December 3, 1998

Mr. Oliver D. Kingsley, President
Nuclear Generation Group
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: ISSUANCE OF AMENDMENT - QUAD CITIES NUCLEAR POWER STATION, UNIT 1 (TAC NO. M99552)

Dear Mr. Kingsley:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 182 to Facility Operating License No. DPR-29 for the Quad Cities Nuclear Power Station, Unit 1. The amendment is in response to your application dated August 14, 1998, as supplemented by letters dated October 13 and November 23, 1998.

The amendment changes the Quad Cities Technical Specifications (TS) to reflect the use of Siemens Power Corporation ATRIUM-9B fuel. Specifically the amendment incorporates the following into the TS: (a) new methodologies that will enhance operational flexibility and reduce the likelihood of future plant derates, (b) administrative changes that eliminate the cycle specific implementation of ATRIUM-9B fuel and adopt Improved Standard Technical Specification language where appropriate, and (c) changes to the Minimum Critical Power Ratio.

As described in Section 5.0 of the enclosed safety evaluation, the staff has made a final determination that no significant hazards consideration is involved and that the amendment should be issued in that failure of the Commission to act in a timely manner would result in the prevention of the resumption of operations at Quad Cities, Unit 1, and has processed this amendment accordingly.

The Notice of Issuance and final determination of no significant hazards consideration and opportunity for a hearing will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIG. SIGNED BY
Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

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Docket No. 50-254

Enclosures: 1. Amendment No.182 to DPR-29
2. Safety Evaluation

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As described in Section 5.0 of the enclosed safety evaluation, the staff has made a final determination that no significant hazards consideration is involved and that the amendment should be issued in that failure of the Commission to act in a timely manner would result in the prevention of the resumption of operations at Quad Cities, Unit 1, and has processed this amendment accordingly.

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

December 3, 1998

Mr. Oliver D. Kingsley, President
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Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
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The amendment changes the Quad Cities Technical Specifications (TS) to reflect the use of Siemens Power Corporation ATRIUM-9B fuel. Specifically the amendment incorporates the following into the TS: (a) new methodologies that will enhance operational flexibility and reduce the likelihood of future plant derates, (b) administrative changes that eliminate the cycle specific implementation of ATRIUM-9B fuel and adopt Improved Standard Technical Specification language where appropriate, and (c) changes to the Minimum Critical Power Ratio.

As described in Section 5.0 of the enclosed safety evaluation, the staff has made a final determination that no significant hazards consideration is involved and that the amendment should be issued in that failure of the Commission to act in a timely manner would result in the prevention of the resumption of operations at Quad Cities, Unit 1, and has processed this amendment accordingly.

The Notice of Issuance and final determination of no significant hazards consideration and opportunity for a hearing will be included in the Commission's biweekly Federal Register notice.

Sincerely,

Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-254

Enclosures: 1. Amendment No. 182 to DPR-29
2. Safety Evaluation

cc w/encls: See next page

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

COMMONWEALTH EDISON COMPANY

AND

MIDAMERICAN ENERGY COMPANY

DOCKET NO. 50-254

QUAD CITIES NUCLEAR POWER STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 182
License No. DPR-29

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Commonwealth Edison Company (the licensee) dated August 14, 1998, as supplemented on October 13 and November 23, 1998, 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 3.B. of Facility Operating License No. DPR-29 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 182 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert M. Pulsifer, Project Manager
Project Directorate III-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 3, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 182

FACILITY OPERATING LICENSE NO. DPR-29

DOCKET NO. 50-254

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
-----	Ia
-----	1-1a
2-1	2-1b
-----	3/4.11-1a
-----	6-16b

SECTION PAGE

Section 1 DEFINITIONS

1.0 DEFINITIONS

The following terms are defined so that uniform interpretation of these specifications may be achieved. The defined terms appear in capitalized type and shall be applicable throughout these Technical Specifications.

ACTION

ACTION shall be that part of a Specification which prescribes remedial measures required under designated conditions.

AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)

The AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR) shall be applicable to a specific planar height and is equal to the sum of the LINEAR HEAT GENERATION RATE(s) for all the fuel rods in the specified bundle at the specified height divided by the number of fuel rods in the fuel bundle.

