Duke Energy

W. R. McCollum, Jr.
Vice President

Duke Energy
Oconee Nuclear Station
7800 Rochester Highway
Seneca, SC 29672
(864) 885-3107 OFFICE
(864) 885-3564 FAX

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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 Low Pressure Service Water Auto-start Circuitry, new Technical Specifications 3.3.28
Technical Specification Change (TSC) Number 2001-01

Pursuant to Title 10, Code of Federal Regulations, Part 50, Section 90 (10 CFR 50.90), Duke Energy (Duke) proposes to amend Appendix A, Technical Specifications, for Facility Operating Licenses DPR-38, DPR-47 and DPR-55 for Oconee Nuclear Station, Units 1, 2, and 3. This license amendment request (LAR) provides a method for obtaining a Nuclear Regulatory Commission (NRC) review and approval of the proposed modification and Technical Specifications (TS) that will implement Low Pressure Service Water System (LPSW) Standby Pump Auto-start Circuitry.

A modification will be implemented to modify the start circuit of the LPSW Pumps on each Oconee unit to include an auto-start circuit. The auto-start circuit will start the standby LPSW Pump if a running LPSW Pump fails to restart following a Loss Of Offsite Power (LOOP) event and LPSW header pressure does not return to normal values within a predetermined amount of time. The auto-start signal will also start the standby LPSW Pump during normal operation if LPSW header pressure falls below an established setpoint and remains there for a predetermined amount of time.

A001

The LPSW System is currently in an operable, but degraded/non-conforming status due to the system's inability to automatically mitigate a LOOP event concurrent with a single failure. In the event of a LOOP and a single failure, compensatory measures are taken to mitigate the event. Implementation of this modification will allow the LPSW system to automatically mitigate a LOOP event; thereby, eliminating the degraded/non-conforming status as well as the need for compensatory measures. The modification also allows for testing which will support return to Maintenance Rule a(2) status for both the LPSW system and the Condenser Circulating Water System.

The proposed revision to Technical Specifications (TS) will add the TS and Bases section of 3.3.28, LPSW Standby Pump Auto-Start Circuitry. TS and Bases section 3.3.24 was added and designated as not used. It has been reserved for a LAR related to emergency power. TS sections 3.3.25, 3.3.26 and 3.3.27 have been reserved for an Automatic Feedwater Isolation System (AFIS). The changes to sections 3.3.24 through 3.3.27 were included in the AFIS submittal, which is currently being reviewed by the NRC.

The new TS pages are included in Attachment 1. Attachment 2 contains the Technical Justification for the LAR. Attachments 3 and 4 contain the No Significant Hazards Consideration Evaluation and the Environmental Impact Analysis, respectively.

The Oconee Updated Final Safety Analysis Report has been reviewed. Various sections will require revision due to the LPSW modification. These revisions will be submitted per 10CFR50.71(e).

This proposed addition 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 by October 1, 2001. Duke Energy will implement the new TS on all three units by the end of Unit 3 End Of Cycle 19 Refueling Outage (EOC19 RFO) tentatively scheduled for October, 2001.

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

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 questions regarding this submittal, please contact Reene' Gambrell at (864) 885-3364.

Very truly yours,

W. R. McCollum, Jr., Vice President
Oconee Nuclear Site

cc: Mr. D. E. LaBarge, 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

W. R. McCollum, Jr., 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.

W. R. McCollum, Jr., Vice President
Oconee Nuclear Site

Subscribed and sworn to before me this 28 day of February, 2001

Notary Public

My Commission Expires:

2/12/2003

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TECHNICAL SPECIFICATION

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3.3.28 Low Pressure Service Water (LPSW) Standby Pump Auto-Start Circuitry

LCO 3.3.28 LPSW Standby Pump Auto-Start Circuitry shall be OPERABLE.

