



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
2100 RENAISSANCE BLVD.
KING OF PRUSSIA, PA 19406-2713

May 8, 2017

Mr. Bryan Hanson
Senior Vice President, Exelon Generation Co., LLC
President and Chief Nuclear Officer, Exelon Nuclear
4300 Winfield Rd.
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - INTEGRATED
INSPECTION REPORT 05000219/2017001

Dear Mr. Hanson:

On March 31, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Oyster Creek Nuclear Generating Station. On April 5, 2017, the NRC inspectors discussed the results of this inspection with Mr. Garey Stathes, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspectors did not identify any findings or violations of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and the NRC's Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Silas R. Kennedy, Chief
Reactor Projects Branch 6
Division of Reactor Projects

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

Enclosure:
Inspection Report 05000219/2017001
w/Attachment: Supplementary Information

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SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION – INTEGRATED INSPECTION REPORT 05000219/2017001 DATED MAY 8, 2017

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DOCUMENT NAME: G:\DRP\BRANCH6\+++Oyster Creek\OC Inspection Reports 2017\OC Integrated Inspection Report 1Q2017001(S).docx ADAMS ACCESSION NUMBER: ML17128A320

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No. 50-219

License No. DPR-16

Report No. 05000219/2017001

Licensee: Exelon Nuclear (Exelon)

Facility: Oyster Creek Nuclear Generating Station

Location: Forked River, New Jersey

Dates: January 1, 2017 – March 31, 2017

Inspectors: A. Patel, Senior Resident Inspector
E. Andrews, Resident Inspector
A. Turilin, Acting Resident Inspector
B. Dionne, Health Physicist
E. DiPaolo, Senior Reactor Inspector
T. Hedigan, Operations Engineer
J. Kulp, Senior Reactor Inspector

Approved By: Silas R. Kennedy, Chief
Reactor Projects Branch 6
Division of Reactor Projects

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SUMMARY

IR 05000219/2017001; 01/01/2017 – 03/31/2017; Oyster Creek Generating Station (Oyster Creek) Integrated Inspection Report.

This report covered a three-month period of inspection by resident inspectors and announced baseline inspections performed by regional inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6.

No findings were identified.

REPORT DETAILS

Summary of Plant Status

Oyster Creek began the inspection period at 100 percent power. On February 13, 2017, operators lowered power to 90 percent due to a low intake level and returned the unit to 100 percent power the following day. On March 4, 2017, operators lowered power to 85 percent for a rod pattern adjustment and returned the unit to 100 percent power the following day. Oyster Creek remained at or near 100 percent 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 – 1 sample)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors reviewed Exelon's preparations for a winter storm warning issued on February 9, 2017. The inspectors reviewed the implementation of adverse weather preparation procedures before the onset of and during this adverse weather condition. The inspectors walked down the emergency diesel generators and emergency service water to ensure system availability. The inspectors verified that operator actions defined in Exelon's adverse weather procedure maintained the readiness of essential systems. The inspectors discussed readiness and staff availability for adverse weather response with operations and work control personnel. Documents reviewed for each section of this inspection report are listed in the Attachment.

b. Findings

No findings were identified.

1R04 Equipment Alignment

.1 Partial System Walkdowns (71111.04 – 3 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- Standby liquid control system on January 5, 2017;
- No. 2 emergency diesel generator while No. 1 emergency diesel generator was out of service on January 24, 2017;
- Containment spray system I on March 9, 2017

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the Updated Final Safety Analysis Report (UFSAR), technical specifications, work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted the system's performance of its intended safety functions.

The inspectors also performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Exelon staff had properly identified equipment issues and entered them into the corrective action program for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

.2 Full System Walkdown (71111.04S – 1 sample)

a. Inspection Scope

On February 7 and 8, 2017, the inspectors performed a complete system walkdown of accessible portions of the 'B' isolation condenser and makeup system, to verify the existing equipment lineup was correct. The inspectors reviewed operating procedures, drawings, equipment line-up check-off lists, and the UFSAR to verify the system was aligned to perform its required safety functions. The inspectors also reviewed electrical power availability, hanger and support functionality, and operability of support systems. The inspectors performed field walkdowns of accessible portions of the systems to verify as-built system configuration matched plant documentation, and that system components and support equipment remained operable. The inspectors confirmed that systems and components were aligned correctly, free from interference from temporary services or isolation boundaries, environmentally qualified, and protected from external threats. The inspectors also examined the material condition of the components for degradation and observed operating parameters of equipment to verify that there were no deficiencies. Additionally, the inspectors reviewed a sample of related condition reports and work orders to ensure Exelon appropriately evaluated and resolved any deficiencies.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05Q – 6 samples)Resident Inspector Quarterly Walkdownsa. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that Exelon controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection and suppression equipment was available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition.

The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or inoperable fire protection equipment, as applicable, in accordance with procedures.

- Mechanical equipment room on February 2, 2017;
- Operations support room on February 2, 2017;
- Switchgear room on February 2, 2017;
- Reactor building traversing incore probe drive area on March 6, 2017;
- 'A' and 'B' 480v switchgear room on March 6, 2017;
- Cable spreading room on March 6, 2017

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07A – 1 sample)a. Inspection Scope

The inspectors reviewed the containment spray system II heat exchangers' readiness and availability to perform its safety function. The inspectors reviewed the design basis for the component and verified Exelon's commitments to NRC Generic Letter 89-13, "Service Water System Requirements Affecting Safety-Related Equipment." The inspectors reviewed the results of previous inspections of the containment spray system II heat exchangers. The inspectors discussed the results of the most recent inspection with engineering staff and reviewed pictures of the as-found and as-left conditions. The inspectors verified that Exelon initiated appropriate corrective actions for identified deficiencies. The inspectors also verified that the number of tubes plugged within the heat exchanger did not exceed the maximum amount allowed.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance
(71111.11Q – 3 samples)

