

BASES

LCO
(continued)

requirements are met, two reactor building spray trains and three reactor building cooling units must be OPERABLE in MODES 1 and 2. In MODES 3 or 4, one reactor building spray train and two reactor building cooling trains are required to be OPERABLE. The LCO is provided with a note that clarifies this requirement. Therefore, in the event of an accident, the minimum requirements are met, assuming the worst-case single active failure occurs.

6

The Reactor Building Spray System includes a spray pump, spray headers, nozzles, valves, piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the BWST (via the LPI System) upon an Engineered Safeguards Protective System signal and manually transferring suction to the reactor building sump. The safety grade flow indicator of an RBS train and the safety grade flow indicator of the associated LPI train are both required to be OPERABLE to support RBS train OPERABILITY.

6
6

The Reactor Building Cooling System includes cooling coils, fusible dropout plates, an axial vane flow fan, instruments, and controls to ensure an OPERABLE flow path. Valve LPSW-108 shall be locked open to support system OPERABILITY.

APPLICABILITY

In MODES 1, 2, 3, and 4, an accident could cause a release of radioactive material to containment and an increase in containment pressure and temperature, requiring the operation of the reactor building spray trains and reactor building cooling trains.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the Reactor Building Spray System and the Reactor Building Cooling System are not required to be OPERABLE in MODES 5 and 6.

ACTIONS

A.1

With one reactor building spray train inoperable in MODE 1 or 2, the inoperable reactor building spray train must be restored to OPERABLE status within 7 days. In this Condition, the remaining OPERABLE spray and cooling trains

(continued)

ENCLOSURE 2

APPENDIX A
TO
OPERATING LICENSES NOS. DPR-38, 47, 55
TECHNICAL SPECIFICATIONS
FOR THE
OCONEE NUCLEAR STATION UNITS 1, 2, 3
DUKE POWER COMPANY
DOCKET NOS. 50-269, 270, 287

Date of Issuance: July 19, 1974

TABLE OF CONTENTS

1.0	USE AND APPLICATION	1.1-1
1.1	Definitions	1.1-1
1.2	Logical Connectors	1.2-1
1.3	Completion Times	1.3-1
1.4	Frequency	1.4-1
2.0	SAFETY LIMITS (SLs)	2.0-1
2.1	SLs	2.0-1
2.2	SL Violations	2.0-1
3.0	LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY	3.0-1
3.0	SURVEILLANCE REQUIREMENT (SR) APPLICABILITY	3.0-4
3.1	REACTIVITY CONTROL SYSTEMS	3.1.1-1
3.1.1	SHUTDOWN MARGIN (SDM)	3.1.1-1
3.1.2	Reactivity Balance	3.1.2-1
3.1.3	Moderator Temperature Coefficient (MTC)	3.1.3-1
3.1.4	CONTROL ROD Group Alignment Limits	3.1.4-1
3.1.5	Safety Rod Position Limits	3.1.5-1
3.1.6	AXIAL POWER SHAPING ROD (APSR) Alignment Limits	3.1.6-1
3.1.7	Position Indicator Channels	3.1.7-1
3.1.8	PHYSICS TESTS Exceptions—MODE 2	3.1.8-1
3.2	POWER DISTRIBUTION LIMITS	3.2.1-1
3.2.1	Regulating Rod Position Limits	3.2.1-1
3.2.2	AXIAL POWER IMBALANCE Operating Limits	3.2.2-1
3.2.3	QUADRANT POWER TILT (QPT)	3.2.3-1
3.3	INSTRUMENTATION	3.3.1-1
3.3.1	Reactor Protective System (RPS) Instrumentation	3.3.1-1
3.3.2	Reactor Protective System (RPS) Manual Reactor Trip	3.3.2-1
3.3.3	Reactor Protective System (RPS)—Reactor Trip Module (RTM)	3.3.3-1
3.3.4	Control Rod Drive (CRD) Trip Devices	3.3.4-1
3.3.5	Engineered Safeguards Protective System (ESPS) Analog Instrumentation	3.3.5-1
3.3.6	Engineered Safeguards Protective System (ESPS) Manual Initiation	3.3.6-1
3.3.7	Engineered Safeguards Protective System (ESPS) Digital Automatic Actuation Logic Channels	3.3.7-1
3.3.8	Post Accident Monitoring (PAM) Instrumentation	3.3.8-1
3.3.9	Source Range Neutron Flux	3.3.9-1
3.3.10	Wide Range Neutron Flux	3.3.10-1

