



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

December 31, 2019

Mr. Joel P. Gebbie
Senior Vice President and Chief
Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF
AMENDMENT NOS. 348 AND 329 TO OPERATING LICENSES DPR-58 AND
DPR-74 TO ADDRESS ISSUES IDENTIFIED IN WESTINGHOUSE DOCUMENT
NSAL-15-1 (L-2019-LLA-0039)

Dear Mr. Gebbie:

The U.S. Nuclear Regulatory Commission (the Commission) has issued the enclosed Amendment Nos. 348 and 329 to Renewed Facility Operating License Nos. DPR-58 and DPR-74, for the Donald C. Cook Nuclear Plant (CNP), Unit Nos. 1 and 2, respectively. The amendments consist of changes to the technical specifications (TSs) in response to your application dated February 26, 2019, as supplemented by letter dated July 30, 2019.

The amendments revise the CNP, Unit Nos. 1 and 2, TSs to address the issues identified in Westinghouse Nuclear Safety Advisory Letter (NSAL) NSAL-15-1, Revision 0, by expanding criteria within TS 3.2.1 surveillance requirements which apply an appropriate penalty factor to measured transient $F_Q(Z)$.

A copy of our related safety evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "R. Kuntz", written over a horizontal line.

Robert F. Kuntz, Senior Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures:

1. Amendment No. 348 to DPR-58
2. Amendment No. 329 to DPR-74
3. Safety Evaluation

cc: Listserv



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 348
License No. DPR-58

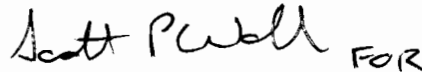
1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company dated February 26, 2019, and supplemented by letter dated July 30, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (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. DPR-58 is hereby amended to read as follows:

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 348, are hereby incorporated in this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Handwritten signature of Scott Powell in black ink, with the letters "FOR" written in a smaller font to the right of the signature.

Nancy L. Salgado, Branch Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Appendix A

Date of Issuance: December 31, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 348

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

DOCKET NO. 50-315

Renewed Facility Operating License No. DPR-58

Replace the following page of the Renewed Facility Operating License No. DPR-58 with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating area of change

INSERT
Page 3

REMOVE
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Technical Specifications

Replace the following page of the Renewed Facility Operating License, Appendix A, Technical Specifications, with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

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3.2.1-4

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3.2.1-4

and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not to exceed 3304 megawatts thermal in accordance with the conditions specified herein.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 348, are hereby incorporated in this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Less than Four Loop Operation

The licensee shall not operate the reactor at power levels above P-7 (as defined in Table 3.3.1-1 of Specification 3.3.1 of Appendix A to this renewed operating license) with less than four reactor coolant loops in operation until (a) safety analyses for less than four loop operation have been submitted, and (b) approval for less than four loop operation at power levels above P-7 has been granted by the Commission by amendment of this license.

(4) Fire Protection Program

Indiana Michigan Power Company shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee's amendment request dated July 1, 2011, as supplemented by letters dated September 2, 2011, April 27, 2012, June 29, 2012, August 9, 2012, October 15, 2012, November 9, 2012, January 14, 2013, February 1, 2013,

