

February 17, 2003

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

Attention: Document Control Desk

Subject: Oconee Nuclear Station
Docket Numbers 50-269, 270, and 287
License Amendment Request for Standby Shutdown
Facility 3.10.1, Surveillance Requirement 3.10.1.9
Technical Specification Change (TSC) Number
2002-11

Pursuant to Title 10, Code of Federal Regulations, Part 50, Section 90 (10 CFR 50.90), Duke Energy Corporation (Duke) proposes to amend Appendix A, Technical Specifications, for Facility Operating Licenses DPR-38, DPR-47 and DPR-55 for Oconee Nuclear Station (ONS), Units 1, 2, and 3. Technical Specification (TS) 3.10.1 Standby Shutdown Facility (SSF), Surveillance Requirement (SR) 3.10.1.9 currently verifies the SSF diesel generator (DG) is synchronized and loaded and operated for ≥ 60 minutes at a load ≥ 3000 kW. This SR is specified to be performed on a 92 day frequency. The proposed license amendment request (LAR) revises TS 3.10.1, SR 3.10.1.9, to load the DG ≥ 3280 kW. This change supports resolution of an Oconee design basis issue associated with SSF Pressurizer heater capacity.

The revised Technical Specification pages are included in Attachment 1. Attachment 2 contains the markup of the current Technical Specification pages.

The Technical Justification for the amendment request is included in Attachment 3. Attachments 4 and 5 contain the No Significant Hazards Consideration Evaluation and the Environmental Impact Analysis, respectively.

U. S. Nuclear Regulatory Commission
February 17, 2003
Page 2

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

Approval of this proposed LAR is requested to coincide with the implementation of the modification to increase the SSF DG loading. The completion of this modification is presently scheduled for August 1, 2003. A 90 day implementation window is requested.

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

The Oconee Updated Final Safety Analysis Report has been reviewed and no changes are necessary to support this LAR.

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.

If there are any additional questions, please contact Reene' Gambrell at (864) 885-3364.

Very truly yours,

A handwritten signature in black ink, appearing to be 'R. A. Jones', written over the closing text.

R. A. Jones, Vice President
Oconee Nuclear Site

U. S. Nuclear Regulatory Commission
February 17, 2003
Page 3

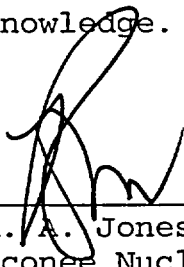
cc: Mr. L. N. Olshan, Project Manager
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop O-14 H25
Washington, D. C. 20555

Mr. L. A. Reyes, 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. Virgil R. Autry, Director
Division of Radioactive Waste Management
Bureau of Land and Waste Management
Department of Health & Environmental Control
2600 Bull Street
Columbia, SC 29201

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.



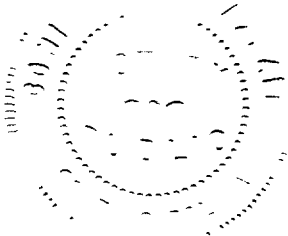
R. A. Jones, Vice President
Oconee Nuclear Site

Subscribed and sworn to before me this 17 day of
February, 2003

Conice M Breayale
Notary Public

My Commission Expires:

12-19-12



SEAL

ATTACHMENT 1

TECHNICAL SPECIFICATION

Remove Page

3.10.1-4

Insert Page

3.10.1-4

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.10.1.7 Verify the fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.</p>	<p>92 days</p>
<p>SR 3.10.1.8 Verify the fuel oil properties of the fuel oil stored in the day tank and underground storage tank are tested in accordance with, and maintained within the limits of the Diesel Fuel Oil Testing Program.</p>	<p>92 days</p>
<p>SR 3.10.1.9 -----NOTES-----</p> <ol style="list-style-type: none"> 1. DG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients outside the load range do not invalidate this test. 3. All DG starts may be preceded by an engine prelube period followed by a warmup period prior to loading. <p>-----</p> <p>Verify the SSF DG is synchronized and loaded and operated for ≥ 60 minutes at a load ≥ 3280 kW.</p>	<p>92 days</p>
<p>SR 3.10.1.10 Verify for required SSF battery that the cells, cell plates and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.</p>	<p>12 months</p>

