event.

This event is described and evaluated in corrective action program condition report IR 753907.

b. Findings

No findings of significance were identified.

.3 (Closed) LER 0500219/2007-003-00. Unplanned Manual Reactor Scram Following Trip of Reactor Feed Pump Due to Lowering Condenser Vacuum.

a. Inspection Scope

The licensee event report (LER) described an event involving a manual reactor scram following a trip of the 'A' reactor feed pump due to lowering condenser vacuum on December 19, 2007. Prior to the event, Oyster Creek was at 55% power for planned maintenance on the 'A' and 'E' reactor recirculation pump motor generator sets and the 'A' north water box. The circulating water system was reduced to two pump operation to maintain discharge water temperatures above fifty degrees Fahrenheit, and draining of the waterbox was in progress for maintenance at the time of the scram. The NRC initially reviewed and discussed this issue in NRC inspection report 05000219/2007005, dated January 25, 2008 (ADAMS Accession No. ML080250267).

The inspectors reviewed AmerGen's corrective action program root cause evaluation (IR 714203) which evaluated the cause of this event. The root cause evaluation concluded that at the time of the event the circulating water system was being operated in accordance with procedural guidance and available design basis information. AmerGen's corrective actions for this event include revising the circulating water operating procedure and design basis documentation with the minimum system configuration and pressure to maintain the main condenser water boxes filled. The inspectors concluded that a performance deficiency did not exist because it was not reasonable for AmerGen to have prevented this event. The plant was being operated in accordance with procedural requirements, design basis information, and did not experience previous problems when operating the system with two circulating water pumps in service. Therefore, no findings of significance were identified and no violations of NRC requirements occurred. This LER is closed

40A5 Other

.1 (Closed) URI 05000219/2007005-04, Loss of 'A' Condenser Vacuum and Trip of 'A' Feedwater Pump Results in a Reactor Scram.

This unresolved item (URI) was reviewed by the inspectors in section 40A3 of this inspection report. This URI is closed.

40A6 Meetings, Including Exit

Resident Inspector Exit Meeting. On April 17, 2008, the inspectors presented their overall findings to members of AmerGen's management led by Mr. T. Rausch, Site Vice-President, and other members of his staff who acknowledged the findings. The inspectors confirmed that proprietary information reviewed during the inspection period was returned to AmerGen.

40A7 Licensee-Identified Violations

None.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION**KEY POINTS OF CONTACT**Licensee Personnel

K. Cellars, Director, Maintenance
 J. Dent, Director, Work Management
 J. Dostal, Shift Operations, Superintendent
 S. Dupont, Regulatory Assurance Specialist
 T. Farenga, Radiation Protection Technical Support Manager
 S. Hutchins, Senior Manager Design Engineering
 T. Keenan, Manager Security
 D. Kettering, Director, Engineering
 J. Kandasamy, Manager, Regulatory Assurance
 G. Ludlam, Director, Training
 J. Makar, Senior Manager System Engineering
 P. Orphanos, Director, Operations
 D. Peiffer, Manager Nuclear Oversight
 J. Randich, Plant Manager
 T. Rausch, Site Vice President
 H. Ray, Manager, Engineering Programs
 J. Renda, Manager Radiation Protection
 T. Schuster, Manager Environmental/Chemistry Manager
 T. Sexsmith, Manager Corrective Action Program
 R. Wiebenga, Chemistry Manager

Others:

P. Schwartz, State of New Jersey, Bureau of Nuclear Engineering

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSEDOpened/Closed

05000219/2008002-01	FIN	Inadequate Risk Assessment Identified Prior to Commencement of Maintenance (Section 1R13)
---------------------	-----	---

Closed

0500219/2007-003-00	LER	Unplanned Manual Reactor Scram Following Trip of Reactor Feed Pump Due to Lowering Condenser Vacuum (Section 4OA3)
---------------------	-----	--

05000219/2007005-04	URI	Loss of 'A' Condenser Vacuum and Trip of 'A' Feedwater Pump Results in a Reactor Scram (Section 4OA5)
---------------------	-----	---

LIST OF DOCUMENTS REVIEWED

In addition to the documents identified in the body of this report, the inspectors reviewed the following documents and records.