---NOTE---
LPSW Standby Pump auto-start circuit is not required to be OPERABLE on running LPSW pumps.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. LPSW standby pump auto-start circuitry inoperable.	A.1 Restore LPSW standby pump auto-start circuitry to OPERABLE status.	7 days
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3. AND	12 hours
	B.2 Be in MODE 5.	60 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.28.1	Perform CHANNEL FUNCTIONAL TEST.	18 months
SR 3.3.28.2	Perform CHANNEL CALIBRATION.	18 months

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B 3.3 INSTRUMENTATION

B 3.3.28 Low Pressure Service Water (LPSW) Standby Pump Auto-Start Circuitry

BASES

BACKGROUND

The LPSW Standby Pump Auto-Start Circuitry starts the standby LPSW Pump to ensure LPSW cooling water is available if a running pump does not restart following a Loss Of Offsite Power (LOOP) event and LPSW header pressure does not return to normal values within a predetermined amount of time.

The LPSW Standby Pump Auto-Start Circuitry consists of two safety grade pressure switches, and associated relays, time delays, switches, and indicator lights. The circuitry utilizes a two-out-of-two logic configuration. The actuation of the auto-start circuitry requires a low LPSW header pressure signal from both pressure switches.

Descriptions of the LPSW and ECCW Systems are provided in the Bases for LCO 3.7.7, "Low Pressure Service Water (LPSW) System" and 3.7.8, "Emergency Condenser Circulating Water (ECCW)."

APPLICABLE SAFETY ANALYSES

In the analysis of LOOP events, the LPSW Standby Pump Auto-Start Circuitry is assumed to be OPERABLE to restart the standby LPSW Pump to ensure LPSW cooling water is available. For LOOP events, the LPSW System is required to support OPERABILITY of the SSW System, High Pressure Injection (HPI) Pump Motors, and Motor Driven Emergency Feedwater (MDEFW) motors. The SSW System is a support system to the Emergency Condenser Circulating Water (ECCW) System. The SSW System is required to ensure ECCW siphon header piping remains sufficiently primed to supply siphon flow to the LPSW pump suction piping.

The LPSW Standby Pump Auto-Start Circuitry satisfies Criterion 3 of 10 CFR 50.36 (Ref. 1).

BASES

LCO

LPSW Standby Pump auto-start circuitry shall be OPERABLE. The circuitry includes a sensor channel and a logic channel. The LCO is modified by a NOTE indicating that this circuitry is not required to be OPERABLE on LPSW Pumps that are running. This is acceptable because a running LPSW pump automatically restarts following a LOOP.

APPLICABILITY

LPSW Standby Pump auto-start circuitry is required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure LPSW cooling water is available during a LOOP with a single failure of an LPSW pump.

Mitigation of applicable Design Basis Events in MODES 5 and 6 does not rely on the auto-start of the LPSW Standby Pump; therefore, the LPSW Standby Pump auto-start circuitry is not required to be OPERABLE.

ACTIONS

A.1

If the circuitry is inoperable, Required Action A.1 requires the LPSW Standby Pump Auto-Start circuit to be restored to OPERABLE status within 7 days.

The 7 day Completion Time is based upon the low safety significance of the auto-start circuitry.

If only one SSW header is in operation and the LPSW Standby Pump auto-start circuitry is inoperable on the same unit that is supplying the SSW header, the condition would be entered for all affected units. For example, if all three units are in MODE 1 and only the 'B' SSW header is in service and Unit 3 LPSW Standby Pump auto-start circuitry is inoperable, then all three units are in a 7 day action statement.

B.1 and B.2

Condition B applies when the Required Action and associated Completion Time of Condition A are not met. If Condition B applies, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours, and in MODE 5 within 60 hours.

BASES

ACTIONS

B.1 and B.2 (continued)

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE REQUIREMENTS

SR 3.3.28.1

A CHANNEL FUNCTIONAL TEST is performed on each LPSW Pump to ensure the auto-start circuit will perform its intended function. The Frequency of 18 months is based on engineering judgment and operating experience. Testing on an 18 month interval provides reasonable assurance that the circuitry is available to perform its safety function.

