

## UNITED STATES NUCLEAR REGULATORY COMMISSION

#### REGION I 2100 RENAISSANCE BOULEVARD, SUITE 100 KING OF PRUSSIA, PA 19406-2713

October 17, 2018

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 – TRIENNIAL FIRE PROTECTION

INSPECTION REPORT 05000220/2018010 AND 05000410/2018010

Dear Mr. Hanson:

On September 27, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Nine Mile Point Nuclear Station (NMPNS), Units 1 and 2. On September 27, 2018, the NRC inspectors discussed the results of this inspection with Mr. Peter Orphanos, 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 finding or violation of more than minor significance.

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

Sincerely,

/RA/

Glenn T. Dentel, Chief Engineering Branch 2 Division of Reactor Safety

Docket Numbers: 50-220 and 50-410 License Numbers: DPR-63 and NPF-69

Enclosure:

Inspection Report 05000220/2018010 and

05000410/2018010

cc w/encl: Distribution via ListServ

SUBJECT: NINE MILE POINT NUCLEAR STATION – TRIENNIAL FIRE PROTECTION

INSPECTION REPORT 05000220/2018010 AND 05000410/2018010 DATED

OCTOBER 17, 2018

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DOCUMENT NAME: G:\DRS\Engineering Branch 2\Triennial Fire Protection IRs\Nine Mile Point\NMP1 & NMP2 TFP 2018-010 FINAL.docx

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# U.S. NUCLEAR REGULATORY COMMISSION Inspection Report

Docket Numbers: 05000220 and 05000410

License Numbers: DPR-63 and NPF-69

Report Numbers: 05000220/2018010 and 05000410/2018010

Enterprise Identifier: I-2018-010-0068

Licensee: Exelon Generation Company, LLC (Exelon)

Facility: Nine Mile Point Nuclear Station, LLC (NMPNS)

Units 1 and 2

Location: Oswego, New York

Inspection Dates: September 10, 2018, to September 27, 2018

Inspectors: D. Kern, Senior Reactor Inspector (Team Lead)

L. Dumont, Reactor InspectorC. Hobbs, Reactor InspectorA. Patel, Senior Reactor Inspector

J. Patel, Reactor Inspector J. Rady, Reactor Inspector

D. Werkheiser, Senior Reactor Inspector

Approved By: G. Dentel, Chief

Engineering Branch 2
Division of Reactor Safety

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring Exelon's performance at NMPNS Units 1 and 2 by conducting the triennial fire protection team inspection in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <a href="https://www.nrc.gov/reactors/operating/oversight.html">https://www.nrc.gov/reactors/operating/oversight.html</a> for more information.

No findings or more-than-minor violations were identified.

#### **INSPECTION SCOPES**

This inspection was conducted using the appropriate portions of the inspection procedure (IP) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <a href="http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html">http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html</a>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards."

#### **REACTOR SAFETY**

#### NMPNS Unit 1: 71111.05XT - Fire Protection - NFPA 805 (Triennial)

The inspectors evaluated the following from September 10 - 27, 2018:

Fire Protection Inspection Requirements (3 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas (FA) and/or fire zones (FZ):

- (1) FA 2 / FZ R3B, Reactor Building West (elevation 281')
- (2) FA 5 / FZ T3B, Turbine Building West of Main Steam Isolation Valve Room (elevations 237', 261', 277')
- (3) FA 11/ FZ C2, Auxiliary Control Room, Computer Room (elevation 261')

In performing this review, the inspectors performed an analysis of the following electrical circuits:

- (1) PMP-80-23 (and associated power supply breaker), Containment Spray Pump 122
- (2) PMP-28-15, Control Rod Drive Pump 11 NC08A
- (3) IV-39-05, Emergency Cooling Loop 11 Condensate Return Air Operated Isolation Valve
- (4) IV-39-10R, Motor Operated Loop 12 Steam Outlet Inside Isolation Valve 121
- (5) LI-60-22C, Emergency Condenser 111-112 Level Indicator Remote Shutdown

## B.5.b Inspection Activities (1 Samples)

The inspectors evaluated feasibility of the following B.5.b Mitigating Strategies:

(1) N1-DRP-OPS-001 (section 6.6.1), Venting Primary Containment without AC power Method 1; Reverse Flow Using the Large De-inerting Lines

