



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 5, 2016

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
Nine Mile Point Nuclear Station, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT 2 - ISSUANCE OF  
AMENDMENT RE: TECHNICAL SPECIFICATIONS FOR SAFETY LIMIT  
MINIMUM CRITICAL POWER RATIO (CAC NO. MF6714)

Dear Mr. Hanson:

The Commission has issued the enclosed Amendment No. 153 to Renewed Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station (NMP), Unit 2. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated September 3, 2015 (Agencywide Documents Access and Management System Accession No. ML15252A204).

The amendment changes TS Section 2.1.1.2, "Reactor Core SLs," to revise the cycle-specific safety limit minimum critical power ratio for Cycle 16 for NMP, Unit 2.

A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Brenda L. Mozafari".

Brenda L. Mozafari, Sr. Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosures:

1. Amendment No. 153 to NPF-69
2. Safety Evaluation

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

NINE MILE POINT NUCLEAR STATION, LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 153  
Renewed License No. NPF-69

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Exelon Generation Company, LLC (Exelon, the licensee) dated September 3, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. NPF-69 is hereby amended to read as follows:

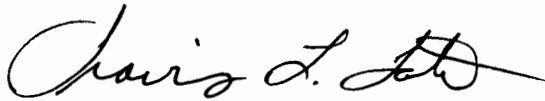
Enclosure 1

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 153, are hereby incorporated into this license. Exelon Generation Company, LLC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and shall be implemented prior to startup from the refueling outage where GNF2 is loaded.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Travis L. Tate", with a stylized flourish at the end.

Travis L. Tate, Chief  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the License and Technical  
Specifications

Date of Issuance: January 5, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 153  
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-69  
DOCKET NO. 50-410

Replace the following page of the Renewed Facility Operating License with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page  
4

Insert Page  
4

Replace the following pages of Appendix A, Technical Specifications, with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages  
2.0-1

Insert Pages  
2.0-1

(1) Maximum Power Level

Exelon Generation is authorized to operate the facility at reactor core power levels not in excess of 3988 megawatts thermal (100 percent rated power) in accordance with the conditions specified herein.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. are hereby incorporated into this license. Exelon Generation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Fuel Storage and Handling (Section 9.1, SSER 4)\*

- a. Fuel assemblies, when stored in their shipping containers, shall be stacked no more than three containers high.
- b. When not in the reactor vessel, no more than three fuel assemblies shall be allowed outside of their shipping containers or storage racks in the New Fuel Vault or Spent Fuel Storage Facility.
- c. The above three fuel assemblies shall maintain a minimum edge-to-edge spacing of twelve (12) inches from the shipping container array and approved storage rack locations.
- d. The New Fuel Storage Vault shall have no more than ten fresh fuel assemblies uncovered at any one time.

(4) Turbine System Maintenance Program (Section 3.5.1.3.10, SER)

The operating licensee shall submit for NRC approval by October 31, 1989, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities. (Submitted by NMPC letter dated October 30, 1989 from C.D. Terry and approved by NRC letter dated March 15, 1990 from Robert Martin to Mr. Lawrence Burkhardt, III).

\* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the license condition is discussed.

## 2.0 SAFETY LIMITS (SLs)

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### 2.1 SLs

#### 2.1.1 Reactor Core SLs

2.1.1.1 With the reactor steam dome pressure < 785 psig or core flow < 10% rated core flow:

THERMAL POWER shall be  $\leq 23\%$  RTP.

2.1.1.2 With the reactor steam dome pressure  $\geq 785$  psig and core flow  $\geq 10\%$  rated core flow:

MCPR shall be  $\geq 1.15$  for two recirculation loop operation or  $\geq 1.15$  for single recirculation loop operation.

2.1.1.3 Reactor vessel water level shall be greater than the top of active irradiated fuel.

#### 2.1.2 Reactor Coolant System Pressure SL

Reactor steam dome pressure shall be  $\leq 1325$  psig.