SR 3.3.28.2

A CHANNEL CALIBRATION is performed to verify that the components respond to the measured parameter within the necessary range and accuracy. The CHANNEL CALIBRATION leaves the components adjusted to account for instrument drift to ensure that the auto-start circuitry remains operational between successive tests. The Frequency is justified by the assumption of an 18 month calibration interval in the determination of the drift in the setpoint analysis.

REFERENCES

1. 10 CFR 50.36.

ATTACHMENT 2

TECHNICAL JUSTIFICATION

Attachment 2

Technical Justification

Background

The analysis of the Loss Of Offsite Power (LOOP) event assumes a single failure. The Low Pressure Service Water (LPSW) System is required to support operability of the High Pressure Injection (HPI) Pumps and Motor Driven Emergency Feedwater (MDEFDW) Pumps during a LOOP by supplying cooling water to the HPI Pump motor bearing coolers and MDEFDW Pump motors.

Two LPSW pumps normally operate on the Unit 1&2 LPSW System with the third LPSW pump in standby. Both operating LPSW pumps normally restart following a LOOP event. Assuming the worst case single failure is failure of a Unit 1&2 LPSW pump to restart following a LOOP, only one LPSW pump would remain operating. During the months of high lake temperature and resulting high system demand, one LPSW pump cannot supply adequate flow to two units. The operating Unit 1&2 LPSW pump would experience inadequate Net Positive Suction Head (NPSH). This condition would exist until operators recognized the condition and manually started the standby LPSW pump from the control room. Automatic start of the standby LPSW pump does not occur during events involving only a LOOP. The standby LPSW Pump will automatically start during events involving Engineered Safeguards (ES) actuation.

One LPSW pump normally operates on the Unit 3 LPSW System. If a single failure is postulated for the operating Unit 3 LPSW pump to restart following a LOOP, no LPSW pump would remain operating. This condition would exist until operators recognized the condition and manually started the standby LPSW pump from the control room. The standby LPSW Pump will automatically start during events involving ES actuation.

The LPSW System is Maintenance Rule (MR) a(1) due to not adequately stroke testing cross-connect valves, LPSW-67 and LPSW-68. If one of these valves were to fail to reclose during testing, the Unit 1&2 LPSW System and Unit 3 LPSW System would be cross-connected. This would be an unanalyzed condition that could result in inadequate Siphon Seal Water (SSW) flow even if both SSW headers were operable. Thus, the LPSW Standby Pump Auto-start Circuitry modification must be implemented prior to stroke testing the valves. The same

problem also causes the Condenser Circulating Water (CCW) System to be MR a(1), because the LPSW cross-connect function also supports certain CCW functions in the event of failures.

A modification will be implemented to modify the start circuit of the LPSW Pumps on each Oconee unit to include an auto-start signal. The auto-start circuit will be QA Condition 1 and its function will be to automatically start the standby LPSW Pump if a running LPSW Pump fails to restart following a LOOP event and LPSW header pressure does not return to normal values as monitored by QA condition 1 pressure switches. The auto-start circuit provides a predetermined time delay before starting the standby LPSW Pump to determine if LPSW header pressure has returned to acceptable values. The auto-start signal will also start the standby LPSW Pump during normal operation if LPSW header pressure falls below an established setpoint and remains there for a predetermined amount of time. The auto-start circuit will consist of under voltage relays that monitor the Main Feeder Bus voltage, pressure switches that monitor LPSW header pressure and auxiliary relays to provide the signal to start the Standby LPSW Pump. Sliding links or an enable/disable switch will be used to disable the auto-start circuit to allow for testing of the auto-start circuit. Computer points and a statalarm will also be provided for testing purposes. Implementation of this modification necessitates adding Technical Specification (TS) Section 3.3.28, LPSW Standby Pump Auto-Start Circuitry.