Section 1R01: Adverse Weather Protection

Procedures

OP-OC-108-109-1001, "Severe Weather Preparation T&RM for Oyster Creek"
OP-OC-108-109-1002, "Cold Weather Freeze Inspection"
OP-OC-108-109-1003, "Winter Readiness"
OP-AA-108-111-1001, "Severe Weather and Natural Disaster Guidelines"
WC-AA-107, "Seasonal Readiness"

Condition Reports (IR)

591835, 515573

Section 1R04: Equipment Alignment

Procedures

322, "Service water system"
ABN-18, "Service Water Failure Response"
309.2, "Reactor building closed cooling water system"
308, "Emergency Core Cooling System Operation"
341, "Emergency Diesel Generator Operation"
636.4.003, "Diesel Generator #1 Load Test"
610.4.021, "Core Spray System 1 Pump Operability and Quarterly In-Service Test"

Drawings

BR 2005, "Service water system"
BR 2006, "Reactor building closed cooling water system"
GE 885D781, "Core Spray System Flow Diagram"

Condition Reports (IR)

722359, 723291, 723406, 495844, 564137, 564126, 528047, 495844, 593436, 593731, 631090, 655653, 696098, 742091, 741420, 742941

Work Orders (AR)

A2119259, A2156603, A2169866, A2070261, R2116709, C2016311

Other

Maintenance Rule System Performance and Functional Failure Definitions - Core Spray System
Core Spray System Health Reports
Clearance #08500182

Section 1R05: Fire Protection

Procedures

OP-OC-201-008, "Oyster Creek Nuclear Generating Station Pre-Fire Plans"
OP-AA-201-009, "Control of Transient Combustible Material"
CC-AA-211, "Fire Protection Program"
ABN-29, "Plant Fires"
101.2, "Oyster Creek Site Fire Protection Program"
333, "Plant Fire Protection System"

645.6.033, "Fire Detection System Alarm Circuitry Test for Control Room & Upper and Lower Cable Spreading Room"
OP-AA-201-003, "Fire Drill Performance"

Condition Reports (IR)

725961, 725292, 726860, 724846, 622747, 732559, 740315, 742851, 754648

Work Orders (AR)

R2032675

Drawings

SPR 15, "System 15 Upper Cable Spreading Room"

Other

Oyster Creek Nuclear Station Fire Hazards Analysis (990-1746)
645.6.033, Fire Detection System Alarm Circuitry Test for Control Room & Upper and Lower Cable Spreading Room (completed June 15, 2007)
Oyster Creek Fire Protection Safety Evaluation Report, dated March 3, 1978
Fire Drill Scenario, dated February 24, 2008

Section 1R07: Heat Sink Performance

Procedures

607.4.004, "Containment Spray and Emergency Service Water System 1 Pump Operability and Comprehensive / Pre-service / Post-Maintenance In-service Test"

Condition Reports (IR)

726021

Work Orders (AR)

R2098654

Section 1R11: Licensed Operator Regualification Program

Procedures

202.1, "Power Operations"
ABN-9, "Regulator Failure"
ABN-48, "Loss of USS 1B2"
ABN-19, "RBCCW Failure Response"
ABN-1, "Reactor Scram"
EMG-3200.013, "RPV Control-With ATWS"
EMG-3200.01A, "RPV Control-No ATWS"
EMG 3200.02, "Primary Containment Control"
EMG-3200.04A, "Emergency Depressurization-No ATWS"
EP-AA-125-1002, "ERO Performance – Performance Indicator Guidance"
EP-AA-1010, "Radiological Emergency Plan Annex for Oyster Creek Station"

Condition Reports (IR)

732414

Other

Oyster Creek Emergency Action Level (EAL) Matrix
EOP User's Guide (2000-BAS-3200.02)

Section 1R12: Maintenance Effectiveness

Procedures

ER-AA-310, "Implementation of Maintenance Rule"
ER-AA-310-1005, "Maintenance Rule - Disposition Between (a)(1) and (a)(2)"
LS AA-125-1003, "Apparent Cause Evaluation Manual"
LS-AA-125, "Corrective Action Program (CAP) Procedure"
331.1, "Control Room and Cabel Spreading Room Heating Ventilation and Air Conditioning System"
124.2, "Control of Engineering Directed Alternate Replacements"
607.4.016, "Containment Spray and Emergency Service Water System I Pump Operability and Quarterly In-service Test"
607.4.004, "Containment Spray and Emergency Service Water System I Pump Operability and Comprehensive/Pre-service/Post-Maintenance In-service Test"

Condition Reports (IR)

