



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

DUKE POWER COMPANY

DOCKET NO. 50-269

OCONEE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187
License No. DPR-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Oconee Nuclear Station, Unit 1 (the facility) Facility Operating License No. DPR-38 filed by the Duke Power Company (the licensee) dated February 7, 1990, as supplemented May 7, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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 license 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-38 is hereby amended to read as follows:

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Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 187, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Keith N. Jablon

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: January 22, 1991



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

DUKE POWER COMPANY

DOCKET NO. 50-270

OCONEE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187
License No. DPR-47

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Oconee Nuclear Station, Unit 2 (the facility) Facility Operating License No. DPR-47 filed by the Duke Power Company (the licensee) dated February 7, 1990, as supplemented May 7, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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 license 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-47 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 187, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Kalte N. Tallon for
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: January 22, 1991



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. 184
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 February 7, 1990, as supplemented May 7, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations 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 license 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. 184, 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 and shall be implemented within 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Kath N. Tallon for

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: January 22, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 187

FACILITY OPERATING LICENSE NO. DPR-38

DOCKET NO. 50-269

AND

TO LICENSE AMENDMENT NO. 187

FACILITY OPERATING LICENSE NO. DPR-47

DOCKET NO. 50-270

AND

TO LICENSE AMENDMENT NO. 184

FACILITY OPERATING LICENSE NO. DPR-55

DOCKET NO. 50-287

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change. The corresponding over-leaf pages are also provided to maintain document completeness.

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1.8 RADIOLOGICAL EFFLUENT CONTROL

1.8.1 Source Check

A Source Check is the qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

1.8.2 Offsite Dose Calculation Manual (ODCM)

The OFFSITE DOSE CALCULATION MANUAL shall contain the methodology and parameters used in the calculation of offsite doses due to radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring alarm/trip setpoints, and in the conduct of the Environmental Radiological Monitoring Program. FSAR Chapter 16 shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Sections 6.4.6 and 6.4.7 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Semiannual Radioactive Effluent Release Reports required by Specifications 6.6.1.4 and 6.6.1.5.

1.8.3 Process Control Program (PCP)

The PROCESS CONTROL PROGRAM (PCP) shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

1.8.4 Not Used

1.8.5 Gaseous Radwaste Treatment System

A Gaseous Radwaste Treatment System is any system designed and installed to reduce radioactive gaseous effluents by collecting primary coolant system offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

1.8.6 Ventilation Exhaust Treatment System

A Ventilation Exhaust Treatment System is any system designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers and/or HEPA filters for the purpose of removing iodines or particulates from the gaseous exhaust stream prior to the release to the environment. Engineered Safety Feature (ESF) atmospheric cleanup systems are not considered to be Ventilation Exhaust Treatment System components.

1.8.7 Purge-Purging

Purge or Purging is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.

Pages 3.5-37 through 3.5-43 Not Used

OCONEE - UNITS 1, 2 & 3

3.5-37

Amendment No. 187 (Unit 1)
Amendment No. 187 (Unit 2)
Amendment No. 184 (Unit 3)

3.9 LIQUID HOLDUP TANKS

Applicability

Applies at all times.

Objective

To establish monitoring and operational conditions for the storage of radioactive liquid material in outside temporary tanks.

Specification

3.9.1 Liquid Holdup Tanks

- a. The quantity of radioactive material contained in each outside temporary tank shall be limited to less than or equal to 10 curies, excluding tritium and dissolved or entrained noble gases. Tanks included in this specification are those outdoor tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system.
- b. The quantity of radioactive material contained in each of the outside temporary tanks shall be determined to be within the above limit by analyzing a representative sample of the tanks' contents at least once per 7 days when radioactive materials are being added to the tank.
- c. If the quantity of radioactive material in any outside temporary tank exceeds the above limit, suspend all additions of radioactive material to the tank without delay.

