



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

November 3, 2016

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

SUBJECT: NINE MILE POINT NUCLEAR STATION - INTEGRATED INSPECTION
REPORT 05000220/2016003 AND 05000410/2016003

Dear Mr. Hanson:

On September 30, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Nine Mile Point Nuclear Station, LLC (NMPNS), Units 1 and 2. On October 6, 2016, the NRC inspectors discussed the results of this inspection with Mr. Robert Kreider, Plant General Manager, and other members of your staff. The results of this inspection are documented in the enclosed report.

No NRC-identified or self-revealing findings were identified during this inspection. However, inspectors documented a licensee-identified violation which was determined to be of very low safety significance (Green) in this report. The NRC is treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Resident Inspectors at Nine Mile Point Nuclear Station.

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 Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Anthony Dimitriadis, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Docket Nos. 50-220 and 50-410
License Nos. DPR-63 and NPF-69

Enclosure:
Inspection Report 05000220/2016003 and
05000410/2016003
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

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 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/

Anthony Dimitriadis, Chief
Reactor Projects Branch1
Division of Reactor Projects

Docket Nos. 50-220 and 50-410
License Nos. DPR-63 and NPF-69

Enclosure:
Inspection Report 05000220/2016003 and
05000410/2016003
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

Distribution w/encl: (via E-mail)

DDorman, RA
DLew, DRA
MScott, DRP
DPelton, DRP
RLorson, DRS
JYerokun, DRS
ADimitriadis, DRP
ARosebrook, DRP
ASiwy, DRP
KKolaczyk, DRP, SRI
GStock, DRP, RI
ATrudell, DRP, AA
JBowen, RI OEDO
RidsNrrPMNineMilePoint Resource
RidsNrrDorLpl1-1 Resource
ROPReports Resource

DOCUMENT NAME: \\G:\DRP\BRANCH1\Nine_Mile_Point\Reports\2016 Inspection Reports\2016-003\NMP IR
2016.003FINAL.docx

ADAMS Accession No. **ML16308A073**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRP	RI/DRP	RI/DRP		
NAME	KKolaczyk/ar for	ARosebrook/ar	ADimitriadis/ad		
DATE	10/26/16	10/26/16	11/3/16		

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION**REGION I**

Docket Nos. 50-220 and 50-410

License Nos. DPR-63 and NPF-69

Report Nos. 05000220/2016003 and 05000410/2016003

Licensee: Exelon Generation Company, LLC (Exelon)

Facility: Nine Mile Point Nuclear Station, LLC (NMPNS)
Units 1 and 2

Location: Oswego, New York

Dates: July 1, 2016, through September 30, 2016

Inspectors: K. Kolaczyk, Senior Resident Inspector
E. Miller, Resident Inspector
G. Stock, Resident Inspector
J. DeBoer, Emergency Preparedness Specialist
J. Furia, Senior Health Physicist
P. Kaufman, Senior Reactor Inspector
M. Phalen, Senior Health Physicist
R. Rolph, Health Physicist

Approved by: Anthony Dimitriadis, Chief
Reactor Projects Branch 1
Division of Reactor Projects

Enclosure

TABLE OF CONTENTS

SUMMARY	3
1. REACTOR SAFETY	4
1R01 Adverse Weather Protection	4
1R04 Equipment Alignment	5
1R05 Fire Protection	6
1R07 Heat Sink Performance	6
1R11 Licensed Operator Requalification Program & Licensed Operator Performance	9
1R12 Maintenance Effectiveness	10
1R13 Maintenance Risk Assessments and Emergent Work Control	10
1R15 Operability Determinations and Functionality Assessments	11
1R18 Plant Modifications	12
1R19 Post-Maintenance Testing	12
1R22 Surveillance Testing	13
1EP2 Alert and Notification System Evaluation	14
1EP3 Emergency Response Organization Staffing and Augmentation System	14
1EP5 Maintenance of Emergency Preparedness	15
1EP6 Drill Evaluation	15
2. RADIATION SAFETY	16
2RS3 In-Plant Airborne Radioactivity Control and Mitigation	16
2RS4 Occupational Dose Assessment	17
2RS6 Radioactive Gaseous and Liquid Effluent Treatment	18
2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	19
4. OTHER ACTIVITIES	21
4OA1 Performance Indicator Verification	21
4OA2 Problem Identification and Resolution	23
4OA3 Follow-Up of Events and Notices of Enforcement Discretion	24
4OA6 Meetings, Including Exit	26
4OA7 Licensee-Identified Violations	26
ATTACHMENT: SUPPLEMENTARY INFORMATION	26
SUPPLEMENTARY INFORMATION	A-1
KEY POINTS OF CONTACT	A-1
LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED	A-1
LIST OF DOCUMENTS REVIEWED	A-1
LIST OF ACRONYMS	A-13

SUMMARY

Inspection Report 05000220/2016003 and 05000410/2016003; 07/01/2016 – 09/30/2016; Nine Mile Point Nuclear Station, Units 1 and 2; Integrated Inspection Report.

This report covered a three month period of inspection by resident inspectors and announced 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.

Other Findings

A violation of very low safety significance that was identified by Exelon was reviewed by the inspectors. Corrective actions taken or planned by Exelon have been entered into Exelon's corrective action program (CAP). This violation and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at 100 percent power. On July 29, 2016, operators reduced power to 90 percent when a turbine bypass valve opened while operators were increasing reactor power following an unplanned isolation of the reactor water cleanup system. Operators restored power to 100 percent the same day. On August 13, operators reduced power to 95 percent to perform a control rod pattern adjustment. Operators restored power to 100 percent the same day. Unit 1 remained at or near 100 percent power for the remainder of the inspection period.

Unit 2 began the inspection period at 100 percent power and remained at or near 100 percent power for the entire inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 1 sample)

Readiness for Impending Adverse Weather Conditions

a. Inspection Scope

The inspectors reviewed Exelon's readiness for the onset of unseasonably hot temperatures during the week of July 11, 2016. 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 Unit 1 emergency diesel generator (EDG) 102 and EDG 103; screenhouse and turbine building elevations 261 and 305; and the Unit 2 Division I and Division II EDG rooms. The inspectors verified that operator actions defined in Exelon's adverse weather procedures 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 Walkdown (71111.04 – 4 samples)

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- Unit 2 residual heat removal (RHR) 'A' system following RHR 'B' system loose snubber discovery on July 15, 2016
- Unit 1 uninterruptible power supply (UPS) 162B while UPS 162A was in service supplying reactor protection system 11 on August 8, 2016
- Unit 2 Division II control building special filter ventilation system while Division I was out of service for planned maintenance on August 16, 2016
- Unit 2 Division I EDG while the Division II EDG was out of service for planned maintenance during the week of September 26, 2016

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 (TSs), work orders (WOs), action requests (ARs), and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to determine if 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 CAP 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 September 30, 2016, the inspectors performed a complete system walkdown of accessible portions of the Unit 2 reactor building ventilation system to verify the existing equipment lineup was correct. The inspectors reviewed operating procedures, surveillance tests, drawings, equipment line-up check-off lists, and the Updated Final Safety Analysis Report (UFSAR) to verify the system was aligned to perform its required safety functions. The inspectors also reviewed electrical power availability, component lubrication and equipment cooling, hanger and support functionality, and operability of support systems. The inspectors performed field walkdowns of accessible portions of the system to verify as-built system configuration matched plant documentation, and that

system components and support equipment remained operable. The inspectors confirmed that the system 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 issue reports (IRs) and work orders (WOs) to ensure Exelon appropriately evaluated and resolved any deficiencies.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 6 samples)

a. Inspection Scope

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. The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features.

- Unit 1 EDG 102 (fire area (FA) 22) and emergency switchgear (FA 23) rooms on July 6, 2016
- Unit 1 EDG 103 (FA 19) and emergency switchgear (FA 24) rooms on July 6, 2016
- Unit 1 battery 11 (FA 17A) and battery board (FA 16A) rooms on July 6, 2016
- Unit 1 battery 12 (FA 17B) and battery board (FA 16B) rooms on July 6, 2016
- Unit 1 screenhouse (FA 13 and FA 14) on July 6, 2016
- Unit 1 foam room (FA 4) on August 17, 2016

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07)

.1 Annual Review (71111.07A – 1 sample)

a. Inspection Scope

The inspectors reviewed the Unit 2 Division I EDG jacket water heat exchangers (HXs) readiness and availability to perform their safety functions. The inspectors reviewed the

design basis for the components and verified Exelon's commitments to NRC Generic Letter (GL) 89-13, "Service Water System Requirements Affecting Safety-Related Equipment." The inspectors observed an inspection of both EDG jacket water HXs during a planned maintenance period. The inspectors discussed the results of the most recent inspection with engineering staff and reviewed 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 HXs did not exceed the maximum amount allowed by the engineering analysis of record.

b. Findings

No findings were identified.