720730, 749568, 485153, 517643, 575125, 579383, 606494, 636337, 639208, 642147, 645374, 648437, 659042, 662245, 668413, 676082, 676269, 676415, 676663, 684408, 738599, 744793
720730, 7250512, 735718, 726021, 726932, 746538,

Work Orders (AR)

A2110003, A2169699, R0805381, C2016756

Other

NEI 93-01 "Industry Guideline for monitoring the Effectiveness of Maintenance at Nuclear Power Plants"
SW System Operating Experience Evaluation (C467080014-8062)
Control Room Narrative Logs, dated February 11 – 14, 2008
Oyster Creek Project Review Committee (PRC) Meeting Minutes, dates January 12, 2006, January 19, 2006, February 23, 2006, March 16, 2006, August 10, 2006
Operability Evaluation OC-2003-OE-0013
TDR 829, "Pipe Integrity Inspection Program", Revision 4
Topical Report 140, "Emergency Service Water and Service Water System Piping Plan", dated March 2008
Equipment apparent cause report (IR 726021), "ESW Pump 1-1 discharge head leak"
Purchase Order 80 004123 (Stock code 19500240)
Engineering Evaluation 0184-97
Plant Health Committee System Presentation, dated December 2007
Specification SP-1302-12-261, "Pipe Integrity Inspection Program", dated November 2007
Topical Report 116, "Oyster Creek Underground Piping Program Description and Status", dated February 2008
FSAR Section 9.4, "Heating, Ventilation, and Air Conditioning Systems"
OC-7 Functional Failure Definition for System 826 (Control Room HVAC)

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

ER-AA-600-1042, "On-line Risk Management"
ER-AA-600-1021, "Risk Management Application Methodologies"
ER-AA-600-1014, "Risk Management Configuration Control"
ER-AA-600-1011, "Risk Management Program"
WC-OC-101-1001, "On-line Risk Management and Assessment"
WC-AA-101, "On-Line Work Control Process"

322, "Service water system"
ABN-18, "Service Water Failure Response"
309.2, "Reactor building closed cooling water system"

Condition Reports (IR)
739069, 753288

Drawings
BR 2005, "Service water system"
BR 2006, "Reactor building closed cooling water system"

Work Orders (AR)
C2016760

Other
Control room operator logs for January 14, 2008
Paragon Risk Profile for January 14, 2008
Paragon Risk Profile for February 6, 2008
Paragon Risk Profile for February 14, 2008
Paragon Risk Profile for February 23, 2008
Paragon Risk Profile for March 17, 2008
NDO Sheet for Week of 0807, Rev 0
Nuclear Regulatory Commission Enforcement Manual, revised September 28, 2006
Regulatory Guide 1.182, "Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants"

Section 1R15: Operability Evaluations

Procedures
OP-AA-108-115, "Operability Determination"
331.1, Control Room and Cable Spreading Room Heating Ventilation and Air Conditioning System"
101.2, "Oyster Creek Site Fire Protection Program"
636.4.013, "Diesel generator #2 load test"
ABN-5, "Inadvertent Standby Liquid Control Initiation"
304 "Standby Liquid Control System Operation"
101.2, "Oyster Creek Site Fire Protection Program"
333, "Plant Fire Protection System"
ABN-29, "Plant Fires"
N-2-a, "Fire Pump 1 Running"

Drawings
GE 223R0173, "Emergency Service Water System – Electrical Elementary Diagram 4160v Swgr 1D Unit D8"
BR 2013, "Instrument (Control) Air System Flow Diagram" (Sheet 4)
BR 2005, "Screen Wash System Flow Diagram" (Sheet 6)
GE 148F723, "Liquid Poison System Flow Diagram"
GE 157B6350, "Liquid Poison System – Electrical Elementary Diagram" (Sheet 188 and 189)

Condition Reports (IR)
723761, 722887, 716647, 673378, 720841, 724476, 731075, 738596, 741435, 744793, 756908, 756924

Work Orders (AR)

A2185292

Other

Oyster Creek Operations Narrative Logs, dated January 14-18, 2008

Vendor Manual – Instantaneous Over Current Relays (GEI-28803G)

NRC Inspection Manual - Part 9900 Technical Guidance, “Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety

FSAR Section 9.4, “Heating, Ventilation, and Air Conditioning Systems”

Control Room Narrative Log, dated March 5, 2008

Oyster Creek Technical Specification 3.17, “Control Room Heating Ventilation Air Conditioning System”

Control Room Narrative Log, dated March 31, 2008

Work Clearance No. 08500506

Section 1R18: Plant Modifications

Procedures

602.4.004, “Main Steam Isolation Valves 10% Closure Test”