(continued)

TABLE OF CONTENTS

3.3	INSTRUMENTATION (continued)	
3.3.11	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Instrumentation	3.3.11-1
3.3.12	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Manual Initiation	3.3.12-1
3.3.13	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Logic Channels	3.3.13-1
3.3.14	Emergency Feedwater (EFW) Pump Initiation Circuitry	3.3.14-1
3.3.15	Turbine Stop Valve (TSV) Closure	3.3.15-1
3.3.16	Reactor Building (RB) Purge Isolation - High Radiation	3.3.16-1
3.3.17	Emergency Power Switching Logic (EPSL) Automatic Transfer Function	3.3.17-1
3.3.18	Emergency Power Switching Logic (EPSL) Voltage Sensing Circuits	3.3.18-1
3.3.19	Emergency Power Switching Logic (EPSL) 230 kV Switchyard Degraded Grid Voltage Protection (DGVP)	3.3.19-1
3.3.20	Emergency Power Switching Logic (EPSL) CT - 5 Degraded Grid Voltage Protection (DGVP)	3.3.20-1
3.3.21	Emergency Power Switching Logic (EPSL) Keowee Emergency Start Function	3.3.21-1
3.3.22	Emergency Power Switching Logic (EPSL) Manual Keowee Emergency Start Function	3.3.22-1
3.3.23	Main Feeder Bus Monitor Panel (MFBMP)	3.3.23-1
3.4	REACTOR COOLANT SYSTEM (RCS)	3.4.1-1
3.4.1	RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits	3.4.1-1
3.4.2	RCS Minimum Temperature for Criticality	3.4.2-1
3.4.3	RCS Pressure and Temperature (P/T) Limits	3.4.3-1
3.4.4	RCS Loops - MODES 1 and 2	3.4.4-1
3.4.5	RCS Loops - MODE 3	3.4.5-1
3.4.6	RCS Loops - MODE 4	3.4.6-1
3.4.7	RCS Loops - MODE 5, Loops Filled	3.4.7-1
3.4.8	RCS Loops - MODE 5, Loops Not Filled	3.4.8-1
3.4.9	Pressurizer	3.4.9-1
3.4.10	Pressurizer Safety Valves	3.4.10-1
3.4.11	RCS Specific Activity	3.4.11-1
3.4.12	Low Temperature Overpressure Protection (LTOP) System	3.4.12-1
3.4.13	RCS Operational LEAKAGE	3.4.13-1
3.4.14	RCS Pressure Isolation Valve (PIV) Leakage	3.4.14-1

(continued)