The proposed revision to TS will add the TS and Bases section of 3.3.28, LPSW Standby Pump Auto-Start Circuitry. These TS and Bases sections will be implemented on all three units following Unit 3's refueling outage currently scheduled for October, 2001. TS and Bases section 3.3.24 was added and designated as not used. It has been reserved for a License Amendment Request (LAR) related to emergency power. TS sections 3.3.25, 3.3.26 and 3.3.27 have been reserved for an Automatic Feedwater Isolation System (AFIS). AFIS is currently being reviewed by the Nuclear Regulatory Commission (NRC). The emergency power LAR will occur at a later date. The addition of TS sections 3.3.24 through 3.3.27 were included in the Automatic Feedwater Isolation System submittal which is currently being reviewed by the NRC.

NRC approval of the proposed modification and technical specifications is required.

Modification Description

The modification installs LPSW standby pump auto-start logic. Following a LOOP, the standby pump will start if low discharge pressure occurs for a duration of 10 seconds after power is restored to the Main Feeder Bus. The modification is designed to start the standby LPSW pump during normal operation following the loss of system pressure.

The modification requires the following new QA condition 1 equipment on each unit's LPSW system:

1. Pressure switches monitoring LPSW System pressure.
2. Devices to monitor Main Feeder Bus 1 and 2.
3. Time delay relay.
4. Auxiliary relays.
5. Electrical enclosure.
6. Enable/disable switch.
7. Power selector switch.
8. Indicating light.

The modification will include the ability to disable the auto-start circuit.

The existing control room LPSW header pressure will also be sent to the Operator Aid Computer (OAC). An OAC point will be added indicating when the auto-start signal is present.

Existing pressure switches will be deleted. Some OAC points will be deleted and some will be revised. The pressure switches and auxiliary relays will replace the functions of the deleted pressure switches.

The modification will install undervoltage relays to monitor voltage on Main Feeder Bus 1 and 2. Safety related power cables will be required from the switchgear. The undervoltage relays will be located in a new terminal box.

The auto-start circuit will be monitored to detect loss of power to the circuit by an indicating light located on the terminal box and an OAC point.

The modification will utilize a two-out-of-two logic configuration. The actuation of the LPSW Standby Pump auto-start circuit will require a low LPSW header pressure signal from both pressure switches. During a LOOP event all LPSW pumps will lose power.

QA Requirements

The instrumentation is necessary to mitigate a LOOP event and shall be QA Condition 1. All instrument valves and tubing shall be QA Condition 1.

The LPSW Standby Pump Auto-Start circuitry will be QA Condition 1. All components and cabling associated with the circuit shall be QA Condition 1. Cable associated with the OAC points and the statalarm is not required to be QA Condition 1.

Modification Design:

10 CFR Part 50 Appendix A General Design Criteria For Nuclear Power Plants provides design requirements for Systems. The principal design criteria for Oconee were developed in consideration of 10 CFR Part 50 Appendix A and were issued in 1967. As such, the general design criteria of 10 CFR Part 50 Appendix A do not apply. The general design criteria for Oconee are specified in Section 3 of the Oconee Updated Final Safety Analysis Report (UFSAR). The general design criteria as well as Design Basis Parameters that will be affected by the LPSW Auto-Start Circuitry Modification are described and discussed below:

Criterion 52 Containment Heat Removal Systems Criteria states that where active heat removal systems are needed under accident conditions to prevent exceeding containment design pressure, at least two systems, preferably of different principles, each with full capacity shall be provided.

This modification modifies the LPSW pump start circuit. This modification will not prevent the LPSW system from performing its safety function of providing cooling water to the Low Pressure injection and Reactor Building Cooling Systems during accident conditions.

Criterion 15 Engineered Safety Features Protection Systems states that protection systems shall be provided for sensing accident situations and initiating the operation of necessary engineered safety features.

This modification will not inhibit the LPSW pumps from starting when an ES signal is present for any licensing basis event.

