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Duke Power Company
Oconee Nuclear Generation Department
P.O. Box 1439
Seneca, SC 29679

J.W. HAMPTON
Vice President
(803)885-3499 Office
(704)373-5222 FAX



DUKE POWER

October 21, 1993

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Oconee Nuclear Station
Docket No. 50-269, -270, -287
Selected Licensee Commitments Manual (SLC)

Gentlemen:

Pursuant to 10 CFR 50.4 and 50.71, please find attached 7 copies of the latest revisions to the Oconee Selected Licensee Commitments Manual. The SLC Manual is Chapter 16.0 to the Oconee FSAR. This manual is meant to contain commitments and other station issues that we believe warrant higher control, but are not appropriate in the Technical Specifications (TS). Instead of being updated with the annual FSAR Update, the SLC Manual will be updated monthly as needed during the year.

Very truly yours,

J. W. Hampton

TDP/tdp
Attachment

xc: S. D. Ebnetter
Regional Administrator, Region II

L. A. Weins, ONRR

P. Harmon, Oconee
Senior Resident Inspector

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Duke Power Company
Oconee Nuclear Generation Department
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U.S. Nuclear Regulatory Commission
October 21, 1993
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bxc: ELL
 OS 801.01

October 21, 1993

To: Manual Holders

Subject: Oconee SLC Revision

This revision to the SLC 16.9.7 (Keowee Lake Levels) changes the format of this SLC in order to more readily determine the actions that are required for various lake levels. Revision 16.11.3, 16-11.6, 16.11.9 (Radioactive Effluents) revises the submittal of the Effluent Release Report from semi-annually to annually. Revision of Table 16.11.4 (Radioactive Effluents) adds 2 surveillance requirements that were listed in Table 16.11.2, yet were not listed in Table 16.11.4.

Please update your copy of this manual as follows:

Remove These Pages

LOEP 1, 2, 3, 4, 5
16.9-20 thru 16.9-22

16.11-10, 16.11-11
16.11-28 thru 16.11-30
16.11-41 thru 16.11-42
16.11-23

Insert These Pages:

LOEP 1, 2, 3, 4, 5
16.9-20 thru 16.9-22
16.9-23
16.11-10, 16.11-11
16.11-28 thru 16.11-30
16.11-41 thru 16.11-42
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Any questions concerning this revision may be directed to David Patterson at 885-3297.

David Patterson
NRC Licensing Coordinator

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16.9 AUXILIARY SYSTEMS

16.9.7 KEOWEE LAKE LEVEL

COMMITMENT

Maintain Lake Keowee level within the ranges specified (feet above sea level) to assure systems and components remain operable.

1. Low Pressure Service Water System
 - a. Level shall be ≥ 795 to assure operability of LPSW pumps by maintaining sufficient NPSH requirements.
 - b. LPSW pump strainer Δp shall be ≤ 1.3 psid.
2. Emergency Condenser Circulating Water System
 - a. Level shall be ≥ 780 to maintain the ECCW system operable.
 - b. Level shall be ≥ 798.1 if either emergency air ejector is not operable.
 - c. Level shall be ≥ 786.25 if Radwaste Equipment Cooling is being supplied through valves (1)(2)(3)CCW-319 and/or (1)(2)(3)CCW-320.
3. Fire Protection
 - a. Level shall be ≥ 787.9 to maintain the Keowee Main Transformer Mulsifyre operable.
 - b. Level shall be ≥ 780 to maintain the Keowee Oil Storage Room Deluge System operable.
4. On-site Emergency Power Paths
 - a. Level shall be ≥ 775 to maintain Keowee Hydro units operable.
 - b. Level shall be ≥ 779.5 to assure adequate volume available to provide emergency power to Oconee for a duration of 7 days.

NOTE: Lake Jocassee may be utilized to meet this requirement provided level is ≥ 1089 and a means exist to supply inventory addition to Lake Keowee from Lake Jocassee.

APPLICABILITY: Whenever the above systems and/or components are required to be operable.

ACTION: If Keowee lake level is not within the specified ranges, the affected systems or components shall be declared inoperable and appropriate compensatory actions taken. Efforts shall be taken immediately to return lake level to required elevation.