.1 Quarterly Review of Licensed Operator Requalification Testing and Training

a. Inspection Scope

The inspectors observed licensed operator simulator training on January 10, 2017, which included an offgas detonation with a loss of vacuum coincident with an anticipated transient without a scram. The inspectors evaluated operator performance during the simulated event and verified completion of risk significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the technical specification action statements entered by the senior reactor operator. Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Performance in the Main Control Room

a. Inspection Scope

The inspectors observed control room operator performance during the No. 1 emergency diesel generator load test on January 24, 2017, and during low intake levels on February 13, 2017. The inspectors observed infrequently performed test or evolution briefings, shift turnover briefings, and alarm response. Additionally, the inspectors observed control room operator performance to verify that procedure use, crew communications, and coordination of activities between work groups similarly met established expectations and standards. This section constitutes two samples.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 2 samples)a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structure, system, and component performance and reliability. The inspectors reviewed system health reports, corrective action program documents, maintenance work orders, and maintenance rule basis documents to ensure that Exelon was identifying and properly evaluating performance problems within the scope of the maintenance rule. For each sample selected, the inspectors verified that the structure, system, or component was properly scoped into the maintenance rule in accordance with Title 10 of the *Code of Federal Regulations* (CFR) 50.65 and verified that the (a)(2) performance criteria established by Exelon staff was reasonable. As applicable, for structures, systems, and components classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these structures, systems, and components to (a)(2). Additionally, the inspectors ensured that Exelon staff was identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- Standby liquid control system on January 10, 2017;
- 4160V system on January 30, 2017

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 4 samples)a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that Exelon performed the appropriate risk assessments prior to removing equipment for work. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that Exelon personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When Exelon performed emergent work, the inspectors verified that operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Unplanned risk change to Yellow due to low intake level on February 13, 2017;
- Service water pump 1-2 out of service for emergent maintenance on February 15, 2017;

- Reactor building closed cooling water pump 1-1 out of service for emergent maintenance on February 23, 2017;
- No. 2 emergency diesel generator out of service for planned maintenance on March 23, 2017

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 10 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions based on the risk significance of the associated components and systems:

- Control room ventilation operability with the control room door open on January 6, 2017;
- 'A' standby liquid control pump high oil level on January 10, 2017;
- Torus operability with torus high water level on January 11, 2017;
- No. 2 emergency diesel generator starter with metal shavings on January 19, 2017;
- No. 2 emergency diesel generator fuel oil sight glass partially filled on February 9, 2017;
- Core spray isolation valve, V-20-23, with dual open and close indication on March 15, 2017;
- Secondary containment operability with reactor building isolation valve, V-28-7, out of service on March 16, 2017;
- Standby liquid control tank high temperature on March 7, 2017;
- No. 1 and No. 2 emergency diesel generator incorrect size fuses installed on March 13, 2017;
- No. 2 emergency diesel generator low fuel oil in fuel oil sight glass on March 24, 2017;

The inspectors evaluated the technical adequacy of the operability determinations to assess whether technical specification operability was properly justified and the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and UFSAR to Exelon's evaluations to determine whether the components or systems were operable. The inspectors confirmed, where appropriate, compliance with bounding limitations associated with the evaluations. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by Exelon.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 1 sample)Permanent Modificationsa. Inspection Scope

The inspectors evaluated a procedural change for the control rod drive alarm response procedure. The inspectors verified that the design bases, licensing bases, and performance capability of the affected systems were not degraded by the modification. In addition, the inspectors reviewed modification documents associated with the change. The inspectors also interviewed engineering and operations personnel to ensure the procedure could be reasonably performed.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 7 samples)a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure were consistent with the information in the applicable licensing basis and/or design basis documents, and that the test results were properly reviewed and accepted and problems were appropriately documented.

The inspectors also walked down the affected job site, observed the pre-job brief and post-job critique where possible, confirmed work site cleanliness was maintained, and witnessed the test or reviewed test data to verify quality control hold point were performed and checked, and that results adequately demonstrated restoration of the affected safety functions.

- No. 2 emergency diesel generator following priming of fuel oil due to air bubble in fuel oil sight glass on February 10, 2017;
- Service water pump 1-2 after motor replacement on February 15, 2017;
- Standby gas treatment system I following exhaust fan (EF-1-8) preventive maintenance on February 21, 2017;
- Core spray system I 'C' booster pump following 480v switchgear trip shaft torque check and undervoltage relay replacement on February 21, 2017;
- Reactor building closed cooling water pump 1-1 following replacement of failed breaker on February 23, 2017;
- No. 2 emergency diesel generator louver actuator motor following replacement of auxiliary louver control fuse on March 10, 2017;
- No. 2 emergency diesel generator following fuel oil filter replacement due to upward trend in fuel oil filter pressure on March 23, 2017

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 6 samples)a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant structures, systems, and components to assess whether test results satisfied technical specifications, the UFSAR, and Exelon procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied.

Upon test completion, the inspectors considered whether the test results supported that equipment was capable of performing the required safety functions. The inspectors reviewed the following surveillance tests:

- Containment spray and emergency service water system II pump operability and quarterly in-service test on January 19, 2017 (in-service test)
- No. 1 emergency diesel generator load test on January 24, 2017;
- Reactor building to torus power vacuum breaker test and calibration on February 6, 2017;
- Liquid poison system boron concentration analysis on February 7, 2017;
- Core spray system I instrument channel and level bistable calibration and test on March 1, 2017;
- Isolation condenser valve operability test on March 7, 2017 (containment isolation valve)

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness1EP6 Drill Evaluation (71114.06 – 2 samples).1 Training Observationsa. Inspection Scope

The inspectors observed a simulator training evolution for Oyster Creek licensed operators on January 10, 2017, which required emergency plan implementation by an operations crew. Exelon planned for this evolution to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario.

The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that Exelon evaluators noted the same issues and entered them into the corrective action program.

b. Findings

No findings were identified.

.2 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine Exelon emergency drill on February 28, 2017, to identify any weaknesses and deficiencies in the classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the simulator, technical support center, and emergency operations facility to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the station drill critique to compare inspector observations with those identified by Exelon staff in order to evaluate Exelon's critique and to verify whether the Exelon staff was properly identifying weaknesses and entering them into the corrective action program.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational and Public Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01 – 7 samples)

a. Inspection Scope

The inspectors reviewed Exelon's performance in assessing and controlling radiological hazards in the workplace. The inspectors used the requirements contained in 10 CFR 20, technical specifications, applicable regulatory guides, and the procedures required by technical specifications as criteria for determining compliance.