CHANNEL

A CHANNEL shall be an arrangement of a sensor and associated components used to evaluate plant variables and generate a single protective action signal. A CHANNEL terminates and loses its identity where single action signals are combined in a TRIP SYSTEM or logic system.

CHANNEL CALIBRATION

A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the CHANNEL output such that it responds with the necessary range and accuracy to known values of the parameter which the CHANNEL monitors. The CHANNEL CALIBRATION shall encompass the entire CHANNEL including the required sensor and alarm and/or trip functions, and shall include the CHANNEL FUNCTIONAL TEST. The CHANNEL CALIBRATION may be performed by any series of sequential, overlapping or total CHANNEL steps such that the entire CHANNEL is calibrated.

CHANNEL CHECK

A CHANNEL CHECK shall be the qualitative assessment of CHANNEL behavior during operation by observation. This determination shall include, where possible, comparison of the CHANNEL indication and/or status with other indications and/or status derived from independent instrument CHANNEL(s) measuring the same parameter.

2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 SAFETY LIMITS

THERMAL POWER, Low Pressure or Low Flow

2.1.A THERMAL POWER shall not exceed 25% of RATED THERMAL POWER with the reactor vessel steam dome pressure less than 785 psig or core flow less than 10% of rated flow.

APPLICABILITY: OPERATIONAL MODE(s) 1 and 2.

ACTION:

With THERMAL POWER exceeding 25% of RATED THERMAL POWER and the reactor vessel steam dome pressure less than 785 psig or core flow less than 10% of rated flow, be in at least HOT SHUTDOWN within 2 hours and comply with the requirements of Specification 6.7.

THERMAL POWER, High Pressure and High Flow

2.1.B The MINIMUM CRITICAL POWER RATIO (MCPR) shall not be less than 1.11 with the reactor vessel steam dome pressure greater than or equal to 785 psig and core flow greater than or equal to 10% of rated flow. During single recirculation loop operation, this MCPR limit shall be increased by 0.01.

APPLICABILITY: OPERATIONAL MODE(s) 1 and 2.

ACTION:

With MCPR less than the above applicable limit and the reactor vessel steam dome pressure greater than or equal to 785 psig and core flow greater than or equal to 10% of rated flow, be in at least HOT SHUTDOWN within 2 hours and comply with the requirements of Specification 6.7.

3.11 - LIMITING CONDITIONS FOR OPERATION

A. AVERAGE PLANAR LINEAR HEAT GENERATION RATE

All AVERAGE PLANAR LINEAR HEAT GENERATION RATES (APLHGR) shall not exceed the limits specified in the CORE OPERATING LIMITS REPORT.

APPLICABILITY:

OPERATIONAL MODE 1, when THERMAL POWER is greater than or equal to 25% of RATED THERMAL POWER.

ACTION:

With an APLHGR exceeding the limits specified in the CORE OPERATING LIMITS REPORT:

1. Initiate corrective ACTION within 15 minutes, and

2. Restore APLHGR to within the required limit within 2 hours.

With the provisions of the ACTION above not met, reduce THERMAL POWER to less than 25% of RATED THERMAL POWER within the next 4 hours.

4.11 - SURVEILLANCE REQUIREMENTS

A. AVERAGE PLANAR LINEAR HEAT GENERATION RATE

The APLHGRs shall be verified to be equal to or less than the limits specified in the CORE OPERATING LIMITS REPORT.

1. At least once per 24 hours,

2. Within 12 hours after completion of a THERMAL POWER increase of at least 15% of RATED THERMAL POWER, and

3. Initially and at least once per 12 hours when the reactor is operating with a LIMITING CONTROL ROD PATTERN for APLHGR.

4. The provisions of Specification 4.0.D are not applicable.

(14) ANFB Critical Power Correlation, ANF-1125(P)(A) and Supplements 1 and 2, Advanced Nuclear Fuels Corporation, April 1990.