3.9.2 The provisions of Technical Specification 3.0 do not apply.

Bases

The tanks included in this specification are all those outdoor radwaste liquid storage tanks that are not surrounded by liners, dikes, or walls capable of holding the tank contents and that do not have tank overflows and surrounding area drains connected to the liquid radwaste treatment system. Restricting the quantity of radioactive material contained in the specified tanks provides assurance that in the event of an uncontrolled release of a tank's contents, the resulting concentrations would be less than the limits of 10CFR Part 20, Appendix B, Table II, Column 2, at the nearest potable water supply and the nearest surface water supply in an UNRESTRICTED AREA.

Pages 3.9-2 through 3.9-5 Not Used

OCONEE - UNIT 1, 2 & 3

3.9-2

Amendment No. 187 (Unit 1)
Amendment No. 187 (Unit 2)
Amendment No. 184 (Unit 3)

3.10 GAS STORAGE TANK AND EXPLOSIVE GAS MIXTURE

Applicability

Applies at all times to the storage of radioactive gas in the Waste Gas Holdup Tanks.

Objective

To establish conditions for the storage of radioactive gas in the Waste Gas Holdup Tanks.

Specifications

3.10.1 Waste Gas Holdup Tanks

- a. The quantity of radioactivity contained in each waste gas hold-up tank shall be limited to $\leq 3.8E+05$ curies noble gases (considered as Xe-133).
- b. Daily, when radioactive materials are being added to a waste gas holdup tank, the quantity of radioactive material contained in the tank being filled shall be determined.
- c. If the quantity of radioactive material in any waste gas hold-up tank exceeds the above limit, without delay suspend all additions of radioactive material to the tank and within 48 hours, reduce the tank contents to within the above limit.

3.10.2 Explosive Gas Mixture

- a. The concentration limit of hydrogen in the Waste Gas Holdup Tanks is 3% by volume.
- b. If the concentration of hydrogen in the Waste Gas Holdup Tanks exceeds 3% by volume, but is less than or equal to 4% by volume, then within 48 hours, reduce the concentration of hydrogen to within the limit.
- c. If the concentration of hydrogen in the Waste Gas Holdup Tanks exceeds 4% by volume, then promptly suspend all additions of waste gases to the tank, and within 24 hours, reduce the concentration of hydrogen to within the limit.

3.10.3 The provisions of Technical Specifications 3.0 do not apply.

Bases

Restricting the quantity of radioactivity contained in each waste gas holdup tank provides assurance that in the event of an uncontrolled release of the tank contents, the resulting total body exposure to an individual at the nearest exclusion area boundary will not exceed 0.5 rem. See FSAR Section 15.10.

Specification 3.10.2 is provided to ensure that the concentration of potentially explosive gas mixtures contained in the Waste Gas Holdup Tanks is maintained below the flammability limits of hydrogen. (Administrative controls are used to prevent the hydrogen concentrations from reaching the flammability limit.) These controls include sampling each tank 5 times a week while in service, and/or once in 24 hours after isolation of the tank; injection of dilutants to reduce the concentration of hydrogen below its flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of GDC 60 of Appendix A to 10CFR Part 50.

Pages 3.10-3 through 3.10-4 Not Used

OCONEE - UNITS 1, 2 & 3.

3.10-3

Amendment No. 187 (Unit 1)
Amendment No. 187 (Unit 2)
Amendment No. 184 (Unit 3)

Pages 3.11-1 and 3.11-2 Not Used

4.1 OPERATIONAL SAFETY REVIEW

Applicability

Applies to items directly related to safety limits and limiting conditions for operation.

Objective

To specify the frequency and type of surveillance to be applied to unit equipment and conditions.

Specification

- 4.1.1 The frequency and type of surveillance required for Reactor Protective System and Engineered Safety Feature Protective System instrumentation shall be as stated in Table 4.1-1.
- 4.1.2 The frequency and type of surveillance required for selected equipment shall be as stated in Table 4.1-2.
- 4.1.3 Required sampling should be performed as detailed in Table 4.1-3.
- 4.1.4 The frequency and type of surveillance required for radioactive effluent monitoring instrumentation shall be as stated in FSAR Chapter 16.
- 4.1.5 Using the Incore Instrumentation System, a power map shall be made to verify expected power distribution at periodic intervals not to exceed ten effective full power days.