.2 Triennial Review (71111.07T – 7 samples)

a. Inspection Scope

Heat Exchanger Sample Selection

The inspectors selected the following HX samples for this inspection based on Exelon's risk ranking of safety-related HXs, past triennial heat sink inspections, recent operational experience, and resident inspectors' input.

- Unit 2 RHR HXs 2RHR*1A and 1B
- Unit 2 RHR pump room coolers 2HVR*UC401A, B, and C
- Unit 2 low-pressure core spray (LPCS) pump room cooler 2HVR*UC402A
- Unit 2 high-pressure core spray (HPCS) pump room cooler 2HVR*UC403B

For the samples selected, the inspectors reviewed program/system health reports, self-assessments, and methods (inspection, cleaning, maintenance, and performance monitoring) used to ensure heat removal capabilities for the safety-related HX coolers and compared them to the NMPNS commitments made in response to GL 89-13. The HXs and coolers reviewed are monitored by means of performance testing and supplemented with cleaning and inspection. The area coolers reviewed are performance tested.

Heat Exchangers Directly Cooled by Service Water System

For the samples selected each of the HXs are directly cooled by the service water (SW) system. The inspectors reviewed the method and results of HX and cooler performance testing to verify performance. The inspectors reviewed the procedures and programs for maintaining the safety functions of the HXs and coolers that were monitored by means of performance testing, cleaning, inspection, and discussed the activities with station personnel.

The inspectors reviewed the results of performance tests, inspections and cleaning of the selected HXs and coolers, trending of tube plugging for the RHR HXs, and

engineering calculations of tube plugging limits for the RHR HXs. The inspectors verified whether the test methodology was consistent with accepted industry practices (Electric Power Research Institute NP-7552, "HX Performance Monitoring Guidelines") and compared completed test results to the established acceptance criteria to verify that the test conditions were consistent with the selected test methodology, test results were acceptable, test results considered test instrument inaccuracies, and operation was consistent with the plant design basis values.

The inspectors walked down accessible portions of HPCS, LPCS, SW, and RHR piping, pumps, valves, and HXs and coolers to assess the material condition of the components.

The inspectors reviewed the completed WOs and associated photos of the inspection and cleaning of the HXs and coolers to verify whether the as-found and as-left conditions were bound by assumptions in the engineering analyses and provided reasonable assurance of continued operability and had an adequate cooling margin.

Unit 2 Service Water System Review

The inspectors reviewed Unit 2 SW flow calculations and SW pump inservice test (IST) data to assess whether the minimum calculated flowrate, in conjunction with the heat transfer capability of the HXs and coolers, supported the minimum heat transfer rates assumed during accident and transient conditions described in the UFSAR.

The inspectors performed a walkdown of the intake structure and verified proper functioning of the trash rakes and traveling screens. The inspectors verified whether the intake bay silt accumulation was monitored and maintained at an acceptable level, and that level instruments were maintained functional and routinely monitored.

The inspectors reviewed the chemistry controls for the SW system and discussed the monitoring with a system engineer. The inspectors determined whether the chemical treatment programs for corrosion control and biotic control were consistent with industry standards. The inspectors verified that the testing, inspection, maintenance, and monitoring of biotic fouling and macrofouling programs were singularly or in combination adequate to ensure proper heat transfer.

Corrective Action Reports Review

The inspectors selected and reviewed a sample of CAP reports related to the heat sink and HX cooler samples chosen for this inspection. The inspectors determined whether Exelon staff were appropriately identifying, characterizing, and correcting problems related to these systems and components, and that the planned or completed corrective actions for the reported issues were appropriate.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance
(71111.11Q – 4 samples)

.1 Quarterly Review of Licensed Operator Requalification Testing and Training (2 samples)

a. Inspection Scope

The inspectors observed:

- Unit 1 licensed operator simulator training scenario on July 19, 2016, which involved performing an EDG monthly surveillance, a trip of motor generator 131, a failure of a control rod drive (CRD) flow control valve, a main steam line break inside containment with a failure of containment spray, and a low power anticipated transient without scram
- Unit 2 licensed operator simulator training scenario on August 10, 2016, which involved performing a condenser air removal pump bi-monthly surveillance, a trip of a CRD pump with low suction pressure, an initiation of Division I emergency core cooling systems with a minimum flow valve failure, a CSL*MOV104 breaker trip, an inadvertent safety relief valve opening, and an unisolable reactor core isolation cooling (RCIC) steam leak

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 unit supervisor. The inspectors verified the accuracy and timeliness of the emergency classifications made by the shift manager and the technical specification (TS) action statements entered by the unit supervisor. 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
(2 samples)

a. Inspection Scope

The inspectors observed:

- Unit 1 control room observations during adverse weather conditions and surveillance testing activities July 18 and 20, 2016
- Unit 2 control room observations during impending adverse weather conditions on July 18, 2016

The inspectors observed infrequently performed test or evolution briefings, pre-shift briefings, and reactivity control briefings to verify that the briefings met the criteria specified in Exelon procedure HU-AA-101, "Human Performance Tools and Verification Practices," Revision 009. Additionally, the inspectors observed test performance to verify that procedure use, crew communications, and coordination of plant activities among work groups similarly met established expectations and standards.

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 (SSC) performance and reliability. The inspectors reviewed system health reports, CAP documents, maintenance WOs, 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 SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Exelon staff were reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Exelon staff were identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- Unit 2 structural monitoring program walkdown of the auxiliary boiler building and screenwell building roofs on July 27, 2016
- Unit 1 diesel driven fire pump repeated failure to start on August 26, 2016

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 9 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 from service. 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 Title 10 of the *Code of Federal Regulations* (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 to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the TS requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Unit 1 EDG 102, power board 102, and EDG 102 raw water pump during planned containment spray 122 system maintenance window on July 12, 2016
- Unit 1 risk mitigation actions while unplanned maintenance was performed on instrument air compressor 12 during the week of August 1, 2016
- Unit 2 unplanned maintenance on the Division II EDG during a Yellow plant risk condition on August 3, 2016
- Unit 2 Yellow risk condition while the RCIC system was out of service for planned maintenance on August 10, 2016
- Unit 1 risk mitigation actions during planned 121 core spray relay functional testing on August 25, 2016
- Unit 2 risk mitigation actions during unplanned Division II EDG maintenance window and Yellow risk condition on August 29, 2016
- Unit 2 risk management actions during planned Division I EDG maintenance window on September 13, 2016
- Unit 2 risk management actions during planned Division II EDG maintenance window on September 28, 2016
- Unit 1 unplanned maintenance on BKR-(13A/004C)52 PB-131A feeder breaker at PB-13A on September 30, 2016

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 3 samples)

a. Inspection Scope

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

- Unit 2 RHR 'B' following discovery of air void in drywell spray line on July 22, 2016
- Unit 2 review of the operator workaround (OWA) program completed August 17, 2016
- Unit 1 review of the OWA program completed August 18, 2016

The inspectors evaluated the technical adequacy of the operability determinations to assess whether TS 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 TSs 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, such as in the case of OWAs, the inspectors evaluated whether the measures in place would function as intended and were properly controlled by Exelon. Based on the review of the selected OWAs listed above, the inspectors verified that Exelon identified OWAs at an appropriate threshold and addressed them in a manner that effectively managed OWA-related effects on operators and SSCs.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 1 sample)

Permanent Modification

a. Inspection Scope

The inspectors evaluated Unit 1 Engineering Change Package 15-000618, "Deactivate Core Spray Pump 111 Pressure Relief Valve by Installing a Blind Coupling On the Inlet," Revision 0. The inspectors verified that the design bases, licensing bases, and performance capability of the affected systems were not degraded by this modification. In addition, the inspectors reviewed modification documents associated with the design changes.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 11 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.

