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November 21, 2005

U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Attention: Document Control Desk

Subject: Oconee Nuclear Station Docket Numbers 50-269, 270 and 287 Supplement 1 to License Amendment Request (LAR) associated with Lee Combustion Turbine (LCT) Testing Program, TSC Number 2004-14

By letter dated January 5, 2005, Duke Energy Corporation (Duke) proposed to amend Appendix A, Technical Specifications (TS), for Facility Operating Licenses DPR-38, DPR-47 and DPR-55 for Oconee Nuclear Station (ONS), Units 1, 2, and 3. This supplement revises the proposed change to Technical Specification (TS) 5.5.19.b to address comments raised by your Staff on April 19, 2005. The supplement also proposes wording changes to TS 5.5.19.c and TS Surveillance Requirement 3.8.1.9 for consistency.

TS 5.5.19.b currently specifies Duke verify an LCT can supply the equivalent of one Unit's maximum safeguard loads plus two Unit's MODE 3 loads when connected to the system grid every 12 months. This supplement revises the wording to the proposed change as follows: "Verify an LCT can supply the equivalent of one Unit's Loss of Coolant Accident (LOCA) loads plus two Unit's Loss of Offsite Power (LOOP) loads when connected to the system grid every 12 months."

Attachments 1 and 2 provide revised Technical Specification retyped pages and markup pages that reflect the changes. Attachment 3, which provides the justification for the change, is revised accordingly. This supplement does not affect the conclusions of the No Significant Hazards Consideration (NHSC) included in the January 5, 2005, LAR. However, the NHSC, Attachment 4, has been revised to reflect the wording changes described above.

The proposed change has been reviewed and approved by the Plant Operations Review Committee and Nuclear Safety Review Board.

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Implementation of these changes will not result in an undue risk to the health and safety of the public.

There are no UFSAR changes necessary to reflect approval of this submittal.

Pursuant to 10 CFR 50.91, a copy of this proposed amendment is being sent to the South Carolina Department of Health and Environmental Control for review, and as deemed necessary and appropriate, subsequent consultation with the NRC staff.

Approval of this proposed LAR is requested by December 31, 2005. A 90 day implementation period is requested. If there are any additional questions, please contact Boyd Shingleton at (864) 885-4716.

Very truly yours,

R. A. Jones, Vice President Oconee Nuclear Site

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cc: Mr. L. N. Olshan, Project Manager Office of Nuclear Reactor Regulation U. S. Nuclear Regulatory Commission Mail Stop 0-14 H25 Washington, D. C. 20555

> Dr. W. D. Travers, Regional Administrator U. S. Nuclear Regulatory Commission - Region II Atlanta Federal Center 61 Forsyth St., SW, Suite 23T85 Atlanta, Georgia 30303

Mr. M. C. Shannon Senior Resident Inspector Oconee Nuclear Station

Mr. Henry Porter, Director Division of Radioactive Waste Management Bureau of Land and Waste Management Department of Health & Environmental Control 2600 Bull Street Columbia, SC 29201 U. S. Nuclear Regulatory Commission November 21, 2005 Page 4

R. A. Jones, being duly sworn, states that he is Vice President, Oconee Nuclear Site, Duke Energy Corporation, that he is authorized on the part of said Company to sign and file with the U. S. Nuclear Regulatory Commission this revision to the Renewed Facility Operating License Nos. DPR-38, DPR-47, DPR-55; and that all the statements and matters set forth herein are true and correct to the best of his knowledge.

R. A. Jones, Vice President Oconee Nuclear Site

Subscribed and sworn to before me this $2/3^{+}$ day of $1/3^{+}$ be 2005

Notary Public

My Commission Expires:



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ATTACHMENT 1

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TECHNICAL SPECIFICATION

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SURVEILLANCE REQUIREMENTS (continued)

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	SURVEILLANCE	FREQUENCY
SR 3.8.1.7	Verify both KHU's underground tie breakers cannot be closed simultaneously.	12 months
SR 3.8.1.8	Verify each KHU's overhead emergency power path tie breaker cannot be closed when tie breaker to underground emergency power path is closed.	12 months
SR 3.8.1.9	 Verify on an actual or simulated emergency actuation signal each KHU auto starts and: a. Achieves frequency ≥ 57 Hz and ≤ 63 Hz and voltage ≥ 13.5 kV and ≤ 14.49 kV in ≤ 23 seconds; and b. Supplies the equivalent of one Unit's Loss of Coolant Accident (LOCA) loads plus two Unit's Loss of Offsite Power (LOOP) loads when synchronized to system grid and loaded at maximum practical rate. 	12 months
SR 3.8.1.10	Verify each KHU's battery capacity is adequate to supply, and maintain in OPERABLE status, required emergency loads for design duty cycle when subjected to a battery service test.	12 months
SR 3.8.1.11	Verify each KHU's battery cells, cell end plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	12 months

OCONEE UNITS 1, 2, & 3

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5.5 Programs and Manuals

5.5.18 KHU Commercial Power Generation Testing Program (continued)

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the KHU Commercial Power Generation Testing Program surveillance frequencies.