SURVEILLANCE: Keowee lake level and LPSW pump suction strainer Δp shall be monitored daily.

All lake levels identified in this SLC are absolute levels. An instrument error of ± 1.15 ft must be applied if the Oconee control room indicator or computer are used to meet surveillance requirements. Keowee personnel should be contacted to verify absolute lake level if necessary.

BASES:

The Keowee lake level of 795 for LPSW system operability is based upon testing performed to determine the level required to ensure adequate NPSH to the LPSW pumps during worst case accident configurations. This testing in conjunction with flow model calculations determined that this lake level would be sufficient to maintain the LPSW systems conditionally operable, provided additional steps as identified by procedural guidance to the operators were utilized. Until such time as modifications are completed that would allow relaxation of these requirements, this level is required to maintain the LPSW systems operable. NPSH requirements for LPSW pumps are based upon the assumption the suction strainer Δp is not greater than 1.3 psid. Normal operating flow requirements for the LPSW system are approximately the same or greater than the flow requirements following a loss-of-coolant accident. Therefore, verification of pump suction strainer Δp during normal flow conditions ensures adequate NPSH to the LPSW pumps.

The level of 780 for Emergency Condenser Circulating Water System operability is based upon the minimum level required to establish and maintain an adequate siphon flow from the inlet canal through the condensers via the emergency discharge piping. This flow path is necessary to ensure adequate decay heat removal capability exist due to loss of CCW pumps during loss of power events or other accident conditions. The level of 798.1 feet is required if either emergency air ejector is not operable to ensure sufficient level is present to provide gravity flow to the LPSW pumps to meet single failure criteria. Radwaste Equipment Cooling lines are non-seismic and therefore must be isolated if lake level is less than 786.25 feet. This will ensure ECCW will remain operational during a seismic event.

The operability of the Keowee Oil Storage Room Deluge System is required to ensure the availability of the Keowee Hydro Station which provides the on-site emergency power sources to Oconee units. This deluge system depends solely on headwater hydrostatic pressure. The lake level of 780 is required to maintain this deluge system operable. The Keowee Main Transformer operability is necessary to ensure on site emergency power paths are available. The level of 787.8 is required to ensure the fire

protection system is operable for the Keowee Main Transformer. Refer to SLC 16.9.2 for appropriate actions if levels are not maintained.

The Keowee lake level of 775 is required to maintain the two Keowee hydro units operable per Technical Specification 3.7.1 (i).

Although there is no specific licensing requirements for such, a reasonable duration for emergency power provided by Keowee to Oconee is 7 days based on IEEE-308 (1980). This duration could be provided by an inventory of 4.5 feet of Lake Keowee or 9 feet of Lake Jocassee. This is the bases for the levels of 779.5 in Lake Keowee and 1089 in Lake Jocassee.

REFERENCES:

1. PIR 0-092-0535
2. Calculation OSC-5018
3. Units 1 and 2 LPSW System Flow Test, TT/1/A/0251/21
4. Condenser Circulating Water System operating procedure OP/1,2,3/A/1104/12
5. CCW Design Bases Document
6. Calculation OSC-2895
7. Operations Training Package 91-25
8. Technical Specification 3.7
9. Calculation OSC-5325
10. PIR 4-090-0109
11. PIP-7-093-0384
12. Technical Specification 3.4.5
13. Calculation OSC-3528
14. Calculation OSC-5304

STATION MANAGER APPROVAL NA Bowen DATE 7-29-93

16.11 RADIOLOGICAL EFFLUENTS CONTROL

16.11-3 RADIOACTIVE EFFLUENT MONITORING INSTRUMENTATION

COMMITMENT

1. Liquid Effluents

- a. The radioactive liquid effluent monitoring instrumentation channels shown in Table 16.11-1 shall be operable with their alarm/trip setpoints set to ensure that the limits of SLC 16.11-1.1 are not exceeded.
- b. If a radioactive liquid effluent monitoring instrumentation channel alarm/trip setpoint is less conservative than required, without delay suspend the release of radioactive liquid effluents monitored by the affected channel, or declare the channel inoperable, or change the setpoint so it is acceptably conservative.
- c. In the event that the number of operable radioactive liquid effluent monitoring instrumentation channels falls below the limit given under Table 16.11-1, Column A, action shall be as shown in Column B. Exert best efforts to return the instruments to operable status within 30 days and, if unsuccessful, explain in the next Semiannual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