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.2.1.2</p> <p style="text-align: center;">-----NOTES-----</p> <ol style="list-style-type: none"> 1. Not required to be performed during power escalation at the beginning of each cycle until 24 hours after equilibrium conditions at a power level for extended operation are achieved. 2. If measurements indicate that the maximum over Z ($F_{\delta}(Z)/K(Z)$) or maximum over Z [$F_{\delta}(Z)*W(Z)/K(Z)$] has increased since the previous evaluation of $F_{\delta}(Z)$ or if $F_{\delta}^W(Z)$ is expected to increase prior to the next evaluation of $F_{\delta}(Z)$ either: <ol style="list-style-type: none"> a. Increase $F_{\delta}^W(Z)$ by the greater of a factor of 1.02 or by an appropriate factor specified in the COLR and reverify $F_{\delta}^W(Z)$ is within limits; or b. Repeat SR 3.2.1.2 once per 7 EFPD until either a. above is met or two successive flux maps indicate that the maximum over Z ($F_{\delta}(Z)/K(Z)$) and maximum over Z [$F_{\delta}(Z)*W(Z)/K(Z)$] have not increased. <p>For this evaluation $F_{\delta}^W(Z)$ is expected to increase if: $\max [F_{\delta}(Z, B_n)*W(Z, B_{n+1})/K(Z)] > \max [F_{\delta}(Z, B_n)*W(Z, B_n)/K(Z)]$; Where B_n is the burnup when the Surveillance is performed, and B_{n+1} is the burnup when the next Surveillance is performed.</p> <p>-----</p> <p>Verify $F_{\delta}^W(Z)$ is within limit.</p>	<p>Once within 24 hours after achieving equilibrium conditions after exceeding, by $\geq 10\%$ RTP, the THERMAL POWER at which $F_{\delta}^W(Z)$ was last verified</p> <p><u>AND</u></p> <p>In accordance with the Surveillance Frequency Control Program</p>



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

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 329
License No. DPR-74

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company dated February 26, 2019, and supplemented by letter dated July 30, 2019, 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. DPR-74 is hereby amended to read as follows:

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 329, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Handwritten signature of Scott P. Webb in black ink, followed by the word "FOR" in a smaller font.

Nancy L. Salgado, Branch Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License and Technical
Specifications

Date of Issuance: December 31, 2019

ATTACHMENT TO LICENSE AMENDMENT NO. 329

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

DOCKET NO. 50-316

Renewed Facility Operating License No. DPR-74

Replace the following page of the Renewed Facility Operating License No. DPR-74 with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating area of change

INSERT
Page 3

REMOVE
Page 3

Technical Specifications

Replace the following page of the Renewed Facility Operating License, Appendix A, Technical Specifications, with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

INSERT
3.2.1-4

REMOVE
3.2.1-4

radiation monitoring equipment calibration, and as fission detectors in amounts as required;

- (4) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument and equipment calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not to exceed 3468 megawatts thermal in accordance with the conditions specified herein and in Attachment 1 to the renewed operating license. The preoperational tests, startup tests and other items identified in Attachment 1 to this renewed operating license shall be completed. Attachment 1 is an integral part of this renewed operating license.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 329, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Additional Conditions

(a) Deleted by Amendment No. 76

(b) Deleted by Amendment No. 2

(c) Leak Testing of Emergency Core Cooling System Valves

Indiana Michigan Power Company shall prior to completion of the first inservice testing interval leak test each of the two valves in series in the

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.2.1.2</p> <p style="text-align: center;">-----NOTES-----</p> <ol style="list-style-type: none"> 1. Not required to be performed during power escalation at the beginning of each cycle until 24 hours after equilibrium conditions at a power level for extended operation are achieved. 2. If measurements indicate that the maximum over Z ($F_{\delta}(Z)/K(Z)$) or maximum over Z [$F_{\delta}(Z)*W(Z)/K(Z)$] has increased since the previous evaluation of $F_{\delta}(Z)$ or if $F_{\delta}^W(Z)$ is expected to increase prior to the next evaluation of $F_{\delta}(Z)$ either: <ol style="list-style-type: none"> a. Increase $F_{\delta}^W(Z)$ by the greater of a factor of 1.02 or by an appropriate factor specified in the COLR and reverify $F_{\delta}^W(Z)$ is within limits; or b. Repeat SR 3.2.1.2 once per 7 EFPD until either a. above is met or two successive flux maps indicate that the maximum over Z ($F_{\delta}(Z)/K(Z)$) and maximum over Z [$F_{\delta}(Z)*W(Z)/K(Z)$] have not increased. <p>For this evaluation $F_{\delta}^W(Z)$ is expected to increase if: $\max [F_{\delta}(Z, B_n)*W(Z, B_{n+1})/K(Z)] > \max [F_{\delta}(Z, B_n)*W(Z, B_n)/K(Z)];$ Where B_n is the burnup when the Surveillance is performed, and B_{n+1} is the burnup when the next Surveillance is performed.</p> <p>-----</p> <p>Verify $F_{\delta}^W(Z)$ is within limit.</p> 	<p>Once within 24 hours after achieving equilibrium conditions after exceeding, by $\geq 10\%$ RTP, the THERMAL POWER at which $F_{\delta}^W(Z)$ was last verified</p> <p><u>AND</u></p> <p>In accordance with the Surveillance Frequency Control Program</p>