TABLE OF CONTENTS

3.4.15	RCS Leakage Detection Instrumentation	3.4.15-1
3.5	EMERGENCY CORE COOLING SYSTEMS (ECCS)	3.5.1-1
3.5.1	Core Flood Tanks (CFTs)	3.5.1-1
3.5.2	High Pressure Injection	3.5.2-1
3.5.3	Low Pressure Injection	3.5.3-1
3.5.4	Borated Water Storage Tank (BWST)	3.5.4-1
3.6	CONTAINMENT SYSTEMS	3.6.1-1
3.6.1	Containment	3.6.1-1
3.6.2	Containment Air Locks	3.6.2-1
3.6.3	Containment Isolation Valves	3.6.3-1
3.6.4	Containment Pressure	3.6.4-1
3.6.5	Reactor Building Spray and Cooling System	3.6.5-1
3.7	PLANT SYSTEMS	3.7.1-1
3.7.1	Main Steam Relief Valves (MSRVs)	3.7.1-1
3.7.2	Turbine Stop Valves (TSVs)	3.7.2-1
3.7.3	Main Feedwater Control Valves (MFCVs), and Startup Feedwater Control Valves (SFCVs)	3.7.3-1
3.7.4	Not used	3.7.4-1
3.7.5	Emergency Feedwater (EFW) System	3.7.5-1
3.7.6	Condensate Storage Tank (CST), Upper Surge Tank (UST), and Hotwell (HW)	3.7.6-1
3.7.7	Low Pressure Service Water (LPSW) System	3.7.7-1
3.7.8	Emergency Condenser Circulating Water (ECCW)	3.7.8-1
3.7.9	Control Room Ventilation System (CRVS) Booster Fans	3.7.9-1
3.7.10	Penetration Room Ventilation System (PRVS)	3.7.10-1
3.7.11	Spent Fuel Pool Water Level	3.7.11-1
3.7.12	Spent Fuel Pool Boron Concentration	3.7.12-1
3.7.13	Fuel Assembly Storage	3.7.13-1
3.7.14	Secondary Specific Activity	3.7.14-1
3.7.15	Decay Time for Fuel Assemblies in Spent Fuel Pool (SFP)	3.7.15-1
3.7.16	Control Room Area Cooling Systems (CRACS)	3.7.16-1
3.7.17	Spent Fuel Pool Ventilation System (SFPVS)	3.7.17-1
3.8	ELECTRICAL POWER SYSTEMS	3.8.1-1
3.8.1	AC Sources - Operating	3.8.1-1
3.8.2	AC Sources - Shutdown	3.8.2-1
3.8.3	DC Sources - Operating	3.8.3-1
3.8.4	DC Sources - Shutdown	3.8.4-1
3.8.5	Battery Cell Parameters	3.8.5-1

(continued)

TABLE OF CONTENTS

3.8.6	Vital Inverters - Operating	3.8.6-1
3.8.7	Vital Inverters - Shutdown	3.8.7-1
3.8.8	Distribution Systems - Operating	3.8.8-1
3.8.9	Distribution Systems - Shutdown	3.8.9-1
3.9	REFUELING OPERATIONS	3.9.1-1
3.9.1	Boron Concentration	3.9.1-1
3.9.2	Nuclear Instrumentation	3.9.2-1
3.9.3	Containment Penetrations	3.9.3-1
3.9.4	Decay Heat Removal (DHR) and Coolant Circulation - High Water Level	3.9.4-1
3.9.5	Decay Heat Removal (DHR) and Coolant Circulation - Low Water Level	3.9.5-1
3.9.6	Fuel Transfer Canal Water Level	3.9.6-1
3.10	STANDBY SHUTDOWN FACILITY	3.10.1-1
3.10.1	Standby Shutdown Facility (SSF)	3.10.1-1
3.10.2	Standby Shutdown Facility (SSF) Battery Cell Parameters	3.10.2-1
4.0	DESIGN FEATURES	4.0-1
4.1	Site Location	4.0-1
4.2	Reactor Core	4.0-1
4.3	Fuel Storage	4.0-1
5.0	ADMINISTRATIVE CONTROLS	5.0-1
5.1	Responsibility	5.0-1
5.2	Organization	5.0-2
5.3	Station Staff Qualifications	5.0-5
5.4	Procedures	5.0-6
5.5	Programs and Manuals	5.0-7
5.6	Reporting Requirements	5.0-29

