

October 3, 2006

Mr. Bruce H. Hamilton
Vice President, Oconee Site
Duke Power Company LLC
7800 Rochester Highway
Seneca, SC 29672

SUBJECT: OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3, ISSUANCE OF
AMENDMENTS REGARDING AC SOURCES-OPERATING (TAC NOS.
MD3070, MD3071, AND MD3072)

Dear Mr. Hamilton:

The Nuclear Regulatory Commission has issued the enclosed Amendment Nos. 354, 356, and 355 to Renewed Facility Operating Licenses DPR-38, DPR-47, and DPR-55, for the Oconee Nuclear Station, Units 1, 2, and 3, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated September 27, 2006, as supplemented October 2 and 3, 2006.

These amendments revise Technical Specification 3.8.1, "AC Sources - Operating," Required Action C.2.2.5 to extend the Completion Time for one time only from 45 days to 75 days.

These amendments are being issued under exigent circumstances in accordance with Section 50.91(a)(6) of Title 10 of the *Code of Federal Regulations*. The exigent circumstances and the final no significant hazards considerations are addressed in Sections 4.0 and 5.0 of the enclosed Safety Evaluation.

A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA/

Leonard N. Olshan, Sr. Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, and 50-287

Enclosures:

1. Amendment No. 354 to DPR-38
2. Amendment No. 356 to DPR-47
3. Amendment No. 355 to DPR-55
4. Safety Evaluation

cc w/encls: See next page

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DUKE POWER COMPANY LLC

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 354
Renewed License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Oconee Nuclear Station, Unit 1 (the facility), Renewed Facility Operating License No. DPR-38 filed by the Duke Power Company LLC (the licensee), dated September 27, 2006, as supplemented October 2 and 3, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 3.B of Renewed Facility Operating License No. DPR-38 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 354, 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 its date of issuance and shall be implemented on or before October 3, 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-38
and the Technical Specifications

Date of Issuance: October 3, 2006

DUKE POWER COMPANY LLC

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 356
Renewed License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Oconee Nuclear Station, Unit 2 (the facility), Renewed Facility Operating License No. DPR-47 filed by the Duke Power Company LLC (the licensee), dated September 27, 2006, as supplemented October 2 and 3, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 3.B of Renewed Facility Operating License No. DPR-47 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 356, 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 its date of issuance and shall be implemented on or before October 3, 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-47
and the Technical Specifications

Date of Issuance: October 3, 2006

DUKE POWER COMPANY LLC

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 355
Renewed License No. DPR-55

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Oconee Nuclear Station, Unit 3 (the facility), Renewed Facility Operating License No. DPR-55 filed by the Duke Power Company LLC (the licensee), dated September 27, 2006, as supplemented October 2 and 3, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as 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 set forth in 10 CFR Chapter I;
 - 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 hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 3.B of Renewed Facility Operating License No. DPR-55 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 355, 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 its date of issuance and shall be implemented on or before October 3, 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to Renewed Facility
Operating License No. DPR-55
and the Technical Specifications

Date of Issuance: October 3, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 354
RENEWED FACILITY OPERATING LICENSE NO. DPR-38
DOCKET NO. 50-269
AND
TO LICENSE AMENDMENT NO. 356
RENEWED FACILITY OPERATING LICENSE NO. DPR-47
DOCKET NO. 50-270
AND
TO LICENSE AMENDMENT NO. 355
RENEWED FACILITY OPERATING LICENSE NO. DPR-55
DOCKET NO. 50-287