- Unit 1 drywell vent and purge valve 201-31 following preventive maintenance on July 6, 2016

- Unit 2 control room emergency filtration radiation monitor following sample pump refurbishment on July 6, 2016
- Unit 1 containment spray system 112 following HX maintenance on July 26, 2016
- Unit 1 control rod insert switch following replacement on July 27, 2016
- Unit 2 RCIC pump operability test following lube oil cooler maintenance on August 12, 2016
- Unit 1 S-EPM-MPM-V080 offline motor testing on core spray pump 121 (MOT-81-03) on August 23, 2016
- Unit 2 Division II EDG following fuel rack maintenance on August 30, 2016
- Unit 1 EDG 102 fuel oil storage tank fuel oil sampling following bottom cleaning on September 8, 2016
- Unit 2 Division I diesel generator lube oil storage tank cleaning and inspection on September 13, 2016
- Unit 1 core spray system 112 following the disabling of the core spray pump relief valve on September 14, 2016
- Unit 2 Division I EDG run following planned maintenance on September 30, 2016

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 SSCs to assess whether test results satisfied TSs, 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:

- Unit 1 N1-ST-Q8A, Liquid Poison Pump 11 and Check Valve Operability Test on July 18, 2016
- Unit 2 N2-ISP-ISC-Q005, Functional Test of the Reactor Vessel Level 2 and Level 1 Instrument Channels on July 22, 2016
- Unit 2 N2-OSP-LOG-W001, Weekly Checks on August 3, 2016
- Unit 1 N1-ST-Q13, Emergency Service Water Pump and Check Valve Operability Test on August 23, 2016
- Unit 1 N1-ST-Q16B, Emergency Diesel Generator 103 Quarterly Test on August 8, 2016 (IST)
- Unit 1 EDG 102 Raw Water Pump Surveillance Test on August 18, 2016

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System Evaluation (71114.02 – 1 sample)

a. Inspection Scope

An onsite review was conducted to assess the performance, maintenance, and testing of NMPNS's alert and notification system (ANS). During this inspection, the inspectors conducted a review of the ANS testing and maintenance programs. The inspectors reviewed the associated ANS procedures and the Federal Emergency Management Agency-approved ANS design report to ensure compliance with design report commitments for system maintenance and testing. The inspection was conducted utilizing 10 CFR 50.47(b) (5) and the related requirements of 10 CFR Part 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," as reference criteria.

b. Findings

No findings were identified.

1EP3 Emergency Response Organization Staffing and Augmentation System (71114.03 – 1 sample)

a. Inspection Scope

The inspectors conducted a review of the NMPNS emergency response organization (ERO) on-shift and augmentation staffing requirements and the process for notifying and augmenting the ERO. The review was performed to assess the readiness of key Exelon staff to respond to an emergency event and to verify Exelon's ability to activate its emergency response facilities (ERF) in a timely manner. The inspectors reviewed NMPNS emergency plan for ERF activation and ERO staffing requirements, the ERO duty roster, applicable station procedures, augmentation test reports, the most recent drive-in drill reports, and CAP reports related to this inspection area. The inspectors also reviewed a sample of ERO responder training records to determine training and qualifications were up to date. The inspection was conducted utilizing 10 CFR 50.47(b)(2) and related requirements of 10 CFR Part 50, Appendix E, as reference criteria.

b. Findings

One licensee-identified Green NCV of 10 CFR 50.54q(2) for Exelon's failure to implement its NRC-approved emergency plan. Specifically, prior to the inspection, Exelon identified and documented in its CAP that it had not conducted required health

physics drills as part of its emergency plan training for the second half of 2015 as required. The enforcement aspects of this NCV are discussed in section 4OA7.

1EP5 Maintenance of Emergency Preparedness (71114.05 – 1 sample)

a. Inspection Scope

The inspectors reviewed a number of activities to evaluate the efficacy of Exelon's efforts to maintain its emergency preparedness program. The inspectors reviewed letters of agreement with offsite agencies, the 10 CFR 50.54(q) emergency plan change process and practice, Exelon's maintenance of equipment important to emergency preparedness, records of evacuation time estimate population evaluation, and provisions for, and implementation of, primary and backup ERF maintenance. The inspectors also examined Exelon's compliance with NRC emergency preparedness regulations regarding emergency action levels for hostile action events, protective actions for on-site personnel during events, emergency declaration timeliness, ERO augmentation and alternate facility capability, evacuation time estimate updates, and on-shift ERO staffing analysis.

The inspectors further evaluated Exelon's ability to maintain its emergency preparedness program through identification and correction of weaknesses by reviewing a sample of drill reports, actual event reports, self-assessments, 10 CFR 50.54(t) reviews, and emergency preparedness-related issue reports. The inspectors reviewed a sample of emergency preparedness-related issue reports initiated from July 2014 through June 2016. The inspection was conducted utilizing 10 CFR 50.47(b) and the related requirements of 10 CFR Part 50, Appendix E, as reference criteria.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 – 2 samples)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine Unit 1 Exelon emergency drill on July 26, 2016, to identify any weaknesses and deficiencies in the classification, notification, and protection action recommendation development activities. The inspectors observed emergency response operations in the simulator and the 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 CAP.

b. Findings

No findings were identified.

.2 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for Unit 1 licensed operators on July 19, 2016, which involved performing an EDG monthly surveillance, a trip of motor generator 131, a failure of a CRD flow control valve, and a main steam line break inside containment with a failure of containment spray and a low power anticipated transient without scram, 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 CAP.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety and Occupational Radiation Safety

2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03) (2 samples)

a. Inspection Scope

The inspectors reviewed the control of in-plant airborne radioactivity and the use of respiratory protection devices in these areas. The inspectors used the requirements in 10 CFR Part 20, "Standards for Protection Against Radiation," regulatory guide (RG) 8.15, "Acceptable Programs For Respiratory Protection," RG 8.25, "Air Sampling in the Workplace," NUREG/CR-0041, "Manual of Respiratory Protection Against Airborne Radioactive Material," TS, and procedures required by TS as criteria for determining compliance.

Inspection Planning

The inspectors reviewed the UFSAR to identify ventilation and radiation monitoring systems associated with airborne radioactivity controls and respiratory protection equipment staged for emergency use. The inspectors also reviewed respiratory protection program procedures and current performance indicators for unintended internal exposure incidents.

Self-Contained Breathing Apparatus for Emergency Use (1 sample)

The inspectors reviewed the status and surveillance records for three Self-Contained Breathing Apparatus (SCBAs) staged in-plant for use during emergencies Exelon's SCBA procedures and maintenance and test records, the refilling and transporting of SCBA air bottles, SCBA mask size availability, and the qualifications of personnel performing service and repair of this equipment.

Problem Identification and Resolution (1 sample)

The inspectors evaluated whether problems associated with the control and mitigation of in-plant airborne radioactivity were identified at an appropriate threshold and addressed by Exelon's CAP.

b. Findings

No findings were identified.

2RS4 Occupational Dose Assessment (71124.04 – 3 samples)

a. Inspection Scope

The inspectors reviewed the monitoring, assessment, and reporting of occupational dose. The inspectors used the requirements in 10 CFR Part 20, Regulatory Guides, TSs, and procedures required by TSs as criteria for determining compliance.

Inspection Planning

The inspectors reviewed radiation protection program audits, National Voluntary Laboratory Accreditation Program (NVLAP) dosimetry testing reports, and procedures associated with dosimetry operations.

External Dosimetry (1 sample)

The inspectors reviewed dosimetry NVLAP accreditation, on-site storage of dosimeters, the use of correction factors to align electronic personal dosimeter results with NVLAP dosimetry results, dosimetry occurrence reports, and CAP documents for adverse trends related to external dosimetry.

Special Dosimetric Situations (1 sample)

The inspectors reviewed Exelon's worker notification of the risks of radiation exposure to the embryo/fetus, the dosimetry monitoring program for declared pregnant workers, external dose monitoring of workers in large dose rate gradient environments, and dose assessments performed since the last inspection that used multi-badging, skin dose, or neutron dose assessments.

Problem Identification and Resolution (1 sample)

The inspectors evaluated whether problems associated with occupational dose assessment were identified at an appropriate threshold and properly addressed in the CAP.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06) (6 samples)

a. Inspection Scope

The inspectors reviewed the treatment, monitoring, and control of radioactive gaseous and liquid effluents. The inspectors used the requirements in 10 CFR Part 20, 10 CFR Part 50, Appendix I, "Numerical Guides For Design Objectives and Limiting Conditions For Operation to Meet the Criterion "As Low As Is Reasonably Achievable" For Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents;" technical specifications (TSs); Offsite Dose Calculation Manual (ODCM); applicable industry standards; and procedures required by TSs as criteria for determining compliance.

Inspection Planning

The inspectors conducted in-office review of the Nine Mile Point 2014 and 2015 annual radioactive effluent and environmental reports, radioactive effluent program documents, updated final safety analysis report (UFSAR), ODCM, and applicable event reports.