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### 2.2 SL Violations

With any SL violation, the following actions shall be completed within 2 hours:

2.2.1 Restore compliance with all SLs; and

2.2.2 Insert all insertable control rods.

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UNITED STATES  
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 153

TO RENEWED FACILITY OPERATING LICENSE NO. NPF-69

NINE MILE POINT NUCLEAR STATION, LLC

EXELON GENERATION COMPANY, LLC

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

1.0 INTRODUCTION

By application dated September 3, 2015, Exelon Generation Company, LLC (Exelon), the licensee for Nine Mile Point Nuclear Station (NMP), Unit 2, submitted an amendment requesting changes to Technical Specification (TS) Section 2.1.1.2, "Reactor Core SLs." (Reference 1) The amendment proposed revising the cycle-specific safety limit minimum critical power ratio (SLMCPR) for Cycle 16.

2.0 REGULATORY EVALUATION

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, General Design Criteria (GDC) 10 states, in part, that the reactor core and associated coolant, control, and protection systems shall be designed to assure that specified acceptable fuel design limits (SAFDLs) are not exceeded during any condition of normal operation, including the effects of anticipated operational occurrences.

Fuel design limits can be exceeded if the fuel produces heat equal to or greater than critical power. In a boiling-water reactor (BWR), heat produced by the fuel causes the water to partially vaporize in a stable process called nucleate boiling. As the amount of heat produced by the fuel increases, more of the water vaporizes, and the vapor production changes the way the water boils. At a certain point, the efficiency of heat removal is impeded by vapor production, and the temperature of the fuel cladding rises disproportionately to the heat generated. Critical power is a term used for the power at which the fuel departs from nucleate boiling and enters a transition to film boiling. For BWRs, the critical power may be predicted using a correlation known as the GE (General Electric) critical quality boiling length correlation, or better known as the GEXL correlation. Due to core wide and operational variations, the margin to boiling transition is most easily described in terms of a critical power ratio (CPR), which is defined as the rod critical power as calculated by GEXL divided by the actual rod power. The more a CPR value exceeds 1.0, the greater the margin to boiling transition is.

The SLMCPR is calculated using a statistical process that takes into account operating parameters and uncertainties. The operating limit minimum critical power ratio (OLMCPR) is equal to the SLMCPR plus a CPR margin for transients. At the OLMCPR, at least 99.9 percent of the rods avoid boiling transition during steady state operation and transients (Section 4.4, "Thermal and Hydraulic Design," of NUREG-0800, Revision 3, dated June 1996) caused by a single operator error or equipment malfunction.

Safety limits are required to be included in the TSs by 10 CFR Section 50.36(c)(1). The SLMCPR is verified on a cycle-specific basis because it is necessary to account for the core configuration-specific neutronic and thermal-hydraulic response.

### 3.0 TECHNICAL EVALUATION

#### 3.1 NMP, Unit 2, Cycle 16 Core

NMP is a GE BWR design, or BWR/5. The licensee proposed to change the SLMCPR in TS Section 2.1.1.2 from  $\geq 1.09$  to  $\geq 1.15$  for two recirculation loop operation and from  $\geq 1.09$  to  $\geq 1.15$  for single loop operation.

This amendment supports the NMP, Unit 2, Cycle 16 core design. The NMP, Unit 2, Cycle 16 core loading consists of 320 fresh GNF2 fuel bundles, 336 once-burnt GE14 fuel bundles, and 108 twice-burnt GE14 fuel bundles.

#### 3.2 Methodology

Global Nuclear Fuel (GNF) developed the NMP, Unit 2, Cycle 16 SLMCPR values using the following U.S. Nuclear Regulatory Commission (NRC)-approved methodologies and uncertainties:

1. NEDC-32601P-A, Revision 0, "Methodology and Uncertainties for Safety Limit MCPR Evaluations" (Reference 2).
2. NEDC-32694P-A, Revision 0, "Power Distribution Uncertainties for Safety Limit MCPR Evaluations" (Reference 3).
3. NEDE-24011P-A, Revision 21, "General Electric Standard Application for Reactor Fuel" (Reference 4).
4. NEDC-32505P-A, Revision 1, "R-Factor Calculation Method for GE11, GE12 and GE13 Fuel" (Reference 5).
5. NEDC-33173P-A, Revision 4, "Applicability of GE Methods to Expanded Operating Domains" November 2012 (Reference 6).