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

Remove Pages

Licenses

License No. DPR-38, page 3
License No. DPR-47, page 3
License No. DPR-55, page 3

TSs

3.8.1-5
B 3.8.1-10

Insert Pages

Licenses

License No. DPR-38, page 3
License No. DPR-47, page 3
License No. DPR-55, page 3

Tss

3.8.1-5
B 3.8.1-10

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO

AMENDMENT NO. 354 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-38

AMENDMENT NO. 356 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-47

AND

AMENDMENT NO. 355 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-55

DUKE POWER COMPANY LLC

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

DOCKET NOS. 50-269, 50-270, AND 50-287

1.0 INTRODUCTION

By application dated September 27, 2006 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML062720111), as supplemented October 2 and 3, 2006, Duke Power Company LLC (Duke, the licensee), requested changes to the Technical Specifications (TSs) for the Oconee Nuclear Station, Units 1, 2, and 3 (Oconee1/2/3). The supplement dated October 2 and 3, 2006, provided additional information that clarified the application, did not expand the scope of the original notice published in the *Greenville News* on September 29, and 30, and October 1, 2006, and the *Anderson Independent* on September 29 and October 1, 2006, and did not change the NRC staff's original proposed no significant hazards considerations determination.

The proposed changes would revise Technical Specification 3.8.1, "AC Sources - Operating," Required Action C.2.2.5, to extend the Completion Time (CT) for one time only from 45 days to 75 days.

While performing routine surveillance on Keowee Hydro Unit #2 (KHU #2), KHU #2 experienced a lockout condition. During troubleshooting, the licensee determined that one field coil pole connector had melted. Repairing KHU #2 requires pulling the generator rotor, installing a turbine bracing bar, removing the damaged field coils, stator inspection and testing, repairing and testing the damaged field coils, removing the turbine bracing bar, installing the rotor and balancing, and testing to return KHU #2 to service. The licensee has stated that this repair effort could take up to approximately 40 days. Therefore, the licensee requested that the CT of TS 3.8.1, RA C.2.2.5 be extended to allow time to complete the repair of KHU #2.

Pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.91(a)(6), the licensee requested that the proposed amendments be issued under exigent circumstances. A detailed discussion of the exigent circumstances is contained in Section 4.0 of this evaluation. Public notice of proposed issuance of these amendments was published in the *Greenville News* and the *Anderson Independent*.

2.0 REGULATORY EVALUATION

The regulatory requirements that the NRC staff applied in its review of the application include:

General Design Criterion (GDC) 17, "Electrical power systems," of Appendix A, "General Design Criteria for Nuclear Power Plants," to Title 10, Part 50, of the *Code of Federal Regulations* (CFR), requires in part, that nuclear power plants have onsite and offsite electrical power systems to permit the functioning of structures, systems, and components that are important to safety. The onsite system is required to have sufficient independence, redundancy, and testability to perform its safety function, assuming a single failure. The offsite power system is required to be supplied by two physically independent circuits that are designed and located so as to minimize, to the extent practical, the likelihood of their simultaneous failure under operating and postulated accident and environmental conditions. In addition, this criterion requires provisions to minimize the probability of losing electric power from the remaining electric power supplies as a result of loss of power from the unit, the offsite transmission network, or the onsite power supplies.

GDC 18, "Inspection and testing of electric power systems," requires that electric power systems important to safety must be designed to permit appropriate periodic inspection and testing.

Section 50.36, "Technical Specifications," requires a licensee's TSs to establish limiting conditions of operation and surveillance requirements for equipment that is required for safe operation of the facility. Specifically, 10 CFR 50.36(c)(1) stipulates the items to be included in the TSs and Section 50.36(c)(3) stipulates the surveillance requirements.

3.0 TECHNICAL EVALUATION

3.1 Deterministic Evaluation

The Oconee 1/2/3 safety-related buses normally receive power from the unit's auxiliary transformer while the unit is operating and from the startup transformer when the unit is shutdown. All six transformers are sized to power the accident load on one unit and the shutdown loads on the remaining units. Besides the remaining KHU #1, the Oconee site also can receive emergency power from the Lee Combustion Turbines (LCT) (three units located approximately 30 miles from the Oconee site) through a dedicated 100 kV line. The LCT source is presently feeding the standby buses for all three Oconee units. The remaining KHU #1 has been lined up to the underground feeder and can also feed the standby bus, or the overhead 230 KV bus to the startup transformers if required.

