



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

February 29, 2016

Mr. Fadi Diya
Senior Vice President and
Chief Nuclear Officer
Union Electric Company
P.O. Box 620
Fulton, MO 65251

SUBJECT: CALLAWAY PLANT, UNIT 1 - ISSUANCE OF AMENDMENT RE: REVISION OF TECHNICAL SPECIFICATIONS 2.1.1.1 AND 5.6.5 TO REMOVE UNCERTAINTIES FROM THE DEPARTURE FROM NUCLEAR BOILING RATIO SAFETY LIMIT AND ADOPT WCAP-14565-P-A METHODOLOGY (CAC NO. MF6249)

Dear Mr. Diya:

The U.S. Nuclear Regulatory Commission (NRC, the Commission) has issued the enclosed Amendment No. 216 to Renewed Facility Operating License No. NPF-30 for the Callaway Plant, Unit 1. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated May 8, 2015, as supplemented by letter dated November 9, 2015.

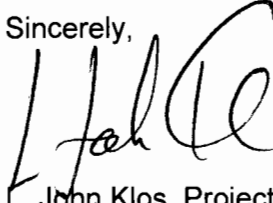
The amendment revises TSs 2.1.1.1 and 5.6.5 to adopt the NRC-approved methodologies of Westinghouse Commercial Atomic Power reports (WCAP)-14483-A, "Generic Method for Expanded Core Operating Limits Report," and WCAP-14565-P-A Addendum 2-P-A, "VIPRE-1 Modeling and Qualification for Pressurized Water Reactor Non-LOCA [Loss-of-Coolant Accident] Thermal-Hydraulic Safety Analysis," respectively. The change in TS 2.1.1.1 would provide the Departure from Nucleate Boiling Ratio in a form that reduces the need for cycle-specific license amendments and the change in TS 5.6.5 adds an NRC-approved methodology for determining core operating limits.

F. Diya

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

Sincerely,

A handwritten signature in black ink, appearing to read "L. John Klos". The signature is written in a cursive style with a large initial "L" and "K".

L. John Klos, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:

1. Amendment No. 216 to NPF-30
2. Safety Evaluation

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

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 216
License No. NPF-30

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Union Electric Company (UE, the licensee), dated May 8, 2015, as supplemented by letter dated November 9, 2015, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's 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-30 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan*

The Technical Specifications contained in Appendix A, as revised through Amendment No. 216 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This 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



Robert J. Pascarelli, Chief
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility
Operating License No. NPF-30 and
Technical Specifications

Date of Issuance: February 29, 2016

ATTACHMENT TO LICENSE AMENDMENT NO. 216

RENEWED FACILITY OPERATING LICENSE NO. NPF-30

DOCKET NO. 50-483

Replace the following pages of the Renewed Facility Operating License No. NPF-30 and 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.

Facility Operating License

REMOVE

INSERT

-3-

-3-

Technical Specifications

REMOVE

INSERT

2.0-1
5.0-25

2.0-1
5.0-25

- (3) UE, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
 - (4) UE, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source of special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
 - (5) UE, pursuant to the Act and 10 CFR Parts 30, 40 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 license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I 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

UE is authorized to operate the facility at reactor core power levels not in excess of 3565 megawatts thermal (100% power) in accordance with the conditions specified herein.
 - (2) Technical Specifications and Environmental Protection Plan*

The Technical Specifications contained in Appendix A, as revised through Amendment No. 216 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the renewed license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.
 - (3) Environmental Qualification (Section 3.11, SSER #3)**

Deleted per Amendment No. 169.

* Amendments 133, 134, & 135 were effective as of April 30, 2000 however these amendments were implemented on April 1, 2000.

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

2.0 SAFETY LIMITS (SLs)

2.1 SLs

2.1.1 Reactor Core SLs

In MODES 1 and 2, the combination of THERMAL POWER, Reactor Coolant System (RCS) highest loop average temperature, and pressurizer pressure shall not exceed the limits specified in the COLR; and the following SLs shall not be exceeded:

2.1.1.1 The departure from nucleate boiling ratio (DNBR) shall be maintained ≥ 1.17 for the WRB-2 DNB correlation.

2.1.1.2 The peak fuel centerline temperature shall be maintained $< 5080^{\circ}\text{F}$, decreasing by 58°F per 10,000 MWd/MTU of burnup.

2.1.2 RCS Pressure SL

In MODES 1, 2, 3, 4, and 5, the RCS pressure shall be maintained ≤ 2735 psig.