Inspection Planning

The inspectors reviewed the performance indicators for the occupational exposure cornerstone, radiation protection program audits, and reports of operational occurrences in occupational radiation safety since the last inspection.

Radiological Hazard Assessment (1 sample)

The inspectors conducted independent radiation measurements during walk-downs of the facility and reviewed the radiological survey program, air sampling and analysis, continuous air monitor use, recent plant radiation surveys for radiological work activities, and any changes to plant operations since the last inspection to verify survey adequacy of any new radiological hazards for onsite workers or members of the public.

Instructions to Workers (1 sample)

The inspectors reviewed high radiation area work permit controls and use, and observed containers of radioactive materials and assessed whether the containers were labeled and controlled in accordance with requirements.

The inspectors reviewed Exelon's evaluation of the incidents, documentation in the corrective action program, and whether compensatory dose evaluations were conducted when appropriate. The inspectors verified follow-up investigations were performed of actual radiological conditions for unexpected radiological hazards.

Contamination and Radioactive Material Control (1 sample)

The inspectors observed the monitoring of potentially contaminated material leaving the radiological controlled area and inspected the methods and radiation monitoring instrumentation used for control, survey, and release of that material. The inspectors selected several sealed sources from inventory records and assessed whether the sources were accounted for and were tested for loose surface contamination. The inspectors evaluated whether any recent transactions involving nationally tracked sources were reported in accordance with requirements.

Radiological Hazards Control and Work Coverage (1 sample)

The inspectors evaluated in-plant radiological conditions and performed independent radiation measurements during facility walk-downs and observation of radiological work activities. The inspectors assessed whether posted surveys; radiation work permits; worker radiological briefings and radiation protection job coverage; the use of continuous air monitoring, air sampling and engineering controls; and dosimetry monitoring were consistent with the present conditions. The inspectors examined the control of highly activated or contaminated materials stored within the spent fuel pools and the posting and physical controls for selected high radiation areas and locked high radiation areas to verify conformance with the occupational performance indicator.

Risk-Significant High Radiation Areas and Locked High Radiation Area Controls (1 sample)

The inspectors reviewed the procedures and controls for high radiation areas, locked high radiation areas, and radiological transient areas in the plant.

Radiation Worker Performance and Radiation Protection Technician Proficiency
(1 sample)

The inspectors evaluated radiation worker performance with respect to radiation protection work requirements. The inspectors evaluated radiation protection technicians in performance of radiation surveys and in providing radiological job coverage.

Problem Identification and Resolution (1 sample)

The inspectors evaluated whether problems associated with radiation hazard assessment and exposure control (including operating experience) were identified at an appropriate threshold and properly addressed in the corrective action program.

b. Findings

No findings were identified.

2RS2 Occupational ALARA Planning and Controls (71124.02 – 2 samples)

a. Inspection Scope

The inspectors assessed Exelon's performance with respect to maintaining occupational individual and collective radiation exposures as low as reasonably achievable (ALARA). The inspectors used the requirements contained in 10 CFR 20, Regulatory Guides 8.8 and 8.10, technical specifications, and procedures required by technical specifications as criteria for determining compliance.

Inspection Planning

The inspectors conducted a review of Oyster Creek collective dose history and trends, ongoing and planned radiological work activities, previous post-outage ALARA reviews, radiological source term history and trends, and ALARA dose estimating and tracking procedures.

Radiological Work Planning (1 sample)

The inspectors selected the following radiological work activities based on exposure significance for review:

- OC-1-17-00304, Perform Cleanup System Maintenance;
- OC-1-17-00202, Radwaste Processing Work Activities;
- OC-1-17-00201, Regulator Activities

For each of these activities, the inspectors reviewed: ALARA work activity evaluations, exposure estimates, exposure reduction requirements, results achieved (dose rate reductions, actual dose), person-hour estimates and results achieved, and post-job reviews that were conducted to identify lessons learned.

Verification of Dose Estimates and Exposure Tracking Systems (1 sample)

The inspectors reviewed the current annual collective dose estimate; basis methodology; and measures to track, trend, and reduce occupational doses for ongoing work activities. The inspectors evaluated the adjustment of exposure estimates, or re-planning of work. The inspector reviewed post-job ALARA evaluations of estimated vs actual exposures.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution (71152 – 1 sample)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify Exelon entered issues into the corrective action program at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the corrective action program and periodically attended condition report screening meetings. The inspectors also confirmed, on a sampling basis, that, as applicable, for identified defects and non-conformances, Exelon performed an evaluation in accordance with 10 CFR 21.

b. Findings

No findings were identified.

.2 Annual Sample: Missed Technical Specification Surveillances for 1C 4160 Volt Bus Protective Relays

a. Inspection Scope

The inspectors performed an in-depth review of Exelon's identification, evaluation, and resolution following the discovery that instrument calibrations on the 1C 4.16 kilovolt (kV) emergency bus loss of voltage and degraded voltage instrument channels were not performed within the specified technical specification frequency. Technical Specification Surveillance Requirement 4.1.1.28, through the surveillance frequency control program, requires the 4.16 kV instruments to be calibrated once every 24 months, which is aligned with refueling outage frequency. The instruments function to trip the offsite feeder breaker to the 1C 4.16 kV emergency bus and to start the No. 1 emergency diesel generator to power the bus upon a complete loss of voltage or degraded voltage.

On August 4, 2015, during the performance of a surveillance frequency change evaluation request for another system bus, the system manager identified that the instrument surveillances were not performed during the September 2014 refueling outage (1R25) on the 1C emergency bus. The surveillance for the instrument channels were successfully completed in November 2012 during the prior refueling outage (1R24). This constituted missed technical specification surveillance requirements because the 24-month test frequency for the instrument channels had been exceeded.