Oconee 1/2/3 OPERABILITY requirements for the onsite and offsite AC sources during plant operation (MODES 1, 2, 3, and 4) are specified in TS 3.8.1, "AC sources - Operating." TS 3.8.1 includes AOT that permit the Oconee 1/2/3 to continue to operate for 3 days with one Keowee

Hydro Unit inoperable. KHUs provide onsite ac power system for all three Oconee Units.

The proposed change only applies to the one-time inoperability of the KHU #2 due to failure of the rotor field coil jumper in order to continue troubleshooting efforts, perform repairs, and to return the unit to service.

The licensee believes that a common cause issue does not exist with KHU #1. The licensee stated in the license amendment request (LAR) this conclusion is based upon the following facts:

- Visual inspection of KHU #2 indicates no other coil jumpers have similar indications of failure. KHU #2 has experienced two emergency lockouts within the last year. KHU #1 has not experienced any emergency lockouts during its recent operating history.
- Initial testing has not identified any deficiencies that are common to KHU #1.

A component of the root cause evaluation will be to address the cause's extent of condition. The licensee indicated that they will maintain contact with the staff as the root cause develops. If at any time during the investigation a common cause is identified affecting KHU #1 operability the appropriate TS condition will be entered.

Since KHU #2 and the overhead power path are already out of service, these steps have been taken as a preliminary conservative measure:

1. No discretionary Special Emphasis code T1 work will be undertaken.
2. An LCT will be energizing the standby bus via an isolated power path. A second LCT will be operating in standby.
3. No discretionary work on KHU #1.
4. No discretionary work on the Standby Shutdown Facility or the Emergency Feedwater.
5. Appropriate actions will be taken to limit physical access to the backup emergency power transformer CT-5
6. Ongoing testing and troubleshooting efforts have not identified any potential cause that is common to KHU #1.
7. No adverse weather is expected in October from hurricanes or tornados.

The following additional compensatory measures will be taken for the period KHU #2 and associated overhead power path are out of service.

The third remaining LCT is also available and can be started and used to supply both standby buses should the running LCT fail.

KHU #1 will not be allowed to generate power to the grid (commercial generation prohibited).

Four independent offsite power sources will be available to the Oconee 230 kV switchyard.

On the basis of the NRC staff's review and the compensatory measures that have been taken, the NRC staff concludes that the licensee has adequately addressed the staff's concerns and that the amendment request is acceptable based on the deterministic evaluation.

3.2 Probabilistic Evaluation

3.2.1 Risk Assessment Evaluation

In evaluating the risk information submitted by the licensee, the Nuclear Regulatory Commission (NRC) staff followed the three-tiered approach documented in Standard Review Plan (SRP) 16.1, "Risk-Informed Decisionmaking: Technical Specifications," which is consistent with Regulatory Guide (RG) 1.177, "An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications."

Under the first tier, the impact of the proposed change is assessed in terms of core damage frequency (CDF) and incremental conditional core damage probability (ICCDP), and large early release frequency (LERF) and incremental conditional large early release probability (ICLERP). Specifically, the first-tier objective is to ensure that the plant risk does not increase unacceptably during the period the equipment is taken out of service. The second tier assures appropriate restrictions on risk-significant configurations associated with the change are in place. The third tier is the establishment of a configuration risk management program to ensure that other risk-significant configurations resulting from maintenance or other operational activities not anticipated at the time of the application are identified and appropriate actions are taken to maintain an acceptable risk profile.

3.2.2 Basis and Quality of Risk Assessment

The licensee used its probabilistic risk assessment (PRA) model (identified as revision 3a) and appropriate conservative assumptions to assess the risk increase associated with operation at-power for a period of 30 additional days without the Keowee Hydro Unit 2 (KHU #2) available. The licensee employed a zero maintenance configuration model to assess risk. The PRA model was quantified to determine the change in CDF and LERF during the period when KHU #2 is unavailable, and then used the remaining duration of the unavailability (i.e., 30 days) as a result of the proposed completion time (CT) extension to determine the ICCDP and ICLERP. The licensee stated that the evaluation represented in its submittal is documented in an approved calculation. The licensee provided additional information concerning the scope and quality of PRA via a supplementary submittal on October 3, 2006. The licensee provided results of its peer review and stated that all Category A facts and observations (F&Os) were incorporated in the PRA. Of the 7 Category B F&Os not incorporated, the licensee evaluated the impact of these items on this application. The licensee found that the incorporation of these items would not affect the results of this analysis. Therefore, the staff found the PRA acceptable for this application.