Criterion 20 Protection Systems Redundancy And Independence states that redundancy and independence designed into Protection Systems shall be sufficient to assure that no single failure or removal from service of any component or channel of a system will result in loss of the protection function. The redundancy provided shall include, as a minimum, two channels of protection for each protection function to be served. Different principles shall be used where necessary to achieve true independence of redundant instrumentation components.

The LPSW Standby Pump Auto-Start Circuitry is not considered to be a protection system. However, the modification will involve Blue, Gray, and Yellow safety related cables. These cables will terminate in a common terminal box. The cable routes shall maintain separation between the different safety colors. Within the terminal box, wiring separation shall be maintained between different safety related colors. Within the terminal box physical separation shall be maintained between components.

Testing - The LPSW Standby Pump Auto-Start Circuitry will be calibrated and functionally tested to ensure it performs its intended function prior to completion of the modification.

Single Failure - A failure of a component in the LPSW Standby Pump auto-start circuit will not prevent a protection system from fulfilling its protective function.

Seismic - The new LPSW Standby Pump Auto-Start circuit will be designed to withstand a seismic event as required for the LPSW pumps. The modification design will ensure an adverse seismic to non-seismic interaction will not occur.

Appendix R - The LPSW system support requirements during an Appendix R fire are unchanged by this modification.

USI-A46 (SQUG) - The instrumentation has been evaluated and found to be adequate for SQUG SSEL requirements.

Maintenance Rule (MR) - An additional MR Function is added to the LPSW system to address the LPSW Standby Pump Auto-Start logic. If this MR function is deemed High Safety Significant, the TS will be adequate to allow monitoring of unavailability.

Environmental Qualifications - The instrumentation will be

located in a mild environment.

Environmental Considerations - The instrumentation will be located in the Turbine Building basement and cable room. No special environmental considerations are necessary.

Anticipated Transients Without Scram (ATWS) - LPSW supports the MDEFDW pump and TDEFDW pump during an ATWS event. The LPSW system mitigation of this event is unchanged because the single failure criterion is not applied for ATWS.

Set point limits - The LPSW pump low header pressure Statalarm currently actuates at 50 psig. This setpoint is being conservatively revised to 60 psig. This setpoint change ensures that adequate NPSH is available to the LPSW Pumps.

LOCA and MSLB - Because the LPSW pumps receive an ES signal to start, the LPSW system mitigation of these events is unchanged.

The following design criteria have been reviewed and found to not be applicable to this modification: System Class, Tornado/wind, Missiles, Pipe Rupture, Penetrations, Shielding, Mechanical Separation, Flood, Station Blackout, Regulatory Guide 1.97, Loss Of Instrument Air and High Energy Line Break.

Updated Final Safety Analysis Report (UFSAR) Summary

Changes to the UFSAR will be required to support this modification. The following sections will be potentially affected and changes will be pursued under 10CFR 50.71(e):

Chapter 9.2.2.2.3, Low Pressure Service Water (LPSW) will be revised to describe LPSW pump auto-start logic.

Chapter 9.2.2.2.5, Essential Siphon Vacuum and Siphon Seal Water System will be revised to describe the ESV System and SSW support requirements to indicate the "A" and "B" SSW Header are redundant. Also, one SSW header is capable of supplying Unit 1,2, & 3 ESV Systems without single failure vulnerability.

Chapter 7, Instrumentation and Control, will be revised as required.

Description of the Technical Specification Change

Attachment 1 provides the proposed TS pages. The proposed addition to the TS for Oconee Nuclear Station are described and justified below.

A new section and title will be added to Chapter 3.3 of the TS. Section 3.3.28 will be added and entitled 'Low Pressure Service Water (LPSW) Standby Pump Auto-Start Circuitry'.

A new LCO statement will be added to TS 3.3.28, LPSW Standby Pump Auto-Start Circuitry to verify that the Standby LPSW Pump auto-start circuit is operable in Modes 1, 2, 3 and 4.