Upon discovery of the missed surveillance requirements, Exelon promptly entered the issue into the corrective action program as issue report 2537535, performed a prompt operability evaluation, and completed a risk evaluation in accordance with Technical Specification Surveillance Requirement 4.0.2. Technical Specification Surveillance Requirement 4.0.2 requires a risk evaluation to be performed when a surveillance requirement is discovered not performed within its specified frequency and testing will be delayed for greater than 24 hours.

The evaluation concluded that the risk impact of the missed surveillance was within acceptable risk significance thresholds and that testing must be performed during the next refueling outage in September 2016 (1R26) or at the next available opportunity with appropriate plant conditions (i.e., shutdown). Exelon initiated an apparent cause evaluation to determine the cause of the missed surveillances, the extent of condition, and to implement corrective actions. The inspectors performed an in-depth review of the apparent cause evaluation and the Technical Specification Surveillance Requirement 4.0.2 risk evaluation.

The inspectors assessed Exelon's problem identification threshold, causal analysis, extent of condition reviews, compensatory actions, and the prioritization and timeliness of corrective actions to determine whether Exelon was appropriately identifying, characterizing, and correcting problems associated with these issues and whether the planned or completed corrective actions were appropriate. The inspectors compared the actions taken to the requirements of Exelon's corrective action program and 10 CFR 50, Appendix B. In addition, the inspectors reviewed documentation associated with this issue, and interviewed engineering, regulatory affairs, and maintenance scheduling personnel to assess the effectiveness of the implemented and planned corrective actions.

b. Findings and Observations

No findings were identified.

The inspectors found that Exelon took appropriate actions to identify the apparent cause of the missed technical specification surveillance requirements and appropriately identified, prioritize, and implemented corrective actions. The apparent cause was determined to be inadequate technical rigor during the development of surveillance test procedure (ST3521CC and ST3521DD) frequency change evaluations in 2014 that inappropriately changed the test frequency for the 1C emergency bus instruments from once every 24 months to once every 48 months (i.e., 2 refueling cycles). Personnel performing the evaluations and reviews did not recognize that the surveillance test procedures contained some instruments that were required to be tested by the technical specifications once every 24 months. Exelon's work control database at the time of the error did not properly identify the loss of voltage and degraded voltage instrument channels as technical specification related which may have contributed to the error.

The process used at the site to revise surveillance tests at the time of the error has subsequently been changed. Under the new process, changes similar to the ones made in 2014 require additional review and approval by either a regulatory assurance specialist or a licensed senior reactor operator. Exelon's extent of condition reviewed all technical specification surveillance requirements to ensure that the work control database properly reflected the surveillance procedures that implemented the requirements. Although the review identified surveillance tests that were improperly annotated in the work control database, no other missed or inappropriately scheduled technical specification surveillance requirements were identified.

The inspectors concluded that Exelon's extent of condition review was thorough and provided reasonable assurance that no other technical specification surveillance requirements were missed or improperly scheduled.

The inspectors review of Exelon's Technical Specification Surveillance Requirement 4.0.2 risk evaluation for the missed surveillance, to extend the performance of the test until the next refueling outage (1R26) or the next available opportunity, appropriately considered risk and followed procedure guidance. The inspectors determined Exelon's overall response to the issue was commensurate with the safety significance, was timely, and the actions taken and planned were reasonable to prevent recurrence.

Technical Specification Surveillance Requirement 4.1.1.28, through the surveillance frequency control program, requires the 4.16 kV emergency bus loss of voltage and degraded voltage instrument channels to be calibrated once every 24 months. The failure to perform the required outage-related instrument channel calibrations on 1C 4.16 kV emergency bus during the September 2014 (1R25) refueling outage was a performance deficiency and resulted in exceeding the technical specification required calibration frequency. The inspectors determined that the performance deficiency was minor because the as-found test results for the 1C 4.16 kV emergency bus loss of voltage and degraded voltage instrument channels were satisfactory during the September 2016 (1R26) refueling outage. Therefore, although the performance deficiency was associated with the Mitigating Systems cornerstone, the performance deficiency did not adversely affect the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, the inspector noted that functional testing, also required by Technical Specification Surveillance Requirement 4.1.1.28, was satisfactorily performed once every three months during the time period when Technical Specification Surveillance Requirement 4.1.1.28 was missed.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 – 1 sample)

(Closed) Licensee Event Report (LER) 05000219/2017-001-01: Reactor SCRAM due to APRM High Flux during Turbine Valve Testing

On November 20, 2016, at approximately 92 percent of rated thermal power, an automatic reactor scram occurred due to average power range monitor high flux. Following the reactor scram, all systems operated as expected. At the time of the event, Exelon personnel were performing planned testing on the main turbine at approximately 95 percent of rated thermal power. Oscillations of the main turbine control and bypass valves were experienced during the testing and as a result an automatic reactor scram occurred. The main turbine is non-safety-related.

The root cause of the event was determined to be an unrecognized design vulnerability in the configuration of the hydraulic tubing of the turbine master trip solenoid valve. The hydraulic tubing for the turbine master trip solenoid valve is routed to the bypass valve loading piston. During the main turbine test of the turbine master trip solenoid valve, a pressure pulse is placed on the bypass pilot valve loading piston that lead to an oscillation of the main turbine and bypass valves. The design vulnerability was unrecognized because the drawings did not identify the function or location of the bypass valve loading piston in relation to the location of the master trip solenoid hydraulic supply. Exelon repaired the feedback linkages for the control valves that were impacted by the oscillations. Exelon also will no longer perform online testing of the turbine master trip solenoid valve to prevent initiating an oscillation of the turbine and bypass valves.

The inspectors did not identify any violations during the review of the LER. This LER is closed.