TABLE OF CONTENTS

B 2.0	SAFETY LIMITS (SLs)	B 2.1.1-1
B 2.1.1	Reactor Core SLs	B 2.1.1-1
B 2.1.2	Reactor Coolant System (RCS) Pressure SL	B 2.1.2-1
B 3.0	LIMITING CONDITION FOR OPERATION (LCO) APPLICABILITY	B 3.0-1
B 3.0	SURVEILLANCE REQUIREMENT (SR) APPLICABILITY	B 3.0-12
B 3.1	REACTIVITY CONTROL SYSTEMS	B 3.1.1-1
B 3.1.1	SHUTDOWN MARGIN (SDM)	B 3.1.1-1
B 3.1.2	Reactivity Balance	B 3.1.2-1
B 3.1.3	Moderator Temperature Coefficient (MTC)	B 3.1.3-1
B 3.1.4	CONTROL ROD Group Alignment Limits	B 3.1.4-1
B 3.1.5	Safety Rod Position Limits	B 3.1.5-1
B 3.1.6	AXIAL POWER SHAPING ROD (APSR) Alignment Limits	B 3.1.6-1
B 3.1.7	Position Indicator Channels	B 3.1.7-1
B 3.1.9	PHYSICS TESTS Exceptions - MODE 2	B 3.1.8-1
B 3.2	POWER DISTRIBUTION LIMITS	B 3.2.1-1
B 3.2.1	Regulating Rod Position Limits	B 3.2.1-1
B 3.2.2	AXIAL POWER IMBALANCE Operating Limits	B 3.2.2-1
B 3.2.3	QUADRANT POWER TILT (QPT)	B 3.2.3-1
B 3.3	INSTRUMENTATION	B 3.3.1-1
B 3.3.1	Reactor Protective System (RPS) Instrumentation	B 3.3.1-1
B 3.3.2	Reactor Protective System (RPS) Manual Reactor Trip	B 3.3.2-1
B 3.3.3	Reactor Protective System (RPS) - Reactor Trip Module (RTM)	B 3.3.3-1
B 3.3.4	Control Rod Drive (CRD) Trip Devices	B 3.3.4-1
B 3.3.5	Engineered Safeguards Protective System (ESPS) Analog Instrumentation	B 3.3.5-1
B 3.3.6	Engineered Safeguards Protective System (ESPS) Manual Initiation	B 3.3.6-1
B 3.3.7	Engineered Safeguards Protective System (ESPS) Digital Automatic Actuation Logic Channels	B 3.3.7-1
B 3.3.8	Post Accident Monitoring (PAM) Instrumentation	B 3.3.8-1
B 3.3.9	Source Range Neutron Flux	B 3.3.9-1
B 3.3.10	Wide Range Neutron Flux	B 3.3.10-1
B 3.3.11	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Instrumentation	B 3.3.11-1
B 3.3.12	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Manual Initiation	B 3.3.12-1

(continued)

TABLE OF CONTENTS

B 3.3	INSTRUMENTATION (continued)	
B 3.3.13	Main Steam Line Break (MSLB) Detection and Main Feedwater (MFW) Isolation Logic Channels . . .	B 3.3.13-1
B 3.3.14	Emergency Feedwater (EFW) Pump Initiation Circuitry	B 3.3.14-1
B 3.3.15	Turbine Stop Valves (TSV) Closure	B 3.3.15-1
B 3.3.16	Reactor Building (RB) Purge Isolation - High Radiation	B 3.3.16-1
B 3.3.17	Emergency Power Switching Logic (EPSL) Automatic Transfer Function	B 3.3.17-1
B 3.3.18	Emergency Power Switching Logic (EPSL) Voltage Sensing Circuits	B 3.3.18-1
B 3.3.19	Emergency Power Switching Logic (EPSL) 230 kV Switchyard Degraded Grid Voltage Protection (DGVP)	B 3.3.19-1
B 3.3.20	Emergency Power Switching Logic (EPSL) CT - 5 Degraded Grid Voltage Protection (DGVP)	B 3.3.20-1
B 3.3.21	Emergency Power Switching Logic (EPSL) Keowee Emergency Start Function	B 3.3.21-1
B 3.3.22	Emergency Power Switching Logic (EPSL) Manual Keowee Emergency Start Function	B 3.3.22-1
B 3.3.23	Main Feeder Bus Monitor Panel (MFBMP)	B 3.3.23-1