(15) Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors/Advanced Nuclear Fuels Corporation Critical Power Methodology for Boiling Water Reactors: Methodology for Analysis of Assembly Channel Bowing Effects/NRC Correspondence, ANF-524(P)(A), Revision 2, Supplement 1 Revision 2, Supplement 2, Advanced Nuclear Fuels Corporation, November 1990.

(16) COTRANSA 2: A Computer Program for Boiling Water Reactor Transient Analyses, ANF-913(P)(A) Volume 1 Revision 1 and Volume 1 Supplements 2, 3, and 4, Advanced Nuclear Fuels Corporation, August 1990.

(17) Advanced Nuclear Fuels Corporation Methodology for Boiling Water Reactors EXEM BWR Evaluation Model, ANF-91-048(P)(A), Advanced Nuclear Fuels Corporation, January 1993.

(18) Commonwealth Edison Topical Report NFSR-0091, "Benchmark of CASMO/MICROBURN BWR Nuclear Design Methods," Revision 0, Supplements 1 and 2, December 1991, March 1992, and May 1992, respectively; SER letter dated March 22, 1993.

(19) ANFB Critical Power Correlation Application for Coresident Fuel, EMF-1125(P)(A), Supplement 1, Appendix C, Siemens Power Corporation, August 1997.

(20) ANFB Critical Power Correlation Determination of ATRIUM-9B Additive ConstantUncertainties, ANF-1125(P)(A), Supplement 1 Appendix E, Siemens Power Corporation, September 1998.

c. The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety analysis are met. The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

6.9.B Special Reports

Special reports shall be submitted to the Regional Administrator of the NRC Regional Office within the time period specified for each report.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 182 TO FACILITY OPERATING LICENSE NO. DPR-29

COMMONWEALTH EDISON COMPANY

AND

MIDAMERICAN ENERGY COMPANY

QUAD CITIES NUCLEAR POWER STATION, UNIT 1

DOCKET NO. 50-254

1.0 INTRODUCTION

By letter dated August 14, 1998 (Reference 1) Commonwealth Edison Company (ComEd, the licensee) requested changes to the Technical Specifications (TS) for Quad Cities Nuclear Power Station, Units 1 and 2. Additional information was submitted by letters dated October 13, 1998 (Reference 2) and November 23, 1998. The proposed changes are due to the transition to Siemens Power Corporation (SPC) ATRIUM-9B fuel. The key items are:

1) incorporation of SPC's new methodologies that would enhance operational flexibility and reduce the likelihood of future plant derates,
2) administrative changes that adopt Improved Technical Specification language where appropriate, and
3) changes to the Quad Cities Minimum Critical Power Ratio (MCPR) Safety Limits.

2.0 EVALUATION

The requested TS changes can be categorized into four different topics:

1) Addition of SPC Generic Methodology for Application of Advanced Nuclear Fuel for Boiling Water Reactors (ANFB) Critical Power Correlation to Non-SPC Fuel - EMF-1125(P)(A), Supplement 1, Appendix C (Reference 3).
2) Addition of SPC Topical for ATRIUM-9B fuel - ANF-1125(P)(A), Supplement 1, Appendix E, (Reference 4).
3) Change to MCPR Safety Limit.
4) Revision to thermal limit descriptions.

Currently Quad Cities, Unit 1, is undergoing a transition from General Electric (GE) to SPC fuel, including the associated methodologies. Due to the transition to SPC fuel it was necessary for SPC to provide a methodology for application of their ANFB critical power correlation to the coresident GE fuel. This topical report has been reviewed and approved by the NRC

(Reference 3) and is applicable to Quad Cities. The approval of this report listed two conditions. By letter dated July 21, 1998 (Reference 5) ComEd provided the information to address the conditions. This information was reviewed and NRC responded by letter dated August 18, 1998 (Reference 6) that the data provided satisfies the SE conditions. Thus, the addition of SPC Generic Methodology for Application of ANFB Critical Power Correlation to Non-SPC Fuel - EMF-1125(P)(A), Supplement 1, Appendix C, is acceptable. The addition of this methodology will ensure that values of cycle-specific parameters are determined such that all applicable limits of the safety analysis are met.