(continued)

ATTACHMENT 2

MARKUP OF TECHNICAL SPECIFICATION

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
SR 3.10.1.7 Verify the fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.	92 days
SR 3.10.1.8 Verify the fuel oil properties of the fuel oil stored in the day tank and underground storage tank are tested in accordance with, and maintained within the limits of the Diesel Fuel Oil Testing Program.	92 days
SR 3.10.1.9 -----NOTES----- 1. DG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients outside the load range do not invalidate this test. 3. All DG starts may be preceded by an engine prelube period followed by a warmup period prior to loading. ----- Verify the SSF DG is synchronized and loaded and operated for ≥ 60 minutes at a load ≥ 3000 3280 -kW.	92 days
SR 3.10.1.10 Verify for required SSF battery that the cells, cell plates and racks show no visual indication of physical damage or abnormal deterioration that could degrade battery performance.	12 months

(continued)

Attachment 3

Technical Justification

Attachment 3

Technical Justification

Background

For event or transient scenarios involving decay heat removal via the steam generators, an adequate number of pressurizer (PZR) heaters must be functional to compensate for ambient losses in order to maintain a PZR steam bubble for reactor coolant system (RCS) pressure control and ensure adequate natural circulation cooling. Therefore, Technical Specifications (TS) require a specific number of PZR heaters to be operable for normal plant operation. A Selected Licensee Commitment (SLC) is also in place for normal plant conditions. TS 3.4.9.b and SLC 16.5.8a contain these heater requirements.

Technical Specification (TS) 3.10.1 requires the Standby Shutdown Facility (SSF) and its subsystems to be operable in modes 1, 2, and 3. One of the functional requirements is to maintain reactor coolant pressure control following an event. Manually controlled PZR heaters (126 kW of PZR heater capacity) are currently capable of being powered from the SSF to meet this functional requirement. Per the Bases of the TS, these PZR heaters are considered a support system for SSF Auxiliary Service Water (ASW), so an adequate number of these PZR heaters must be operable for the SSF ASW system to be considered operable. Pursuant to the SSF TS, the SSF ASW system is used to maintain single phase RCS natural circulation flow. The PZR heaters, powered from the SSF diesel generator (DG), are considered a support system for the SSF ASW.

In March 2002, Duke identified a condition associated with PZR ambient heat losses and documented it in the corrective action program. At the time it was revealed that due to greater than anticipated ambient heat losses and non-conservative capacity estimates from a 1972 calculation, the existing 126 kW of heating capacity available from the SSF DG would not be sufficient to overcome these ambient losses. As such, if called upon, the ability of the SSF to maintain RCS pressure control and natural circulation, utilizing the PZR heaters, would have been challenged.

Although an event that challenged this system has not occurred at the station, it is reasonable to assume that this condition has existed since initial SSF operation in 1986 and

has similarly affected all three Oconee Units. Additionally, the applicable SSF abnormal operating procedures in-use at the time of discovery did not provide adequate guidance to the operators on how to appropriately respond to this type of condition.

In addition to this condition being reported via 10 CFR 50.72 and 50.73 criteria, several corrective actions are planned or have been implemented, specifically:

- 1) The abnormal procedure used for SSF operation during postulated events to provide guidance for maintaining stable shutdown conditions with the RCS system water solid was revised,
- 2) An improved heat loss calculation was performed that addressed the heat load capacity deficiencies from the previous calculation,
- 3) By modification, additional heater capacity will be added to the SSF DG, and
- 4) Evaluate options to repair and/or upgrade the PZR insulation.