5.5.19 Lee Combustion Turbine Testing Program

The Lee Combustion Turbine (LCT) Testing program shall include the following and shall be met when a LCT is used to comply with Required Actions of Specification 3.8.1, "AC Sources-Operating" or as a emergency power source as allowed by LCO 3.8.2, "AC Sources-Shutdown":

- a. Verify an LCT can energize both standby buses using 100kV line electrically separated from system grid and offsite loads every 12 months.
- b. Verify an LCT can supply equivalent of one Unit's Loss of Coolant Accident (LOCA) loads plus two Unit's Loss of Offsite Power (LOOP) loads when connected to system grid every 12 months.
- c. Verify an LCT can provide equivalent of one Unit's LOCA loads within one hour through 100kV line electrically separated from system grid and offsite loads every 18 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Lee Combustion Turbine Testing Program surveillance frequencies.

5.5.20 Battery Discharge Testing Program

The Battery Discharge Testing Program shall include the following and shall be met for batteries used to comply with LCO 3.8.3, "DC Sources Operating."

 Verify battery capacity is ≥ 80% of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test once every 60 months. This frequency shall be reduced to 12 months when battery shows degradation, or has reached 90% of the expected life with capacity < 100% of manufacturer's rating, and 24 months when battery has reached 90% of the expected life with capacity ≥ 100% of manufacturer's rating.

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ATTACHMENT 2

MARKUP OF TECHNICAL SPECIFICATION

SURVEILLANCE REQUIREMENTS (continued)

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	SURVEILLANCE	FREQUENCY
SR 3.8.1.7	Verify both KHU's underground tie breakers cannot be closed simultaneously.	12 months
SR 3.8.1.8	Verify each KHU's overhead emergency power path tie breaker cannot be closed when tie breaker to underground emergency power path is closed.	12 months
SR 3.8.1.9	Verify on an actual or simulated emergency actuation signal each KHU auto starts and: a. Achieves frequency \geq 57 Hz and \leq 63 Hz and voltage \geq 13.5 kV and \leq 14.49 kV in \leq 23 seconds; and	12 months
	b. Supplies the equivalent of one Unit's Lo maximum safeguard loads plus two Unit's hot shutdown loads when synchronized to system grid and loaded at maximum practical rate.	Loss of Offsite Power (LOΦP)
SR 3.8.1.10	Verify each KHU's battery capacity is adequate to supply, and maintain in OPERABLE status, required emergency loads for design duty cycle when subjected to a battery service test.	12 months
SR 3.8.1.11	Verify each KHU's battery cells, cell end plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	12 months
R 3.8.1.9	 between pain the breaker cannot be closed when the breaker to underground emergency power path is closed. Verify on an actual or simulated emergency actuation signal each KHU auto starts and: a. Achieves frequency ≥ 57 Hz and ≤ 63 Hz and voltage ≥ 13.5 kV and ≤ 14.49 kV in ≤ 23 seconds; and b. Supplies the equivalent of one Unit's Lo maximum safequard loads plus two Unit's hot shutdown loads when synchronized to system grid and loaded at maximum practical rate. Verify each KHU's battery capacity is adequate to supply, and maintain in OPERABLE status, required emergency loads for design duty cycle when subjected to a battery service test. Verify each KHU's battery cells, cell end plates, and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance. 	12 months

(continued)

OCONEE UNITS 1, 2, & 3

Amendment Nos 322, 322, & 323

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5.5 Programs and Manuals

5.5.18 KHU Commercial Power Generation Testing Program (continued)

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the KHU Commercial Power Generation Testing Program surveillance frequencies.