SPC Topical for ATRIUM-9B fuel - ANF-1125(P)(A), Supplement 1, Appendix E, was recently reviewed and approved by NRC (Reference 4) and is applicable to Quad Cities. The restrictions on the additive constant uncertainty from Appendix E are equal to or less restrictive than those used for the analysis of Quad Cities, Unit 1, Cycle 16. Thus, the addition of SPC Topical for ATRIUM-9B fuel - ANF-1125(P)(A), Supplement 1, Appendix E, is acceptable. The addition of this methodology will ensure that values of cycle-specific parameters are determined such that all applicable limits of the safety analysis are met.

The change to MCPR Safety Limit was due to the change to SPC fuel. Using the SPC ANFB critical power correlation methodology and the ATRIUM-9B additive constant uncertainty resulting from the approval of Appendix E (Reference 4), the MCPR Safety Limit for Quad Cities, Unit 1, will be 1.11. This will bound cycle 16 operation. The applicability of the MCPR Safety Limit will be confirmed on a cycle-by-cycle basis. The value of 1.11 is anticipated to bound the actual MCPR Safety Limit for future Quad Cities SPC reloads. Since the MCPR Safety Limit of 1.11 is calculated with an approved methodology and uses the approved additive constant uncertainty from Appendix E, the change to this value will ensure that 99.9% of the fuel avoids transition boiling and is acceptable.

The change to revise the thermal limit descriptions is to generalize the definitions of the average planar linear heat generation rate (APLHGR) limits to allow either bundle average or average planar exposure based APLHGR limits, consistent with the loss-of-coolant accident (LOCA) analysis of record. This generalization of the definition of APLHGR is consistent with the Improved Standard Technical Specifications (NUREG 1433/1434, Revision 1) wording. Both maximum average planar linear heat-generation rate (MAPLHGRs) (bundle average exposure based and planar average exposure based) are acceptable for Appendix K of 10 CFR Part 50. Thus, this change is acceptable.

3.0 TECHNICAL SPECIFICATION CHANGES

Technical Specifications -Table of Contents and TS Section 1- Delete item in Table of Contents for definition of Average Planar Exposure and delete definition of Average Planar Exposure in TS Section 1. This is acceptable because the Average Planar Exposure is no longer used.

Technical Specification 2.1.B - Change the MCPR to 1.11 (from 1.07 and 1.10, respectively). This change results from the use of ATRIUM 9B fuel and is, therefore, acceptable.

Technical Specification 3/4.11-1 - The description of the APLHGR Limiting Conditions for Operation (LCO) is changed to not specify that the APLHGR should be a function of average planar exposure. This change is acceptable because the APLHGR is based on the bundle average exposure consistent with the LOCA analysis.

Technical Specification 6.9 - Removal of the cycle 15 specific footnote and the cycle 15 specific methodology. Addition of the topical reports EMF-1125(P)(A), Supplement 1, Appendix C, and ANF-1125(P), Supplement 1, Appendix E, to the list of references. These changes are needed for use of the ATRIUM-9B fuel and addition of these methodologies will ensure that values for cycle-specific parameters are determined such that all applicable limits of the safety analysis are met.

Based on staff evaluation as discussed 2.0 and 3.0 above, the staff concludes that the proposed TS changes are acceptable for Quad Cities, Unit 1.

4.0 DISCUSSION OF EXIGENT CIRCUMSTANCES

10 CFR 50.91(a)(6) provides the necessary requirements for issuing an amendment where the Commission makes a final determination that no significant hazards consideration is involved and that the amendment should be issued. The Commission expects its licensees to: apply for a license amendment in timely fashion; not abuse the provisions by failing to make a timely application for the amendment and thereby explain the exigency and why it could not have been avoided.

On November 23, 1998, the licensee identified that the license amendment request for Quad Cities, Unit 1, which was originally submitted on August 14, 1998, as supplemented by letter dated October 13, 1998, and noticed in the Federal Register on November 4, 1998, with the 30 day comment period ending at close of business on December 4, 1998, may result in the prevention of resumption of operation if the staff failed to act in a timely way. The licensee had originally requested that the amendment be approved by December 1, 1998, in preparation of reactor startup on December 5, 1998. However, due to the completion of outage activities such that the plant would be ready to restart prior to the expiration of the 30 day notice, the licensee promptly requested expedient approval of the amendment to support the revised startup of Quad Cities.