Description of the Technical Specification Change and Technical Justification

The proposed revision to TS will revise TS 3.10.1, SR 3.10.1.9 to require increasing the loading of the DG from ≥ 3000 kW to ≥ 3280 kW. This loading increase is necessary to accommodate the additional PZR heater capacity required as a result of the PZR ambient heat loss condition. The proposed change also includes a revision of the current capacity number from an allowable value, i.e, includes instrument error, to an analytical limit that does not. This change is necessary since it is the TS convention that values not contain instrument errors.

The ONS Updated Final Safety Analysis Report states that the SSF Power System is provided with standby power from a dedicated DG. This SSF DG is rated for continuous operation at 3500 kW, 0.8 pf, and 4160 VAC.

A calculation was completed that successfully verified both the capacity and capability of the SSF electrical power system to support the required loads under worst case design basis conditions. It evaluated the SSF electrical system adequacy under safe shutdown conditions while the system is

isolated and supplied by the offsite power system or the SSF diesel generator. Conservative conditions, such as motors operating at rated horsepower, space/duct heaters operating at 100% capacity and sump and other intermittent loads all operating at rated horsepower, were applied.

The following support system calculations were also revised based on the increase in SSF DG loading from the additional pressurizer heaters:

- SSF service water system piping and components design temperature calculation.
- SSF diesel jacket water and SSF lube oil heat exchangers maximum operating temperature limits calculation.
- SSF service water system inventory and supply water temperature calculation.

In addition, an assessment of SSF HVAC calculations revealed that increases in SSF HVAC load due to the increase in diesel load would be negligible.

Based on these results, it was concluded that the increase in SSF DG load would be acceptable and that no new or different operator actions would be required as a result of this change. Although some decrease in design margins will result due to the increased load, the diesel will continue to operate below the DG's 3500 KW design rated load.

In summary, the proposed change to SR 3.10.1.9 to increase the DG loading from ≥ 3000 to ≥ 3280 kW is necessary and technically justifiable. The proposed change is part of an effort to resolve a design deficiency and thus, increases assurance that the equipment will be able to perform as designed.

ATTACHMENT 4

NO SIGNIFICANT HAZARDS CONSIDERATION

Attachment 4
No Significant Hazards Consideration

Pursuant to 10 CFR 50.91, Duke Power Company (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) Involve a significant increase in the probability or consequences of an accident previously evaluated:

No. This change revises the loading of the Standby Shutdown Facility (SSF) Diesel Generators (DG) to ≥ 3280 kW. The design rating of the DG is currently 3500 kW. Since the proposed loading is within the design rating already evaluated, this proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

No. As stated above, the proposed revision revises the DG loading to an analytical value that is within the equipment's design limit. Applicable load and support system calculations have been revised and results have shown that the increase does not adversely affect the ability of the SSF diesel generator or SSF to perform its intended safety function. Additionally, this change is bounded by all of the existing accidents and does not create the possibility of a new or different kind of accident from any kind of accident previously evaluated.

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

No. The proposed change does not adversely affect any plant safety limits, set points, 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.

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

ATTACHMENT 5

ENVIRONMENTAL ASSESSMENT

ATTACHMENT 5
Environmental Assessment

Pursuant to 10 CFR 51.22(b), an evaluation of the license amendment request (LAR) has been performed to determine whether or not it meets the criteria for categorical exclusion set forth in 10 CFR 51.22(c)9 of the regulations. The LAR does not involve:

- 1) A significant hazards consideration.

This conclusion is supported by the determination of no significant hazards contained in Attachment 4.

- 2) A significant change in the types or significant increase in the amounts of any effluents that may be released offsite.

This LAR will not significantly change the types or amounts of any effluents that may be released offsite.

- 3) A significant increase in the individual or cumulative occupational radiation exposure.

This LAR will not increase the individual or cumulative occupational radiation exposure.

In summary, this LAR meets the criteria set forth in 10 CFR 51.22 (c)9 of the regulations for categorical exclusion from an environmental impact statement.