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MAY 27 1992

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

Posted
correction to
Amdt. 195 to DPR-47

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, South Carolina 29679

Dear Mr. Hampton:

SUBJECT: CORRECTION TO OCONEE AMENDMENTS REGARDING STANDBY SHUTDOWN FACILITY DATED MAY 11, 1992

On May 11, 1992, the Nuclear Regulatory Commission issued amendments to Facility Operating Licenses for Oconee Units 1, 2, and 3. These amendments concerned operation of the Standby Shutdown Facility. Due to an administrative oversight, the amendment number for Oconee Unit 3 was listed incorrectly (191 vice 192), and the index and Technical Specification (TS) page 6.1-6a did not reflect the previous amendment change that removed the fire protection requirements section from the TSs.

A revised copy of the Unit 3 License Amendment (Amendment 192) and corrected TS pages are enclosed. We apologize for any inconvenience this may have caused you.

Sincerely,

/s/

L. A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure and cc:
See next page

OFC	:PDII-3/LA	:PDII-3/PM	:PDII-3/D	:	:	:
NAME	:LBERRY	:LWIENS	:DMATTHEWS	:	:	:
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

May 27, 1992

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L. A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosure:
As stated

cc w/enclosure:
See next page

cc:
Mr. A. V. Carr, Esquire
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242-0001

J. Michael McGarry, III, Esquire
Winston and Strawn
1400 L Street, NW.
Washington, DC 20005

Mr. Robert B. Borsum
Babcock & Wilcox
Nuclear Power Division
Suite 525
1700 Rockville Pike
Rockville, Maryland 20852

Manager, LIS
NUS Corporation
2650 McCormick Drive, 3rd Floor
Clearwater, Florida 34619-1035

Senior Resident Inspector
U. S. Nuclear Regulatory Commission
Route 2, Box 610
Seneca, South Carolina 29678

Regional Administrator, Region II
U. S. Nuclear Regulatory Commission
101 Marietta Street, NW. Suite 2900
Atlanta, Georgia 30323

Mr. Heyward G. Shealy, Chief
Bureau of Radiological Health
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, North Carolina 27603

County Supervisor of Oconee County
Walhalla, South Carolina 29621

Mr. M. E. Patrick
Compliance
Duke Power Company
Oconee Nuclear Site
P. O. Box 1439
Seneca, South Carolina 29679

Mr. Alan R. Herdt, Chief
Project Branch #3
U. S. Nuclear Regulatory Commission
101 Marietta Street, NW. Suite 2900
Atlanta, Georgia 30323

Ms. Karen E. Long
Assistant Attorney General
North Carolina Department of
Justice
P. O. Box 629
Raleigh, North Carolina 27602

Mr. R. L. Gill, Jr.
Licensing
Duke Power Company
P. O. Box 1007
Charlotte, North Carolina 28201-1007

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

DUKE POWER COMPANY

DOCKET NO. 50-287

OCONEE NUCLEAR STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 191
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) Facility Operating License No. DPR-55 filed by the Duke Power Company (the licensee) dated July 26, 1985, as supplemented August 14, 1987, August 12 and November 28, 1988, August 21, 1990, March 5, 1991, March 24 and April 9, 1992, 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 Facility Operating License No. DPR-55 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 191, 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.

FOR THE NUCLEAR REGULATORY COMMISSION

David B. Matthews, Director
Project Directorate II-3
Division of Reactor Projects-I/II
Office of Nuclear Reactor Regulation

Attachment:
Technical Specification
Changes

Date of Issuance: May 11, 1992

LIST OF TABLES

3.18 STANDBY SHUTDOWN FACILITY

Applicability

Applies to the Oconee Standby Shutdown Facility (SSF) consisting of the SSF Auxiliary Service Water (ASW), SSF Portable Pumping System, and SSF Reactor Coolant (RC) Makeup Systems, associated instrumentation, electrical generation and distribution, support systems, and the interfaces with normal in-plant systems.

Objective

To specify minimum conditions necessary to assure the operability of the Standby Shutdown Facility when any Oconee unit Reactor Coolant System temperature is at or above 250°F.