A NOTE is added to LCO 3.3.28 that allows the LPSW Standby Pump auto-start circuitry to not be operable on a running LPSW pump.

The LPSW Standby Pump Auto-Start circuitry is required to be OPERABLE in MODES 1, 2, 3 and 4 to ensure LPSW cooling water is available during a LOOP with a single failure of an LPSW pump.

Two conditions are added to the ACTIONS section as described below:

If the circuitry is not operable then the proposed change will require entry into Condition A which requires that the LPSW Standby Pump Auto-Start circuit be returned to operable status within 7 days.

The time frame is based upon the low safety significance of the auto-start circuitry.

If the above Completion Times cannot be met, then entry into Condition B is required. Condition B requires that the affected units be in MODE 3 within 12 hours and MODE 5 within 60 hours.

If the Completion Times cannot be met in Condition A, then the Unit must be placed in a MODE in which the LCO does not apply. The allowed Completion Times are reasonable, based on operating experience, to reach the required Modes from full power conditions in an orderly manner and without challenging Unit systems.

Two Surveillance Requirements (SR) are being added to the SR section as described below:

This proposed change institutes SR 3.3.28.1 which requires channel functional testing of the circuitry to verify the standby LPSW Pump auto-start circuit starts the appropriate LPSW Pump on an 18-month frequency. This SR proves the circuit will perform its intended function. The Frequency of 18 months is based on engineering judgment and operating experience. Testing on an 18 month interval provides reasonable assurance that the circuitry is available to perform its safety function.

The proposed change institutes SR 3.3.28.2 which requires the components that make up the auto-start circuit be calibrated on an 18-month frequency. The channel calibration ensures that the components respond to the measured parameter within the necessary range and accuracy. The Frequency is justified by the assumption of an 18 month calibration interval in the determination of drift in the setpoint analysis.

A new TS Bases section will be added to support the TS.

The following information is provided as the Bases Background:

The LPSW Standby Pump Auto-Start Circuitry starts the standby LPSW Pump to ensure LPSW cooling water is available if a running pump does not restart following a Loss Of Offsite Power (LOOP) event and LPSW header pressure does not return to normal values within a predetermined amount of time.

The LPSW Standby Pump Auto-Start Circuitry consists of two safety grade pressure switches, and associated relays, time delays, switches, and indicator lights. The circuitry will utilize a two-out-of-two logic configuration. The actuation of the auto-start circuitry will require a low LPSW header pressure signal from both pressure switches.

Descriptions of the LPSW and ECCW Systems are provided in the Bases for LCO 3.7.7, "Low Pressure Service Water (LPSW) System" and 3.7.8, "Emergency Condenser Circulating Water (ECCW)."

The APPLICABLE SAFETY ANALYSES was added as follows:

In the analysis of LOOP events, the LPSW Standby Pump

Auto-Start Circuitry is assumed to be OPERABLE to restart the standby LPSW Pump to ensure LPSW cooling water is available. For LOOP events, LPSW System is required to support OPERABILITY of the SSW System, HPI Pump Motors, and MDEFW Pump motors. The SSW System is a support system to the ECCW System. The SSW System is required to ensure ECCW siphon header piping remains sufficiently primed to supply siphon flow to the LPSW pump suction piping.

The LPSW Standby Pump Auto-Start Circuitry satisfies Criterion 3 of 10 CFR 50.36.

The LCO was added as follows:

LPSW Standby Pump auto-start circuitry shall be OPERABLE. The circuitry includes a sensor channel and a logic channel. The LCO is modified by a NOTE indicating that this circuitry is not required to be OPERABLE on LPSW Pumps that are running. This is acceptable because a running LPSW pump automatically restarts following a LOOP.

The APPLICABILITY was added as follows:

LPSW Standby Pump auto-start circuitry is required to be OPERABLE in MODES 1, 2, 3, and 4 to ensure LPSW cooling water is available during a LOOP with a single failure of an LPSW pump.