Walk-downs and Observations (1 sample)

The inspectors walked down the gaseous and liquid radioactive effluent monitoring and filtered ventilation systems to assess the material condition and verify proper alignment according to plant design. The inspectors also observed potential unmonitored release points and reviewed radiation monitoring system surveillance records and the routine processing and discharge of gaseous and liquid radioactive wastes.

Calibration and Testing Program (1 sample)

The inspectors reviewed gaseous and liquid effluent monitor instrument calibration, functional test results, and alarm set-points based on National Institute of Standards and Technology calibration traceability and ODCM specifications.

Sampling and Analyses (1 sample)

The inspectors reviewed: radioactive effluent sampling activities, representative sampling requirements; compensatory measures taken during effluent discharges with

inoperable effluent radiation monitoring instrumentation; the use of compensatory radioactive effluent sampling; and the results of the inter-laboratory and intra-laboratory comparison program including scaling of hard-to-detect isotopes.

Instrumentation and Equipment (1 sample)

The inspectors reviewed the methodology used to determine the radioactive effluent stack and ventilation flow rates to verify that the flow rates were consistent with TS/ODCM and UFSAR values. The inspectors reviewed radioactive effluent discharge system surveillance test results based on technical specification acceptance criteria. The inspectors verified that high-range effluent monitors used in emergency operating procedures are calibrated and operable and reviewed post-accident effluent sampling capability.

Dose Calculations (1 sample)

The inspectors reviewed: changes in reported dose values from the previous annual radioactive effluent release reports; several liquid and gaseous radioactive waste discharge permits; the scaling method for hard-to-detect radionuclides; ODCM changes; land use census changes; public dose calculations (monthly, quarterly, annual); and records of abnormal gaseous or liquid radioactive releases.

Problem Identification and Resolution (1 sample)

The inspectors evaluated whether problems associated with the radioactive effluent monitoring and control program were identified at an appropriate threshold and properly addressed in Exelon's corrective action program.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation (71124.08 – 5 samples)

a. Inspection Scope

The inspectors verified the effectiveness of Exelon's programs for processing, handling, storage, and transportation of radioactive material. The inspectors used the requirements of 49 CFR 170-177; 10 CFR Part 20, 37, 61, and Part 71; applicable industry standards; regulatory guides; and procedures required by TSs as criteria for determining compliance.

Inspection Planning

The inspectors conducted an in-office review of the solid radioactive waste system description in the UFSAR, the process control program, and the recent radiological effluent release report for information on the types, amounts, and processing of

radioactive waste disposed. The inspectors reviewed the scope of quality assurance audits performed for this area since the last inspection.

Radioactive Material Storage (1 sample)

The inspectors walked down the following items and areas:

- Accessible portions of liquid and solid radioactive waste processing systems to verify current system alignment and material condition
- Abandoned in-place radioactive waste processing equipment to review the controls in place to ensure protection of personnel
- Changes made to the radioactive waste processing systems since the last inspection
- Processes for transferring radioactive waste resin and/or sludge discharges into shipping/disposal containers
- Current methods and procedures for dewatering radioactive waste.

Waste Characterization and Classification (1 sample)

The inspectors identified radioactive waste streams and reviewed radiochemical sample analysis results to support radioactive waste characterization. The inspectors reviewed the use of scaling factors and calculations to account for difficult-to-measure radionuclides.

Shipment Preparation (1 sample)

The inspectors reviewed the records of shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and Exelon verification of shipment readiness.

Shipping Records (1 sample)

The inspectors reviewed selected non-excepted package shipment records.

Problem Identification and Resolution (1 sample)

The inspectors assessed whether problems associated with radioactive waste processing, handling, storage, and transportation were identified at an appropriate threshold and properly addressed in Exelon's CAP.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Emergency Preparedness (3 samples)

a. Inspection Scope

The inspectors reviewed Exelon's data for the following three emergency preparedness performance indicators (PIs):

- Drill and Exercise Performance (EP01)
- ERO Drill Participation (EP02)
- Alert and Notification System Reliability (EP03)

The inspectors reviewed supporting documentation from emergency preparedness drills and equipment tests from the third calendar quarter of 2015 through the second calendar quarter of 2016 to verify the accuracy of the reported PI data. The last NRC emergency preparedness inspection was conducted in the third calendar quarter of 2015. Inspectors also used definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 7. The inspectors reviewed Exelon's operator narrative logs, maintenance planning schedules, IRs, event reports, and NRC integrated inspection reports to validate the accuracy of the submittals.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index (12 samples)

a. Inspection Scope

The inspectors sampled Exelon's submittal for the mitigating systems performance index for the following systems for the period of July 1, 2015, through June 30, 2016.

Unit 1 and Unit 2

- Safety System Function Failures (MS05)
- Emergency Alternating Current Power System (MS06)
- High Pressure Injection System (MS07)
- Heat Removal System (MS08)
- Residual Heat Removal System (MS09)
- Cooling Water System (MS10)

To determine the accuracy of the PI data reported during those periods, inspectors used definitions and guidance contained in NEI 99-02, and NUREG-1022, "Event Reporting Guidelines: 10 CFR 50.72 and 50.73," Revision 3. The inspectors reviewed Exelon's

operator narrative logs, operability assessments, maintenance rule records, IRs, event reports, and NRC integrated inspection reports to validate the accuracy of the submittals.

b. Findings

No findings were identified.

.3 Occupational Exposure Control Effectiveness (1 sample)

a. Inspection Scope

The inspectors reviewed Exelon's submittals for the occupational radiological occurrences PIs for the first quarter 2015 through the fourth quarter 2015. The inspectors used PI definitions and guidance contained in NEI 99-02, Revision 7, to determine the accuracy of the PI data reported. The inspectors reviewed electronic personal dosimetry accumulated dose alarms, dose reports, and dose assignments for any intakes that occurred during the time period reviewed to determine if there were potentially unrecognized PI occurrences. The inspectors conducted walkdowns of various locked high and very high radiation area entrances to determine the adequacy of the controls in place for these areas.

b. Findings

No findings were identified.

.4 Radiological Effluent TS/ODCM Radiological Effluent Occurrences (1 sample)

a. Inspection Scope

The inspectors reviewed licensee submittals for the radiological effluent TS/ODCM radiological effluent occurrences PI for the first quarter 2015 through the fourth quarter 2015. The inspectors used PI definitions and guidance contained in the Nuclear Energy Institute Document 99-02, Revision 7, to determine if the PI data was reported properly. The inspectors reviewed the public dose assessments for the PI for public radiation safety to determine if related data was accurately calculated and reported.

The inspectors reviewed the corrective action program database to identify any potential occurrences such as unmonitored, uncontrolled, or improperly calculated effluent releases that may have impacted offsite dose. The inspectors reviewed gaseous and liquid effluent summary data and the results of associated offsite dose calculations to determine if indicator results were accurately reported.

b. Findings

No findings were identified.

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 CAP 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 CAP 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 Part 21.

b. Findings and Observations

No findings were identified.

.2 Annual Sample Review: Drill and Exercise Performance

a. Inspection Scope

The inspectors conducted an in depth review of Exelon’s evaluation of, and corrective actions for, the problems encountered in the latter part of 2014 and into the early part of 2015 in regards to the multiple drill and exercise performance (DEP) failures. On January 29, 2015, Exelon initiated issue report (IR) 02444424 to document seven DEP failures since January 2014. The failures ranged from classification to notification and protective action recommendations due to accuracy and timeliness. The inspectors interviewed emergency preparedness staff responsible for oversight of the DEP program, reviewed DEP scenarios, and assessed the apparent cause report performed by Exelon in association with IR 02444424. The focus of the inspection was to assess the evaluation and to ensure the corrective actions were appropriate due to the circumstances.

b. Findings and Observations

No findings were identified. The inspectors reviewed Exelon’s apparent cause evaluation (ACE) report for IR 02444424 to evaluate the degraded ERO performance in regards to DEP failures. The inspectors also reviewed individual IRs that documented prior failures leading up to the ACE. Exelon determined the primary cause for the multiple failures was a combination of factors including ERO turnover attendance, a lack of station emphasis on the importance of the ERO, and a lack of a strong interface between the operations department and the emergency preparedness department. The inspectors reviewed the corrective actions implemented following the ACE. These actions included increased

ERO training, required quarterly meetings between the operations and emergency preparedness staffs, increased management emphasis placed on supporting emergency preparedness as a station, and imposing a moratorium on taking credit for NRC DEP PIs for the second quarter of 2015 until appropriate corrective actions had been implemented.