Plant specific use of these methodologies must adhere to certain restrictions.



### 3.2.1 Methodology Restrictions

Based on the review (Reference 3) of Topical Reports NEDC-32601P-A, NEDC-32694P-A, and Amendment 25 to NEDE-24011P-A (GESTAR II), the NRC staff identified the following restrictions for the use of these Topical Reports:

The TGBLA (lattice physics code) fuel rod power calculational uncertainty should be verified when applied to fuel designs not included in the benchmark comparisons of Table 3.1 of NEDC-32601P-A, since changes in fuel design can have a significant effect on calculation accuracy.

The effect of the correlation of rod power calculation uncertainties should be reevaluated to insure the accuracy of R-Factor uncertainty when the methodology is applied to a new fuel lattice.

In view of the importance of MIP (MCPR Importance Parameter) criterion and its potential sensitivity to changes in fuel bundle designs, core loading, and operating strategies, the MIP criterion should be reviewed periodically as part of the procedural review process to insure that the specific value recommended in NEDC-32601P-A is applicable to future designs and operating strategies.

The 3D-MONICORE bundle power calculational uncertainty should be verified when applied to fuel and core designs not included in the benchmark comparisons in Tables 3.1 and 3.2 of NEDC-32694-P.

### 3.2.2 Restrictions (1), (2), and (4)

NEDE-24011-P-A provides a fuel design and core reload process that allows an applicant to modify fuel assembly designs without undergoing a formal NRC submittal and review, as long as the licensee provides written notification to the NRC outlining the new design and acknowledging compliance with the requirements of NEDE-24011-P-A. On March 14, 2007, GNF sent the NRC the aforementioned notification and generic compliance report for the GNF2 fuel assembly design (Reference 7). As part of an NRC audit related to this report, the analysis and evaluation of the GNF2 fuel design were verified to have been evaluated in accordance with the above restrictions (Reference 8). The NRC subsequently issued a finding that upon incorporation of Amendment 33, NEDE-24011-P-A (Reference 9) was acceptable for use with the GNF2 fuel design without any restriction.

Based on the above discussion, the NRC staff concludes that Restrictions (1), (2), and (4) to the plant-specific application of the NEDE-24011-P-A methodology have been addressed for the GNF2 fuel design. Therefore, use of the NEDE-24011-P-A methodology by the licensee is acceptable.

### 3.2.3 Restriction (3)

When determining SLMCPR values, power peaking and power distributions have a direct impact on which fuel bundles may be limiting with respect to boiling transition. While the pin power peaking is incorporated by the use of R-factors, the bundle power distributions are

affected by the loading pattern and rod patterns used during core operation. GNF tracks this behavior for specific statepoints through the MIP parameter, which is proportional to the probability of boiling transition for a given rod, if all bundles had the same pin power distribution. The value allows for checking how the SLMCPR power distribution compares to previous evaluations and how limiting the power distribution is to the nominal power distribution.

