June 1, 2000

Mr. William R. McCollum, Jr.
Vice President, Oconee Site
Duke Energy Corporation
7800 Rochester Highway
Seneca, SC 29679

SUBJECT: MISSING PAGES FROM OCONEE NUCLEAR STATION (ONS) TECHNICAL SPECIFICATIONS AND TECHNICAL SPECIFICATION BASES

Dear Mr. McCollum:

On May 23, 2000, the staff issued renewed operating licenses for ONS units 1, 2, and 3. Enclosed with this letter were the technical specifications and technical specifications bases for ONS units 1, 2, and 3. During the process of copying the technical specifications and its bases several pages were inadvertently omitted. The omission did not affect the original copy of the material that was sent to you. However, copies that were supplied to people on the distribution list had missing pages. To correct the problem I have enclosed the missing pages from the technical specifications and its bases.

Sincerely,

/RA/

Joseph M. Sebrosky, Project Manager
License Renewal and Standardization Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

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

Enclosure: As stated

cc w/encls: See next page

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3.3	INSTRUMENTATION (continued)	
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
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
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 Atmospheric Dump Valve (ADV) Flow Paths ... 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
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
3.9.7 Unborated Water Source Isolation Valves 3.9.7-1

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

BASES (continued)

ACTIONS

The Actions are modified by a Note indicating that the provisions of LCO 3.0.4 do not apply. As a result, a MODE change is allowed when the normal sump level indication and required radiation monitors are inoperable. This allowance is provided because other instrumentation is available to monitor RCS LEAKAGE.

A.1 and A.2

With the required containment normal sump level indication inoperable, no other form of sampling can provide the equivalent information.

However, the containment atmosphere activity monitor will provide indications of changes in leakage. Together with the atmosphere monitor, the periodic surveillance for RCS inventory balance, SR 3.4.13.1, water inventory balance, must be performed at an increased frequency of 24 hours to provide information that is adequate to detect leakage. A Note is added allowing that SR 3.4.13.1 is not required to be performed until 12 hours after steady state operation (stable RCS pressure, temperature, power level, pressurizer and makeup tank levels, makeup and letdown, and RCP seal injection and return flows). The 12 hour allowance provides sufficient time to collect and process all necessary data after stable plant conditions are established.

Restoration of the required normal sump level indication to OPERABLE status is required to regain the function in a Completion Time of 30 days after the monitor's failure. This time is acceptable considering the frequency and adequacy of the RCS water inventory balance required by Required Action A.1.

B.1.1, B.1.2, and B.2

With required gaseous or particulate containment atmosphere radioactivity monitoring instrumentation channels inoperable, alternative action is required. Either grab samples of the containment atmosphere must be taken and analyzed or water inventory balances, in accordance with SR 3.4.13.1, must be performed to provide alternate periodic information. With a sample obtained and analyzed or a water inventory balance performed every 24 hours, the reactor may be operated for up to 30 days to allow restoration of at least one of the radioactivity monitors.

BASES

ACTIONS

B.1.1, B.1.2, and B.2 (continued)

The 24 hour interval for SR 3.4.13.1 provides periodic information that is adequate to detect leakage. A Note is added allowing that SR 3.4.13.1 is not required to be performed until 12 hours after steady state operation (stable RCS pressure, temperature, power level, pressurizer and makeup tank levels, makeup and letdown, and RCP seal injection and return flows). The 12 hour allowance provides sufficient time to collect and process all necessary data after stable plant conditions are established. The 30 day Completion Time recognizes at least one other form of leak detection is available.

C.1 and C.2

If a Required Action of Condition A or B cannot be met within the required Completion Time, the unit must be brought to a MODE in which the LCO does not apply. To achieve this status, the unit must be brought to at least MODE 3 within 12 hours and to MODE 5 within 36 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.

D.1

If both required leakage detection instruments are inoperable, no automatic means of monitoring leakage are available, and immediate plant shutdown in accordance with LCO 3.0.3 is required.

SURVEILLANCE REQUIREMENTS

SR 3.4.15.1

SR 3.4.15.1 requires the performance of a CHANNEL CHECK of the required containment atmosphere radioactivity monitor. The check gives reasonable confidence that each channel is operating properly. The Frequency of 12 hours is based on instrument reliability and is reasonable for detecting off normal conditions.