2.2 SL Violations

2.2.1 If SL 2.1.1 is violated, restore compliance and be in MODE 3 within 1 hour.

2.2.2 If SL 2.1.2 is violated:

2.2.2.1 In MODE 1 or 2, restore compliance and be in MODE 3 within 1 hour.

2.2.2.2 In MODE 3, 4, or 5, restore compliance within 5 minutes.

5.6 Reporting Requirements

4. WCAP-12610-P-A, "VANTAGE + FUEL ASSEMBLY REFERENCE CORE REPORT."
 5. WCAP-11397-P-A, "REVISED THERMAL DESIGN PROCEDURE."
 6. WCAP-14565-P-A, "VIPRE-01 MODELING AND QUALIFICATION FOR PRESSURIZED WATER REACTOR NON-LOCA THERMAL-HYDRAULIC SAFETY ANALYSIS."
 7. WCAP-10851-P-A, "IMPROVED FUEL PERFORMANCE MODELS FOR WESTINGHOUSE FUEL ROD DESIGN AND SAFETY EVALUATIONS."
 8. WCAP-15063-P-A, "WESTINGHOUSE IMPROVED PERFORMANCE ANALYSIS AND DESIGN MODEL (PAD 4.0)."
 9. WCAP-8745-P-A, "DESIGN BASES FOR THE THERMAL OVERPOWER DT AND THERMAL OVERTEMPERATURE DT TRIP FUNCTIONS."
 10. WCAP-10965-P-A, "ANC: A WESTINGHOUSE ADVANCED NODAL COMPUTER CODE."
 11. WCAP-11596-P-A, "QUALIFICATION OF THE PHOENIX-P/ANC NUCLEAR DESIGN SYSTEM FOR PRESSURIZED WATER REACTOR CORES."
 12. WCAP-13524-P-A, "APOLLO: A ONE DIMENSIONAL NEUTRON DIFFUSION THEORY PROGRAM."
 13. WCAP-14565-P-A Addendum 2-P-A, "Extended Application of ABB-NV Correlation and Modified ABB-NV Correlation WLOP for PWR Low Pressure Applications."
- c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
- d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

(continued)



UNITED STATES
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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 216 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-30

UNION ELECTRIC COMPANY

CALLAWAY PLANT, UNIT 1

DOCKET NO. 50-483

1.0 INTRODUCTION

By letter dated May 8, 2015 (Reference 1), as supplemented by letter dated November 9, 2015 (Reference 2), Union Electric Company, dba Ameren Missouri (the licensee) submitted a request for changes to the Technical Specifications (TSs) for Callaway Plant, Unit 1 (Callaway). The amendment would revise TS 5.6.5, "Core Operating Limits Report (COLR)," by adding a new U.S. Nuclear Regulatory Commission (NRC) approved methodology to the list of methodologies that are used to determine the core operating limits, and TS 2.1.1, "Reactor Core SLs [Safety Limits]," to revise the form of the departure from nucleate boiling ratio (DNBR) limit to reduce the need for cycle-specific license amendment requests (LARs) due to revised uncertainties calculated using an approved methodology.

The supplemental letter dated November 9, 2015, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 7, 2015 (80 FR 38763).

2.0 REGULATORY EVALUATION

The primary regulatory basis for evaluation of this LAR is paragraph 50.36(c)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR). This section imposes a regulatory requirement on licensees to include all safety limits in the TS. Safety limits are defined as limits upon important process variables that are found to be necessary to reasonably protect the integrity of certain of the physical barriers that guard against the uncontrolled release of radioactivity. The DNBR is defined as the ratio of the heat flux needed to cause departure from nucleate boiling (DNB) to the actual local heat flux of a fuel rod. If the heat flux for a rod increases to the point at which DNB occurs, then the surface of the fuel rod cladding will become insulated from the surrounding coolant by a layer of steam due to the rapid conversion of a significant quantity of liquid to vapor. The resulting loss of heat transfer will cause fuel rod heatup and probable failure of the fuel rod geometry, resulting in a loss of a primary fission product barrier. In order to prevent this from occurring, a DNBR limit is established.

The DNBR limit is evaluated using an analysis acceptance criterion consistent with Chapter 15 of NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Revision 3, March 2007 (SRP) (Reference 3). In the SRP, the fission product barrier represented by the fuel pellet and cladding is assumed to have failed if the DNBR falls below the 95/95 DNBR limit. Therefore, the DNBR limit established in the TS must be sufficiently high to ensure that DNB will not occur on the limiting fuel rods during Condition I and II events, to a 95 percent probability, with 95 percent confidence.