Specification

3.18.1 a. The Oconee SSF consisting of the SSF ASW, SSF Portable Pumping System, SSF RC Makeup Systems, associated instrumentation, electrical generation and distribution, support systems, and the interfaces with normal in-plant systems shall be operable at any time an Oconee Unit is at or above 250°F, except as permitted by Specifications 3.18.2, 3.18.3, 3.18.4, 3.18.5, 3.18.6, 3.18.7, and 3.18.8.

b. The Provisions of Specification 3.0 do not apply.

3.18.2 SSF Auxiliary Service Water System

a. The SSF ASW System, consisting of SSF ASW pump and a flow path capable of taking suction from the Unit 2 CCW line and discharging into the secondary side of each steam generator, shall be operable for each Unit at or above 250°F, except as permitted by part (b) or Specification 3.18.7.

b. If the SSF ASW system is inoperable, it shall be restored to operable status within 7 days, or the affected unit(s) shall be in hot shutdown within the next 12 hours, and below 250°F within the following 72 hours.

3.18.3 SSF Portable Pumping System

a. The SSF Portable Pumping System, consisting of SSF Submersible Pump and a flow path capable ofpumping water from the intake canal into the Unit 2 CCW line, shall be operable when any unit is at or above 250°F, except as permitted by part (b) or 3.18.7.

b. If the SSF Portable Pumping System is inoperable, it shall be restored to operable status within 7 days, or all unit(s) shall be in hot shutdown within the next 12 hours, and below 250°F within the next 72 hours.

3.18.4 SSF Reactor Coolant Makeup System

a. The SSF RC Makeup System, consisting of the SSF RC makeup pump, a flow path from the spent fuel pool and discharging into the Reactor Coolant System shall be operable for each unit at or above 250°F, except as permitted by part (b) or by Specification 3.18.7.

b. If the SSF RC Makeup is inoperable, it shall be restored to operable status within 7 days or the affected unit(s) shall be in hot shutdown within the next 12 hours, and below 250°F with the following 72 hours.

3.18.5 SSF Power System

a. The SSF Power System consisting of the SSF Diesel Generator(SSF DG), diesel support systems, 4160 VAC, 600 VAC, 208 VAC, 120 VAC, 125 VDC systems, shall be operable for any unit at or above 250°F, except as permitted by part (b) or by Specification 3.18.7.

(1) The SSF DG and support systems consists of the diesel generator, fuel oil transfer system, air start system, diesel engine service water system, as well as associated controls and instrumentation.

(2) The power system consists of 4160V switchgear OTS1; 600V load center OXSF; 600V motor control centers XSF, 1XSF, 2XSF, 3XSF; 208V motor control centers 1XSF, 1XSF-1, 2XSF, 2XSF-1, 3XSF, 3XSF-1; 120V panelboards KSF, KSFC.

(3) The DC power system consists of two batteries and associated chargers, 125VDC distribution centers DCSF, DCSF-1, and power panelboard DCSF. Only one battery and associated charger is required to be operable and connected to the 125VDC distribution center.

b. If the SSF Power System is inoperable, it shall be restored to operable status within 7 days or the affected unit(s) shall be in hot shutdown within the next 12 hours and below 250°F within the following 72 hours.

3.18.6 SSF Associated Instrumentation

a. The associated instrumentation for the SSF, consisting of the instrumentation specified in Table 3.18.1, shall be operable for each unit at or above 250°F, except as permitted by part (b) or by Specification 3.18.7.

b. With less than the minimum SSF instrumentation in Table 3.18.1 operable, it shall be restored to operable status within 7 days or the affected unit(s) shall be in hot shutdown within the next 12 hours, and below 250°F with the following 72 hours.

3.18.7 Special inoperability periods are allowed for maintenance on the SSF, with the following restrictions.

a. Special inoperability periods are independent of the degraded mode periods allowed by Specifications 3.18.2, 3.18.3, 3.18.4, 3.18.5, and 3.18.6.

b. The special inoperability periods shall total no more than 45 days per year.

3.18.8 While the SSF or any of its major subsystems is in a degraded mode or a special inoperability period allowed by Specifications 3.18.2, 3.18.3, 3.18.4, 3.18.5, 3.18.6, and/or 3.18.7, any Oconee unit may be heated above 250°F, permitted to remain critical, or restarted.