Drawings

GE 237E566 (sheet 2, 12, 14), “Reactor Protection System Electrical Elementary Diagram”

GE 112C2265 (sheet 2), “Connection Diagram Panel 6R”

GE 112C2248 (sheet 2), “Connection Diagram Panel 11F”

Condition Reports (IR)

712001

Work Orders (AR)

C2016508, A2183965

Other

ECR OC-07-01018, “RPS Sub-Channel 1B Alternate MSIV Closure Trip Signal”

NRC IN 94-08, “Potential for Surveillance Testing to Fail to Detect an Inoperable Main Steam Isolation Valve”

FSAR Section 5.4.5, “Main Steam Line Isolation System”

Section 1R19: Post-Maintenance Testing

Procedures

MA-AA-716-012, “Post Maintenance Testing

OP-MA-109-101, “Clearance and Tagging”

607.4.009, “Containment spray system ‘1’ in-service test”

636.4.003, “Diesel Generator #1 Load Test”

309.1, “Turbine Building Closed Cooling Water System”

309.1.1, “Turbine Building Closed Cooling Water Routine Evolutions”

330, “Standby Gas Treatment System”

341, “Emergency Diesel Generator Operation”

617.4.001, “A CRD Pump Operability Test”

610.2.022, “Core Spray System 2 Pump Operability and Quarterly In-Service Test”

602.3.004, “Electromatic Relief Valve Pressure Sensor Test and Calibration”

651.4.001, “Standby Gas Treatment System Test”

Drawings

BR 2005, "Service Water System"

Condition Report (IR)

726021, 732597, 753361, 711241

Work Order (AR)

C2016635, A2185795, A0707702, R2100189, A2160454, R2116709, C2016311, C2016342, C2015966, R2112773, A2172533, C2015576, R2117404, A2187868, R2100256, R0806647, R2100202, A2162746, A0706374

Other

Service water pipe repair weld document 2008-002-001

Clearance #08500182

Control Room Logs, dated February 21, 2008

System Engineering Trend Data - EMRV High Pressure & Low Pressure Drift December 2006-January 2008

Safety Evaluation SE-000212-029, "EMRV Setpoint and Tolerance"

System Engineering Trend Data – EF-1-8 Vibration Trend Data December 2001-March 2008

Section 1R22: Surveillance Testing

Procedures

SA-AA-129, "Electrical Safety"

MA-AA-1000, "Conduct of Maintenance"

604.4.016, "Torus to Drywell Vacuum Breaker Operability and In-Service Test", Rev. 34

634.2.011, "Main Station Battery Monthly Surveillance"

609.4.001, "Isolation condenser valve operability and in-service test"

681.4.004, "Technical Specification log sheet" for January 2, 2008

680.4.006, "Remote Shutdown Panel Functional Test – TRAIN B"

607.4.004, "Containment Spray and Emergency Service Water System I Pump Operability and Comprehensive/Preservice/Post Maintenance Inservice Test"

645.4.036, "Fire Pump #2 Operability Test"

610.3.215, "Core Spray System 2 Instrument Channel and Level Bistable Calibration And Test and System Operability", Rev. 34

610.4.003, "Core Spray Valve Operability and In-Service Test", Rev. 39

OP-AA-103-102, "Watchstanding Practices"

617.4.003, "Control Rod Scram Insertion Time Test and Valve IST Test", Rev. 42

Drawings

3E-611-17-004, "Electrical Elem. Diagram control panel 1F/2F – Annunciator B"

NU 5060E6003, "Core Spray / RBCCW drywell isolation Electrical Elementary Diagram" (sheet 2, 4)

GE 157B6350, "Core Spray System Electrical Elementary Diagram MCC 1A21 Unit CO2" (sheet 209, 210)

GE 885D781, "Core Spray System"

Condition Reports (IR)

672305,719432, 723134, 726021, 728737, 728744, 735266, 743321, 741680,747689

Work Orders (AR)

R2114693, A2177459, A2184228, A726021, R2112743, A2177171, R2114976, A2184213,

Other Documents

NRC Inspection Manual Part 9900 Technical Guidance, "Maintenance- Preconditioning of Structures, Systems, and Components Before Determining Operability"

Quick Human Performance Investigation Report (IR 719432), "Improper Use of a Level Procedure during 'C' 125V DC Station Battery Monthly"