TABLE OF CONTENTS

B 3.4	REACTOR COOLANT SYSTEM (RCS)	B 3.4.1-1
B 3.4.1	RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits	B 3.4.1-1
B 3.4.2	RCS Minimum Temperature for Criticality	B 3.4.2-7
B 3.4.3	RCS Pressure and Temperature (P/T) Limits	B 3.4.3-1
B 3.4.4	RCS Loops—MODES 1 and 2	B 3.4.4-1
B 3.4.5	RCS Loops—MODE 3	B 3.4.5-1
B 3.4.6	RCS Loops—MODE 4	B 3.4.6-1
B 3.4.7	RCS Loops—MODE 5, Loops Filled	B 3.4.7-1
B 3.4.8	RCS Loops—MODE 5, Loops Not Filled	B 3.4.8-1
B 3.4.9	Pressurizer	B 3.4.9-1
B 3.4.10	Pressurizer Safety Valves	B 3.4.10-1
B 3.4.11	RCS Specific Activity	B 3.4.11-1
B 3.4.12	Low Temperature Overpressure Protection (LTOP) System	B 3.4.12-1
B 3.4.13	RCS Operational LEAKAGE	B 3.4.13-1
B 3.4.14	RCS Pressure Isolation Valve (PIV) Leakage	B 3.4.14-1
B 3.4.15	RCS Leakage Detection Instrumentation	B 3.4.15-1
B 3.5	EMERGENCY CORE COOLING SYSTEMS (ECCS)	B 3.5.1-1
B 3.5.1	Core Flood Tanks (CFTs)	B 3.5.1-1
B 3.5.2	High Pressure Injection	B 3.5.2-1
B 3.5.3	Low Pressure Injection	B 3.5.3-1
B 3.5.4	Borated Water Storage Tank (BWST)	B 3.5.4-1
B 3.6	CONTAINMENT SYSTEMS	B 3.6.1-1
B 3.6.1	Containment	B 3.6.1-1
B 3.6.2	Containment Air Locks	B 3.6.2-1
B 3.6.3	Containment Isolation Valves	B 3.6.3-1
B 3.6.4	Containment Pressure	B 3.6.4-1
B 3.6.5	Reactor Building Spray and Cooling System	B 3.6.5-1
B 3.7	PLANT SYSTEMS	B 3.7.1-1
B 3.7.1	Main Steam Relief Valves (MSRVs)	B 3.7.1-1
B 3.7.2	Turbine Stop Valves (TSVs)	B 3.7.2-5
B 3.7.3	Main Feedwater Control Valves (MFCVs), and Startup Feedwater Control Valves (SFCVs)	B 3.7.3-1
B 3.7.4	Not used	B 3.7.4-1
B 3.7.5	Emergency Feedwater (EFW) System	B 3.7.5-1
B 3.7.6	Condensate Storage Tank (CST), Upper Surge Tank (UST), and Hotwell (HW)	B 3.7.6-1
B 3.7.7	Low Pressure Service Water (LPSW) System	B 3.7.7-1
B 3.7.8	Emergency Condenser Circulating Water (ECCW)	B 3.7.8-1

(continued)

TABLE OF CONTENTS

B 3.7	PLANT SYSTEMS (continued)	
B 3.7.9	Control Room Ventilation System (CRVS) Booster Fans	B 3.7.9-1
B 3.7.10	Penetration Room Ventilation System (PRVS)	B 3.7.10-1
B 3.7.11	Spent Fuel Pool Water Level	B 3.7.11-1
B 3.7.12	Spent Fuel Pool Boron Concentration	B 3.7.12-1
B 3.7.13	Fuel Assembly Storage	B 3.7.13-1
B 3.7.14	Secondary Specific Activity	B 3.7.14-1
B 3.7.15	Decay Time for Fuel Assemblies in Spent Fuel Pool (SFP)	B 3.7.15-1
B 3.7.16	Control Room Area Cooling Systems (CRACS)	B 3.7.16-1
B 3.7.17	Spent Fuel Pool Ventilation System (SFPVS)	B 3.7.17-1
B 3.8	ELECTRICAL POWER SYSTEMS	B 3.8.1-1
B 3.8.1	AC Sources—Operating	B 3.8.1-1
B 3.8.2	AC Sources—Shutdown	B 3.8.2-1
B 3.8.3	DC Sources—Operating	B 3.8.3-1
B 3.8.4	DC Sources—Shutdown	B 3.8.4-1
B 3.8.5	Battery Cell Parameters	B 3.8.5-1
B 3.8.6	Vital Inverters—Operating	B 3.8.6-1
B 3.8.7	Vital Inverters—Shutdown	B 3.8.7-1
B 3.8.8	Distribution Systems—Operating	B 3.8.8-1
B 3.8.9	Distribution Systems—Shutdown	B 3.8.9-1
B 3.9	REFUELING OPERATIONS	B 3.9.1-1
B 3.9.1	Boron Concentration	B 3.9.1-1
B 3.9.2	Nuclear Instrumentation	B 3.9.2-1
B 3.9.3	Containment Penetrations	B 3.9.3-1
B 3.9.4	Decay Heat Removal (DHR) and Coolant Circulation—High Water Level	B 3.9.4-1
B 3.9.5	Decay Heat Removal (DHR) and Coolant Circulation—Low Water Level	B 3.9.5-1
B 3.9.6	Fuel Transfer Canal Water Level	B 3.9.6-1
B 3.10	STANDBY SHUTDOWN FACILITY	B 3.10.1-1
B 3.10.1	Standby Shutdown Facility (SSF)	B 3.10.1-1
B 3.10.2	Standby Shutdown Facility (SSF) Battery Cell Parameters	B 3.10.2-1