Bases

The SSF is designed to mitigate the consequences of postulated fire or flooding incidents, or acts of industrial sabotage to one or more of the three units at Oconee. The SSF contains, within seismically designed structures a reactor coolant volume control system for maintenance of primary system coolant during hot shutdown conditions; a steam generator volume control system for secondary system heat removal capabilities; independent emergency sources of AC and DC electrical power and associated electrical distribution systems; and various support systems. The SSF is designed to provide an alternate and independent means to achieve and maintain hot shutdown conditions for one or more of the three Oconee units. The SSF is in addition to and supplements the current shutdown capability described in the Oconee FSAR. It would be operated only in the event installed normal and emergency systems are inoperable. Manual operator action is required to actuate the systems.

The SSF Auxiliary Service Water System is a high head, high volume system designed to provide sufficient steam generator inventory for adequate decay heat removal for three units during a loss of normal AC power in conjunction with the loss of the normal and Emergency Feedwater Systems.

The SSF Portable Pumping System is designed to provide a backup supply of water to the SSF in the event of loss of CCW and subsequent loss of CCW siphon flow. The SSF Portable Pumping System is not safety grade and is installed manually according to Emergency procedures.

The SSF RC Makeup System is designed to supply makeup to the Reactor Coolant System (RCS) in the event that normal makeup systems are unavailable. The capacity of this system is sized to account for normal RCS leakage and shrinkage which results from going from a hot power operating condition to hot shutdown.

The SSF power supply is designed to provide normal and independent emergency sources of AC and DC electrical power, their associated electrical distribution systems and various support systems in the SSF. The SSF diesel generator would be operated only in the event installed normal power systems are inoperable. Manual operator action is required to actuate this system.

The SSF power supply includes 4160VAC, 600VAC, 208VAC, 120VAC and 125VDC power. This system supplies power necessary for the hot shutdown of the reactor in the event of loss of power from all other power systems. It consists of switchgear, a load center, motor control centers, panelboards, remote starters, batteries, battery chargers, inverters, a diesel powered electrical generator unit, relays, control devices, and interconnecting cable supplying the appropriate loads.

The 125VDC SSF Power System consists of two 125 VDC batteries and associated chargers, two DC distribution centers, and a DC power panelboard. This system is designed to provide an uninterruptible source of power for the SSF equipment controls and instrumentation.

Normally, one 125 VDC battery and its associated charger are connected to the 125VDC distribution center to supply the 125VDC loads. In this alignment, the battery is floated on the distribution center and is available to assure load without interruption upon loss of its associated battery charger or AC power source. The other 125VDC battery and its associated charger are in a standby mode and are not normally connected to the 125VDC distribution center. However, they are available via manual connection to the 125VDC distribution center to supply SSF loads, if required.

Although it is desirable to maintain the SSF operable to mitigate design basis events, short periods of inoperability are necessary for testing and maintenance to assure a high degree of reliability for the SSF. The 7 day limiting condition for operation (LCO) will be sufficient for routine testing and maintenance; however, inoperability periods of greater than 7 days are also allowed. To minimize the number and duration of extended outages associated with the special inoperability periods, outages of greater than 7 days on any unit shall not total more than 45 days per year without prior NRC approval.

References

1) NRC to Duke Power letter, April 28, 1983, "Safety Evaluation Report for the Oconee SSF".

2) FSAR, Section 9.6.1.

TABLE 3.18-1
SSF
MINIMUM INSTRUMENTATION

	Instrument	Readout Location	Minimum Channels Operable
1.	Reactor Coolant System Pressure	SSF Control Panel	1/Unit
2.	Reactor Coolant System Temperature (Tc)	SSF Control Panel	1/Loop/Unit
3.	Reactor Coolant System Temperature (Th)	SSF Control Panel	1/Loop/Unit
4.	Pressurizer Water Level	SSF Control Panel	1/Unit
5.	Steam Generator Level(Loop A&B)	SSF Control Panel	1/Steam Generator/ Unit
6.	D/G Air Start System Pressure	SSF D/G Room	1

4.20 STANDBY SHUTDOWN FACILITY

Applicability

Applies to the periodic surveillance testing requirements for the Standby Shutdown Facility (SSF) consisting of the SSF Auxiliary Service Water, SSF Portable Pumping System, SSF RC Makeup Systems, associated instrumentation, electrical generation and distribution, support systems, and the interfaces with normal in-plant systems.