Exelon's immediate and long-term corrective actions proved to be effective as evidenced by significantly improved DEP scores since completion of the ACE. Exelon had 83 successful DEP calls out of a possible 84 following implementation of the corrective actions.

The inspectors concluded that Exelon's immediate and long-term corrective actions were effective, and there were no apparent DEP performance issues identified since implementing the corrective actions. Specifically, placing a higher significance from management on the importance of the ERO as a station, creating a stronger relationship between operations and emergency preparedness, providing additional ongoing training to the ERO, and placing a stronger emphasis on accountability during ERO turnover have resulted in positive changes in the emergency preparedness department as a whole and not just in terms of DEP performance. The large number of DEP failures that the station incurred during the late part of 2014 could not have been reasonably identified and prevented by prior isolated DEP failures. Therefore, no findings of significance were identified. Additional planned corrective actions associated with the improvement of the emergency preparedness department as a whole will be reviewed during future NRC inspections.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 – 3 samples)

.1 Plant Events (2 samples)

a. Inspection Scope

For the plant event listed below, the inspectors reviewed and/or observed plant parameters, reviewed personnel performance, and evaluated performance of mitigating systems. The inspectors communicated the plant event to appropriate regional personnel, and compared the event details with criteria contained in Inspection Manual Chapter 0309, "Reactive Inspection Decision Basis for Reactors," for consideration of potential reactive inspection activities. As applicable, the inspectors verified that Exelon made appropriate emergency classification assessments and properly reported the event in accordance with 10 CFR Parts 50.72 and 50.73. The inspectors reviewed Exelon's follow-up actions related to the event to assure that Exelon implemented appropriate corrective actions commensurate with their safety significance.

- Unit 1 Uninterruptible Power Supply (UPS) 162B failure on July 29, 2016
- Event Notification 52133 for Unexpected Isolation of Both Trains of Emergency Condensers on July 29, 2016

b. Findings

No findings were identified.

.2 (Closed) Licensee Event Report 05000220/2016-001-00: Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors (1 sample)

On June 1, 2016, Unit 1 operators declared secondary containment inoperable when a worker opened both inner and outer airlock doors on the reactor building 261 foot elevation simultaneously while traversing through the airlock, similar to what was reported in Licensee Event Reports (LERs) 05000220/2014-004-00, 05000220/2014-005-00, 05000220/2014-006-00, 05000220/2015-001-00, 05000220/2015-002-00, and 05000220/2015-003-00. The doors were both open for a period of about 5 seconds, so the worker entered TS 3.4.3 and promptly exited TS 3.4.3 when the inner door was verified closed. The cause of this event was determined to be the failure of the worker to use human performance tools and follow the posted expectations for passage through the airlock doors. The inspectors reviewed the reactor building differential pressure as recorded by the plant process computer for the time that both doors were open, which indicated that the actual differential pressure remained negative and was unaffected by the brief simultaneous opening of the airlock doors.

Corrective actions for this event included disciplinary action administered for the individual entering the airlock. Corrective actions from the previous LERs for this condition included site communication on the proper method for operating the airlock doors, installation of a camera monitoring system at frequently used airlock doors, establishing and implementing training to emphasize the significance of the airlock doors, and disciplinary action for the individuals involved in the previous events. This event was entered into Exelon's CAP as IR 02676493.

Since this LER was issued by NMPNS, Amendment No. 223 to Renewed Facility Operating License No. DPR-63 was approved. This license amendment modified TS definition 1.2, TS Limiting Condition for Operation 3.4.3.a.1 and Surveillance Requirement 4.4.3.b.1 to allow for brief, inadvertent simultaneous openings of secondary containment inner and outer access doors during normal entry and exit without having to enter into TS 3.4.3 action statements. Therefore, an opening of the secondary containment airlock doors for transit, such as the event reported in this LER, no longer affects secondary containment operability and is no longer a reportable event, per 10 CFR 50.73.

The inspectors reviewed the LER for accuracy and the adequacy of proposed and completed corrective actions. No findings or violations of NRC requirements were identified. This LER is closed.

4OA6 Meetings, Including Exit

On October 6, 2016, the inspectors presented the inspection results to Mr. Robert Kreider, Plant Manager, and other members of the Exelon staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by Exelon and is a violation of NRC requirements which meets the criteria of the NRC Enforcement Policy for being dispositioned as a Non-Cited Violation (NCV).

10 CFR 50.54q(2) requires, in part, that the license holder shall follow and maintain the effectiveness of an emergency plan that meets the requirements in appendix E and, for nuclear power reactor licensees, the planning standards of § 50.47(b). 10 CFR 50.47(b)(14) requires, in part, periodic exercises be conducted to evaluate major portions of emergency response capabilities and develop and maintain key skills. Exelon procedure EP-AA-122-100, "Drills and Exercise Planning and Scheduling," Revision 6, implements this planning standard and requires health physics drills be performed every 6 months. Contrary to the above, from December 28, 2015 to July 15, 2016 Exelon failed to appropriately implement its approved emergency plan by not meeting planning standard 10 CFR 50.47(b)(14). Specifically, Exelon failed to conduct and document the performance of a required health physics drill for the second half of 2015 as required by step 4.4 of Exelon procedure EP-AA-122-100. This performance deficiency was determined to be more than minor because it impacted the Emergency Preparedness cornerstone objective of ERO readiness to ensure that Exelon is capable of implementing adequate measures to protect the health and safety of the public and its workers in the event of a radiological emergency. The finding was evaluated using IMC 0609 Appendix B, "Emergency Preparedness Significance Determination Process." The finding was determined to affect planning standard 10 CFR 50.47(b)(14) and matched an example of a degraded planning standard function. Therefore, the finding was determined to be of very low safety significance (Green). Exelon has entered this issue into its CAP as IR 02686128.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

P. Orphanos, Site Vice President
R. Kreider, Plant Manager
A. Sterio, Director, Site Engineering
B. Knowlton, Site Engineer
B. Scaglione, Manager Engineering
B. Varga, Regulatory Assurance
D. Bradshaw, System Engineering
D. Moore, Manager Regulatory Assurance
D. Tulowiecki, Manager Site Radiation Protection
J. Gerber, Manager Site Chemistry, Environment and Radwaste
K. Kristensen, Regulatory Principle Engineer
L. Albrech, Chief Chemistry Technician
M. Busch, Director Site Operations
M. Khan, Senior Manager Engineering
M. Kunzwiler, Manager Site Security
M. Revelle, Chemistry
P. Kehoe, Engineering Analyst
P. Lucarriello, Radiation Protection Technician
S. Homoki, Senior Engineer

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATED

Closed

05000220/2016-001-00	LER	Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors
----------------------	-----	---

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

Unit 1 UFSAR, Revision 24
Unit 2 UFSAR, Revision 21

Section 1R04: Equipment Alignment

Procedures

N1-OP-40, Reactor Protection and ATWS System, Revision 02400
N2-OP-52, Reactor Building Ventilation System, Revision 01600
N2-OP-53E, Standby Switchgear/Battery Room Ventilation System, Revision 00701
N2-OP-100A, Standby Diesel Generators, Revision 01900

Drawings

PID-31A, Piping and Instrumentation Diagram (P&ID) Residual Heat Removal System, Revision 22
PID-31B, P&ID Residual Heat Removal System, Revision 21
PID-31C, P&ID Residual Heat Removal System, Revision 15
PID-31D, P&ID Residual Heat Removal System, Revision 21
PID-31E, P&ID Residual Heat Removal System, Revision 21
PID-31F, P&ID Residual Heat Removal System, Revision 16
PID-31G, P&ID Residual Heat Removal System, Revision 15
PID-52A, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 14
PID-52B, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 13
PID-52C, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 11
PID-52D, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 14
PID-52E, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 8
PID-52F, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 11
PID-52G, P&ID Reactor Building Ventilation and Category I Area Coolers, Revision 12
PID-52H-7, 12177, Reactor Building Ventilation and Category I Area Coolers, Revision 6
PID-61A, P&ID Primary Containment Purge & Standby Gas Treatment, Revision 16
PID-61B, P&ID Primary Containment Purge & Standby Gas Treatment, Revision 23
PID-61C, P&ID Primary Containment Purge & Standby Gas Treatment, Revision 8
PID-61D, P&ID Primary Containment Purge & Standby Gas Treatment, Revision 0