Bases

Failures such as blown instrument fuses, defective indicators, and faulted amplifiers are, in many cases, revealed by alarm or annunciator action. Comparison of output and/or state of independent channels measuring the same variable supplements this type of built-in surveillance. Based on experience in operation of both conventional and nuclear systems, when the unit is in operation, the minimum checking frequency stated is deemed adequate for reactor system instrumentation.

Calibration is performed to assure the presentation and acquisition of accurate information. The nuclear flux (power range) channels amplifiers are calibrated (during steady-state operating conditions) when indicated neutron power exceeds core thermal power by more than two percent. During non-steady-state operation, the nuclear flux channels amplifiers are calibrated daily to compensate for instrumentation drift and changing rod patterns and core physics parameters. Calibration checks are also performed following significant changes in core conditions (power level and control rod positions) in order to assure that the core thermal power indication during non-steady-state operations does not exceed the indicated neutron power by more than the tolerance (4% FP) assumed in the safety analysis for significant duration (e.g., 4 hours).

Channels subject only to "drift" errors induced within the instrumentation itself can tolerate longer intervals between calibrations. Process system

OCONEE 1, 2 & 3

4.1-11

Amendment No. 187
Amendment No. 184
{ Unit 1 }
{ Unit 2 }
{ Unit 3 }

TABLE 4.1-3 Continued

Minimum Sampling Frequency And Analysis Program

<u>Item</u>	<u>Check</u>	<u>Frequency</u>	<u>Lower Limit of Detection⁽⁵⁾ of Lab Analysis for Waste</u>
7. (Not Used)			
8. (Not Used)			
8a. (Not Used)			
8b. (Not Used)			
9. (Not Used)			
10. Delete			
11. (Not Used)			
12. (Not Used)			
13. Waste Gas Holdup Tank	Hydrogen Concentration	5 times/week on each tank while in service and/or once in 24 hours after isolation of the tank	
14. (Not Used)			

TABLE 4.1-3 NOTES

- (1) When radioactivity level is greater than 10 percent of the limits of Specification 3.1.4, the sampling frequency shall be increased to a minimum of once each day.
- (2) \bar{E} determination will be started when gross gamma activity analysis indicates greater than 10 $\mu\text{Ci/ml}$ and will be redetermined for each 10 $\mu\text{Ci/ml}$ increase in gross gamma activity analysis thereafter. A radiochemical analysis for this purpose shall consist of a quantitative measurement of 95 percent of the radionuclides in the reactor coolant with half lives greater than 30 minutes. This is expected to consist of gamma isotopic analysis of the primary coolant, including dissolved gaseous activities, radiochemical analysis for Sr-89 and Sr-90, and tritium analysis.
- (3) When gross beta activity increases by a factor of two above background, iodine concentrations will be determined by gamma isotopic analysis and performed thereafter when the gross beta activity increases by 10 percent.
- (4) (Not Used)
- (5) (Not Used)
- (6) (Not Used)
- (7) (Not Used)
- (8) (Not Used)
- (9) (Not Used)
- (10) (Not Used)
- (11) (Not Used)

Pages 4.1-12a through 4.1-18 Not Used

OCONEE - UNITS 1, 2 & 3

4.1-12a

Amendment No. 187 (Unit 1)
Amendment No. 187 (unit 2)
Amendment No. 184 (Unit 3)

Pages 4.11-1 through 4.11-8 Not Used

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Superintendent of Integrated Scheduling, as previously designated by the Station Manager.