Objective

To verify that the systems and components associated with the SSF are operable.

Specification

4.20.1 SSF Pumps and Valves

a. Inservice testing of SSF ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable addenda as required by 10 CFR 50, §50.55a(g)(4) to the extent practicable within the limitations of design, geometry and materials of construction of the components with the exception as permitted by Specification 4.20.1.c.

b. In the event that a pump or valve is determined to be inoperable by the performance of a surveillance test, then actions shall be taken for the affected system as required by Specification 3.18.

c. Inservice testing of the submersible pump for the SSF Portable Pumping System will be performed on a two (2) year frequency and will consist of testing developed head and flow.

4.20.2 SSF Instrumentation

a. The frequency and type of surveillance required for SSF instrumentation shall be as stated in Table 4.20-1.

b. In the event that an instrument is determined to be inoperable by the performance of a surveillance test, then actions shall be taken for the affected system as required by Specification 3.18.

4.20.3 SSF Electrical Power Systems

a. Diesel Generator

1. Monthly, or after maintenance or modification that could affect its operability the SSF diesel generator shall be verified operable by:

   a. Verifying the fuel inventory in the day tank is greater than or equal to 200 gallons and,

   b. Verifying the fuel inventory in the underground oil storage tank is greater than or equal to 25,000 gallons and,

   c. Verifying the diesel starts from standby condition and runs according to the procedures and requirements recommended by the manufacturer.

2. Quarterly verify that:

   a. The SSF diesel generator can be operated for a least 60 minutes with a load of greater than or equal to 3000 KW. This test may be preceded by an engine prelube period and/or other warm-up procedures recommended by the manufacturer.

   b. The fuel oil transfer pump starts and transfers fuel from the storage system to the day tank. This test will be performed per Specification 4.20.1.a.

3. Quarterly, diesel fuel from the day tank and the underground storage tank shall be sampled and analyzed for viscosity, water and sediment in accordance with applicable ASTM Specifications for Diesel Fuel Oil.

4. Annually, the SSF diesel generator shall be demonstrated operable by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service.

5. In the event the SSF diesel generator is determined to be inoperable by the performance of a surveillance test, then actions shall be taken as required by Specification 3.18.

b. DC Power System

Batteries in the SSF shall have the following periodic inspections performed to assure maximum battery life. Any battery or cell not in compliance with these periodic inspection requirements shall be corrected to meet the requirements within 90 days or the battery shall be declared inoperable.

1. Weekly, verify that:

   a. The electrolyte level of each pilot cell is in between the minimum and maximum level indication marks.

   b. The pilot cell specific gravity, corrected to 77 °F and full electrolyte level is ≥ 1.200.

   c. The pilot cell float voltage is ≥ 2.12 VDC.

   d. The overall battery float voltage is ≤ 125 VDC.

2. Quarterly, verify that:

   a. The specific gravity of each cell corrected to 77°F and full electrolyte level, is ≥ 1.200 and is not less than 0.010 below the average of all cells measured.

   b. The voltage of each cell under float charge is ≥ 2.12 VDC.

   c. The electrolyte level of each connected cell is between the minimum and maximum level indication marks.

3. Annually, verify that:

   a. The cells, end-cell plates and battery racks show no visual indication of structural damage or degradation.

b. The cell to cell and terminal connections are clean, tight and coated with anti-corrosion material.

4. Annually, a one hour discharge service test at the required maximum load shall be conducted.

5. In the event an SSF battery is declared to be inoperable by the performance of a surveillance test, then actions shall be taken as required by Specification 3.18.