Finally, 10 CFR 50.36(c)(5) describes a requirement to include any provisions relating to procedures, recordkeeping, and reporting necessary to assure operation of the facility in a safe manner. NRC Generic Letter 1988-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," dated October 3, 1988 (Reference 4), provides guidance on inclusion of a section under the administrative controls listed in the TS that addresses the use of the Core Operating Limits Report (COLR) to report data to the NRC that has been calculated using NRC-approved methodologies. For Callaway, this information has previously been incorporated as Section 5.6.5 of the TS. In addition to the requirement to establish core operating limits and document them in the COLR, the Callaway TS also includes a list of specific NRC-approved analytical methodologies that can be used to determine the core operating limits.

3.0 TECHNICAL EVALUATION

3.1 Proposed TS Changes

The licensee is requesting two changes to the Callaway TS. The first change concerns modification of TS 2.1.1.1, which provides the DNBR limit for Callaway, to update the wording in a way that is more consistent with the intent of the COLR. The second change adds a new reference to the list of NRC-approved methodologies for calculation of core operating limits in TS 5.6.5.

TS 2.1.1, Reactor Core SLs

Current TS 2.1.1.1 states:

The design limit departure from nucleate boiling ratio (DNBR) shall be maintained ≥ 1.22 for transients analyzed using the revised thermal design procedure (RTDP) methodology and the WRB-2 DNB correlation. For non-RTDP transients analyzed using the standard thermal design procedure, the DNBR shall be maintained greater than or equal to the applicable DNB correlation limit (≥ 1.17 for WRB-2, ≥ 1.30 for W-3).

Revised TS 2.1.1.1 would state:

The departure from nucleate boiling ratio (DNBR) shall be maintained ≥ 1.17 for the WRB-2 DNB correlation.

TS 5.6.5, Reporting Requirements

TS 5.6.5.b would be revised to add a new analytical method, which would state:

13. WCAP-14565-P-A Addendum 2-P-A, "Extended Application of ABB-NV Correlation and Modified ABB-NV Correlation WLOP for PWR Low Pressure Applications."

3.2 Modification of TS 2.1.1.1

The modification being proposed by the licensee to TS 2.1.1.1 does two things: (1) the DNBR safety limit is specified without the addition of analytical uncertainties, and (2) the DNBR safety limit is only specified for the WRB-2 DNB correlation.

The licensee stated that the intent of the modification to TS 2.1.1.1 is to specify a "true" DNBR safety limit and allow the licensee to use NRC-approved methodologies to calculate the appropriate uncertainties as part of the process of determining the DNBR limit to be placed into the COLR. The previous form of TS 2.1.1.1 provided a DNBR limit of 1.22, which was calculated with some uncertainties statistically combined into the 1.17 limit for the WRB-2 DNB correlation. The proposed TS modification does not represent a change in methodology or basis for the DNBR limit. The primary change is that the licensee would be able to use specific methodologies listed in TS 5.6.5 that have been approved for use by the NRC to calculate cycle-specific uncertainties as part of generating the COLR limits, rather than fixing them as part of the TS limit. Consequently, the new value of 1.17 being proposed for inclusion in the TS is a DNBR limit that does not include any of the uncertainties that were previously included in the old value of 1.22. The references to the revised thermal design procedure were removed, because this procedure is used to calculate the overall DNBR uncertainty factor.

The licensee also removed the references to the DNBR safety limit for the W-3 DNB correlation. The licensee no longer intends to use its prior W-3 correlation for analysis of certain regions, so it is appropriate to remove that specific correlation and its corresponding safety limit. However, the licensee is proposing to use two alternate DNB correlations (the ABB-NV and WLOP correlations, discussed in the next section). These DNB correlations have their own DNBR limits. The NRC staff asked the licensee to justify the non inclusion of these DNBR limits in TS 2.1.1.1. The licensee responded by stating that the content of the proposed revision to TS 2.1.1.1 was consistent with the standard TS and with the intent of the safety limit as discussed in the NRC safety evaluation report for WCAP-14483 A (Reference 5), on which the TS 2.1.1.1 format was based.

Reference 5, WCAP-14483-A, is a topical report that allows Westinghouse pressurized-water reactor (PWR) plants to relocate the Reactor Core Limits figure into the COLR and be replaced by the design basis DNB limit and the fuel centerline melt limit. Specifically for the DNBR, Reference 5, Appendix A, Insert 1, documents that TS 2.1.1.1 states that the DNBR shall be maintained greater than 1.17 for WRB-2 DNB correlations.