2. Gaseous Process and Effluents

- a. The radioactive gaseous process and effluent monitoring instrumentation channels shown in Table 16.11-2 shall be operable with their alarm/trip setpoints set to ensure that the limits of SLC 16.11-2.1 are not exceeded.
- b. If a radioactive gaseous effluent monitoring instrumentation channel alarm/trip setpoint is less conservative than required, without delay suspend the release of radioactive gaseous effluents monitored by the affected channel or declare the channel inoperable, or change the setpoint so it is acceptably conservative.
- c. In the event that the number of radioactive gaseous process or effluent monitoring instrumentation channels falls below the limit given under Table 16.11-2, Column A, action shall be taken as shown in Column B. Exert best efforts to return the instruments to operable status within 30 days and, if unsuccessful, explain in the next Semiannual Radioactive Effluent Release Report why the inoperability was not corrected in a timely manner.

3. Setpoints

The setpoints shall be determined in accordance with the methodology described in the ODCM and shall be recorded. Setpoint correction may be permitted without declaring the channel inoperable.

APPLICABILITY:

Applies to radioactive liquid effluent, gaseous effluent, and gaseous process monitoring instrumentation.

REFERENCES:

1. 10 CFR Part 20
2. 10 CFR Part 50, Appendix A
3. Offsite Dose Calculation Manual

BASES:

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases. The alarm/trip setpoints for these instruments shall be calculated in accordance with NRC approved methods in the ODCM to assure that the alarm/trip will occur prior to exceeding 10 times the limits of 10 CFR Part 20. The operability and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases. The alarm/trip setpoints for these instruments shall be calculated in accordance with NRC approved methods in the ODCM to assure that the alarm/trip will occur prior to exceeding applicable limits in Technical Specification 6.4.6.g. The operability and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

For certain applicable cases, grab samples or flow estimates are required at frequencies between every 4 hours and every 12 hours upon RIA removal from service. SLC 16.11-3 does not explicitly require operator compensatory action (grab samples or flow estimates) to be initiated immediately upon RIA removal from service, when removal is for the purposes of sample filter changeouts, setpoint adjustments, service checks, or routine maintenance. Therefore, during the defined short, controlled outages, operator action is not required.

For the cases in which operator compensatory action is defined as continuous sampling by auxiliary equipment (Table 16.11-2, note (d)), initiation of continuous sampling by auxiliary equipment requires approximately 1 hour. One hour is an accepted reasonable time to initiate, collect and change samples. Therefore, for the defined short, controlled outages (not to exceed 1 hour), operator action is not required.

STATION MANAGER APPROVAL



H. B. Barron
16.11-11

DATE 5/19/93

05/93

16.11 RADIOLOGICAL EFFLUENTS CONTROL

16.11-6 RADIOLOGICAL ENVIRONMENTAL MONITORING

COMMITMENT

1. Radiological Environmental Monitoring Program

- a. The radiological environmental monitoring samples shall be collected in accordance with Table 16.11-5 and shall be analyzed pursuant to the requirements of Tables 16.11-5, 16.11-6 and 16.11-7.
- b. If the radiological environmental monitoring program is not conducted as required, a description of the reason for not conducting the program as required and plans to prevent a recurrence shall be included in the Annual Radiological Environmental Operating Report. Deviations are permitted from the required sampling schedule if specimens are unobtainable due to hazardous conditions, seasonal unavailability, or to malfunction of automatic sampling equipment. If the latter, every effort shall be made to complete corrective action prior to the end of the next sampling period.
- c. If samples become permanently unavailable from any of the required sample locations, the locations from which samples were unavailable may then be deleted from the program provided replacement samples were obtained and added to the environmental monitoring program, if available. These new locations will be identified in the next semi-annual report.