## NMPNS Unit 2: 71111.05T - Fire Protection (Triennial)

The inspectors evaluated the following from September 10 - 27, 2018:

### <u>Fire Protection Inspection Requirements</u> (4 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas and/or fire zones:

- (1) FA 2 / FZ 204SW, Reactor Building, Reactor Core Isolation Cooling (RCIC) Pump Room (elevation 175')
- (2) FA 24/ FZ 356NZ/354SG, Control Building, Power Generation Control Complex Relay Room (elevation 288')
- (3) FA 3 / FZ 208 SW, 'C' Residual Heat Removal (RHR) Pump Room, South Auxiliary Bay (elevation 175')
- (4) FA 3 / FZ 239 SW, South Auxiliary Bay, Electrical Room (elevation 240')

In performing this review, the inspectors performed an analysis of the following electrical circuits:

- (1) 2ICS\*MOV120, RCIC Steam Supply Valve to Turbine
- (2) 2ICS\*FE101, RCIC Flow Instrument
- (3) 2RHS\*P1B, 'B' RHR Pump
- (4) 2RHS\*MOV15B, 'B' RHR Reactor Containment Spray
- (5) 2EGS\*EG3, 4160-V ACB-103-14 Division II Emergency Diesel Generator Output Breaker
- (6) 2CMS\*TE54A, Suppression Pool Temperature Element

#### B.5.b Inspection Activities (1 Samples)

The inspectors evaluated feasibility of the following B.5.b Mitigating Strategies:

(1) N2-DRP-OPS-001 (section 7.2.10), Injection of an Alternate Water Source into the Reactor Pressure Vessel via Residual Heat Removal Train 'A'

#### **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

 On September 27, 2018, the inspectors presented the triennial fire protection team inspection results to Mr. Peter Orphanos, Site Vice President, and other members of the Exelon staff.

#### **DOCUMENTS REVIEWED**

## 71111.05XT

### Fire Protection Licensing and Design Basis Documents

DBD-Appendix R, Appendix R Safe Shutdown System, Revision 11

DCD-805, Nine Mile Point Unit 1 NFPA 805 Design Criteria, Revision 1

E208, Nine Mile Point 1 Nuclear Safety Capability Assessment, Revision 0

N1-FQ-F001, Fire PRA Notebook, Revision 5

N1-FRE-F001, Fire Risk Evaluation Report, Revision 3

Nine Mile Point Nuclear Station Unit 2, Renewed Facility Operating License NPF-69, Amendment No. 144

Nine Mile Point Nuclear Station Unit 2, Updated Safety Analysis Report, Revision 22

NMP Unit 2 USAR – Chapter 9.5, Other Auxiliary Systems – Fire Protection System, Revision 23

NMP Unit 2 USAR – Appendix 9A, Degree of Compliance with Branch Technical Position CMED 9.5-1, Revision 2

NMP Unit 2 USAR – Appendix 9B, Appendix R Review Safe Shutdown Evaluation, Degree of Compliance with Branch Technical Position CMED 9.5-1, Revision 22

NUREG-1047, Safety Evaluation Report (SER) related to the Operation of NMP Unit 2, dated 02/1985

NUREG-1047, SER Supplement 1 – NMP Unit 2, dated 07/1985

NUREG-1047, SER Supplement 2 – NMP Unit 2, dated 11/1985

NUREG-1047, SER Supplement 3 - NMP Unit 2, dated 07/1985

NUREG-1047, SER Supplement 4 - NMP Unit 2, dated 09/1986

NUREG-1047, SER Supplement 5 - NMP Unit 2, dated 10/1986

NUREG-1047, SER Supplement 6 - NMP Unit 2, dated 07/1987

#### Calculations, Analysis, and Engineering Evaluations

51-9156521-000, Recovery Action Review for Nine Mile Point Nuclear Power Station Unit 1 Transition to NFPA 805, Revision 0

130-5007D, Halon 1301 Evaluation – NMP2, Underfloor Area Zone #354SG, dated 04/08/1986

1NER-1E-035, Resolution of Issues Related to Fire-Induced Circuit Failures, Revision 2