Control room operator logs on January 8, 2008

'A' ESW Pump Performance Trend Data, dated January 25, 2008

FSAR Section 6.2.2, "Containment Heat Removal Systems"

ASME OM Code 1995 Code for Operation and Maintenance of Nuclear Power Plants

ASME OMa Code-1996 Addenda to ASME OM Code-1995 Code for Operation and Maintenance of Nuclear Power Plants

NUREG 1482, Rev 1, "Guidelines for Inservice Testing at Nuclear Power Plants"

FSAR Section 6.2.3, "Core Spray System"

Control room operator logs on February 12, 2008

Section 2OS1: Access Control to Radiological Significant Areas

Procedures

RP-AA-460, "Control for High and very High Radiation Areas"

RP-MA-403-1001, "Radiation Work Permit Processing"

Condition Reports (IR)

711269, 712718, 712815, 715976

Other

Focused Self-Assessments (709476-03)

Section 2OS2: ALARA Planning and Controls

Condition Reports (IR)

717508, 717946, 75976, 721254

Other

NOSPA-OYS-07-4Q, dated January 25, 2008).

OysterCreek Generating Station 2008-2012 Exposure Reduction Plan

Section 2SO3: Radiation Monitoring Instrumentation and Protective Equipment

Condition Reports

737970, 721974, 727912, 728548, 731763, 734349, 746185

Section 4OA2: Identification and Resolution of Problems

Procedures

OP-AA-100-101, "Shift Coverage Guidelines" Rev 0

OP-AA-100-1001, "Shift Coverage Log" Rev 5

OP-AA-101-111, "Roles and Responsibilities of On-Shift Personnel" Rev1

677.4.003, "Met Tower Back-up Generator Functional Test"

ER-AA-310-1004, "Maintenance Rule Performance Monitoring"

LS-AA-120, "Issue Identification and Screening Process"

LS-AA-125, "Corrective Action Program Procedure"

ER-AA-310-1003, "Maintenance Rule- Performance Criteria Selection"

ER-AA-310, "Implementation of the Maintenance Rule"

Drawing

3C-662-18-002, "Electrical Connection Diagram, Met Tower Back-up Gen Pwr Prov"

3D-662-16-001, "Conn Dwg & Pnl Schedules, Met Tower Back-up Pwr Prov"

Condition Reports (IR)

485876, 488342, 489962, 491655, 492497, 495836, 500551, 507546, 507842, 510163, 513795, 523482, 527004, 547939, 565999, 575504, 589030, 591840, 592018, 615476, 622577, 631529, 641202, 661282, 669466, 669883, 671304, 672696, 672777, 689650, 707896, 713257, 720481, 739156, 741233, 742782, 719423, 745810, 719404, 719356, 520816, 505342, 455020, 473388, 473431, 478732, 508913, 509069, 510658, 519966, 520816, 529290, 545938, 545946, 564396, 601395, 633789, 633789, 633821, 639591, 645062, 672434, 676740, 680063, 708838, 715651, 656929, 658323, 719404,

Work Orders (AR)

R2080604, A2107494, C2011407, A2107494, A2133439

Other Documents

NRC Generic Letter 82-12, "Nuclear Plant Staff Working Hours" DTD June 15, 1982

NUREG 737, "Clarification of TMI Action Plan Requirements" November 1980

NRC IE Circular 80-02, "Nuclear Plant Staff Working Hours" DTD February 1, 1980

SECY-01-0113, "Fatigue of Workers at Nuclear Power Plants" Dtd June 22, 2001

Exelon Corporate Procedure LS-AA-119, "Overtime Controls" Rev 3, Rev 4 & Rev 6.

NRC Inspection Report 05000219/2006004

NRC Inspection Report 05000289/2007005

NRC Inspection Report 05000456 & 05000457/2007005

Oyster Creek Overtime Deviation Report Statistics for July 2007-January 2008

Oyster Creek Operations Department 2008 Shift Rotation Schedule Rev 0

Oyster Creek Technical Specifications and Basis Document

LS-AA-119 Attachment 1, "Overtime Guideline Deviation Authorizations" (July 2007 – January 2008)

AD-AA-101-1002 Attachment 1, "Procedure Approval Form" for LS-AA-119 Revs 3,4 & 6

NOSA-OYS-07-07 (AR672777) "Operations Audit Report" Dtd November 7, 2007

NOSPA-OC-08-1Q, "NOS Observations of Overtime Guideline Deviation Authorization"