Based on the above circumstances, the staff has determined that (1) the licensee made a timely application for the amendment and properly notified the NRC of changed circumstances warranting expedited processing of the amendment and (2) that the amendment is needed before expiration of the 30 day notice in order to prevent a delay in startup. Therefore, exigent circumstances are present which warrant the processing of this amendment in an expedited manner pursuant to the provisions of 10 CFR 50.91(a)(6).

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATIONS DETERMINATION

The Commission's regulations in 10 CFR 50.92 state the Commission may make a final determination that a license amendment involves no significant hazards consideration, if operation of the facility, in accordance with the amendment would not:

(1) Involve a significant increase in the probability or consequences of any accident previously evaluated; or

(2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or

(3) Involve a significant reduction in a margin of safety.

This amendment has been evaluated against the standards in 10 CFR 50.92. It does not involve a significant hazards consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of any accident previously evaluated.

The addition of Reference 3 does not significantly increase the probability or consequences of an accident previously evaluated. This change added to the TS a topical report which has been approved by the NRC as a SPC generic methodology for ANFB application to coresident fuel. This methodology is used to determine the additive constants and the associated uncertainty for this application in calculating a particular fuel cycle's MCPR Safety Limit. The operability of plant systems designed to mitigate any consequences of accidents have not changed. Therefore, the proposed addition of this SPC methodology to the list in the TS of analytical methods used to determine operating limits does not significantly increase the probability or consequences of an accident previously evaluated.

The addition of Reference 7 does not significantly increase the probability or consequences of an accident previously evaluated. The basis of Reference 7 was a new statistical analysis using an expanded data base resulting in an approved additive constant uncertainty for ATRIUM-9B fuel. This additive constant uncertainty is used as input to the MCPR Safety Limit calculations. These MCPR Safety Limits are applied to ensure the safety limits are not violated during all modes of operation and anticipated operational occurrences. This change does not require any physical plant modifications, physically affect any plant components, or entail changes in plant operation. Therefore, no individual precursors of an accident are affected and the operability of plant systems designed to mitigate the probability or the consequences of an accident previously evaluated is not affected by this change.

Changing the MCPR Safety Limit at Quad Cities, Unit 1, will not increase the probability or the consequences of an accident previously evaluated. The basis for revising the MCPR Safety

Limits for Quad Cities, Unit 1, was due to the revision of the ATRIUM-9B additive constants and the staff approval of the ATRIUM-9B additive constant uncertainty in Reference 7. Cycle specific MCPR Safety Limit calculations will be performed for each reload to verify compliance with the MCPR Safety Limit in the Technical Specifications. Operational limits will be applied that will ensure the MCPR Safety Limit is not violated. The MCPR Safety Limits are being set at the critical power ratio (CPR) value where less than 0.1 percent of the fuel rods in the core are expected to experience boiling transition, therefore, the probability or consequences of an accident will not increase.

The change in the description of APLHGR and deletion of Average Planar Exposure at Quad Cities, Unit 1, will not increase the probability or the consequences of an accident previously evaluated. The NRC-approved LOCA methodology applies to either a bundle average or average planar exposure. This new description of APLHGR refers to not exceeding the limits specified in the core operating limits report (COLR), which is consistent with the Improved Technical Specifications, NUREG 1433/1434, Revision 1. No plant equipment or processes are affected by this change. Therefore, this change will not increase the probability or the consequences of an accident previously evaluated.

2. Create the possibility of a new or different kind of accident from any accident previously evaluated.

The addition of Reference 3 is the adding of an NRC-approved methodology for the application of the ANFB critical power correlation to co-resident fuel. It does not introduce any physical changes to the plant, the processes used to operate the plant, or allowable modes of operation. The MCPR of the co-resident fuel will be calculated using the additive constants determined as described in Reference 3. Therefore, no new precursors of an accident are created and no new or different kinds of accidents are created.