1NER-1E-037, Nine Mile Point Unit 1 NFPA 805 - Cable Selection, Revision 1

1NER-1E-039, Nine Mile Point Unit 1 NFPA 805 Coordination Study, Revision 0

A10.1-N-401, Appendix R Service Water Flow Evaluation, Revision 0

E208, Nine Mile Point 1 Nuclear Safety Capability Assessment, Revision 0

EC-160, 125 VDC Breaker Coordination, Revision 0

EC-166, 4160 VAC Safety Related Breaker Coordination, Revision 0

EC-49, DC Short Circuit, Revision 7

ECP-12-000299, Multiple Spurious Operations (MSO) - 2RHS\*MOV15A, 15B, 25A, and 25B, Revision 0

ECP-12-000571, Unit 1 NFPA Transition Project – Modification for BV-37-01(02) Reactor Head Vent Valves, Revision 0

ECP-12-000574, Reactor Water Cleanup System (RWCS), Revision 002

ECP-12-000576, Form 7 – Design Change Technical Evaluation, Revision 0

ECP-12-000658, Portable Charger for Existing Battery Chargers, Revision 0

ECP-13-000516 - NMP U2 Fire Protection Improvement Project – Fire Panel Replacement for Local Fire Control Panels Upgrade for 2FPM-PNL131, Revision 0

- ECP-13-000517 NMP U2 Fire Protection Improvement Project Fire Panel Replacement for Local Fire Control Panels Upgrade for 2FPM-PNL128, Revision 0
- ECP-13-000520 NMP U2 Fire Protection Improvement Project Fire Panel Replacement for Local Fire Control Panels Upgrade for 2FPM-PNL129, Revision 3
- ECP-13-000973, Fire Protection Review, dated 11/21/13
- ECP-13-000973, Form 7 Design Change Technical Evaluation, Revision 0
- ECP-13-000972, Form 7 Design Change Technical Evaluation, Revision 0
- ECP-14-000514, Form 7 Design Change Technical Evaluation, Revision 0
- ECP-15-000297, Unit 2 Open Phase Detection Implementation (ABS and RTX Transformers), Revision 1
- ECP-18-000425, Temporary Modification for 2MTX-XM1A Low Conservator Oil Alarm, Revision 0
- FPEE1-12-001, Evaluation of NMP 1 Appendix R Exceptions for Transition to NFPA 805, Revision 01
- FPEE2-14-001, Fire Protection Engineering Evaluation DC Hot Shorts on Non-safety Related Ammeter Circuits, Revision 0
- FPEE2-17-002, Use of Non IEEE-383 Rated Cabling in Power Generation Control Complex, Revision 0
- N1-HRA-F001, Fire PRA Notebook Human Reliability Analysis NMP1, Revision 4
- NMP Unit 1 Fire PRA Notebook, Human Reliability Analysis, Revision 4
- NMP Unit 1 PRA Success Criteria Notebook, Revision 0
- S13.1100F002, Fire Protection Water Supply, dated 4/12/07

## **Drawings and Wiring Diagrams**

- 0007.241-001-009, Nine Mile Point Unit 2 Elementary Diagram, Residual Heat Removal System, Revision 3
- 0007.241-001-016, Nine Mile Point Unit 2 Elementary Diagram, Residual Heat Removal System. Revision 4
- 0007.245-001-022, Nine Mile Point Unit 2 Elementary Diagram, Reactor Core Isolation Cooling System, Revision 4
- 0007.511-980-574, Nine Mile Point Unit 2 Wiring Diagram, Remote Shutdown Panel 2CES\*405, Revision 3
- 01040209024, Nine Mile Point Unit 2, Control Schematic 2CES\*IPNL406 (G) & 2CES\*IPNL408 (Y), Revision 3
- 12177-EE-11HB-2, Nine Mile Point Unit 2 Wiring Diagram, Misc. Equipment, Revision 2
- 12177-EE-IJ-9, Nine Mile Point Unit 2 13.8KV One Line Diagram, Emergency Bus 2EPS\*SWG001, 002, 003, 004, & Normal Bus 2NPS-SWG004, 005, Revision 9
- 12177-ESK-11RSS05, Nine Mile Point Unit 2 Wiring Diagram, D.C. Misc. Circuits Suppression Pool Temperature Selector, Revision 2
- 12177-ESK-5EGP03, Nine Mile Point Unit 2 D.C. Elementary Diagram, Standby Diesel Generator 2EGS\*EG3 ACB103-14, Sht.s 1-2, Revision 18
- 12177-ESK-5RHS05, Nine Mile Point Unit 2 D.C. Elementary Diagram, Residual Heat Removal Pump 1B, Revision 6
- 12177-ESK-5SWP01, Sht. 1, Service Water Pump 1A Elementary Diagram, Revision 13
- 12177-ESK-5SWP01, Sht. 2, Service Water Pump 1A Elementary Diagram, Revision 13
- 12177-ESK-5SWP02, Sht. 1, Service Water Pump 1B Elementary Diagram, Revision 13
- 12177-ESK-5SWP03, Sht. 1, Service Water Pump 1C Elementary Diagram, Revision 15
- 12177-ESK-5SWP04, Sht. 1, Service Water Pump 1D Elementary Diagram, Revision 14
- 807E170TY, Nine Mile Point Unit 2 Elementary Diagram, Residual Heat Removal System, Revision 27
- B-40142-C Sht. 5, Fire Zones Reactor Bldg. FL. EL.237' and 250', Revision 2