- f. Incidents reportable pursuant to Technical Specification 6.6.2.1 and violations of Technical Specifications shall be investigated and a report prepared which evaluates the occurrence and which provides recommendations to prevent recurrence. Such reports shall be approved by the Station Manager and transmitted to the Vice President, Nuclear Production Department, or his designee; and to the Director of the Nuclear Safety Review Board.
- g. The Station Manager shall assure the performance of special reviews and investigations, and the preparation and submittal of reports thereon, as requested by the Vice President, Nuclear Production Department.
- h. The station security program, and implementing procedures, shall be reviewed at least once per 12 months. Changes determined to be necessary as a result of such review shall be approved by the Station Manager or Station Services Superintendent and transmitted to the Vice President, Nuclear Production Department, or his designee; and to the Director of the Nuclear Safety Review Board.
- i. The station emergency plan, and implementing procedures, shall be reviewed at least once per 12 months. Changes determined to be necessary as a result of such review shall be approved by the Station Manager and transmitted to the Vice President, Nuclear Production Department, or his designee; and the Director of the Nuclear Safety Review Board.
- j. The Station Manager shall assure that an independent fire protection and loss prevention inspection and audit shall be performed annually utilizing qualified off-site personnel and that an inspection and audit by a qualified fire consultant shall be performed at intervals no greater than three years.
- k. Unplanned onsite releases of radioactive material to the environs shall be investigated and a report prepared which evaluates the occurrence and which provides recommendations to prevent recurrence. Such reports shall be approved by the Station Manager and transmitted to the Vice President, Nuclear Production Department, or designee, and to the Director of the Nuclear Safety Review Board.
- l. Licensee-initiated changes to the Offsite Dose Calculation Manual (ODCM) shall be documented and records of reviews performed shall be retained for the duration of the unit operating license. This documentation shall contain:
 - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s); and,
 - 2) A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations; and,

- 3) Shall become effective upon review and acceptance by the Station Manager and a qualified individual/organization; and,
 - 4) Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Semiannual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.
- m. Licensee-initiated changes to the Process Control Program shall be documented and records of reviews performed shall be retained for the duration of the unit license. This documentation shall contain:
- 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s);
 - 2) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations; and,
 - 3) Changes shall become effective upon review and acceptance by the Station Manager and a qualified individual/organization.

6.1.2.2 Records

Records of the above activities shall be maintained.

6.1.3 Nuclear Safety Review Board

6.1.3.1 Function

The NSRB shall function to provide independent review and audit of designated activities in the areas of:

- a. Nuclear power plant operations
- b. Nuclear Engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Instrumentation and control
- f. Radiological safety
- g. Mechanical and electrical engineering
- h. Administrative control and quality assurance practices

6.1.3.2 Organization

- a. The Director, members and alternate members of the NSRB shall be formally appointed by the Vice President, Nuclear Production Department, and shall have an academic degree in an engineering or physical science field; and in addition, shall have a minimum of five years technical experience, of which a minimum of three years shall be in one or more areas given in 6.1.3.1.
- b. The NSRB shall be composed of at least five members, including the Director, Members of the NSRB may be from the Nuclear Production Department, from other departments within the Company or from external to the

Company. A maximum of one member of the NSRB may be from the Oconee Nuclear Station staff.

- c. Consultants may be utilized by the NSRB to provide expert advice to the NSRB; as determined necessary by the Director of the NSRB.
- d. Staff assistance may be provided to the NSRB in order to promote the proper, timely and expeditious performance of its functions.
- e. The NSRB shall meet at least once per six months. The period between such meetings shall not exceed eight months.
- f. A quorum of the NSRB shall consist of the Director, or his designated alternate, and at least two other NSRB members or alternate members. No more than a minority of the quorum shall have line responsibility for operation of Oconee Nuclear Station.

6.4.2 A respiratory protective program approved by the Commission shall be in force.

6.4.3 Administrative procedures shall be developed and implemented to limit the working hours of station staff who perform safety-related functions, e.g., senior reactor operators, reactor operators, nuclear equipment operators, and certain maintenance personnel.