2. Land Use Census

- a. A land use census shall be conducted and shall identify the location of the nearest milk animal and the nearest residence in each of the 16 meteorological sectors within a distance of five miles. Broad leaf vegetation sampling shall be performed at the site boundary in the direction sector with the highest D/Q in lieu of the garden census.
- b. If a land use census identifies a location which yields a calculated dose or dose commitment (via the same exposure pathway) greater than a location from which samples are currently being obtained pursuant to SLC 16.11-6.1 above, then the new location shall be added to the radiological environmental monitoring program within 30 days. The sampling location having the lowest calculated dose or dose commitment (via the same exposure pathway) may be deleted from this monitoring program after October 31 of the year in which this land use census was conducted. These new locations will be identified in the next semi-annual report.
- c. The land use census shall be conducted during the growing season at least once per 12 months using that information that will provide

the best results, such as by a door-to-door survey, aerial survey, or by consulting local agriculture authorities. The results of the land use census shall be included in the Annual Radiological Environmental Operating Report.

3. Interlaboratory Comparison Program

- a. Analyses shall be performed on radioactive materials supplied as part of an Interlaboratory Comparison Program which has been approved by the NRC.
- b. If these analyses are not performed as required, report corrective actions in the Annual Radiological Environmental Operating Report.
- c. A summary of the results obtained as part of the above required Interlaboratory Comparison Program and in accordance with the methodology and parameters in the ODCM shall be included in the Annual Radiological Environmental Operating Report.

APPLICABILITY:

Applies to the surveillance of the station environ for radiation and radioactive materials attributable to station operation and effluent control.

REFERENCES:

1. 10 CFR Part 50, Appendix I
2. Offsite Dose Calculation Manual

BASES:

The environmental monitoring program required by this commitment provides measurements of radiation and of radioactive materials in those exposure pathways and for those radionuclides which lead to the highest potential radiation exposures of individuals resulting from the station operation. This monitoring program thereby supplements the radiological effluent monitoring program by verifying that the measurable concentrations of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurements and modeling of program will be effective for at least the first three years of commercial operation. Following this period, program changes may be initiated based on operational experience.

The detection capabilities required by Table 16.11-5 are considered optimum for routine environmental measurements in industrial laboratories. The specified lower limits of detection correspond to less than the 10CFR50, Appendix I, design objective dose-equivalent to 45 mrem/year for atmospheric releases to the most sensitive organ and individual.

The land use census commitment is provided to assure that changes in the use of unrestricted areas are identified and that modifications to the monitoring program are provided if required by the results of this census.

The requirements for participation in an Interlaboratory Comparison Program is provided to assure that independent checks on the precision and accuracy of the measurements of radioactive material in environmental sample matrices are performed as part of a quality assurance program for environmental monitoring in order to demonstrate that the results are reasonably valid.

STATION MANAGER APPROVAL

J. M. Davis for H. B. Barron
H. B. Barron

DATE 2/14/91

16.11 RADIOLOGICAL EFFLUENTS CONTROL

16.11-9 RADIOACTIVE EFFLUENT RELEASE REPORT

COMMITMENT

The Semiannual Radioactive Effluent Release Reports covering the operating of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year.

A single submittal may be made for a multiple unit station. The submittal shall combine those sections that are common to all units at the station; however, for units with radwaste systems, the submittal shall specify the release of radioactive material from each unit.

The Semiannual Radioactive Effluent Release Reports shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the station during the reporting period.

The Semiannual Radioactive Effluent Release Reports shall include a summary of the meteorological conditions concurrent with the release of gaseous effluents during each quarter.

The Semiannual Radioactive Effluent Release Reports shall include an assessment of the radiation dose from radioactive effluents to members of the public due to their activities inside the unrestricted area boundary during the reporting period. All assumptions used in making these assessments (e.g., specific activity, exposure time and location) shall be included in these reports.

The Semiannual Radioactive Effluent Release Reports shall include the following information for all unplanned releases to unrestricted areas of radioactive materials in gaseous and liquid effluents:

- a. A description of the event and equipment involved;
- b. Cause(s) for the unplanned release;
- c. Actions taken to prevent recurrence; and,
- d. Consequences of the unplanned release.