40A5 Other Activities

Temporary Instruction (TI) 2515/192, Inspection of the Licensee's Interim Compensatory Measures Associated with the Open Phase Condition Design Vulnerabilities in Electric Power Systems

a. Inspection Scope

The objective of this performance based TI is to verify implementation of interim compensatory measures associated with an open phase condition (OPC) design vulnerability in electric power system for operating reactors. The inspectors conducted this inspection to determine if Exelon had implemented the following interim compensatory measures. These compensatory measures are to remain in place until permanent automatic detection and protection schemes are installed and declared operable for OPC design vulnerability. The inspectors verified the following:

- Exelon had identified and discussed with plant staff the lessons-learned from the OPC events at U.S. operating plants including the Byron station OPC event and its consequences. This includes conducting operator training for promptly diagnosing, recognizing consequences, and responding to an OPC event;
- Exelon had updated plant operating procedures to help operators promptly diagnose and respond to OPC events on off-site power sources credited for safe shutdown of the plant;
- Exelon had established and continue to implement periodic walkdown activities to inspect switchyard equipment such as insulators, disconnect switches, and transmission line and transformer connections associated with the off-site power circuits to detect a visible OPC; and
- Exelon had ensured that routine maintenance and testing activities on switchyard components have been implemented and maintained. As part of the maintenance and testing activities, Exelon assessed and managed plant risk in accordance with 10 CFR 50.65(a)(4) requirements.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On April 5, 2017, the inspectors presented the inspection results to Garey Stathes, Site Vice President, and other members of the Oyster Creek staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTARY INFORMATION

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

G. Stathes, Site Vice President
 M. Gillin, Plant Manager
 M. Arnao, Director, Maintenance
 M. Chanda, Manager, Emergency Preparedness
 J. Clark, Manager, Environmental/Chemistry
 L. Dorman, System Engineer
 R. Dutes, Regulatory Assurance Specialist
 J. Jimenez, Senior Regulatory Assurance Specialist
 T. Keenan, Manager, Site Security
 A. Krukowski, Shift Operations Superintendent
 M. McKenna, Manager, Regulatory Assurance
 H. Ray, Senior Manager, Design Engineering
 J. Renda, Director, Work Management
 M. Rossi, Licensed Operator Requalification Training Lead
 J. Stanley, Director, Engineering
 C. Symonds, Director, Training
 J. Weissinger, Director, Operations
 K. Wolf, Manager, Radiation Protection

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATEDClosed

05000219/2017-001-01	LER	Automatic SCRAM due to APRM High Flux during Turbine Valve Testing (Section 40A3)
TI 2515/192	TI	Inspection of the Licensee's Intrim Compensatory Measures Associated with the Open Phase Condition Design Vulnerabilities in Electric Power Systems (Section 40A5)

LIST OF DOCUMENTS REVIEWED**Section 1R01: Adverse Weather Protection**Procedures

OP-OC-108-109-1001, Severe Weather Preparation T&RM for Oyster Creek, Revision 35

Section 1R04: Equipment AlignmentProcedures

304, Standby Liquid Control System Operation, Revision 48
 341, Emergency Diesel Generator Operation, Revision 112
 307, Isolation Condenser System, Revision 125
 310, Containment Spray System Operation, Revision 114

Condition Reports

1627825	1638631	1639317	1639421	1691267	2383628
2386480	2386482	2398134	2413991	2416791	2483106
2490299	2497353	2538602	2527878	2577232	2625435
2635997	2665851	2669309	2675819	2682541	2719112
2722730	2724641	2725206	2730024	2734007	3971651

Drawings

GE 148F723, Liquid Poison System Flow Diagram, Sheet 1, Revision 40
 GU-3C-733-11-010, 120V AC Power System Panel Schedule, Sheet 1, Revision 6
 GE 148F262, Emergency Condenser Flow Diagram, Sheet 1, Revision 55
 GE 148F740, Containment Spray System Flow Diagram, Revision 44

Section 1R05: Fire ProtectionProcedures

ER-AA-600-1069, High Risk Area Identification, Revision 1
 OP-OC-201-008-1014, MG Set Room/Mechanical Equipment Room (MOB 2), Revision 0
 OP-OC-201-008-1016, Monitor & Change Area, Computer Room, Cable Tray Closet, Revision 2
 OP-OC-201-008-1024, 4160V Switchgear Room, "C" Battery Room, Revision 2
 ER-AA-600-1069, High Risk Fire Area Identification, Revision 1
 FSP-OB6A, Fire Support Procedure for A 480v SWGR RM, Revision 10
 FSP-OB6B, Fire Support Procedure for B 480v SWGR RM, Revision 7
 OP-OC-201-008-1007, Reactor Building (33' Elevation) TIP Drive Area, Revision 0
 OP-OC-201-008-1020, Cable Spreading Room, Revision 1
 OP-OC-201-008-1022, 480v Switchgear Room "A", Revision 2
 OP-OC-201-008-1023, 480v Switchgear Room "B", Revision 3
 645.6.034, Fire Detection System Alarm Circuitry Test for 480v Switchgear Rooms,
 A/B Battery Room, Mechanical Equipment Room, and M/G Set Room, Revision 16
 645.6.214, Fire Suppression System Halon Cylinder Check 480v SW/GR Room, Revision 0

Section 1R07: Heat Sink PerformanceProcedures

607.4.017, Containment Spray and Emergency Service Water Pump System II Operability and
 Quarterly In-Service Test, Revision 43
 ER-AA-340, GL 89-13 Program Implementing Procedure, Revision 7
 ER-AA-340-1001, GL 89-13 Program Implementation Instructional Guide, Revision 9
 ER-OC-340-1001, Oyster Creek Generic Letter 89-13 Program Basis Document, Revision 4
 ABN-32, Abnormal Intake Level, Revision 28

Calculations

EXOC005-CALC-002, Design Basis for Containment Spray System, Revision 2
 C-1302-241-5450-073, Acceptable Containment Spray Heat Exchanger Fouling Resistance, Revision 0
 C-1302-241-E120-078, Containment Spray Heat Exchanger Performance Evaluation, Revision 0

Drawings

BR2005, Emergency Service Water, Sheet 4, Revision 52
 GE 148F740, Containment Spray System Flow Diagram, Sheet 1, Revision 44

Miscellaneous

EPRI NP-7552, Heat Exchanger Performance Monitoring Guidelines, dated December 1991

Section 1R11: Licensed Operator Regualification Program

Procedures

HU-AA-101, Human Performance Tools and Verification Practices, Revision 9
 TQ-AA-150, Operator Training Programs, Revision 11
 TQ-AA-155, Conduct of Simulator Training and Evaluation, Revision 5
 636.4.003, Diesel Generator #1 Load Test, Revision 105