B 3.7 PLANT SYSTEMS

B 3.7.2 Turbine Stop Valves (TSVs)

BASES

BACKGROUND

The TSVs partially isolate steam flow from the secondary side of the steam generators following a high energy line break (HELB). TSV closure partially terminates flow from the unaffected (intact) steam generator.

Two TSVs are provided for each main steam line and are located outside of containment. The TSVs are downstream from the main steam safety valves (MSSVs) and emergency feedwater pump turbine's steam supply to prevent the MSSVs and EFW pump's steam supply from being isolated from the steam generators by TSV closure. Closing the TSVs partially isolates each steam generator from the other, and isolates the turbine from the steam generators.

TSV Closure is initiated by a reactor trip. To keep from rapidly cooling down the primary plant by drawing off too much steam, the turbine is tripped when the reactor trips. Two independent and redundant "Reactor Trip Confirmed" signals in the form of contact closures from the control rod drive system will energize two independent turbine trip mechanisms. The Channel A trip circuit will close all four TSVs within a maximum of 1 second. The Channel B trip circuit will close the TSVs within a maximum of 15 seconds.

A discussion of the TSV's function is found in the UFSAR, Section 10.3 (Ref. 1).

APPLICABLE SAFETY ANALYSES

The design basis of the TSVs is established by the analysis for the main steam line break (MSLB) as discussed in the UFSAR, Section 15.13 (Ref. 2). TSV closure is necessary to stop steam flow to the turbine (to prevent overcooling) following all reactor trips. Another failure considered is the loss of one switchgear.

The accident analysis compares several different MSLB events. The main SLB outside containment upstream of the TSV is limiting for offsite dose. The MSLB with ICS low level control and no operator action prior to ten minutes is the limiting case for a post-trip return to power. With offsite power available, the reactor coolant pumps continue to circulate coolant through the steam generators, maximizing the Reactor Coolant System (RCS) cooldown. With a loss of offsite power, the response of mitigating systems, such as the High Pressure Injection (HPI) System pumps, is delayed.

B 3.7 PLANT SYSTEMS

B 3.7.12 Spent Fuel Pool Boron Concentration

BASES

BACKGROUND

As described in the following LCO 3.7.13, "Spent Fuel Assembly Storage," fuel assemblies are stored in the spent fuel pool racks in accordance with criteria based on initial enrichment and discharge burnup. Although the water in the spent fuel pool is normally borated to ≥ limits specified in the COLR, the criteria that limit the storage of a fuel assembly to specific rack locations are conservatively developed without taking credit for boron.

APPLICABLE SAFETY ANALYSES

The requirements for spent fuel pool boron concentration specified ensure that a minimum boron concentration is maintained in the pool. The requirements for spent fuel assembly storage specified ensure that the fuel stored in the pool remains subcritical. The water in the spent fuel storage pool normally contains soluble boron which results in large subcriticality margins under actual operating conditions. However, the NRC guidelines (Ref. 2) based upon the accident condition in which all soluble poison is assumed to have been lost, specify that the limiting k_{eff} of 0.95 be evaluated in the absence of soluble boron. Hence, the design of the spent fuel storage racks is based on the use of unborated water, which maintains the spent fuel pool in a subcritical condition during normal operation with the pool fully loaded. The double contingency principle discussed in ANSI N-16.1-1975, (Ref. 1) and the NRC guidelines (Ref. 2) allows credit for soluble boron under abnormal or accident conditions, since only a single accident need be considered at one time. For example, the most severe accident scenario is associated with the accidental misloading of a fuel assembly. This could increase the reactivity of the spent fuel pool. To mitigate this postulated criticality related accident, boron is dissolved in the pool water.

The concentration of dissolved boron in the spent fuel pool satisfies Criterion 2 and 3 of 10 CFR 50.36 (Ref. 3).

LCO

The concentration of dissolved boron in the spent fuel pool specified in the COLR preserves the assumption used in the analyses of the potential accident scenarios described above. This concentration of dissolved boron is the minimum required concentration for fuel assembly storage and movement within the fuel storage pool.