Issue Report

02704309

Miscellaneous

Unit 2 UFSAR

Section 1R05: Fire Protection

Procedure

N1-PFP-0101, Unit 1 Pre-Fire Plans, Revision 00400

Miscellaneous

DCD-805, Unit 1 National Fire Protection Association 805 Design Criteria, Revision 1
Unit 1 UFSAR

Section 1R07: Heat Sink Performance

Procedures

ECPR-N2-SWP-001, Erosion Corrosion (E/C) Piping Review Program, Revision 0
GAP-HSC-02, System Aging Inspection and Cleanness Controls, Revision 02000
NMPNS-HX-001, Generic Letter 89-13 Heat Exchanger Program Plan, Revision 3
S-TDP-REL-0102, Service Water Heat Exchanger and Component Inspection Guide, Revision 03
S-TDP-REL-0103, GL 89-13 Service Water Problems Affecting Safety-Related Equipment
Program Plan, Revision 00

Drawings

General Electric Drawing 131C8488, Sheet 1, U-Tube, Revision 1
General Electric Drawing 762E907, Sheet 1, Tube Bundle, Revision 2

Issue Reports

02616263	02657096	02657645	02671623
02691648	02715713		

Work Orders

C81244300	C90964273	C91927861	C92921661
-----------	-----------	-----------	-----------

Miscellaneous

2RHR*E1A HX Inspection Data Sheet, April 18, 2016

2RHR*E1A Nondestructive Examination Report Number 2-8.00-10-0036 WO C081244300
(N2R12), Eddy Current Inspection Report, April 21, 2010

2RHR*E1B HX Inspection Data Sheet, April 7, 2014

2RHR*E1B Nondestructive Examination Report Number BOP-ET-14-019 WO C90964273
(N2R14), Eddy Current Inspection Report, April 2, 2014

Calculation No. ES-286, RHR HX Performance - K-Values Used in Containment Analyses and
Recommended HX Performance Testing Acceptance Criteria, Revision 0

Calculation No. HVR-038, Unit 2 HVR Unit Coolers Evaluation for Post-LOCA and Appendix R
Fire, Revision 8

Electric Power Research Institute NP-7552, Heat Exchanger Performance Monitoring Guidelines,
December 1991

Electric Power Research Institute TR-107396, Closed Cooling Water Chemistry Guidelines,
October 1997

N2-TTP-RHS-4Y002, Attachment 7, 2-RHR*E1B, Residual Heat Removal Heat Exchanger
Thermal Performance Test completed February 17, 2014

N2-TTP-RHS-4Y002, Attachment 7, 2-RHR*E1B, Residual Heat Removal Heat Exchanger
Thermal Performance Test completed June 2, 2014

N2-TTP-HVR-@401, Performance Evaluation Test for Unit Cooler 2HVR*UC401A completed May
6, 2014

N2-TTP-HVR-@401, Performance Evaluation Test for Unit Cooler 2HVR*UC401B completed
October 11, 2012

N2-TTP-HVR-@401, Performance Evaluation Test for Unit Cooler 2HVR*UC401C completed
January 28, 2014

N2-TTP-HVR*UC402, Performance Evaluation Test for Unit Cooler 2HVR*UC402A completed
February 11, 2013

N2-TTP-HVR*UC403, Performance Evaluation Test for Unit Cooler 2HVR*UC403B completed
September 28, 2012

NER 2M-079, Unit 2 Evaluation of Plant Operation at 84 Degrees Fahrenheit Ultimate Heat Sink
Temperature, Revision 6

Program Health Report for NMPNS GL 89-13 Program, First Tri-Annual Period 2016

Program Health Report for NMPNS GL 89-13 Program, Third Tri-Annual Period 2014

SA-2013-000054, Self-Assessment of GL 89-13 Service Water System Problems Affecting
Safety-Related Equipment, February 28, 2013

System Health Report for Unit 2 SW, 4th Quarter 2014

System Health Report for Unit 2 SW, 4th Quarter 2015

TS 3.7.1, Service Water System and Ultimate Heat Sink

UFSAR 9.2.1, Service Water System

Unit 2 SW Pumps SWP*P1A, P1B, and P1C IST Trending Data 2010 to 2015

Section 1R11: Licensed Operator Requalification Program and Licensed Operator Performance

Procedures

HU-AA-101, Human Performance Tools and Verification Practices, Revision 009
N2-OP-52A, Control Building Ventilation System, Revision 01500

Miscellaneous

WC-AA-104

Section 1R12: Maintenance Effectiveness

Procedures

GAP-HSC-02, System Aging Inspection and Cleanliness Controls, Revision 02000
N1-IPM-100-006, Fire System Screen House Instrumentation Calibration, Revision 00400N1
N1-ST-M9, Monthly Operation of Fire Pumps, Revision 00801
S-MRM-REL-102, Structural Monitoring Program, Revision 00800
ST-22, Diesel Fire Pump Instrument Air Test and Flow Verification, Revision 00301

Drawings

PID-48D-16, P&ID Auxiliary Boiler System, Revision 16
PID-59A-11, P&ID Electrical Tunnels and Miscellaneous Vent System, Revision 10

Issue Reports

02694244	02694954	02003322	02003426
02494255	02496965	02504655	02680464
02682215	02687391	02687574	

Work Orders

C92160821	C92630156	C93093425	C93128596
-----------	-----------	-----------	-----------

Miscellaneous

Parker 'N' Series High Speed Inline Poppet Valves 2- and 3-Way Vendor Manual

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

OP-AA-108-117, Protected Equipment Program Revision 4
OP-AA-108-117, Protected Equipment Program, Revision 004
OP-NM-108-117, Protected Equipment Program at Nine Mile Point, Revision 00300
WC-AA-101-1008, On-Line Risk Management Assessment, Revision 2

Issue Report

0271843

Work Order

C93570111

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

N2-OSP-RHR-M001, RHR Gas Accumulation Monitoring and Valve Lineup Verification, Revision 00800
 OP-AA-102-103, Operator Work-Around Program, Revision 4
 OP-AA-102-103-1001, Operator Burden and Plant Specific Decisions and Impact Assessment Program, Revision 6
 OP-AA-108-105-1001, MCR and RWCR Equipment Deficiency Management and Performance Indicator Screening, Revision 5
 OP-AA-108-111, Adverse Condition Monitoring and Contingency Plan, Revision 10

Issue Reports

02677066 02678401 02700181

Work Order

C93105351

Section 1R18: Plant Modifications

Procedure

N1-ST-Q1A, CS 11 Pump and Valve and SDC Water Seal Check Valve and Operability Test, Revision 01400

Work Order

C93321523

Miscellaneous

ECP-15-000618, Deactivate Core Spray Pump 111 Pressure Relief Valve by Installing a Blind Coupling on the Inlet, Revision 0

Section 1R19: Post-Maintenance Testing

Procedures

N1-CSP-Q504, Quarterly Diesel Fuel Oil Sampling and Analysis, Revision 00800
 N1-CTP-M500, Monthly Diesel Fuel Oil Sampling and Analysis, Revision 00500
 N1-ST-Q1B, CS 121 Pump Valve And SDC Water Seal Check Valve Operability Test, Revision 01600
 N1-ST-Q1C, Core Spray 112 Pump and Valve Operability Test, Revision 01300
 N1-ST-Q6C, Containment Spray System Loop 112 Quarterly Operability Test, Revision 01200
 N1-ST-W1, Control Rod Exercising Operability Test, Revision 01900
 N2-MPM-EGF-10Y001 Diesel Generator Fuel Oil Storage Tank Cleaning, Revision 00300
 N2-OP-100A, Standby Diesel Generators, Revision 1800
 N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test- Division I
 N2-OSP-EGS-M@001, Diesel Generator and Diesel Air Start Valve Operability Test – Division I and II, Revision 01200
 N2-OSP-EGS-R002, Operating Cycle Diesel Generator 24 Hour Run and Load Rejection Division I and II, Revision 00800
 N2-OSP-ICS-Q@002, RCIC Pump and Valve Operability Test and System Integrity Test and ASME XI Functional Test and Analysis, Revision 01300

S-EPM-GEN-064, Acquisition, Analysis, and Trending of MC2 Data, Revision 00502
 S-EPM-GEN-066, MOV Gear Case Lube Inspection and Stem Lubrication, Revision 00500
 S-EPM-MPM-V080, Site AC Motor Predictive Maintenance Testing, Revision 00800

Issue Reports

02046818	02692919	02700181
----------	----------	----------

Work Orders

C91989671	C92612312	C92612315	C92626660
C92883284	C92903861	C93066878	C93139667
C93208381	C93147812	C93176018	C93178426
C93323810	C93323981		