Miscellaneous

Oyster Creek Nuclear Generating Station Technical Specifications Section 3.7, Auxiliary Electrical Power, Amendment 256

Section 1R12: Maintenance Effectiveness

Procedures

ER-AA-310, Implementation of the Maintenance Rule, Revision 9
 ER-AA-310-1001, Maintenance Rule – Scoping, Revision 4
 ER-AA-310-1004, Maintenance Rule – Performance Monitoring, Revision 13
 ER-AA-310-1005, Maintenance Rule – Dispositioning Between (a)(1) and (a)(2), Revision 7
 ABN 5, Inadvertent SLC Initiation, Revision 5
 RAP-G1b, Flow On, Revision 1
 RAP-G2b, Squib Valve Open, Revision 1
 RAP-G4b, Tank Level Hi/Lo, Revision 3
 304, Standby Liquid Control System Operation, Revision 48
 612.4.001, Standby Liquid Control Pump and Valve Operability and In-Service Test, Revision 51
 337, 4160 Volt Electrical System, Revision 103

Condition Reports

1511440	2389090	2413286	2415601	2637922	2667844
2720832	2724014	2724120	2727764	2738032	3961760
3962144	1664517	2723227	2741872	2587603	2727912
2735102	2682898				

Drawings

GE 148F723, Liquid Poison System Flow Diagram, Sheet 1, Revision 40

Maintenance Orders/Work Orders

R2239048

Miscellaneous

Oyster Creek Maintenance Rule Database, updated December 31, 2016
 Oyster Creek Nuclear Generating Station Technical Specifications, Section 3.2,
 Reactivity Control, Amendment 262
 Oyster Creek Nuclear Generating Station Updated Final Safety Analysis Report, Section 9.3,
 Process Auxiliaries, Revision 16
 Oyster Creek Nuclear Generating Station Technical Specifications, Section 3.7, Auxiliary
 Electrical Power, Amendment 256
 Oyster Creek Nuclear Generating Station Updated Final Safety Analysis Report, Section 8.3,
 Onsite Power Systems, Revision 18

Section 1R13: Maintenance Risk Assessments and Emergent Work ControlProcedures

CC-AA-201, Plant Barrier Impairment Permit, Revision 11
 ER-OC-390-1001, Control Room Envelope Habitability Program Implementation, Revision 4
 RAP-C5e, Torus Level Hi/Lo, Revision 7
 304, Standby Liquid Control System Operation, Revision 48
 612.4.001, Standby Liquid Control Pump and Valve Operability and In-Service Test, Revision 51
 2400-SMM-3219.01, Liquid Poison Pump Fluid End Disassembly, Inspection, and Reassembly,
 Revision 6
 ABN-32, Abnormal Intake Level, Revision 28
 680.4.004, Local Shutdown Panel LSP-1A2 Functional Test, Revision 20
 MA-AA-716-004, Conduct of Troubleshooting, Revision 13
 322, Service Water System, Revision 90
 ABN-18, Service Water Failure Response, Revision 7

Condition Reports

3973319	3973600	3973611	3973627	3973925	3973974
3974232	3977372	3977749	3978066		

Maintenance Orders/Work Orders

4347035

Section 1R15: Operability Determinations and Functionality AssessmentsProcedures

CC-AA-201, Plant Barrier Impairment Permit, Revision 11
 ER-OC-390-1001, Control Room Envelope Habitability Program Implementation, Revision 4
 RAP-C5e, Torus Level Hi/Lo, Revision 7
 304, Standby Liquid Control System Operation, Revision 48
 612.4.001, Standby Liquid Control Pump and Valve Operability and In-Service Test, Revision 51
 2400-SMM-3219.01, Liquid Poison Pump Fluid End Disassembly, Inspection, and Reassembly,
 Revision 6
 654.2.001, Reactor Building Ventilation Supply Valve Position Indication Check, Revision 23
 OP-AA-108-115, Operability Determinations (CM-1), Revision 18
 341, Emergency Diesel Generator Operation, Revision 113
 636.4.013, Diesel Generator #2 Load Test, Revision 52
 636.4.022, Diesel Generator #2 – 24 Hour Endurance Test, Revision 3
 MA-OC-861-101, Appendix 2, Cylinder Liner Removal/Replacement, Revision 22

Condition Reports

3960358	3954929	3958798	1350180	1385488	1619313
1619800	2413286	2681493	3962144	3961760	3964231
3964255	3983622	3985845	3970221	3970847	3962412
3983554	3983193	3989985	3989025	3989343	3989621
1513542					

Maintenance Orders/Work Orders

4347035	4603688	4603699	4600295
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Calculations

C-1302-243-2236-040, Calibration & Performance Calculations for Torus Narrow Range Level Recorder Modification, Revision 4

Drawings

GE 148F723, Liquid Poison System Flow Diagram, Sheet 1, Revision 40
 BR 2011, Reactor Building Ventilation Flow Diagram, Revision 64
 GE 148F723, Liquid Poison System Flow Diagram, Revision 40
 GE 148F912, Reactor Plant Instm Electrical Elementary Diagram, Revision 29
 EM 8397907, Emergency Diesel Generator #2 Electrical Elementary Wiring Diagram, Sheet 7, Revision 5
 EM 8397907, Emergency Diesel Generator #2 Electrical Connection Diagram, Sheet 14, Revision 3
 EM 8393039, Emergency Diesel Generator #1 Electrical Elementary Wiring Diagram, Sheet 2, Revision 35
 EM 8393039, Emergency Diesel Generator #1 Electrical Connection Diagram, Sheet 14, Revision 3
 EM 8393039, Emergency Diesel Generator #1 Electrical Elementary Wiring Diagram, Sheet 7, Revision 5