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B-40143-C Sht. 5, Fire Zones Reactor Bldg. FL. EL.261', Revision 2
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B-40144-C, Fire Zones Reactor Building/Turbine Building el. 281/277, Revision 1

B-40144-C Sht. 5, Fire Zones Reactor Bldg. FL. EL.277' and 281', Revision 2

C-18002-C, Sht. 1, Main Steam & High Pressure Turbine, Revision 49

C-18002-C, Sht. 2, Main Steam & High Pressure Turbine, Revision 36

C-18007-C, Sht. 1, Reactor Core Spray, Revision 62

C-18012-C, Sht. 1, Reactor Containment Spray Raw Water System, Revision 26

C-18015-C, Reactor Vessel Instrumentation P&ID Diagram, Revision 42

C-18017-C, Emergency Cooling System P&I Diagram, Revision 56

C-18030-C Sht. 2, Fire Protection Foam & Spray Water P&I Diagram, Revision 15

C-18030-C Sht. 3, Fire Protection Water System P&I Diagram, Revision 42

C-18030-C Sht. 4, Fire Protection Water System P&I Diagram, Revision 21

C-18030-C Sht. 5, Fire Protection Water System P&I Diagram, Revision 24

C-18030-C Sht. 6, Fire Protection Water System P&I Diagram, Revision 33

C-18030-C Sht. 7, Fire Protection Water System P&I Diagram, Revision 25

C-18030-C Sht. 8, Fire Protection Water System P&I Diagram, Revision 15

C-18039-C Sht. 2, Cardox Fire Extinguishing System, Revision 9

C-18039-C Sht. 3, Cardox Fire Extinguishing System, Revision 13

C-19409-C, Sht. 1B, Unit 1 AC Station Power Distribution One Line Diagram, Revision 18

C-19410-C, Sht. 6, Unit 1 4.16 kV Emergency Power Board & Diesel Generator, Revision 25

C-19436-C, Sht. 2, Unit 1 Elementary Wiring Diagram 600V Power Board #16, Revision 19

C-19437-C, Sht. 6, Unit 1 Elementary Wiring Diagram 600V Power Board 161B, Revision 26

C-19839-C, Sht. 19, Unit 1 One Line Diagram 125 VDC Control Bus, Revision 13

C-19839-C, Sht. 2, Unit 1 One Line Diagram 125 VDC Control Bus, Revision 23

C-19839-C, Sht. 3, Unit 1 One Line Diagram 125 VDC Control Bus, Revision 25

C-19839-C, Sht. 9, Unit 1 One Line Diagram 125 VDC Control Bus, Revision 4

C-19859-C, Sht. 8, Unit 1 Reactor Protection System, Revision 51

C-19859-C, Sht. 8A, Unit 1 Reactor Protection System, Revision 25

C-22014-C, Sht. 1, Unit 1 Wiring Diagram Emergency Cooling, Revision 18

C-23107-C, Sht. 2, Unit 1 Auxiliary Control Cabinet Emergency Cooling, Revision 29

C-34812-C, Sht. 1, Unit 1 Remote Reactor Shutdown System, Revision 7

C-34813-C, Sht. 1, Unit 1 Wiring Diagram Remote Reactor Shutdown System, Revision 13

EB-22A, Nine Mile Point Unit 2, Fire Protection Arrangement Unit 2 Station Buildings Plan Elevation 175' & 198', Revision 15