Miscellaneous

ECP-15-000618, Deactivate Core Spray Pump 112 Pressure Relief Valve by Installing a Blind Coupling on the Inlet, Revision 0
 PCR-16-02898, Revise N2-OSP-EGS-R002 to Allow Loading the Emergency Diesel Generator to 110 Percent for Post-Maintenance Testing Following Fuel Linkage Replacement, Revision 1

Section 1R22: Surveillance Testing

Procedures

N1-ST-Q8A, Liquid Poison Pump 11 and Check Valve Operability Test, Revision 01300
 N1-ST-Q13, Emergency Service Water Pump and Check Valve Operability Test, Revision 01800
 N1-ST-Q25, Emergency Diesel Generator Quarterly Cooling Water Test, Revision 02600
 N2-ISP-ISC-Q005, Quarterly Functional Test of the Reactor Vessel Water Low Low Level 2 and the Reactor Vessel Low Low Low Level 1 Instrument Channels, Revision 00600
 N2-OSP-LOG-W001, Weekly Checks, Revision 00900

Issue Reports

02694061	02705974
----------	----------

Work Orders

C93125600	C93218993
-----------	-----------

Section 1EP2: Alert Notification System Evaluation

Procedures

ANS Maintenance Records, 2014, 2015, 2016
 ANS Testing Records, June 2014 to January 2016
 Design Report, Nine Mile Point Nuclear Generating Station and James A. FitzPatrick Nuclear Power Plant, Revision 1, November 2015
 EP-AA-1013, Exelon Nuclear Radiological Emergency Plan Annex for Nine Mile Point, Revision 3
 EP-MA-121-1002, ANS Program, Revision 12
 EP-MA-121-1003, ANS Monitoring, Troubleshooting, and Testing Program, Revision 6
 EP-MA-121-1004, ANS Program, Revision 9

Section 1EP3: Emergency Response Organization Staffing and Augmentation**Procedures**

EP-AA-112-100-F-57, ERONS Notification Details, Revision B
 EP-AA-1000, Standardized Radiological Emergency Plan, Revision 28
 EP-AA-1013, Addendum 1, Nine Mile Point Units 1 and 2 On-Shift Staffing Technical Basis, Revision 0
 EP-AA-1013, Exelon Nuclear Radiological Emergency Plan Annex for Nine Mile Point, Revision 3
 TQ-AA-113, ERO Training and Qualification, Revision 029

Miscellaneous

Call-In Augmentation Drill Reports
 ERO 2016 Duty Roster

Section 1EP5: Maintenance of Emergency Preparedness**Procedures**

EP-AA-120-1001, 10 CFR 50.54(q) Change Evaluation, Revision 8
 EP-CE-121-1004, Nine Mile Point Equipment Matrix, Revision 1
 LS-AA-104, Exelon 50.59 Review Process, Revision 10

Issue Reports

02531788	02537385	02546773	02556637
02574595	02574954	02603099	02614580
02614952	02626184	02649218	02657576
02686128			

Miscellaneous

Drill and Exercise Reports from 2015 and 2016
 KLD TR – 673, Nine Mile Point and James A. FitzPatrick, Development of Evacuation Time Estimates 2014 (September 12, 2015)
 KLD TR – 758, Nine Mile Point and James A. FitzPatrick, Development of Evacuation Time Estimates 2015 (September 11, 2015)
 KLD TR – 823 Nine Mile Point and James A. FitzPatrick, Development of Evacuation Time Estimates 2016 (February 8, 2016)
 Nine Mile Point 2015 Graded Exercise Evaluation Report, October 20, 2015
 NMP 2016 Emergency Plan Letters of Agreement/Memoranda of Understanding with various agencies and municipalities
 NOSA-NMP-15-03 Emergency Preparedness Audit Report
 NOSA-NMP-16-03 Emergency Preparedness Audit Report

Section 1EP6: Drill Evaluation**Procedure**

NMP-EP-PI-16-01, Emergency Preparedness Scenario Site Emergency Exercise

Section 2RS3: In-Plant Airborne Radioactivity Control and MitigationProcedures

RP-AA-300, Radiological Survey Program, Revision 14
 RP-AA-300-1001, Discrete Radioactive Particle Controls, Revision 5
 RP-AA-302, Determination of Alpha Levels and Monitoring, Revision 7
 RP-AA-825, Maintenance, Care, and Inspection of Respiratory Protective Equipment, Revision 8
 RP-AA-825-1035, Issue and Control of Respirators, Revision 2
 RP-NM-825-1002, Scott SCBA Inspection, Revision 0
 RP-NM-825-1035-F-01, Respiratory Equipment Monthly Inventory, Revision 0
 S-FMP-FPE-V001, SCBA Cylinder Recharging, Revision 00400

Issue Reports

02434288	02459565	02459683	02474482
02522996	02642282	02630497	02693244

Miscellaneous

Respirator Maintenance Records for 2015 and 2016
 Respirator Qualification Records for eight individuals
 TRI Air Testing, Inc., Grade E Air Testing Results for March 28, 2016, Report 272675-0 and July 18, 2016 report 280931-0

Section 2RS4: Occupational Dose AssessmentProcedures

RP-AA-201, Access to the Radiological Controlled Area for Escorted Visitors, Revision 6
 RP-AA-201-1001, Radiological Instruction Sheet for Escorted Visitors, Revision 2
 RP-AA-203, Exposure Control and Authorization, Revision 3
 RP-AA-203-1001, Personnel Exposure Investigations, Revision 9
 RP-AA-210, Dosimetry Issue, Usage and Control, Revision 26
 RP-AA-210-1001, Dosimetry Logs and Forms, Revision 10
 RP-AA-210-2001, Radiation Protection Position Paper, Revision 1
 RP-AA-211, Personnel Dosimetry Performance Verification, Revision 12
 RP-AA-214, Area Dosimeter Surveillance, Revision 5
 RP-AA-215, Calculating and Crediting Dose from Noble Gas Exposure, Revision 1
 RP-AA-216, Dose Assessment for Contaminated Wounds, Revision 0
 RP-AA-220, Bioassay Program, Revision 12
 RP-AA-220-1001, Collection and Handling of In Vitro Bioassay Samples, Revision 2
 RP-AA-222, Methods for Estimating In Vivo and In Vitro Bioassay Data, Revision 5
 RP-AA-223, Calculating and Crediting Dose from Tritium Exposure, Revision 1
 RP-AA-224, CEDE Dose Tracking Using Lapel Air Samplers, Revision 1
 RP-AA-250, External Dose Assessments from Contamination, Revision 6
 RP-AA-270, Prenatal Radiation Exposure, Revision 7
 RP-AA-280, Occupational Exposure Reporting, Revision 9

Issue Reports

02440695	02460848	02520712	02522996
----------	----------	----------	----------

Miscellaneous

Dose Records for one declared pregnant worker, March 11, 2016
 Effective Dose Equivalent for External Exposure (EDEX) Reviews for underwater inspections (suppression pool), cavity decontamination, and under vessel control rod drive exchange
 Internal Dose Assessments for three individuals
 NVLAP certifications for Landauer for 2015 and 2016
 Radiation Safety and Control Services, RSCS Technical Support Document 12-080, Neutron Study – ANI, January 2, 2013

Section 2RS6: Radioactive Gaseous and Liquid Effluent Treatment SystemsProcedures