Mitigation of applicable Design Basis Events in MODES 5 and 6 do not rely on the auto-start of the LPSW Standby Pump; therefore, the LPSW Standby Pump auto-start circuitry is not required to be OPERABLE.

The following ACTIONS were added to the Bases:

A.1

If the circuitry is inoperable, Required Action A.1 requires the LPSW Standby Pump Auto-Start circuit to be restored to OPERABLE status within 7 days.

The 7 day Completion Time is based upon the low safety significance of the auto-start circuitry.

Diverse methods exist for mitigating a LOOP/Single Failure scenario. These include an alternate source of non-safety related cooling water, other system alignments, or operator

action to start the LPSW Standby pump. Because of these, the safety significance of the auto-start circuitry is low. A 7 day allowed outage time is appropriate due to the low safety significance of the circuitry.

If only one SSW header is in operation and the standby LPSW pump auto-start circuitry is inoperable on the same unit that is supplying the SSW header, the LCO is applicable to all affected units. For example, if all three units are in MODE 1 and only the "B" SSW header is in service and Unit 3 LPSW Standby Pump auto-start circuitry is inoperable, then all three units are in a 72 hour action statement.

B.1 and B.2

Condition B applies when the Required Action and associated Completion Time of Condition A are not met. If Condition B applies, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 12 hours, and in MODE 5 within 60 hours.

The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

The following SURVEILLANCE REQUIREMENTS have been added to the Bases:

SR 3.3.28.1

A CHANNEL FUNCTIONAL TEST is performed on each LPSW Pump to ensure the auto-start circuit will perform its intended function. The Frequency of 18 months is based on engineering judgment and operating experience. Testing on an 18 month interval provides reasonable assurance that the circuitry is available to perform its safety function.

SR 3.3.28.2

A CHANNEL CALIBRATION is performed to verify that the components respond to the measured parameter within the necessary range and accuracy. The CHANNEL CALIBRATION leaves the components adjusted to account for instrument drift to ensure that the auto-start circuitry remains operational between successive tests. The Frequency is justified by the

assumption of an 18 month calibration interval in the determination of drift in the setpoint analysis.

The following REFERENCE is added to the bases:

1. 10 CFR 50.36

ATTACHMENT 3

NO SIGNIFICANT HAZARDS CONSIDERATION

Attachment 3
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. The Low Pressure Service Water (LPSW) Auto-start circuitry provides a means of automatic response to start the standby LPSW pump after the running LPSW pump fails to restart following a Loss Of Offsite Power (LOOP) event.

Loss Of Coolant Accidents (LOCA) events actuate the LPSW pumps via the Engineered Safeguards Systems. This modification will not change this response.

The LPSW pumps automatically restart following a LOOP event. A failure of a running LPSW pump to restart and LPSW header pressure not returning to normal operating values following a LOOP event will actuate the LPSW Standby Pump Auto-Start circuitry. The circuitry will start the LPSW standby pump. When LPSW header pressure returns to normal operating values, the auto-start signal will be cleared from the LPSW pumps start circuits.

The modification enhances plant design basis functions by ensuring that the standby LPSW pump starts to provide flow. This removes the necessity to rely on alternative systems and/or components to mitigate design basis events. It will eliminate a degraded/non-conforming condition, and will support returning affected systems to Maintenance Rule (MR) a(2) status.

This modification does not involve an 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. This modification adds LPSW Standby Pump Auto-Start circuitry such that if the LPSW pumps fail to restart following a LOOP, the standby LPSW pump will start to provide system flow. This enhances current plant design. It ensures system flow and eliminates reliance on alternative systems and/or components that may or may not be safety related to mitigate the design basis event.

This modification will 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. The change will enhance the ability to provide flow from the standby LPSW pump following a LOOP. It eliminates reliance on alternative systems and/or components to mitigate the design basis event should the LPSW pumps fail to restart. 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 4

ENVIRONMENTAL ASSESSMENT

ATTACHMENT 4

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 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.