EB-22C, Nine Mile Point Unit 2, Fire Protection Arrangement Unit 2 Station Buildings Plan Elevation 237' & 240', Revision 19

EB-22D, Nine Mile Point Unit 2, Fire Protection Arrangement Unit 2 Station Buildings Plan Elevation 250' & 274', Revision 22

EB-22E, Nine Mile Point Unit 2, Fire Protection Arrangement Unit 2 Station Buildings Plan Elevation 277' & 288', Revision 20

EE-001C, Nine Mile Point Unit 2 Main One Line Diagram, 4.16KV Auxillary Transformer Normal 4.16KV & 600V System, Revision 13

EE-001CN, Nine Mile Point Unit 2 125V DC One Line Diagram, Emergency Switchgear 2BYS\*SWG002B, Revision 18

EE-001D, Nine Mile Point Unit 2 Main One Line Diagram, Emergency 4.16KV & 600V System, Revision 19

EE-001P, Nine Mile Point Unit 2 4160V One Line Diagram, Normal Bus 2NNS-SWG017 & 2NNS-SWG018, Revision 11

- EE-001R, Nine Mile Point Unit 2 4160V One Line Diagram, 2ENS\*SWG103 Emergency Bus, Revision 16
- EE-009NK, Nine Mile Point Unit 2 Wiring Diagram, 2EHS\*MCC303 Bus D Control Room Bldg. EL 261', Revision 6
- EE-009SG, Nine Mile Point Unit 2 Wiring Diagram, 600V 2EHS\*MCC303 Control Room Bldg. EL 261', Revision 6
- EE-011HA, Nine Mile Point Unit 2 Wiring Diagram, Misc. Equipment, Revision 6
- EE-1AW, Nine Mile Point Unit 2 One Line Diagram, 600V 2EHS\*MCC302 Reactor Building Auxillary Bay South, Revision 14
- EE-1CP, Nine Mile Point Unit 2 One Line Diagram, 125 VDC 2DMS\*MCCA1 Auxillary Building, Revision 15
- EE-1K, Nine Mile Point Unit 2 4160V One Line Diagram, Normal Bus 2NNS-SWG011 & 2NNS-SWG012, Revision 13
- EE-1L, Nine Mile Point Unit 2 4160V One Line Diagram, Normal Bus 2NNS-SWG013, Revision 12
- EE-1M, Nine Mile Point Unit 2 4160V One Line Diagram, Normal Bus 2NNS-SWG014, Revision 11
- EE-1N, Nine Mile Point Unit 2 4160V One Line Diagram, Normal Bus 2NNS-SWG015, Revision 11
- EE-1Q, Nine Mile Point Unit 2 4160V One Line Diagram, 2ENS\*SWG101 Emergency Bus, Revision 16
- EE-3MG, Nine Mile Point Unit 2 Wiring Diagram, Remote Shutdown Panel 2CES\*PNL405, Revision 4
- EE-M01F, Nine Mile Point Unit 2 Plant Master One Line Diagram, Emergency & Normal 125V & 24/48 VDC, Revision 8
- EE-MO001A, Nine Mile Point Unit 2 Plant Master One Line Diagram, Normal Power Distribution, Revision 23
- EE-MO001B, Nine Mile Point Unit 2 Plant Master One Line Diagram, Emergency Power Distribution, Revision 9
- ESK-06RHS008, Nine Mile Point Unit 2 Elementary Diagram, Residual Heat Removal 600V MCC Circuit, Sht. 1, Revision 8
- ESK-11ICS01, Nine Mile Point Unit 2 Elementary Diagram, Reactor Core Isolation Cooling Steam Valve to Turbine 2ICS\*MOV120, Revision 12
- F-45094-C, Fire Protection Halon P&I Diagram, Revision 6
- FSK-11RSS07, Nine Mile Point Unit 2 Elementary Diagram, 125 VDC Remote Shutdown System, Revision 8
- FSK-33-2C, Nine Mile Point Unit 2 Loop Diagram, Containment Atmosphere Monitoring 2CMS\*54, Revision 7
- PID-31A, Nine Mile Point Unit 2 P&ID, Residual Heat Removal System, Revision 25
- PID-31B, Nine Mile Point Unit 2 P&ID, Residual Heat Removal System, Revision 22
- PID-82B-21, Nine Mile Point Unit 2 P&ID, Containment Atmosphere Monitoring System, Revision 21
- TL2CMS-065, Nine Mile Point Unit 2 Test Loop Diagram, Suppression Pool Water Temperature 2CMS\*TE54A, Sht.s 1-2, Revision 2
- TL2ICS-018, Nine Mile Point Unit 2 Test Loop Diagram, 2ICS\*P1 Discharge Flow 2ICS\*FT101, Sht.s 1-4, Revision 4
- W-4162-S; Drawing EP-116C-20, Revision 20
- W-6746-C; Drawing 12177-EP-64X-18, Revision 18 and 12177-EP-64BB-4, Revision 4