Restriction (3) of the staff's letter MFN-003-99 requires reviewing the MIP criterion for new fuel designs, core loading, and operating strategies (Reference 3). The NRC staff found in Section 3.4.1 of the GNF2 GESTAR II Compliance Audit Report that the GNF2 fuel design was in compliance with Restriction (3) (Reference 8). In Section 1.0 of Attachment 3 of the submittal, GNF states that the SLMCPR is calculated in accordance with NEDE-24011-P-A, which has methodologies for analyzing core loading patterns and making sure there is no change in approved core design (Reference 1). As the energy plan, thermal margins, and reactivity margins drive the core design, the SLMCPR is calculated after the core design process is essentially complete. After reviewing the core loading patterns provided in Figure 1 and Figure 2, and the core description in Table 1 of Attachment 3 of the submittal, the NRC staff concludes that there is no significant departure from operating strategies and core loading patterns. Thus, the rod patterns used produce a limiting MCPR distribution that should reasonably bound the MCPR distributions expected during the operation of NMP, Unit 2, Cycle 16. In accordance with Reference 6, NEDC-33173P-A, Revision 4, a 0.02 SLMCPR penalty was added for operation in the Maximum Extended Load Line Limit Plus (MELLLA+) region.

In summary, the NRC staff concludes that the licensee has adequately addressed the restrictions of Topical Reports NEDC-32601P-A, NEDC-32694P-A, Amendment 25 to NEDE-24011P-A (GESTAR II), NEDC-33173P-A, and NEDC-32505P-A, and that the use of these reports to evaluate the NMP, Unit 2, Cycle 16 SLMCPR is acceptable.

### 3.3 Major Contributors to SLMCPR Change

In general, the calculated safety limit is dominated by two key parameters: (1) - flatness of the core bundle-by-bundle MCPR distribution, and (2) - flatness of the bundle pin-by-pin power / R-Factor distribution. Greater flatness in either parameter yields more rods susceptible to boiling transition and thus a higher calculated SLMCPR. The MIP (MCPR Importance Parameter) measures the core bundle-by-bundle MCPR distribution, and the RIP (R-Factor Importance Parameter) measures the bundle pin-by-pin power / R-Factor distribution. The impact of the fuel loading pattern on the calculated two loop operation (TLO) SLMCPR has been correlated to the parameter MIPRIP, which combines the MIP and RIP values. Introducing GNF2 fuel causes an increase in SLMCPR, as the correlation uncertainty for the GNF2 fuel design is larger than the GE14 fuel design used in the previous cycle. Another factor besides core MCPR distribution or bundle R-factor distribution that significantly impacts the SLMCPR is the expansion of the analysis domain that comes with the application of MELLLA+ (Reference 10 and Reference 11). The rated power / minimum core flow point is analyzed at a lower core flow (than without MELLLA+) using increased uncertainties (see Section 2.2.1.1 of Reference 14) that tend to increase the SLMCPR. The combination of a combined higher uncertainty and the application of MELLLA+ is sufficient to explain the increase in SLMCPR.

### 3.4 Departures from NRC-Approved Methodology

No departures from NRC-approved methodologies were identified.

### 3.5 Deviations from the NRC-Approved Computational Uncertainties

#### 3.5.1 R-Factor

The R-factor is an input into the GEXL correlation used to describe the local pin-by-pin power distribution and the fuel assembly and channel geometry on the fuel assembly critical power. The R-factor uncertainty analysis includes an allowance for power peaking modeling uncertainty, manufacturing uncertainty, and channel bow uncertainty. GNF has generically increased the GEXL R-Factor uncertainty to account for an increase in channel bow due to the emerging unforeseen phenomenon called control blade shadow corrosion-induced channel bow, which is not accounted for in the channel bow uncertainty component of the approved R-Factor uncertainty (Reference 12). The NMP, Unit 2, Cycle 16 analysis shows that the expected channel bow uncertainty for NMP, Unit 2, is bounded by the increase in R-factor uncertainty as technically justified in Reference 7.

Thus, the NRC staff finds that the use of the higher GEXL R-factor uncertainty described in Reference 7 adequately accounts for the expected control blade shadow corrosion induced bow.