5.5.19 Lee Combustion Turbine Testing Program

The Lee Combustion Turbine (LCT) Testing program shall include the following and shall be met when a LCT is used to comply with Required Actions of Specification 3.8.1, "AC Sources-Operating" or as a emergency power source as allowed by LCO 3.8.2, "AC Sources-Shutdown": Loss of Coolant Accident (LOCA)

- a. Verify an LCT can energize both standby buses using 100kV line electrically separated from system grid and offsite loads every 12 months.
- b. Verify an LCT can supply equivalent of one Unit's <u>maximum safegoard</u> loads plus two Unit's MOPE bloads when connected to system grid every 12 months.
- c. Verify an LCT can provide equivalent of one Unit's <u>maximum safegulard</u> loads within one hour through 100kV line electrically separated from system grid and offsite loads every 18 months.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Lee Combustion Turbine Testing Program surveillance frequencies.

5.5.20 Battery Discharge Testing Program

The Battery Discharge Testing Program shall include the following and shall be met for batteries used to comply with LCO 3.8.3, "DC Sources Operating."

 Verify battery capacity is ≥ 80% of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test once every 60 months. This frequency shall be reduced to 12 months when battery shows degradation, or has reached 90% of the expected life with capacity < 100% of manufacturer's rating, and 24 months when battery has reached 90% of the expected life with capacity ≥ 100% of manufacturer's rating. November 21, 2005 Attachment 3 Page 1

Attachment 3 Technical Justification

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Overview

The proposed amendment revises Technical Specification (TS) 5.5.19.b associated with the Lee Combustion Turbine (LCT) Testing Program to clarify a test requirement. The supplement also proposes wording changes to TS 5.5.19.c and TS Surveillance Requirement (SR) 3.8.1.9 for consistency.

During review of the LCT Testing Program, Duke recognized that TS 5.5.19.b needs to be revised to more accurately specify the LCT testing requirement. TS 5.5.19.b currently specifies Duke verify an LCT can supply the equivalent of one Unit's maximum safeguard loads plus two Unit's MODE 3 loads when connected to system grid every 12 months. In the initial January 5, 2005 License Amendment Request (LAR), Duke proposed the requirement to be more precisely specified as "...plus two Unit's safe shutdown loads." Duke had selected the proposed wording to match what was used prior to Improved Technical Specification conversion. On April 19, 2005, NRC Staff requested Duke to avoid the use of the term "safe shutdown" since the meaning of this term has changed since the Station Blackout (SBO) rule was issued. NRC Staff explained that prior to the SBO rule the term meant cold shutdown, however, following the SBO rule, safe shutdown became to mean hot standby or hot shutdown term. The reviewer requested Duke to clarify the wording to indicate that the surveillance demonstrates that an LCT can carry the loads required to take the Loss of Coolant Accident (LOCA) unit and the two Loss of Offsite Power (LOOP) units to cold shutdown. This supplement addresses the NRC reviewer's concerns and specifies the requirement consistent with the terminology used in the Oconee UFSAR. The supplement also proposes wording changes to TS 5.5.19.c and TS SR 3.8.1.9 for consistency

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Description of the Technical Specification Change

The proposed change revises TS 5.5.19 and TS SR 3.8.1.9.

1. 1.1.

TS 5.5.19 - Lee Combustion Turbine Testing Program

TS 5.5.19.b states: "Verify an LCT can supply equivalent of one Unit's maximum safeguard loads plus two Unit's MODE 3 loads when connected to system grid every 12 months." The proposed TS change revises TS 5.5.19.b to more precisely state: "Verify an LCT can supply equivalent of one Unit's Loss of Coolant Accident (LOCA) loads plus two Unit's Loss of Offsite Power (LOOP) loads when connected to system grid every 12 months."

TS 5.5.19.c states: "Verify an LCT can provide equivalent of one Unit's maximum safeguard loads within one hour through 100kV line electrically separated from system grid and offsite loads every 18 months." The proposed TS change revises TS 5.5.19.c terminology of "maximum safeguard" loads to "LOCA" loads consistent with TS 5.5.19.b.

TS 3.8.1, AC Sources-Operating

TS 3.8.1 Surveillance Requirement 3.8.1.9.b for the Keowee Hydroelectric Units (KHUs) states: "Verify on an actual or simulated emergency actuation signal each KHU auto starts and: . . b. Supplies the equivalent of one Unit's maximum safeguard loads plus two Unit's hot shutdown loads when synchronized to system grid and loaded at maximum practical rate." The proposed change revises the wording of the SR to be consistent with the terminology proposed in 5.5.19.b & c as follows: "Supplies the equivalent of one Unit's Loss of Coolant Accident (LOCA) loads plus two Unit's Loss of Offsite Power (LOOP) loads when synchronized to system grid and loaded at maximum practical rate."