The Semiannual Radioactive Effluent Release Reports shall include an assessment of radiation doses from the radioactive liquid and gaseous effluents released from the station during each calendar quarter. In addition, the unrestricted area boundary maximum noble gas gamma air and beta air doses shall be evaluated. The annual average meteorological conditions shall be used for determining the gaseous pathway doses. Approximate and conservative approximate methods are acceptable. The assessment of radiation doses shall be performed in accordance with the Offsite Dose Calculation Manual.

The Semiannual Radioactive Effluent Release Report shall include an explanation of why the inoperability of liquid or gaseous effluent monitoring instrumentation out of service for greater than 30 days was not corrected in a timely manner per SLCs 16.11-3.

The Semiannual Radioactive Effluent Release Reports shall include the following information for each type of solid waste shipped offsite during the report period:

- a. Total container volume (cubic meters);
- b. Total curie quantity (determined by measurement or estimate);
- c. Principal radionuclides (determined by measurement or estimate);
- d. Type of waste, (e.g., spent resin, compacted dry waste evaporator bottoms);
- e. Number of shipments; and,
- f. Solidification agent (e.g., cement, or other approved agents (media)).

The Semiannual Radioactive Effluent Release Reports shall include a list and description of unplanned releases from the site to Unrestricted Areas of radioactive materials in gaseous and liquid effluents made during the reporting period.

The Semiannual Radioactive Effluent Release Reports shall include any changes made during the reporting period to the Offsite Dose Calculation Manual (ODCM), as well as a listing of new locations for dose calculations and/or environmental monitoring identified by the land use census.

The Semiannual Radioactive Effluent Release Report to be submitted 60 days after January 1 of each year shall also include an assessment of radiation doses to the likely most exposed Member Of The Public from reactor releases and other nearby uranium fuel cycle sources (including doses from primary effluent pathways and direct radiation) for the previous calendar year to show conformance with 40 CFR 190, Environmental Radiation Protection Standards for Nuclear Power Operation. Methods for calculating the dose contribution from liquid and gaseous effluents are given in the ODCM.

REFERENCES

1. Ocone Technical Specifications
2. Offsite Dose Calculation Manual

STATION MANAGER APPROVAL

Joe M. Davis for H. B. Barron
H. B. Barron

DATE

2/14/91

Table 16.11-4 (Page 1 of 3)

RADIOACTIVE EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL RESPONSE CHECK (4)</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Liquid Radwaste Effluent Line				
a. Effluent Line Monitor (4 RIA-33)	*	DA	AN	QU(1)
b. Effluent Flow Rate Monitor	*	NA	AN	NA
c. Minimum Flow Device	*	NA	AN	NA
2. Turbine Building Sump				
a. Sump Monitor (RIA-54)	DA	MO	AN(3)	QU(2)
b. Minimum Flow Device	*	NA	AN	NA
3. Low Pressure Service Water				
a. Effluent Line Monitor (RIA-35)	DA	MO	AN(3)	QU(1)
b. Minimum Flow Device	*	NA	AN	NA
4. #3 Chemical Treatment Pond Composite Sampler	DA	NA	AN	NA
5. Unit Vent Monitoring				
a. Noble Gas Activity Monitor (RIA-45)	DA	MO	AN(3)	QU(2)
b. Iodine Sampler	DA	NA	NA	NA
c. Particulate Sampler	DA	NA	NA	NA
d. Effluent Flow Rate Monitor (Unit Vent Flow)	DA	NA	AN	NA
e. Minimum Flow Device	DA	NA	AN	NA
6. Interim Radwaste Building Ventilation Monitoring				
a. Noble Gas Activity Monitor (RIA-53)	DA	MO	AN(3)	QU(2)
b. Iodine Sampler	DA	NA	NA	NA
c. Particulate Sampler	DA	NA	NA	NA
d. Effluent Flow Rate Monitor (Interim Radwaste Exhaust)	DA	NA	AN	NA
e. Minimum Flow Device	DA	NA	AN	NA