BASES

LCO
(continued)

requirements are met, two reactor building spray trains and three reactor building cooling units must be OPERABLE in MODES 1 and 2. In MODES 3 or 4, one reactor building spray train and two reactor building cooling trains are required to be OPERABLE. The LCO is provided with a note that clarifies this requirement. Therefore, in the event of an accident, the minimum requirements are met, assuming the worst-case single active failure occurs.

The Reactor Building Spray System includes a spray pump, spray headers, nozzles, valves, piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the BWST (via the LPI System) upon an Engineered Safeguards Protective System signal and manually transferring suction to the reactor building sump. The safety grade flow indicator of an RBS train and the safety grade flow indicator of the associated LPI train are both required to be OPERABLE to support RBS train OPERABILITY.

The Reactor Building Cooling System includes cooling coils, fusible dropout plates, an axial vane flow fan, instruments, and controls to ensure an OPERABLE flow path. Valve LPSW-108 shall be locked open to support system OPERABILITY.

APPLICABILITY

In MODES 1, 2, 3, and 4, an accident could cause a release of radioactive material to containment and an increase in containment pressure and temperature, requiring the operation of the reactor building spray trains and reactor building cooling trains.

In MODES 5 and 6, the probability and consequences of these events are reduced due to the pressure and temperature limitations of these MODES. Thus, the Reactor Building Spray System and the Reactor Building Cooling System are not required to be OPERABLE in MODES 5 and 6.

ACTIONS

A.1

With one reactor building spray train inoperable in MODE 1 or 2, the inoperable reactor building spray train must be restored to OPERABLE status within 7 days. In this Condition, the remaining OPERABLE spray and cooling trains

(continued)

ENCLOSURE 3

PROPOSED LICENSE CONDITIONS

Section 3 of the Facility Operating License, DPR-38, DPR-47 and DPR-55, should be revised to include the following additional subparagraphs:

The licensee is authorized to relocate certain requirements included in Appendix A to licensee-controlled documents. Implementation of this amendment shall include the relocation of these requirements to the appropriate documents, as described in the licensee's letter dated October 28, 1997, March 26, May 20, July 29, October 1, October 21, October 28, November 23 and December 3, 1998, evaluated in the NRC staff's Safety Evaluation enclosed with this amendment.

For Surveillance Requirements (SRs) that are new in Amendment 300 to Facility Operating License DPR-38, DPR-47 and DPR-55, the first performance is due at the end of the first surveillance interval that begins at implementation of Amendment 300, except as noted below. For SRs that existed prior to Amendment 300, including SRs with modified acceptance criteria and SRs whose intervals of performance are being extended, the first performance is due at the end of the first surveillance interval that begins on the date the surveillance was last performed prior to implementation of Amendment 300. For SRs that existed prior to Amendment 300, whose intervals of performance are being reduced, each surveillance may be performed at the existing interval until completion of the first surveillance after implementation of Amendment 300. Subsequent performance of SRs with reduced intervals shall be performed at the reduced interval.

For SRs that are new in Amendment 300 and require verification of correct valve position, the first performance for those valves that are inaccessible (e.g., due to high radiation, high temperature, proximity to operating equipment, or safety concerns) is due at the end of the next refueling outage following implementation of Amendment 300.