## Fire Brigade Drills and Critiques

Crew A Announced Drill Critique, dated 06/03/2018

Crew B Announced Drill Critique, dated 06/03/2018

Crew B Announced Drill Critique, dated 04/14/2018

Crew B UnSat Drill Critique, dated 04/04/2018

Crew B Unannounced Drill Critique, dated 03/28/2018

Crew C Announced Drill Critique, dated 06/02/2018

Crew D Announced Drill Critique, dated 06/09/2018

Crew D Unannounced Drill Critique, dated 11/29/2017 (NEIL Drill)

Crew E Announced Drill Critique, dated 06/09/2018

End of the Year Fire Drill Review, Completed on 12/28/16

End of the Year Fire Drill Review, Completed on 12/15/17

Fire Drill quarterly Review, Completed on 6/28/16

Fire Drill quarterly Review, Completed on 9/27/16

Fire Drill quarterly Review, Completed on 12/28/16

Fire Drill quarterly Review, Completed on 3/24/17

Fire Drill quarterly Review, Completed on 6/25/17

Fire Drill quarterly Review, Completed on 10/6/17

Fire Drill quarterly Review, Completed on 12/31/17

NMP Unsatisfactory Drill Summary, dated 08/22/2018

NMP Unannounced Drill Schedule 2016 – 2018, dated 08/22/2018

OP-AA-201-003, Announced Fire Drill Record, Completed on 7/13/16

OP-AA-201-003, Announced Fire Drill Record, Completed on 9/7/16

OP-AA-201-003, Announced Fire Drill Record, Completed on 2/24/16

OP-AA-201-003, Announced Fire Drill Record, Completed on11/15/17

OP-AA-201-003, Announced Fire Drill Record, Completed on 2/25/17

OP-AA-201-003, Unannounced Fire Drill Record, Completed on 11/15/17

OP-AA-201-003, Unannounced Fire Drill Record, Completed on 11/29/17

OP-AA-201-003, Unannounced Fire Drill Record, Completed on 12/2/17

OP-AA-201-003, Unannounced Fire Drill Record, Completed on12/3/17

OP-AA-201-003, Unannounced Fire Drill Record, Completed on 12/10/17

#### Fire Fighting Strategies (i.e., Pre-Fire Plans)

N1-PFP-0101, Unit 1 Pre-Fire Plans, Revision 5

N2-FPI-PFP-0201, Nine Mile Point Unit 2 Pre-Fire Plans, Revision 5

NMP Fire Brigade Training Lesson Plans, dated 08/22/2018

## <u>Issue Reports</u> (\* written as a result of the NRC inspection)

02386737	02731612	04153695	04177242*
02451647	03985725	04165743	04177243*
02466129	03987731	04168498*	04177301*
02512975	04009918	04171603*	04177325*
02525704	04056647	04172378*	04177360*
02539404	04060022	04172682*	04177602*
02574976	04134964	04172929*	04177679*
02594680	04146572	04172933*	04177717*
02631360	04147291	04173143*	04177730*
02641770	04148844	04173174*	04177789*
02719945	04148873	04173216*	
02725444	04153260	04177236*	

rs/Work Orders		
C93592851	C93539647	C93624893
C93188022	C93623262	C92787911
C92073139	C91916097	C91987944
C93633239	C93621049	N2060027
C93298175	C93161344	N2072150
C92807105	C93628910	N2089806
C92073136	C93633631	N2101337
C93552754	C93068249	N2104141
C92938470	C92299697	N2111453
C93167744	C93533770	
C92038944	C93155172	
C93176027	C93619558	
	C93592851 C93188022 C92073139 C93633239 C93298175 C92807105 C92073136 C93552754 C92938470 C93167744 C92038944	C93592851       C93539647         C93188022       C93623262         C92073139       C91916097         C93633239       C93621049         C93298175       C93161344         C92807105       C93628910         C92073136       C93633631         C93552754       C93068249         C92938470       C92299697         C93167744       C93533770         C92038944       C93155172