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 348 AND 329 TO RENEWED

FACILITY OPERATING LICENSE NOS. DPR-58 AND DPR-74

INDIANA MICHIGAN POWER COMPANY

DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated February 26, 2019 (Agencywide Documents Access Management System (ADAMS) Accession No. ML19060A060), as supplemented by letter dated July 30, 2019 (ADAMS Accession No. ML19214A048), Indiana Michigan Power Company (I&M), the licensee for the Donald C. Cook Nuclear Plant (CNP), Unit Nos. 1 and 2, submitted a license amendment request (LAR) to revise the CNP, Units 1 and 2, technical specifications (TSs). The proposed license amendment would revise the TSs to address the issues identified in the Westinghouse Nuclear Safety Advisory Letter (NSAL) NSAL-15-1, Revision 0, February 3, 2015. The supplemental letter dated July 30, 2019, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC or Commission) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on April 9, 2019 (84 FR 14150).

2.0 REGULATORY EVALUATION

The heat flux hot channel factor, $F_q(Z)$, is the maximum local heat flux on the surface of a fuel rod at core elevation Z , divided by the average fuel rod heat flux. For those plants, including CNP, Unit Nos. 1 and 2, which employ constant axial offset control methodology during normal operation, $F_q(Z)$ is shown to be within its limits by performing periodic measurements. The CNP, Unit Nos. 1 and 2, TSs require that when performing the surveillance, the resulting maximum $F_q(Z)$ value must be compared to the maximum $F_q(Z)$ determined from the previous measurement.

The licensee determined that the current CNP, Unit Nos. 1 and 2, TSs were non-conservative based on a deficiency identified in NSAL-15-1. To address issues identified in NSAL-15-1 the LAR proposed to modify TS Section 3.2.1, "Heat Flux Hot Channel Factor ($F_q(Z)$)," by defining TS surveillance requirements (SRs) for transient $F_q(Z)$ and corresponding actions with which to apply an appropriate penalty factor to measured results to ensure that TS 3.2.1 is met.

Title 10 of the *Code of Federal Regulations* (10 CFR) 50.34, "Contents of applications; technical information," requires that safety analysis reports include an analysis of the design and performance of structures, systems, and components provided for the prevention of accidents and the mitigation of the consequences of accidents. As part of the core reload process, licensees perform reload safety evaluations to ensure that their safety analyses remain bounding for the design cycle. To confirm that the analyses remain bounding, a licensee confirms that the inputs to the safety analyses are conservative with respect to the current design cycle. These inputs are checked using analytical models, and if key safety analysis parameters are not bounded, further analysis of the affected transients or accidents is performed to ensure that the applicable acceptance criteria are satisfied.

The regulations at 10 CFR 50.36, "Technical specifications," establishes the regulatory requirements related to the content of TSs. The regulations at 10 CFR 50.36(b) requires that each license authorizing the operation of a facility will include TSs that are derived from the safety analyses. The regulations at 10 CFR 50.36(c) specifies the categories that are to be included in the TSs, including limiting condition of operations (LCOs), SRs, and administrative controls.

As further discussed in 10 CFR 50.36(c)(3), SRs are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCOs will be met.

NUREG-1431, Volumes 1 and 2, Revision 4.0 (NUREG-1431), "Standard Technical Specifications (STS) Westinghouse Plants" (ADAMS Accession Nos. ML12100A222 and ML12100A228) provides guidance on content and format for the TSs for a Westinghouse designed facility.