Maintenance Rule Performance for the Meteorological Monitoring System, dated 03/18/2006

OC-7 Functional Failure Definition for System 662

Health Committee System Presentation for the Meteorological Monitoring System, dated December 2007

Section 4OA3: Event Followup

Procedures

322, "Service Water System"

ABN-18, "Service Water Failure Response"

LS-AA-104, "Exelon 50.59 Review Process"

ABN-35, "Loss of Instrument Air"

RAP-M7b, "Alarm Response Procedure – Instr Air Dryer Fail"

RAP-M3a, "Alarm Response Procedure – RCVR 1 Press LO"

RAP-M3b, "Alarm Response Procedure – RCVR 2 / Instr Air Press LO"

334, "Instrument and Service Air System"

OP-AA-106-101-1006, "Operational and Technical Decision Making Process"

LS-AA-125-1001, "Root Cause Analysis Manual"

Drawings

BR 2005, "Reactor & Turbine Building Service Water System Flow Diagram", sheet 2
BR 2005, "Emergency Service Water System Flow Diagram", sheet 4
BR 2006, "Reactor Building Closed Cooling Water System Flow Diagram"

Condition Reports (IR)

7250512, 753907, 753585, 720823, 728044, 714203

Work Orders (AR)

A2185795

Other Documents

NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73"
Control Room Narrative Logs, dated March 24, 2008
Plant Process Computer Data (Point PT3), dated March 24, 2008
Oyster Creek PORC Meeting Package, dated January 12, 2008
50.59 Evaluation OC-2008-E-001, "Use of ESW in Lieu of Service Water During Power Operations"
HLA/IPA Briefing Worksheet- Swapping RBCCW Heat Exchanger Cooling From Service Water to ESW
Adverse Condition Monitoring Plan – ESW Cooling RBCCW/Service Water OOS, dated January 11, 2008
FSAR Section 8.3, "Onsite Power Systems"
Plant Process Computer Data – SW Discharge Pressure, dated January 11, 2008
LER 2007-003-00, "Unplanned Manual Reactor Scram Following Trip of Reactor Feed Pump Due to Lowering Condenser Vacuum"
Root Cause Investigation Report, "Unplanned Manual Reactor Scram and Fish Mortality Due to Critical Omission of technical Information Regarding the Minimum Circulating Water System configuration Necessary to Maintain the Main Condenser Water Boxes Filled" (714203-05)
Design Basis Document for Circulating Water System (SDBD-OC-535)
C-1302-535-5360-003, "Circulating Water System Operating Modes"
Non-Routine Operating Report of Important Environmental Event , dated January 18, 2008 (RA-08-001)
Prompt Investigation, "Unplanned Manual Reactor Scram due to Loss of 'A' Reactor Feed Pump" (IR 713652)

LIST OF ACRONYMS

ABN	Abnormal Operating Procedure
ADAMS	Agency-wide Documents Access and Management System
ALARA	As Low As Is Reasonably Achievable
AmerGen	AmerGen Energy Company, LLC
ATWS	Anticipated Transient Without Scram
CEDE	Committed Effective Dose Equivalent
CRD	Control Rod Drive
EAL	Emergency Action Level
EDG	Emergency Diesel Generator
EMRV	Electromatic Relief Valve
EOF	Emergency Operations Facility
EPR	Electric Pressure Regulator
ESW	Emergency Service Water
FFD	Fitness-For-Duty
FIN	Finding
HVAC	Heating Ventilation and Air Conditioning
IA	Instrument Air
ICDP	Incremental Core Damage Probability
ICDPD	Incremental Core Damage Probability Deficit
IST	Inservice Test
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEEE	Individual Plant Examination for External Events
LER	License Event Report
LLC	Liability Limited Corporation
MSIV	Main Steam Isolation Valve
NCV	Non-cited Violation
NOS	Nuclear Oversight
NRC	Nuclear Regulatory Commission
Oyster Creek	Oyster Creek Generating Station
PARS	Publicly Available Records
PORC	Plant Onsite Review Committee
PPC	Process Plant Computer
RBCCW	Reactor Building Closed Cooling Water
RBEDT	Reactor Building Equipment Drain Tank
RWP	Radiation Work Permit
SAC	Station ALARA Committee
SBGT	Standby Gas Treatment
SDP	Significance Determination Process
SER	Safety Evaluation Report
SLC	Standby Liquid Control
TBCCW	Turbine Building Closed Cooling Water
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
URI	Unresolved Item
WO	Work Order