The basis for the current TS 2.1.1.1 format is described in Section 4.0 of WCAP-14483-A. The DNBR safety limit provided in TS 2.1.1.1 is intended to be a design basis limit that has historically been met by ensuring that the plant stays within the bounds for the process variables

defined by the Reactor Core Limits figure in the COLR. This limit ensures that the DNB regulatory criteria are met during normal operating conditions and anticipated operational occurrences. The alternate DNB correlations are used in safety analyses where the primary WRB-2 correlation is no longer applicable. However, these analyses are either not bounding or are for events for which the DNB regulatory criteria do not apply (i.e., Condition III or IV events). Therefore, the WRB-2 correlation is the only one used to establish the limiting values for the process variables used to confirm that the DNB criteria are met. Per Reference 5, Section 4.4, Revised Safety Limits, using the DNB criteria from Reference 5 satisfies 10 CFR 50.36 and is also consistent with the Standard Technical Specifications in Reference 6, in conjunction with the Appendix A markups. Therefore, the revised TS 2.1.1.1 is consistent with the Westinghouse Standard Technical Specifications in Reference 6, as well as a number of other NRC-approved TS 2.1.1.1 formulations (e.g., References 8 and 9).

In addition, cycle-specific uncertainties will be determined and applied using NRC-approved methodologies to determine the appropriate Reactor Protection System setpoints and Reactor Core Limits figure used to safeguard the DNBR limit as part of the generation of the COLR. Therefore, the DNBR limit associated with the WRB-2 correlation is the design basis limit that satisfies the requirements for inclusion in the TS. Thus, the licensee's final TS pages meet the formatting acceptance criteria regarding revised safety limits stated in Reference 5 and the NRC staff finds this acceptable.

The proposed change to specify the WRB-2 DNBR limit with no uncertainties, and reference NRC-approved methodologies and the COLR for the final DNBR limit to be applied with uncertainties, is consistent with NRC-approved guidance for the Standard Technical Specifications for Westinghouse plants and for the relocation of certain information to the COLR. As a result, the NRC staff concludes that the proposed TS revision is acceptable.

3.3 Addition of New Methodologies to TS 5.6.5

The licensee is requesting the addition of a Westinghouse Electric Company LLC topical report, WCAP-14565-P-A Addendum 2-P-A, that has previously been reviewed and approved by the NRC for calculation of DNBR limits. The topical includes two DNB correlations, ABB-NV (for the nonmixing grid region of the fuel) and WLOP (for low flow, low pressure conditions). The NRC staff's final safety evaluation of the topical report (Reference 7), lists four limitations and conditions for any licensee that may choose to use these methodologies. The limitations and conditions require licensees to: (1) remain within the range of applicability for the ABB-NV and WLOP correlations for the analyses using these correlations; (2) use the same F_c factor as the primary DNB correlation; (3) justify the selection of the appropriate fuel-dependent parameters for each application of each correlation on a plant-specific basis; and (4) use the correlations in conjunction with the Westinghouse version of the VIPRE-01 subchannel analysis code.

In the LAR (Reference 1), Section 3.0, "COLR Analytical Method," the licensee explained how each condition would be met. In particular, the licensee indicated that it would comply with limitations 1, 2, and 4 as written in Reference 7. In addition, the licensee briefly discussed the justification for the selection of the appropriate DNB correlation, DNBR limit, and fuel-dependent parameters as they pertain to Callaway. The ABB-NV and WLOP DNB correlations will be used with the VIPRE analysis methodology and DNBR limits as approved in Reference 7. The rest of the fuel dependent parameters will not be changed from the current approved values for the fuel

loaded at Callaway. Since the fuel designs approved for use at Callaway, along with the Callaway reactor operating conditions, are consistent with those considered during the review of Reference 7, the justification was found to be appropriate based on the intended application of the methodologies to perform DNBR calculations for the fuel currently approved for use at Callaway.

Based on the fact that the licensee is adopting methodologies described in a topical report that has previously been reviewed and approved by the NRC, and has adequately demonstrated that all conditions in the corresponding safety evaluation are met, the NRC staff concludes that the proposed addition to TS 5.6.5 is acceptable.

3.4 Departures from NRC-Approved Methodology

No departures from NRC-approved methodologies were identified in the proposed Callaway TS changes.