3.0 TECHNICAL EVALUATION

In February of 2015, Westinghouse notified its customers by a communication letter, NSAL-15-1, Revision 0, of an issue associated with SR 3.2.1.2 in TS 3.2.1C of NUREG-1431. The issue is applicable to CNP because CNP, Unit Nos. 1 and 2, TS 3.2.1, follows the same methodology as in NUREG-1431, TS 3.2.1C. Based on the Westinghouse notification, the licensee determined that for certain trends in measured $F_Q(Z)$ and pre-calculated non-equilibrium factor $W(Z)$, the existing SR may not ensure that the transient $F_Q(Z)$, $F_Q^W(Z)$, will meet the heat flux hot channel factor limit between the performance of the monthly flux map measurements, thus rendering the existing CNP, Unit Nos. 1 and 2, TS 3.2.1, as non-conservative. The licensee has administratively implemented the recommended actions described in NSAL-15-1, and currently performs TS SR 3.2.1.2 using the established administrative controls in accordance with NRC Administrative Letter 98-10 "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety" (ADAMS Accession No. ML031110108).

The existing TS require that a penalty factor be applied to the transient $F_Q(Z)$ when compared to the $F_Q(Z)$ limit when two successive flux maps indicate that the equilibrium $F_Q(Z)$ margin to limit has decreased. The LAR noted that the need to apply a penalty factor based solely on the equilibrium $F_Q(Z)$ results from two successive flux maps may not be sufficiently conservative. Therefore, NSAL-15-1 recommended that two additional checks be performed. One is to check for an increase in the transient $F_Q(Z)$ between two successive flux maps, and the second is to check for a predicted increase in the transient $F_Q(Z)$ at the next surveillance.

The core monitoring tools at CNP, Unit Nos. 1 and 2, calculate core power distributions including the height dependent heat flux hot channel factor, $F_Q(Z)$. The purpose of TS 3.2.1 is to ensure that $F_Q(Z)$ is maintained within the limits assumed in the plant safety analysis. Compliance with the TS LCO is demonstrated by measuring the steady-state peak power density at each axial elevation and verifying that both the steady-state $F_Q(Z)$, $F_Q^C(Z)$, and the transient $F_Q(Z)$, $F_Q^W(Z)$, are within the limits specified in the COLR. The $F_Q^W(Z)$ values are derived by applying a pre-calculated allowance factor, $W(Z)$, to the $F_Q^C(Z)$ values. The $W(Z)$ factor adjusts for the maximum $F_Q(Z)$ increase at each axial location expected during normal plant operation to the $F_Q^C(Z)$ values.

To correct the above mentioned non-conservatism of the current CNP, Unit Nos. 1 and 2, TS and to address the deficiency identified in NSAL-15-1, the LAR proposed to modify SR 3.2.1.2. In addition to a minor editorial change from lower case ("z") to upper case ("Z"), it was proposed that if measurements indicate that the maximum over Z ($F_Q^C(Z)/K(Z)$) has increased since its previous evaluation or that the maximum over Z ($F_Q^C(Z)*W(Z)/K(Z)$) has increased since its previous evaluation or is expected to increase prior to its next evaluation, then it is required to increase $F_Q^W(z)$ by the greater of 1.02 or an appropriate factor specified in the core operating limits report (COLR) and reverify that $F_Q^W(z)$ is within its limit; or SR 3.2.1.2 must be repeated once per 7 effective full power days (EFPDs) until either $F_Q^W(Z)$ increases by the above factor, is within its limit or two successive flux maps indicate that neither the maximum over Z ($F_Q^C(Z)/K(Z)$) nor the maximum over Z ($F_Q^C(Z)*W(Z)/K(Z)$) has increased, where $K(Z)$ is the normalized $F_Q(Z)$ limit. These additional requirements will provide reasonable assurance that $F_Q(Z)$ will not exceed its limit without detection. The licensee administratively implemented these requirements, and currently performs these two additional checks at CNP, Unit Nos. 1 and 2, in accordance with NRC Administrative Letter 98-10. These additional checks are the subject of implementation under this LAR.