The addition of Reference 7 is the adding of an NRC-approved methodology for the calculation of the additive constant uncertainty for ATRIUM-9B fuel to the MCPR Safety Limit. It does not introduce any physical changes to the plant, the processes used to operate the plant, or allowable modes of operation. Therefore, no new precursors of an accident are created and no new or different kinds of accidents are created.

The changing of the MCPR Safety Limit will not create the possibility of a new or different kind of accident. The revised additive constants for ATRIUM-9B fuel calculated in Reference 7 resulted in a MCPR increase to 1.11. This new limit is expected to bound future reloads of ATRIUM-9B. This change will not change or add any new equipment, change mode of operation or the processes used to operate the plant. Therefore, no new accidents are created that are different from any accident previously evaluated.

The revision of the APLHGR description and the deletion of the Average Planar Exposure definition will not create the possibility of a new or different kind of accident from any previously evaluated. This change provides flexibility and consistency of the APLHGR limits in the COLR. This change does not introduce any physical changes to the plant, the processes used to

operate the plant, or allowable modes of plant operation. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Involve a significant reduction in a margin of safety.

The margin of safety does not decrease with the addition of Reference 3. This methodology is NRC-approved for the application of the ANFB critical power correlation to co-resident fuel. It will continue to ensure that greater than 99.9 percent of the rods in the core avoid boiling transition. Operating limits will be established to ensure the MCPR Safety Limit is not violated. Therefore, there is no significant reduction in the margin of safety.

The margin of safety does not decrease with the addition of Reference 7. This methodology provides the ATRIUM 9B additive constant uncertainty calculation which is based on a larger data base as previous calculations and has been NRC approved.

This methodology ensures that greater than 99.9 percent of the rods in the core avoid boiling transition. Operating limits will be established to ensure the MCPR Safety Limit is not violated. Therefore, there is no significant reduction in the margin of safety.

Changing of the MCPR Safety Limit will not involve any reduction in the margin of safety. The new MCPR Safety Limits reflect the NRC-approved methodologies of the ANFB critical power correlation and the ATRIUM-9B additive constant uncertainty calculations. This safety limit increase is expected to bound future ATRIUM-9B reloads. This MCPR Safety Limit ensures that greater than 99.9 percent of the rods in the core avoid boiling transition. Operating limits will be established to ensure the MCPR Safety Limit is not violated. Therefore, there is no significant reduction in the margin of safety.

The revision of the thermal limit APLHGR description and the deletion of the Average Planar Exposure definition will not involve a reduction in the margin of safety. The methodologies to calculate APLHGR must still meet NRC requirements and the APLHGR is still required to be maintained in the COLR. The surveillance requirements for APLHGR remains unchanged. Therefore, there is no significant reduction in the margin of safety.

Accordingly, the Commission has determined that this amendment involves no significant hazards consideration.

6.0 STATE CONSULTATION

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

7.0 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 made a final no significant hazards finding with respect to this amendment. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). This amendment also relates to changes in recordkeeping, reporting or administrative procedures or requirements. Accordingly, with respect to these items, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

8.0 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) 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.

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9.0 REFERENCES

1. Letter from R.M. Krich, ComEd, to NRC, dated August 14, 1998.
2. Letter from R.M. Krich, ComEd, to NRC, dated October 13, 1998.
3. EMF-1125(P)(A), Supplement 1, Appendix C, "ANFB Critical Power Correlation Application for Coresident Fuel," August 1997, and NRC SE, "Acceptance for Referencing of Licensing Topical Report EMF-1125(P), Supplement 1, Appendix C, "ANFB Critical Power Correlation Application for Co-Resident Fuel, " J.E. Lyons to R.A. Copeland, May 9, 1997.
4. ANF-1125(P), Supplement 1, Appendix E, "ANFB Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties", and NRC SE, "Acceptance for Referencing of Licensing Topical Report ANF-1125(P), Supplement 1, Appendix E ,Critical Power Correlation Determination of ATRIUM-9B Additive Constant Uncertainties", T.H. Essig to H.D. Curet, September 23, 1998.
5. Letter from J.P. Dimmette, ComEd, to NRC, dated July 21, 1998.
6. Letter from R.M. Pulsifer, NRC, to O.D. Kingsley, ComEd, dated August 18, 1998.