#### 3.5.2 Core Flow Rate and Random Effective TIP Reading

GNF has committed (Reference 13) to the expansion of the statepoints used in the determination of the SLMCPR. Consistent with the Reference 13 commitments, GNF performs analyses at the rated core power and minimum licensed core flow point, in addition to analyses at the rated core power and rated core flow point. The NRC-approved SLMCPR methodology is applied at each statepoint that is analyzed. For the TLO calculations performed in the MELLLA+ domain at rated power | minimum core flow and off-rated power | off-rated core flow, the approved uncertainty values for the core flow rate (2.5 percent) and the random effective traversing in-core probe (TIP) reading (1.2 percent) are conservatively adjusted by using the single loop operation (SLO) uncertainty values of 6.0 percent and 2.85 percent for the core flow rate and random effective TIP reading respectively. The treatment of the core flow and random effective TIP reading uncertainties is based on a conservative assumption that the signal to noise ratio deteriorates as core flow is reduced.

In accordance with the limitations and conditions of NEDC-33006P-A, Revision 3 (Reference 14), SLO uncertainties are applied to TLO conditions for operation in the MELLLA+ region.

For NMP, Unit 2, Cycle 16, the most limiting SLMCPR calculation occurred at the 77.6 percent rated power/55 percent rated flow point. At low core flows, the search spaces for the limiting rod pattern and the nominal rod pattern are essentially the same. Hence, the rod pattern used to calculate the SLMCPR at 77.6 percent rated power/55 percent rated flow reasonably assures that at least 99.9 percent of the fuel rods in the core would not be expected to experience boiling transition during normal operation or anticipated operational occurrences during the operation of NMP, Unit 2, Cycle 16. Consequently, the SLMCPR value calculated from the

77.6 percent rated power/55 percent rated core flow condition limiting MCPR distribution reasonably bounds this mode of operation for NMP, Unit 2, Cycle 16. The NRC staff finds that the uncertainty used in the analysis bounds the original non-flow dependent uncertainties and, therefore, the staff finds it acceptable for NMP, Unit 2, Cycle 16.

### 3.6 Core Monitoring System

For NMP, Unit 2, Cycle 16, the GNF 3D MONICORE system (Reference 5) will be used as the core monitoring system. The 3D MONICORE system is in widespread use throughout the GNF fueled fleet of BWRs similar to NMP. Use of a current version of 3D MONICORE provides the plant capability to perform the reactivity anomaly surveillance. Use of 3D MONICORE has been previously evaluated and accepted by the NRC in a letter dated March 11, 1999 (Reference 3). Therefore, the NRC staff finds the use of the GNF 3D MONICORE system for NMP, Unit 2, Cycle 16 to be acceptable.

### 3.7 Technical Evaluation Conclusion

The NRC staff finds the licensee's proposed NMP, Unit 2, Cycle 16 SLMCPR values of 1.15 for two recirculation loop operation and 1.15 for single recirculation loop operation is acceptable for NMP, Unit 2, Cycle 16 since approved methodologies are used in accordance with staff guidelines. The staff finds that the licensee used methods consistent with regulatory requirements and guidance identified in Section 2.0 above. The staff also concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) no plant hardware or operational changes are required with this TS change. Therefore, the proposed change is acceptable.

The staff finds that the licensee's proposed Cycle 16 SLMCPR values of  $\geq 1.15$  for two recirculation loop operation and  $\geq 1.15$  for single recirculation loop operation is acceptable for NMP, Unit 2, Cycle 16 since approved methodologies are used in accordance with staff guidelines. The staff finds that the licensee used methods consistent with regulatory requirements and guidance identified in Section 2.0 above.

## 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

## 5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding.

(80 FR 67801). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## 6.0 CONCLUSION