During its review, the NRC staff determined that additional information was required to complete its review. The NRC staff issued a request for additional information (RAI) that questioned if the fuel thermal conductivity degradation (TCD) issue, as described in NRC Information Notice 2011-21 (ADAMS Accession No. ML113430785), impact measured transient $F_Q(Z)$; and if so, to confirm that the TCD issue was addressed for CNP, Unit Nos. 1 and 2. The RAI response stated that the TCD issue does not impact the measured transient $F_Q(Z)$, $F_Q^W(Z)$, and is not affected by the additional surveillance actions. TS 3.2.1 ensures that $F_Q(Z)$ is maintained within the limits assumed in the plant safety analysis. Compliance with the TS LCO is demonstrated by measuring the steady-state peak power density at each axial elevation and verifying that both the steady-state heat flux hot channel factor ($F_Q^C(Z)$), and the $F_Q^W(Z)$, are within the limits specified in the cycle-specific COLR. The $F_Q(Z)$ limit used in the safety analysis incorporates the effect of TCD on peak cladding temperature (PCT) in the Westinghouse realistic emergency core cooling system evaluation models, as discussed in the NRC letter dated March 7, 2013 (ADAMS Accession No. ML13077A137).

The proposed amendment to add additional SRs to apply the penalty factor of 1.02 or a factor specified in the COLR, whichever is greater, to the transient $F_Q(Z)$, ensures that the assumptions and inputs to the safety analyses remain valid and do not result in actions that would increase the probability or consequences of any accident previously evaluated. Further, operation in accordance with the revised TS and its limits preserves the margins assumed in the safety analyses. This ensures that all design and performance criteria associated with the safety analysis will continue to be met and that the margin of safety is not affected. The NRC staff, therefore, finds the proposed amendment acceptable.

Technical Evaluation Conclusion

The NRC staff reviewed the proposed changes by comparing the licensee's proposed TSs, including the SRs, to the regulatory criteria using the guidance document specified above. The NRC staff examined the licensee's reasoning for departures from the current technical specifications, or the standard TSs of NUREG-1431, Revision 4, to determine the acceptability of the proposed TSs to meet the requirements of 10 CFR 50.36. The NRC staff concludes that the proposed amendment is acceptable because the proposed amendment of SR 3.2.1.2, to add additional surveillance requirements to apply the penalty factor of 1.02 or a factor specified in the COLR, whichever is greater, to the transient $F_Q(Z)$, is applicable to CNP, Unit Nos. 1 and 2, TS SR 3.2.1.2. Therefore, the proposed change ensures that the assumptions and inputs to the safety analyses remain valid, and the revised SR preserves the margins assumed in the safety analyses and thereby satisfies the requirements of 10 CFR 50.34 and 10 CFR 50.36.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Michigan official was notified of the proposed issuance of the amendment on November 7, 2019. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes the requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes SRs. 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 amendments involves no significant hazards consideration and there has been no public comment on such finding (84 FR 14150). 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 Commission 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 amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: M. Razzaque, NRR

Date of issuance: December 31, 2019

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENT NUMBERS 348 AND 329 TO REVISE OPERATING LICENSES DPR-58 AND DPR-74, TO ADDRESS ISSUES IDENTIFIED IN WESTINGHOUSE DOCUMENT NSAL-15-1 (L-2019-LLA-0039) DATED DECEMBER 31, 2019.

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ADAMS Accession No.: ML19304B672

*memo dated **via e-mail

OFFICE	NRR/DORL/LPL3/PM	NRR/DORL/LPL3/LA	NRR/DMLR/SRXB/BC(A)	NRR/DSS/STSB
NAME	RKuntz	SRohrer	JBorromeo*	VCusumano**
DATE	11/4/19	11/4/19	9/17/19	11/7/19
OFFICE	OGC NLO	NRR/DORL/LPL3/BC	NRR/DORL/LPL3/PM	
NAME	RAugustus*	NSalgado (SWall for)	RKuntz	
DATE	12/11/19	12/23/19	12/31/19	

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