3.5 NRC Staff Conclusion

The NRC staff concludes that the licensee's proposed changes to the Callaway TS 2.1.1.1 is acceptable based on NRC guidance on the Reactor Core Limits figure in the COLR (Reference 5) and the existing Standard Technical Specifications format (Reference 6). The NRC staff also concludes that the licensee's proposed changes to the Callaway TS 5.6.5 is acceptable, based on an implementation of the new methodologies that is consistent with the limitations and conditions established as part of the generic NRC staff approval of the aforementioned methodologies in Reference 7.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the 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 published in *Federal Register* on July 7, 2015 (80 FR 38763). 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.

5.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 REFERENCES

1. Maglio, S. A., Ameren Missouri, letter to U.S. Nuclear Regulatory Commission, "Docket Number 50-483, Callaway Plant Unit 1, Union Electric Co., Facility Operating License NPF-30, Revision of TS 2.1.1.1 and 5.6.5 to Remove Uncertainties from the DNBR Safety Limit and Adopt Approved WCAP-145650P-A Methodology," dated May 8, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15132A137).
2. Maglio, S. A., Ameren Missouri, letter to U.S. Nuclear Regulatory Commission, "Docket Number 50-483, Callaway Plant Unit 1, Union Electric Co., Renewed Facility Operating License NPF-30, Revision of TS 2.1.1.1 and 5.6.5 to Remove Uncertainties from the DNBR Safety Limit and Adopt Approved WCAP-145650P-A Methodology," dated November 9, 2015 (ADAMS Accession No. ML15313A192).
3. U.S. Nuclear Regulatory Commission, NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition," Chapter 15, Revision 3, March 2007 (ADAMS Accession No. ML070710376).
4. U.S. Nuclear Regulatory Commission, Generic Letter 1988-16, "Removal of Cycle-Specific Parameter Limits from Technical Specifications," dated October 3, 1988 (ADAMS Accession No. ML031150407).
5. Sepp, H. A., Westinghouse Electric Company LLC, letter to U.S. Nuclear Regulatory Commission, transmittal of approved version of proprietary WCAP-14483-A, "Generic Methodology for Expanded Core Operating Limits Report," dated October 25, 1999 (ADAMS Accession No. ML020430092).
6. NUREG-1431, Revision 4, Volume 1, "Standard Technical Specifications — Westinghouse Plants," April 2012 (ADAMS Accession No. ML12100A222).
7. Nieh, H. K., U.S. Nuclear Regulatory Commission, letter to James A. Gresham, Westinghouse Electric Company, "Final Safety Evaluation for WCAP-14565-P-A, Addendum 2-P-A, "Extended Application of ABB-NV Correlation and Modified ABB-NV Correlation WLOP for PWR Low Pressure Applications," dated February 14, 2008 (ADAMS Accession No. ML080360381).
8. Peters, S., U.S. Nuclear Regulatory Commission, letter to D. M. Jamil, Duke Energy Corporation, "Catawba Nuclear Station, Units 1 and 2 RE: Issuance of Amendments (TAC Nos. MB8359 and MB8360," dated December 19, 2003 (ADAMS Accession No. ML033570134).

9. Clark, R., U.S. Nuclear Regulatory Commission, letter to Mary G. Korsnick, R. E. Ginna Nuclear Power Plant, "R. E. Ginna Nuclear Power Plant – Amendment Re: Revision to Core Safety Limits and Safety System Instrumentation Setpoints (TAC No. MB4789)," dated September 22, 2004 (ADAMS Accession No. ML041180309).

Principal Contributor: S. Krepel, NRR/DSS/SRXB

Date: February 29, 2016

F. Diya

- 2 -

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

Sincerely,

/RA/

L. John Klos, Project Manager
Plant Licensing Branch IV-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosures:

1. Amendment No. 216 to NPF-30
2. Safety Evaluation

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ADAMS Accession No. ML16020A516

*SE memo dated

OFFICE	NRR/DORL/LPL4-1/PM	NRR/DORL/LPL4-1/LA	NRR/DSS/SRXB/BC*	NRR/DSS/SNPB/BC
NAME	JKlos	JBurkhardt	CJackson (EOesterle for)	JDean
DATE	2/3/16	2/3/16	1/6/16	2/11/16
OFFICE	NRR/DSS/STSB/BC	OGC	NRR/DORL/LPL4-1/BC	NRR/DORL/LPL4-1/PM
NAME	RElliott	MRing	RPascarelli	JKlos
DATE	1/21/16	2/22/16	2/26/16	2/29/16

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