Two analyses were presented by the licensee. In the first, the licensee assumed that the redundant KHU #1 was not directly impacted due to common cause failure (CCF) mechanisms for the same failure mode which affects KHU #2. In the second case, the licensee assumed that KHU #1 could be impacted and assigned a higher failure probability based on the CCF

factor. This second case provides a reasonably conservative analysis assuming there is no available information regarding the susceptibility of the redundant unit to CCF. In fact, the licensee considers KHU #1 to be operable, and reports there is no evidence of CCF.

The significant contributors to the CDF risk are weather-related accident sequences initiating a loss of offsite power. With KHU #2 unavailable, the PRA assumes a station blackout result if KHU #1 subsequently fails. An additional failure of the Standby Shutdown Facility (SSF) would lead to a loss-of-coolant accident (LOCA) with no injection capability available.

The licensee calculated an ICLERP value of zero due to the unavailability of KHU #2. Typically, for pressurized water reactors with large dry containments (consistent with the Oconee design), LERF risk is dominated by sequences which involve a containment bypass (i.e., steam generator tube rupture or interfacing systems LOCAs) and other sequences have minimal LERF impact.

The NRC staff found that the licensee's quantification methods and assumptions are acceptable for this application, and that the qualitative results obtained are reasonable and consistent with the configuration of the plant during the period when KHU #2 is unavailable.

3.2.3 Risk Impact of the Proposed Change (Tier 1)

The objective of Tier 1 is to show that any risk increases from the proposed change are small and consistent with the intent of the Commission's Safety Goal Policy Statement. Acceptance guidelines for meeting this principle are presented in RG 1.174, RG 1.177, and SRP 16.1. However, it should be noted that the RG 1.177 guideline is for permanent changes.

The licensee used its PRA model to calculate risk increases due to the CT extension of 30 days. Both the ICCDP and the ICLERP were assessed. These quantities are a measure of the increase in probability of core damage and large early release, respectively, during a single outage that would last for the duration allowed by the proposed change.

The licensee identified that the incremental conditional CDF during the KHU #2 outage is $3.0E-9$ per day, and the incremental conditional LERF is zero. These results represent the assumption of no susceptibility to CCF of KHU #1 due to the same failure mode. If an increased likelihood of CCF is assumed as described in Section 3.2.2, then the conditional CDF increases to $9.1E-9$ per day; the conditional LERF remains zero.

RG 1.177 provides guidance for permanent changes to the TS allowed outage times (AOTs) of $5E-7$ for ICCDP. The maximum AOT can be determined by dividing the ICCDP limit by the incremental conditional CDF. The results give an allowed outage time of 166 days for the first case involving no increased CCF likelihood, and 55 days assuming a bounding CCF probability. The licensee concluded that the additional risk of a 30-day extension was therefore acceptable, since the allowed outage time could be higher.

The licensee identified that the current TS, which use a three-year rolling period to determine the AOT, have approximately 11 days remaining available in the current three-year period to support this KHU #2 outage. Therefore, based on the one-time extension of 30 days, the total outage duration would be 41 days (11 days using the current TS available time, and 30 additional days). The NRC staff calculated that the proposed total outage duration results in an

ICCDP of $3.7E-7$, which is less than the guidance limit of $5E-7$ even when reasonably conservative assumptions regarding CCF are made. As stated above, the incremental conditional LERF is zero, so the ICLERP is also zero. Thus, the change in risk satisfies the guidance of RG 1.177 applicable to permanent changes to the TSs.