Miscellaneous

Instrument Calibration Sheet, LAR-243-1, Revision 0
 ECR 14-00258, Update SLC Pump Vendor Manual to Address Oil Level Issue, Revision 0
 VM-OC-5934, Instructions for Liquid Poison Pumps, Revision 5
 Oyster Creek Nuclear Generating Station Updated Final Safety Analysis Report, Section 9.3, Process Auxiliaries, Revision 16
 OC-2013-OE-0006, EDG #1 Normally Full Sight Glass Fuel Oil Filter Operability Evaluation, Revision 1
 VM-OC-0096, Engine Maintenance Manual 645E4 Turbo Charger Engine, Revision 2
 Exelon EMD PCM Template, July 26, 2004

Section 1R18: Plant ModificationsProcedures

RAP-H7c, Charg Wtr Press Lo, Revision 4
 RAP-H8c, Accumulator Press Lo/Level Hi, Revision 1

Miscellaneous

Oyster Creek Nuclear Generating Station Technical Specifications, Section 3.2, Reactivity Control, Amendment 178
 Oyster Creek Nuclear Generating Station Updated Final Safety Analysis Report, Section 3.9, Mechanical Systems and Components, Revision 17

Section 1R19: Post-Maintenance TestingProcedures

322, Service Water System, Revision 90

636.4.013, Diesel Generator #2 Load Test, Revision 52

341, Emergency Diesel Generator Operation, Revision 113

651.4.002, Standby Gas Treatment System 15-Minute Run – System 1, Revision 16

610.4.012, Core Spray System 1 Pump Comprehensive/Preservice In-Service Test, Revision 70

Condition Reports

3973600 3973611 3973627 3973925 3973974 3974232

3970847 1334925 3983193 3986258 3988364 3988567

3988759 3970221 3983554

Maintenance Orders/Work Orders

4599348 4378309 4187158 4365244 4365243 4369512

4347035 4609595 4616363

Section 1R22: Surveillance TestingProcedures

607.4.017, Containment Spray and Emergency Service Water Pump System II Operability and Quarterly In-Service Test, Revision 43

636.4.003, Diesel Generator #1 Load Test, Revision 105

341, Emergency Diesel Generator Operation, Revision 112

609.4.001, Isolation Condenser Valve Operability and In Service Test, Revision 83

604.3.001, Reactor Building to Torus Power Vacuum Breaker Test and Calibration, Revision 44

CY-OC-120-530, Liquid Poison System Sampling, Revision 6

CY-OC-130-130, Boron Analysis by Titration, Revision 3

610.3.115, Core Spray System 1 Instrument Channel and Level Bistable Calibration and Test, Revision 51, 52 and 53

Calculations

C-1302-730-5350-008, Oyster Creek – Generic Letter 89-10 MOVs Voltage Drop Calculation for DC MOVs, Revision 0

Condition Reports

3965971 3979199 3979240

Maintenance Orders/Work Orders

4587944 4390866 4592000 4391470

Miscellaneous

Oyster Creek Nuclear Generating Station Technical Specifications, Section 3.7, Auxiliary Electrical Power, Amendment 278

Oyster Creek Nuclear Generating Station Updated Final Safety Analysis Report, Section 8.3, Onsite Power Systems, Revision 18

Section 1EP6: Drill EvaluationProcedures

EP-AA-112-100, Control Room Operations, Revision 14
 EP-AA-112-100-F-01, Shift Emergency Director Checklist, Revision W
 EP-MA-114-100-F-04, PAR Notification/Update Form, Revision G
 EP-AA-112-100-F-06, ERO Notification or Augmentation, Revision V

Section 4OA2: Problem Identification and ResolutionProcedures

Surveillance Test 635.2.001, 4160 Switchgear Buses (A, B, C, D) and Circulating Water Pump
 Protective Relay Surveillance, Revision 73
 WC-AA-111, Surveillance Program Requirements, Revision 5
 WC-AA-120, Preventive Maintenance Database Revision Requirements, Revision 3
 ER-AA-600-1045, Risk Assessments of Missed or Deficient Surveillances, Revision 7

Action Request Evaluations

A2322483 A2322472 A0703766 A2385010 A2156780

Condition Reports

714928 845453 2537535

Miscellaneous

Recurring Task ST3521CC 1A1P, Protective Relay Surveillance (C7) – Unit SUB 1A1P
 Recurring Task ST3521DD, Protective Relay Surveillance (C8) – 1C Breaker
 OC-SURC-03, Risk Analysis for Missed Surveillance, Failure to Perform Calibration of
 Loss of Voltage/Degraded Voltage Instrumentation for 1C Bus, Revision 0

Section 2RS1: Access Control to Radiologically Significant AreasProcedures

RP-AA-224, CEDE Dose Tracking Using Lapel Air Samplers, Revision 2
 RP-AA-300, Radiological Survey Program, Revision 14
 RP-AA-301, Radiological Air Sampling Program, Revision 10
 RP-AA-302, Determination of Alpha Levels and Monitoring, Revision 8
 RP-AA-350-1002, Managing Large Scale Contamination Events, Revision 0
 RP-AA-376-1001, Radiological Posting, Labeling and Marking Standard, Revision 14
 RP-AA-460, Control for High and Locked High Radiation Areas, Revision 29
 RP-AA-500, Radioactive Material Control, Revision 17
 RP-AA-500-1001, Requirements for Radioactive Materials Stored Outdoors, Revision 5
 RP-AA-500-1003, 10CFR Part 37 Material Accountability Program, Revision 1
 RP-AA-503, Unconditional Release Survey Method, Revision 14
 RP-AA-503-F-01, Unconditional Release Instructions Using the Small Article Monitor (SAM),
 Revision 4
 RP-AA-700-1225, Calibration of In-Air Gamma Sources, Revision 0
 RP-AA-700-1246, Operation of Air Samplers, Revision 4
 RP-AA-800, Control, Inventory and Leak Testing of Radioactive Sources, Revision 7
 RP-AA-800-001, Nationally Tracked Source Program, Revision 2

Condition Reports

2731133 3943169 3949516 3969666 3978262 3792964
 2728203 3982508

Documents

OC-16-011 Radiation Protection Calculation and Position Paper: 2016-2017 10 CFR 61 Waste Stream Analysis, December 9, 2016