Justification for Change

Prior to Amendment 232, 232, 231, TS 4.6.8 stated: "Annually, it shall be demonstrated that a Lee station combustion turbine can be started and carry the equivalent of the maximum safeguards load of one Oconee unit plus the safe November 21, 2005 Attachment 3 Page 3

shutdown loads of two Oconee units on the system grid." In a rewrite (Amendment 232, 232, 231) of these original Technical Specifications, the terminology "safe shutdown loads" was replaced with "hot shutdown loads." Prior to implementation of this amendment, the Improved Technical Specifications conversion (Amendment 300, 300, 300) replaced "hot shutdown loads" with "MODE 3 loads." The "rewrite" and the ITS conversion were implemented concurrently. In either case, the revised wording was characterized as administrative and not intended to change the testing requirements. During the conversion to Improved Technical Specifications (ITS), MODE 3 was determined to best generically describe the characteristics of hot shutdown from the original Technical Specification. Each use of MODE 3 in the ITS was evaluated for the appropriate application. However, for this particular case "Hot Shutdown Loads" would have been more accurately described by MODE 4 loads (or safe shutdown loads). As currently worded, TS 5.5.19.b could be taken to mean that an LCT must be tested to the maximum MODE 3 loads of two Units, which would include condensate booster pumps and reactor coolant pumps. This is clearly not a design basis requirement, since these loads are shed and will not automatically start after a loss of offsite power (LOOP) or loss of coolant accident (LOCA).

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The Lee Combustion Turbines are tested to carry the equivalent maximum safeguard loads of one unit plus shutdown loads (or safe shutdown loads) of two units as shown in UFSAR Table 8-1, Loads to be Supplied from the Emergency Power Source. Table 8-1 provides a list of Oconee loads which automatically start after a LOOP or LOCA, and the Oconee loads which are required to mitigate the event. The UFSAR Table 8-1 loads are approximately 13.5 MW (15,971 KVA x .85 Power Factor). Periodic Test, PT/0/A/0610/023 - Lee Gas Turbine Operation to the Grid Verification, verifies annually that Lee can meet TS 5.5.19.b. November 21, 2005 Attachment 4

Attachment 4 No Significant Hazards Consideration

Pursuant to 10 CFR 50.91, Duke Energy Corporation (Duke) has made the determination that this amendment request involves a No Significant Hazards Consideration by applying the standards established by the NRC regulations in 10 CFR 50.92. This ensures that operation of the facility in accordance with the proposed amendment would not:

(1) <u>Involve a significant increase in the probability or</u> consequences of an accident previously evaluated:

Duke proposes to revise TS 5.5.19.b to clarify the Lee Combustion Turbine (LCT) testing requirements. Duke proposes to revise TS 5.5.19.c and TS 3.8.1 Surveillance Requirement (SR) 3.8.1.9 to be consistent with the proposed change to TS 5.5.19.b. The proposed change makes the wording of the test requirement consistent with the UFSAR. LCT testing has no impact on the probability of an accident analyzed in the UFSAR. The LCT can be credited to mitigate the consequences of an accident analyzed in the UFSAR. However, this clarification of LCT testing requirements has no impact on its ability to mitigate the consequences of an accident. As such, the proposed LAR does not involve a significant increase in the probability or consequences of an accident previously evaluated.

(2) <u>Create the possibility of a new or different kind of</u> accident from any kind of accident previously evaluated:

Duke proposes to revise TS 5.5.19.b to clarify the Lee Combustion Turbine (LCT) testing requirements. Duke proposes to revise TS 5.5.19.c and TS 3.8.1 SR 3.8.1.9 to be consistent with the proposed change to TS 5.5.19.b. The proposed change makes the wording of the test requirement consistent with the UFSAR. These changes do not alter the nature of events postulated in the Safety Analysis Report nor do they introduce any unique precursor mechanisms. Therefore, the proposed amendment will 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.

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> The proposed TS change does not unfavorably affect any plant safety limits, set points, or design parameters. The changes also do not unfavorably affect the fuel, fuel cladding, RCS, or containment integrity. Therefore, the proposed TS change, which clarifies TS requirements associated with the LCT testing program, does not involve a significant reduction in the margin of safety.

Duke has concluded, based on the above, that there are no significant hazards considerations involved in this amendment request.