#### Operating Experience

NRC IN 2010-13, Failure to Ensure Post-Fire Shutdown Procedures Can be Performed

NRC IN 2014-10, Potential Circuit Failure-Induced Secondary Fires or Equipment Damage

NRC IN 2015-02, Anti-Freeze Agents in Fire Water Sprinkler Systems

NRC LER 05000-263/2016-002-01, Inadequate Floor Fire Barrier for Control Room

#### **Procedures**

CC-AA-201, Plant Barrier Control Program, Revision 12

CC-AA-206, Fuse Control, Revision 11

CC-AA-209, Fire Protection Program Configuration Change Review, Revision 6

CC-AA-211, Fire Protection Program, Revision 8

CC-AA-211-1001, Fire Protection Engineering Evaluations, Revision 2

ER-AA-610-1003, NFA 805 Monitoring Program, Revision 0

N1-ARP-K1, Control Room Panel K1, Revision 7

N1-DRP-GEN-004, Emergency Damage Repair for Fire Zones C2 and C3, Revision 12

N1-EOP-2, RPV Control, Revision 16

N1-EOP-8, RPV Blowdown, Revision 12

N1-SOP-21.1, Nine Mile Point Unit 2 Special Operating Procedure, Revision 14

N1-SOP-21.2, Control Room Evacuation, Revision 16

N2-ARP-FPM, Fire Computer System Alarm Response Procedures, Revision 16

N2-DRP-OPS-001, Emergency Damage Repair, Revision 1

N2-EOP-6.11, Nine Mile Point Unit 2 Emergency Operating Procedure, Defeating WCS System Isolation Interlocks, Revision 1

N2-EPM-GEN-555, GE 13.8 KV MAGNE-BLAST Breaker, Revision 4

N2-EPM-GEN-V582, Molded Case Circuit Breaker and Thermal Overload Relay Testing, Revision 23

N2-OP-78, Remote Shutdown System, Revision 14

N2-OSP-FOF-M001, ENGINE DRIVEN FIRE PUMP OPERABILITY & STORAGE TANK LEVEL TEST, Revision 3

N2-SOP-03, Loss of AC Power, Revision 18

N2-SOP-34, Stuck Open Safety Relief Valve, Revision 6

N2-SOP-78, Control Room Evacuation, Revision 9

N2-SOP-101C, Reactor Scram, Revision 13

N2-SOP-101D. Rapid Power Reduction. Revision 10

OP-AA-201-001, Fire Marshal Tours, Revision 6

OP-AA-201-002, Fire Event reports, Revision 6

OP-AA-201-203, Fire Drill Performance, Revision 16

- OP-AA-201-004, Fire Prevention for Hot Work, Revision 15
- OP-AA-201-005, Fire Brigade Qualification, Revision 9
- OP-AA-201-006, Control of Temporary Heat Generating Equipment, Revision 8
- OP-AA-201-007, Fire Protection System Impairment Control, Revision 0
- OP-AA-201-008, Pre-Fire Plan Manual, Revision 4
- OP-AA-201-009, Control of Transient Combustible Material, Revision 20
- OP-AA-201-011-1001, Fire Marshal Certification Process, Revision 4
- OP-NM-102-106, Operator Response Time Program at NMP, Revisions 9 and 10
- OP-NM-201-007, FIRE PROTECTION SYSTEM IMPAIRMENT CONTROL, Revision 0
- OP-NM-201-105, Commentary Measures for Inoperable Fire Protection Systems and Components, Revision 4
- S-EPM-GEN-551, 600 VAC, 480 VAC, and 125 VDC ITE Breaker and Breaker Load Test, Revision 7
- S-EPM-GEN-813, Annual Inspection of Emergency Battery Light Units, Revision 4 TQ-AA-173, Emergency Services Training Programs, Revision 3