The NRC staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

## 7.0 REFERENCES

1. Letter from James Barstow Director, Licensing and Regulatory Affairs, Exelon Generation Company, LLC to U.S. Nuclear Regulatory Commission, "License Amendment Request – Safety Limit Minimum Critical Power Ratio," September 3, 2015 (TAC No. MF6169) (ADAMS Accession No. ML15253A185).
2. General Electric Nuclear Energy Licensing Topical Report NEDC-32601P-A, Revision 0, "Methodology and Uncertainties for Safety Limit MCPR Evaluations," August 1999 (ADAMS Accession No. ML14093A216).
3. MFN-003-99, Letter, Frank Akstulewicz (NRC) to Glen A. Watford (GE), "Acceptance for Referencing of Licensing Topical Reports NEDC-32601P, Methodology and Uncertainties for Safety Limit MCPR Evaluations, NEDC-32694P, Power Distribution Uncertainties for Safety Limit MCPR Evaluation; and Amendment 25 to NEDE-24011-P-A on Cycle Specific Safety Limit MCPR," March 11, 1999 (TAC Nos. M97490, M99069, and M9749) (ADAMS Accession No. ML993140059).
4. Global Nuclear Fuels Licensing Topical Report NEDE-24011-P-A Revision 20, "General Electric Standard Application for Reactor Fuel," December 2013 (ADAMS Accession Nos. ML13352A466 and ML13352A467).
5. General Electric Nuclear Energy Licensing Topical Report NEDC-32505P-A, Revision 1, "R-Factor Calculation Method for GE11, GE12, and GE13 Fuel," July 1999 (ADAMS Accession No. ML060520636).
6. NEDC-33173-P-A, Revision 4, "Applicability of GE Methods to Expanded Operating Domains," November 2012 (ADAMS Accession No. ML12313A109).
7. Letter from GNF to NRC, FLN-2007-011, "GNF2 Advantage Generic Compliance with NEDE-24011-P-A (GESTAR II), NEDC-33270P, March 2007, and GEXL17 Correlation for GNF2 Fuel, NEDC-33292P, March 2007," dated March 14, 2007. (ADAMS Accession No. ML070780335).

8. Memorandum, Michelle C. Honcharik (NRC) to Stacey L. Rosenberg (NRC), "Audit Report for Global Nuclear Fuels GNF2 Advanced Fuel Assembly Design GESTAR II Compliance Audit," September 25, 2008 (ADAMS Accession No. ML081630579).
9. Final Safety Evaluation for Amendment 33 to Global Nuclear Fuel (GNF) TR NEDE-24011- P, "General Electric Standard Application for Reactor Fuel (GESTAR II)," August 30, 2010 (ADAMS Accession No. ML102280591).
10. Letter from Bhalchandra Vaidya, Project Manager, U.S. Nuclear Regulatory Commission to Exelon Generation Company, LLC, "Nine Mile Point Nuclear Station, Unit No. 2 - Issuance Of Amendment Re: Maximum Extended Load Line Limit Analysis Plus (TAC No. MF3056)," September 2015 (ADAMS Accession No. ML15096A076).
11. GE Licensing Topical Report NEDC-33006P-A (General Electric Boiling Water Reactor Maximum Extended Load Line Limit Analysis Plus," Revision 3, June 2009 (ADAMS Accession No. ML091800530).
12. General Electric Nuclear Energy Licensing Topical Report NEDC-32694P-A, "Power Distribution Uncertainties for Safety Limit MCPR Evaluations," August 1999 (ADAMS Accession No. ML003740166).
13. Letter, Jason S. Post (GENE) to NRC Document Control Desk with attention to Chief, Information Management Branch, et al. (NRC), "Part 21 Final Report: Non-Conservative SLMCPR," MFN 04-108, September 29, 2004 (ADAMS Accession No. ML042800267).
14. Safety Evaluation on GE Licensing Topical Report NEDC-33006P (General Electric Boiling Water Reactor Maximum Extended Load Line Limit Analysis Plus," Revision 2 October 2008 (ADAMS Accession No. ML081130008).

Principal Contributor: W. MacFee

Date: January 5, 2016

January 5, 2016

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
Nine Mile Point Nuclear Station, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT 2 - ISSUANCE OF  
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A copy of the related Safety Evaluation is enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA A. Chereskin for/**

Brenda L. Mozafari, Sr. Project Manager  
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**ADAMS Accession No.: ML15341A336**

\*SE transmitted by memo 11/17/15

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NAME	BMozafari	KGoldstein	CJackson
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