Any deviations from the above procedures shall be authorized by the Station Manager (or designee) in accordance with established procedures and with documentation of the basis for granting the deviation. Individual overtime shall be periodically reviewed to assure that excessive hours have not been worked. Routine deviation from the above guidelines is not authorized.

6.4.4 The station shall have a program that ensures the capability to obtain and analyze reactor coolant and containment atmosphere samples under accident conditions which includes training of personnel, procedures for sampling and analysis, and provisions for testing and required maintenance of sampling and analysis equipment.

6.4.5 The station shall have a program that ensures the capability to collect and analyze or measure representative samples of radioactive iodines and particulates in plant gaseous effluents during and following an accident which includes training of personnel, procedures for sampling and analysis, and provisions for testing and required maintenance of sampling and analysis equipment.

6.4.6 The station shall have a program conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in FSAR Chapter 16, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- a. Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and set-point determination in accordance with the methodology in the ODCM,
- b. Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR Part 20, Appendix B, Table II, Column 2,
- c. Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM,

- d. Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from each unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- e. Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days.
- f. Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50 as clarified by FSAR Chapter 16.
- g. Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY conforming to the doses associated with 10 CFR Part 20, Appendix B, Table II, Column 1,
- h. Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- i. Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radionuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from each unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50; and,
- j. Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

6.4.7 The station shall have a program to monitor the radiation and radionuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in FSAR Chapter 16, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- a. Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

- b. A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census; and,
- c. Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

6.6 STATION REPORTING REQUIREMENTS

6.6.1 Routine Reports

In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Regional Administrator Region II unless otherwise noted.

6.6.1.1 Startup Report

A summary report of unit startup and power escalation testing shall be submitted following (1) receipt of an operating license, (2) amendment to the facility license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal or hydraulic performance of the unit. Startup reports shall be submitted (1) within 90 days following completion of the startup test program, (2) 90 days following resumption of commencement of commercial power operation, or (3) nine months following initial criticality, whichever occurs first. If a startup report does not cover all three events, i.e., initial criticality, completion of the startup test program and resumption or commencement of commercial power operation supplementary reports shall be submitted at least every three months until all three events are completed.

6.6.1.2 Monthly Operating Report

Routine reports of operating statistics and shutdown experience shall be submitted on a monthly basis to the Director, Office of Management Information and Program Control, U.S. Nuclear Regulatory Commission, Washington, D.C., 20555, with a copy to the appropriate Regional Office, to be submitted by the fifteenth of each month following the calendar month covered by the report.

6.6.1.3 Personnel Exposure and Monitoring Report

Prior to March 1 of each year, a tabulation shall be submitted to the NRC of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total body dose received from external sources shall be assigned to specific major work functions.

6.6.1.4 The Semiannual Radioactive Effluent Release Report*

The Semiannual Radioactive Effluent Release Report covering the operation 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 should combine those sections that are common to all units at the station; however, for units with separate Radwaste Systems, the submittal shall specify the release of radioactive material from each unit.

The Radioactive Effluent Release Report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from each unit. The material provided shall be (1) consistent with the objectives outlined in the ODCM and PCP; and, (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

6.6.1.5 Radiological Environmental Monitoring

Routine radiological environmental operating reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM; and, (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

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6.6.2 Non-Routine Reports

6.6.2.1 Reportable Events

Reporting requirements for Licensee Event Reports are contained in 10 CFR 50, §50.73.

6.6.2.2 (Not Used)

6.6.3 Special Reports

Special reports shall be submitted to the Regional Administrator, Region II, within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

- a. Auxiliary Electrical Systems, Specification 3.7
- b. (Not Used)
- c. (Not Used)
- d. Fire Protection and Detection Systems, Specification 3.17
- e. Reactor Coolant System Surveillance,
Inservice Inspection, Specification 4.2.1
Reactor Vessel Specimen, Specification 4.2.4
- f. Reactor Building Surveillance,
Containment Leakage Tests, Specification 4.4.1
- g. Structural Integrity Surveillance,
Tendon Surveillance, Specification 4.4.2.2
- h. (Not Used)
- i. (Not Used)

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