Since the proposed change is not permanent and would be used only once, the change in CDF would only impact the current year of operation, and the Δ CDF would be equal to the ICCDP during the current year. The RG 1.174 limit for very small changes is $1E-6$ /year for CDF; therefore, the proposed change is within the RG 1.174 limits for very small changes in risk applicable to permanent changes to the TSs.

During the planned maintenance evolution to repair KHU #2, the licensee must dewater the common intake shared with KHU #1. During this period, both hydro units will be unavailable, as currently permitted by the Oconee TSs. The risk analysis presented by the licensee does not consider the additional risk associated with this period, since it is permitted under the current TS, and risk aspects would be managed using the licensee's 10 CFR 50.65(a)(4) program.

The NRC staff considers the dewatering evolutions to be an integral part of the proposed change, which must be evaluated under Tier 1 for its risk impact. The licensee identified the conditional CDF as $2.34E-8$ /hour in this configuration, and the existing TS limit is 60 hours. The actual and projected durations of this condition total 67 total hours (29 actual hours on the front end, and a scheduled 38 hours on the back end). Thus accounting for the period when both hydro units are unavailable for dewatering of the common intake, the additional risk is $1.6E-6$. The remaining 38.2 days of the KHU #2 outage would result in a risk of $3.5E-7$, for a total ICCDP of about $2.0E-6$. This is equivalent to the Δ CDF in the current year, and not averaging the risk over several years for a one-time change. RG 1.174 provides a Δ CDF limit of $1E-5$ /year for small changes, where the total CDF remains below $1E-4$ /year. The licensee identified the annual CDF for each Oconee unit as $4.3E-5$ /year. As stated above, there is no impact to the LERF. Thus, the proposed TS change results in a change in risk within the guidance of RG 1.174 for small changes.

Therefore, the NRC staff finds that the risk assessment results support a one-time extension of the CT by 30 days, and satisfy the intent of the requirements of regulatory positions 2.3 and 2.4 of RG 1.177, and SRP 16.1.

3.2.4 Avoidance of High Risk Plant Configurations (Tier 2)

The licensee identified commitments to reduce risk by avoiding certain potentially high risk configurations during the period when KHU #2 is unavailable. These items are not credited in the risk analyses presented in Section 3.2.3.

- No discretionary activities which may result in a direct unit trip or transient from the loss or failure of the affected component will be undertaken during the extension period.
- One combustion turbine will be operating to energize the standby bus via an isolated power path. A second combustion turbine unit will be operating in standby. The third remaining combustion turbine is also available, and no major preventative maintenance work will be performed on this unit.
- No discretionary work will be performed on KHU #1.

- No discretionary work will be performed on the SSF or the emergency feedwater system.

The NRC staff finds these proposed restrictions on high-risk configurations reasonable and consistent with the plant configuration during the KHU #2 outage, and satisfy the intent of RG 1.177 and SRP 16.1.

3.2.5 Risk-Informed Configuration Risk Management (Tier 3)

The intent of risk-informed configuration risk management is to ensure that plant safety is maintained by avoiding high-risk configurations not identified in Tier 2. A formal commitment to maintain a configuration risk management program is necessary on the part of a licensee prior to implementation of a risk-informed TS. This program can support the licensee's decision-making regarding the appropriate actions to control risk whenever a risk-informed TS Limiting Condition for Operation (LCO) is entered.

The licensee has identified its program to comply with 10 CFR 50.65(a)(4) using appropriate risk insights, and has further identified existing procedures to address conditions which involve severe weather or other natural phenomena which may impact the availability of offsite power, as well as procedures which identify and address grid stability. The NRC staff finds that the licensee's programs as described are adequate to support the proposed one-time extension of the CT, satisfying the intent of RG 1.177 and SRP 16.1.

3.2.6 Summary

The licensee has presented a risk analysis which satisfies the intent of RG 1.177 using a three-tiered approach applying their plant-specific PRA to evaluate risk, identifying risk-significant configurations, and adopting a risk-informed configuration risk management program. An assessment of risk demonstrates that the guidance of RG 1.177 and RG 1.174 for small acceptable changes has been satisfied. Therefore, the NRC staff concludes that the proposed change is acceptable, consistent with the guidance of SRP 16.1 for evaluating proposed changes to TS.