TABLE 4.20-1
SSF INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

		Check	Calibrate	Remarks
1.	RCS Pressure (3)	WE	RF	Loop A, B
2.	SSF RC Makeup Pump (3)			
	Suction Pressure	QU(1)	RF	
	Discharge Pressure	QU(1)	RF	
	Suction Temperature	QU(1)	RF	
	Discharge Flow	QU(1)	RF	
3.	RC System Temperature(3)	NA(2)	RF	Loop A, B Hot, Cold
4.	Pressurizer Water Level(3)	WE	RF	
5.	SSF Auxiliary Service Water Pump			
	Suction Pressure	QU(1)	AN	
	Discharge Pressure	QU(1)	AN	
	Unit 1 Discharge Pressure	NA	AN	
	Unit 2 Discharge Pressure	NA	AN	
	Unit 3 Discharge Pressure	NA	AN	
	Discharge Test Flow	QU(1)	AN	
	Suction Temperature	QU(1)	AN	
6.	Steam Generator Levels (3)	WE	RF	A,B
7.	Underground Fuel Oil Storage Tank Inventory	NA	AN	
8.	D/G Service Water Pump			
	Discharge Flow	QU(1)	AN	
	Discharge Pressure	QU(1)	AN	
9.	D/G Air Start System Pressure	WE	AN	

(1) Check when pump operated/tested per IST.
(2) This instrumentation is normally aligned through a transfer/isolation device to each Unit Control Room and is thus checked in accordance with Specification 4.1, Table 4.1-1, Item 7. Each refueling outage, the instrument string to the SSF Control Room will be checked and calibrated.
(3) Units 1, 2, 3.

Bases

Surveillance requirements contained in this specification are provided to assure the SSF would be capable of performing its design function if demanded, and are consistent with the surveillance requirements for other equipment contained in Technical Specifications. All inservice testing of pumps and valves will be done in accordance with the provisions of ASME Section XI, Subsections IWP and IWV with the exception of the SSF Portable Pumping System Submersible Pump. This pump is not QA Grade and will be tested on a two-year frequency for developed head and flow, using calibrated test instrumentation.

The surveillance requirements for the SSF Instrumentation are based on experience in operation of both conventional and nuclear systems. The minimum checking frequency stated is deemed adequate for SSF Instrumentation. Calibration is performed to assure the presentation and acquisition of accurate information. Process system instrumentation errors induced by drift can be expected to remain within acceptable tolerances if recalibration is performed at the intervals specified.

The testing of the SSF electrical power systems are based upon a review of the surveillance requirements of other similar type of equipment contained within the technical specifications, manufacturer recommendations, and appropriate NRC guidelines. The quarterly verification of the diesel fuel oil from the day tank and the underground storage tank shall be sampled and verified to be within the acceptable limits specified in Table 1 of ASTM D 975-89, Standard Specification for Diesel Fuel Oils, when checked for viscosity, water and sediment. Inspection requirements of the batteries in the DC Power System for electrolyte level, specific gravity, and voltages are based upon manufacturer's recommendations.

ADDITIONAL REQUIREMENTS

1. One licensed operator per unit shall be in the Control Room at all times when there is fuel in the reactor vessel.

2. Two licensed operators shall be in the Control Room during startup and scheduled shutdown of a reactor.

3. At least one licensed operator shall in the reactor building when fuel handling operations in the reactor building are in progress.

4. An operator holding a Senior Reactor Operator license and assigned no other operational duties shall be in direct charge of refueling operations.

5. At least one person per shift shall have sufficient training to perform routine health physics requirements.

6. If the computer for a reactor is inoperable for more than eight hours, an operator, in additional to those required (1) and (2) above, shall supplement the Control Room shift crew.

7. A fire brigade of 5 members shall be maintained on site at all times. This excludes 3 member of the minimum operating shift requirements that are required to be present in the Control Rooms.

8. An operator holding a Senior Reactor Operator's license shall be in the Control Room from which the unit is operated whenever the unit is above cold shutdown.

9. Temporary deviations from the requirements of Table 6.6-1 may be allowed in cases of sudden illness, injury or other similar emergencies provided replacement personnel are notified immediately and are on site as soon as possible to return shift manning to minimum.

10. The qualified manpower necessary for achieving alternate shutdown using the SSF will be available at the plant at all times. The manpower necessary to operate the SSF will be exclusive of the fire brigade and the 3 member minimum operating shift that is required to be present in the Control Room.

DATED: May 27, 1992

AMENDMENT NO. 195 OCONEE UNIT 1
AMENDMENT NO. 195 OCONEE UNIT 2
AMENDMENT NO. 192 OCONEE UNIT 3

** CORRECTION **
revised TS pages
revised Unit 3 License Amendment

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