N1-ISP-077-005, Off Gas Sample/System Flow Instrument Channel Calibration, Revision 00301
 N1-ISP-112-005, Stack Flow Instrumentation Calibration, Revision 00600
 N1-ISP-112-008, OGESMS Flow Instrumentation Calibration, Revision 00400
 N1-ISP-LWS-R101, Liquid Radwaste Discharge Flow to Lake Instrument Channel Calibration, Revision 00501
 N1-RSP-9C, Instrument Channel Calibration of the Emergency Condenser Vent Radiation Monitors, Revision 00601
 N1-RSP-11A, Calibration of the Service Water Discharge Monitor, Revision 00900
 N1-RSP-14A, Liquid Radwaste Monitor Channel Calibration, Revision 04
 N1-RSP-13, Stack Radiation Monitor Calibration Check and Channel Test, Revision 00200
 N2-CSP-GEN-@209, Service Water and Circulating Water Sampling, Revision 00500
 N2-IMP-GEM-@001, Safety Related LOOP Calibration, Revision 00702
 N2-ISP-RMS-001, Main Stack Wide Range Gas Monitor System Calibration, Revision 01002
 N2-ISP-RMS-002, Reactor Building Vent Wide Range Gas Monitor System Calibration, Revision 01101
 N2-ISP-SWP-R112, Service Water Effluent Line A and B Flow Instrument Channel Calibration, Revision 00901 and Revision 01000
 N2-ISP-CWS-A101, Calibration Test of the Circulating Water Cooling Water Tower Blowdown Line Flow Instrument Channel, Revision 00401
 N2-RSP-RMS-R100, Operating Cycle Channel Calibration of the Flow System on the DRMS Gaseous and Gaseous/Particulate Process Radiation Monitors, Revision 00500
 N2-RSP-RMS-R103, Channel Calibration Test of the Standby Gas Treatment System Exhaust Process Radiation Monitor, Revision 06
 N2-RSP-RMS-R104, Channel Calibration Test of the Off Gas Process Radiation Monitors, Revision 00900
 N2-RSP-RMS-R107, Channel Calibration Test of the Reactor Building Below the Refuel Floor Gas and Particulate Process Radiation Monitors, Revision 01000
 N2-RSP-RMS-R108, Channel Calibration Test of the Reactor Building Above the Refuel Floor Gas and Particulate Process Radiation Monitors, Revision 00802
 N2-RSP-RMS-R112, Channel Calibration Test of the Cooling Tower Blowdown Line Process Radiation Monitor, Revision 00600
 N2-RSP-RMS-R113, Channel Calibration Test of the Service Water Effluent Line Process Radiation Monitors 2SWP*CAB 146A and 2SWP*CAB 146B, Revision 00701
 N2-RSP-RMS-R116, Channel Calibration Test of the Liquid Radwaste Monitor, Revision 00700

Radiation Monitor and Flow Instrument Calibrations

Monitor	Work Order #	Date
SWP-CAB-146A	C92250462	09/02/14
	C92801632	02/17/16
SWP-CAB-146B	C92122099	06/29/14
	C92753095	02/09/16
2CWS-CAB-157	C91923361	11/21/13
	C92567626	06/09/15
2CWS-CAB-206	C92107131	06/25/14
GTS-CAB-105	C91129264	10/12/12
	C92049982	07/11/14
2OFG-RE-13A	C91987139	04/16/14
	C92744456	04/23/16
2OFG-RE-13B	C91994204	04/18/14
	C93197330	04/23/16
Rx Bldg WRGMS	C91808531	12/05/13
	C92562473	10/20/15
Stack WRGM	C92013019	06/10/14
	C92602593	03/15/16
2HVR*CAB14A	C91834791	02/13/14
	C92709663	05/16/16
2HVR*CAB14B	C91705033	01/28/14
	C92693082	02/01/16
2HVR*CAB32A	C91799917	02/11/14
	C92709547	05/16/16
2HVR*CAB32B	2013-010119	12/12/13
	C92692944	02/01/16
RN-37A	C91175485	02/04/13
	C92188924	06/23/15
RN-37B	C91645649	09/30/13
	C92652800	02/12/16

Documents

Kaman Instrumentation Corporation, "Liquid Radiation Monitor Primary Calibration,"
August 20, 1982

Action Reports

02677488 02718237

Section 2RS8: Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and TransportationProcedures

RP-AA-600-1004, Radioactive Waste Shipments to Energy Solution's Clive, Utah Disposal Site
Containerized Waste Facility, Revision 12

RP-AA-600-1005, Radioactive Material and Non Disposal Site Waste Shipments, Revision 18

RP-AA-600-1006, Shipment of Category 1 Quantities of Radioactive Material or Waste
(Category 1 RAMQC), Revision 11

RP-AA-600-1007, Radioactive Waste Shipments to Energy Solution's Clive, Utah Disposal Facility
Bulk Waste Facility, Revision 7

RP-AA-600-1008, Radioactive Waste Shipments to Waste Control Specialists Disposal Facility, Revision 5

RP-AA-600-1009, Shipment of Category 2 Quantities of Radioactive Material or Waste (Category 2 RAMQC), Revision 2

RP-AA-605, 10 CFR 61 Program, Revision 6

RW-AA-100, Process Control Program for Radioactive Wastes, Revision 11

Issue Reports

02008900	02009923	02414374	02429203
02485483	02545425	02549938	02582518
02615103			

Miscellaneous

10 CFR 61 Scaling Factors Unit 1 Filter Sludge, Dry Active Waste, Condenser Demineralizer, Iron Prefilter, Clean-Up Resin

10 CFR 61 Scaling Factors Unit 2 Filter Sludge, Dry Active Waste, Condensate Demineralizer, Iron Prefilter, Powdex Resin

Energy Solutions DOT/NRC Radioactive Waste Packaging, Transportation and Disposal Training

NOSA-NMP-15-06, Radiation Protection Audit Report

NOSCPA-NM-15-11, Radiation Protection Performance Report

Shipments

12-2051	15-1047	16-1096	16-2001
16-2002			

Section 40A1: Performance Indicator Verification

Procedure

EP-AA-125-1001, EP Performance Indicator Guidance, Revision 8

Miscellaneous

ANS Reliability PI data, October 2015 – June 2016

DEP PI data, October 2015 – June 2016

ERO Drill Participation PI data, October 2015 – June 2016

MSPI-1, Nine Mile Point Unit 1 MSPI Basis Document, Revision 10

MSPI-2, Nine Mile Point Unit 2 MSPI Basis Document, Revision 13

Issue Reports

02483655	02530361	02534140	02544972
02580025	02640675	02679028	02700181

Miscellaneous

LER 05000220/2015-003-00, Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors

LER 05000220/2015-004-00, Automatic Reactor Scram Due to Main Steam Isolation Valve Closure

LER 05000220/2016-001-00, Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors

LER 05000410/2015-002-00, Manual Reactor Scram Due to Unexpected Reactor Water Level Change

LER 05000410/2015-003-01, Primary Containment Isolation Function for Some Valves Not Maintained During Surveillance Testing
 LER 05000410/2016-001-00, Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors
 NEI-99-02, Regulatory Assessment Performance Indicator Guideline, Revision 7
 NUREG-1022, Event Report Guidelines: 10 CFR 50.72 and 50.73, Revision 3

Section 40A2: Problem Identification and Resolution

Procedures

EP-AA-122, Drill and Exercise Program, Revision 18
 EP-AA-122-100, Drill and Exercise Planning, Revision 6

Issue Reports

02444424	02525415	02686128
----------	----------	----------

Miscellaneous

DEP Result Sheets from 2014 to 2016

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

Procedures

N1-OP-3, Reactor Cleanup System, Revision 03403
 N1-OP-31, Tandem Compound Reheat Turbine, Revision 04200
 N1-OP-40, Reactor Protection and ATWS Systems, Revision 02400
 N1-SOP-1.1, Emergency Power Reduction, Revision 00400
 N1-SOP-40.1, Loss of RPS, Revision 00201

Issue Reports

02676493	02698136	02698216	02698532
02698597			

Work Orders

C92920192	C92880797
-----------	-----------

Miscellaneous

LER 05000220/2016-001, Secondary Containment Inoperable Due to Simultaneous Opening of Airlock Doors
 NMPNS Units 1 and 2, Issuance of Amendments Re: Secondary Containment Personnel Access Door Openings, August 31, 2016
 NUREG 1022, Event Report Guidelines 10 CFR 50.72 and 50.73, Revision 3

LIST OF ACRONYMS

10 CFR	Title 10 of the <i>Code of Federal Regulations</i>
ACE	apparent cause evaluation
ANS	alert and notification system
CAP	corrective action program
CRD	control rod drive
DEP	drill and exercise performance
EDG	emergency diesel generator
ERF	emergency response facility
ERO	emergency response organization
EDEX	effective dose equivalent for external exposure
FA	fire area
GL	Generic Letter
HPCS	high pressure core spray
HX	heat exchanger
IR	issue report
IST	inservice test
LER	licensee event report
LPCS	low pressure core spray
NEI	Nuclear Energy Institute
NCV	non-cited violation
NMPNS	Nine Mile Point Nuclear Station, LLC
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
OWA	operator workaround
P&ID	piping and instrumentation diagram
PI	performance indicator
RG	regulatory guide
RCIC	reactor core isolation cooling
RHR	residual heat removal
SCBA	self-contained breathing apparatus
SSC	structure, system, and component
SW	service water
TS	technical specification
UFSAR	Updated Final Safety Analysis Report
UPS	uninterruptible power supply
WO	work order