OC-16-008, 2016 Alpha Characterization Refuel Outage 1R26, November 8, 2016

Oyster Creek Technical Specification, Section 4.11, Sealed Sources

OCNGS Exempt Quantity Sources, January 6, 2017

OCNGS Licensed Quantity Sources Inventory, January 6, 2017

NSTS Confirmation Form - 2016 Annual Inventory Reconciliation, January 18, 2017

WC-AA-111 Attachment 4 - Surveillance Test Coversheet WO 04388303 Inventory and Leak Test Radioactive Sources, January 20, 2017

Air Sample Index Log from January 1, 2017 to March 6, 2017

Oyster Creek CEDE Report January 1, 2017 to March 3, 2017

RP-AA-301 Attachment 2 - Airborne Radioactivity Calculation Sheet 17-103, Old Radwaste Tunnel, January 27, 2017

RP-AA-301 Attachment 2 - Airborne Radioactivity Calculation Sheet 17-131, Old Radwaste Tunnel, January 30, 2017

RP-AA-301 Attachment 2 - Airborne Radioactivity Calculation Sheet 17-172, Old Radwaste Tunnel, February 7, 2017

RP-AA-301 Attachment 2 - Airborne Radioactivity Calculation Sheet 17-1001, New Radwaste 23' A Evaporator, February 3, 2017

OCGS Rad Survey RH3-2017-1644-141, Reactor Building 119' General Refuel Floor Areas, January 31, 2017

OCGS Rad Survey YLA-2017-2649-274, Low Level Rad Waste Storage Facility Sludge Liner, March 7, 2017

OCGS Rad Survey RFF-2017-1015-443, Reactor Building 75' Reactor Water Cleanup RK-05 January 1, 2017

OCGS Rad Survey N3D-16-01833, New Radwaste 23' Fill Aisle SL 3A & 3B, August 29, 2016

OCGS Rad Survey PBA-16-01336, Old Radwaste Small Pump Room, Waste Storage Tanks, June 17, 2016

OCGS Rad Survey TO2-2016-673-26, Turbine Building- Operating Floor 50% Power, December 13, 2016

OCGS Locked High Radiation Area Key List, March 8, 2017

RP-AA-460 Attachment 10 - LHRA Key Log, March 8, 2017

OCGS RWP OC-1-17-00304, Perform Cleanup System Maintenance, March 8, 2017

OCGS RWP OC-1-17-00202, Radwaste Processing Work Activities, March 7, 2017

OCGS RWP OC-1-17-00201, Regulator Activities, March 9, 2017

RP-AA-460 Attachment 5 High Radiation Area and Locked High Radiation Area Briefing Form for RB 75' RK 05 Rack Instrument Calibration, March 9, 2017

PI-AA-126-1005-F-01, Check In Self-Assessment for AR 2615609 Radiation Protection Dosimetry, September 15, 2016

PI-AA-126-1005-F-01 Check In Self-Assessment for AR 2615849 Radiation Protection Instrumentation, December 7, 2016

RP-AA-201 Attachment 2 - Guest Visitor Log Sheet from October 10, 2016 to February 17, 2017

Section 2RS2: Occupational As Low As Reasonably Achievable Planning and ControlProcedures

RP-AA-400-1004, Emergent Dose Control and Authorization, Revision 8

RP-AA-400-1006, Outage Exposure Estimating and Tracking, Revision 5

RP-AA-400-1009, Remote Monitoring System, Revision 2

RP-AA-401, Operational ALARA Planning and Controls, Revision 22

Condition Reports

2725957	2725968	2725972	2725976	2725984	2726622
3943591	3972593	3977934			

Documents

- RP-AA-402 Oyster Creek Generating Station 2017- Abbreviated Exposure Reduction Plan, March 2017
- RP-AA-4004 Oyster Creek Generating Station Radiation Protection O1R26 – 2016 Refueling Outage Report, November 15, 2016
- 2017 Department Dose Goals vs Actual Electronic Dosimeter Results for January and February, March 7, 2017
- RP-AA-401 Attachment 4 - ALARA Post Job Review for ALARA Plan 15-506 Drywell Scaffolding Activities, October 7, 2016
- RP-AA-401 Attachment 4 - ALARA Post Job Review for ALARA Plan 16-507 Drywell Ventilation – Cooler System Activities, October 1, 2016
- RP-AA-401 Attachment 4 - ALARA Post Job Review for ALARA Plan 15-510 Drywell Main Steam Safety Relief Valve Activities, October 6, 2016
- RP-AA-401 Attachment 6 - ALARA Work-In-Progress Review for ALARA Plan 16-510 Drywell Main Steam Safety Relief Valve Activities 50% Review, October 2, 2016
- RP-AA-401 Attachment 6 - ALARA Work-In-Progress Review for ALARA Plan 16-506 Drywell Scaffolding Activities, September 22, 2016
- RP-AA-401 Attachment 6 - ALARA Work-In-Progress Review for ALARA Plan 16-507 Drywell Ventilation – Cooler System Activities 80% Review, September 24, 2016
- RP-AA-441 Attachment 2 - TEDE ALARA Evaluation Screening Worksheet, RWP 336 Old Radwaste Pipe Tunnel, January 24, 2017
- PI-AA-126-1005-F-01 Check In Self-Assessment for AR 02615257 Fleet ALARA Program, August 18, 2016

Section 40A3: Follow-Up of Events and Notices of Enforcement Discretion

Miscellaneous

LER 2017-001-00/01, Automatic SCRAM due to APRM High Flux during Turbine Valve Testing

Section 40A5: Other Inspection

Condition Reports

1325599	1319908	1322690	3954658
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Miscellaneous

N-OC-OPS-IER-L2-12-14, IER L2 12-14, Single Open Phase, dated January 5, 2017
 NRC Temporary Instruction 2515/192 Open Phase Condition Check In Self-Assessment, dated December 16, 2016

LIST OF ACRONYMS

ALARA	As Low As Reasonably Achievable
CFR	<i>Code of Federal Regulations</i>
kV	kilovolt
LER	licensee event report
NRC	Nuclear Regulatory Commission
OPC	open phase condition
TI	Temporary Instruction
UFSAR	Updated Final Safety Analysis Report