4.0 EXIGENT CIRCUMSTANCES

The licensee requested that these amendments be processed as an exigent amendment request pursuant to 10 CFR 50.91(a)(6) to allow additional time to repair KHU #2. The failure of KHU #2 occurred on September 23, 2006, and could not have been anticipated.

The failure occurred during routine surveillance testing of KHU #2. During troubleshooting, the licensee determined that one field coil pole connector had melted. Repairing KHU #2 requires pulling the generator rotor, installing a turbine bracing bar, removing the damaged field coils, stator inspection and testing, repairing and testing the damaged field coils, removing the turbine bracing bar, installing the rotor and balancing, and testing to return KHU #2 to service. The licensee has stated that this repair effort could take up to approximately 40 days. Therefore, the licensee requested that the CT of TS 3.8.1, RA C.2.2.5 be extended to allow time to complete the repair of KHU #2.

The NRC staff agrees that the failure of KHU #2 was unanticipated. Without the issuance of these exigent amendments, all three Oconee units would have to be shut down. Based on the preceding evaluation, the NRC staff concludes that the shutdown of the three units is unnecessary and that exigent circumstances are present.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that license amendments involve no significant hazards considerations if operation of the facility in accordance with the amendments would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) or create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in the margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its no significant hazards analysis which is presented below:

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

5. The request involves a one-time extension of the Completion Time for Required Action C.2.2.5 associated with restoring compliance with TS 3.8.1.

The likelihood of an event occurring during the additional Completion Time of 30 days is essentially the same as that which would occur during the existing 45 day Completion Time; therefore, the probability of an accident previously evaluated is not significantly increased.

The consequences associated with extending the Completion Time by 30 days have been evaluated and results in no change for a previously evaluated accident. In addition, the additional time to effect repairs to the Keowee Hydro Unit will permit Duke to avoid an unplanned forced shutdown of all three Oconee Units and the potential safety consequences and operational risks associated with that action.

There are no adverse impacts on containment integrity, radiological release pathways, fuel design, filtration systems, main steam relief valve set points, or radwaste systems. No new radiological release pathways are created. A Lee Combustion Turbine will be energizing both standby buses via an isolated power path. As an additional conservative measure, a second Lee Combustion Turbine will be operating in standby. The third remaining Lee Combustion Turbine is also available and can be started and used to supply both standby buses should the running Lee Combustion Turbine fail. These actions will be implemented to further reduce the risk impact during the extension period.

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

The request for this one-time Technical Specification change involves an extension of the Completion Time for Technical Specification 3.8.1, Required Action C.2.2.5, associated with restoring compliance with the Technical

Specification. The proposed change will not physically alter the present plant configuration nor adversely affect how the plant is currently operated. Consequently, this request does not create the possibility of a new or different kind of accident from any kind of accident previously evaluated. Measures previously specified in this submittal are in place as additional risk minimizing actions

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

Since the proposed change will not physically alter the present plant configuration nor adversely affect how the plant is currently operated, the proposed change does not adversely affect any plant safety limits, setpoints, or design parameters. The change also does not adversely affect the fuel, fuel cladding, Reactor Coolant System, or containment integrity. Therefore, the proposed change does not involve a reduction in a margin of safety. Measures previously specified in this submittal are in place as additional risk minimizing actions.

The NRC staff has reviewed the licensee's analysis given above. Based on this review, the NRC staff concludes that the three standards of 10 CFR 50.92(c) are satisfied and, therefore, the amendment request involves no significant hazards consideration. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards condition.

6.0 STATE CONSULTATION

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

7.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve 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 involve no significant hazards consideration, and there has been no public comment on such finding. The Commission has made a final finding that the amendments involved no significant hazards consideration. Accordingly, the amendments meet 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 amendments.

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

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