## Completed Tests and Surveillances

- C93522067, Remote Shutdown Emergency Condenser Level Control Loop Calibration, completed on 03/08/18
- Halon 1301 Acceptance Test NMP 2, dated 07/11/1986
- N2-EPM-GEN-20Y712, Motor Control Center Bus Work, completed 04/05/14
- N2-EPM-GEN-R@576, Remote Shutdown Panel 2CES\*PNL405 Switch Checks for SW16-2RSSN95, SW10-2RSSN89, completed 05/07/18
- N2-EPM-GEN-R@576, Remote Shutdown Panel 2CES\*PNL405 Switches 2, 3, 4, 5, 11, &14, completed 05/14/18
- N2-EPM-RSS-578, 2CES\*PNL415 and 2CES\*PNL416 Switch Checks, completed 05/03/18
- N2-FSP-FPP-R001, Fire Rated Assemblies (Penetrations) Visual Inspection Test, completed 03/24/2014, 04/04/2016, 05/01/2018
- N2-FSP-FPW-R001, Electric / Diesel Fire Pump Functional Test, completed 11/17/2017
- N2-ISP-FPM-A104, Functional Test of the Fire Detection Zones for 2FPM-PNL104, completed 07/26/18
- N2-MPM-FPW-A854, Diesel Fire Pump Engine Inspection 2FPW-ENG1 (5 Year and Annual), completed 07/23/2013
- N2-OSP-FOF-M001, Engine Driven Fire Pump Operability & Storage Tank Level, completed 8/17/2018
- N2-OSP-RSS-R001, RCIC Remote Shutdown System Test, completed 05/12/18
- N2-OSP-RSS-R002, RHS Shutdown and Suppression Pool Cooling Mode Remote Shutdown System Test, completed 05/04/18
- N2-OSP-RSS-R003, Service Water Remote Shutdown Operability Test, completed 09/18/17
- N2-OSP-RSS-R005, RHS Shutdown Cooling Mode MOV Isolation Remote Shutdown System Test, completed 05/06/18
- N2-OSP-RSS-R006, Nitrogen Supply to ADS Remote Shutdown System Test, completed 05/03/18
- N2-PM-M007, Motor-Driven Fire Pump Operability Test, completed 07/27/2018
- S-PM-004, Operation Equipment Inventories and Checklists, Completed on 6/14/18
- S-PM-004, Operation Equipment Inventories and Checklists, Completed on 8/24/18

#### Miscellaneous Documents

List of Fire Brigade Members qualification Training, dated 9/13/18

MI-2AI-185, Foxboro 2AI-P2V Series Platinum Resistance to Voltage Converter Styles B and C, issued August 1980

Nine Mile Point Nuclear Station Unit 2, Individual Plant Examination for External Events (IPEE), June 1995

NMP Operations Equipment Inventories and Checklists:

Quarterly Inspection/Inventory of Fire Brigade Turnout Gear, 2018

Quarterly Inspection/Inventory of Fire Brigade Turnout Gear, 2017

Quarterly Inspection/Inventory of Fire Brigade Turnout Gear, 2016

Annual Inventory, Fire Cabinet: U2, 2017

NMP Unit 1 Fire Impairment Log, dated 08/22/2018

NMP Unit 1 Fire Protection Program Health Report, Period 2018

NMP Unit 1 and Unit 2 Fire Protection System Health Report, dated 06/27/2018

NMP Unit 2 Fire Protection Program Health Report, dated 2018P1

NMP Unit 2 South Auxiliary Bay, Electrical Room, Elevation 20' Halon System Piping and Nozzle Pictures, dated 2017

NMP Transient Combustible Permit Log, dated 08/22/2018

NMP Transient Combustible Permits; Permit ID 469, 470, 472,473 and 475

NMP Unit 2 Training Lesson Plan 2100-PLTSOJ004, Perform RCIC Reactor Operator Actions, Revision 0

NMP Unit 2 Training Lesson Plan 2100-PLTSOPJ003, Unit 2, Perform Lower Control Building Actions, Revision 0

NMP Unit 2 Training Lesson Plan 2101-SOP78C01, N2-SOP-78, Unit 2, Control Room Evacuation, Revision 0

NRC Information Notice 2014-10, Potential Circuit Failure Induced Secondary Fires or Equipment Damage, issued 09/16/14

NRC Information Notice 2017-06, Battery and Battery Charger Short-Circuit Current Contributions to a Fault on the Direct Current Distribution System, issued 09/26/17

PI-AA-126-1001, NMP-2018 Fire Protection Self-Assessment, completed 07/10/18 SAS-TR-95-001, NMP-2 IPEEE, dated 06/1995