



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

DUKE POWER COMPANY

DOCKET NO. 50-369

McGUIRE NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 121
License No. NPF-9

- i. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the McGuire Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-9 filed by the Duke Power Company (the licensee) dated April 16, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.


2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-9 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 121, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Technical Specification
Changes

Date of Issuance: July 1, 1991



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

DUKE POWER COMPANY

DOCKET NO. 50-370

McGUIRE NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 103
License No. NPF-17

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the McGuire Nuclear Station, Unit 2 (the facility) Facility Operating License No. NPF-17 filed by the Duke Power Company (the licensee) dated April 16, 1991, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

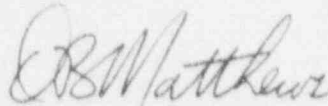
2. Accordingly, the license is hereby amended by page changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph (2) of Facility Operating License No. NPF-17 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 103, are hereby incorporated into the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Attachment:
Technical Specification
Changes

Date of Issuance: July 1, 1991

ATTACHMENT TO LICENSE AMENDMENT NO. 121

FACILITY OPERATING LICENSE NO. NPF-9

DOCKET NO. 50-369

AND

TO LICENSE AMENDMENT NO. 103

FACILITY OPERATING LICENSE NO. NPF-17

DOCKET NO. 50-370

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.

Remove Pages

3/4 8-11

3/4 8-12

3/4 8-13

3/4 8-14

Insert Pages

3/4 8-11

3/4 8-12

3/4 8-13

3/4 8-14

3/4 8-14a

ELECTRICAL POWER SYSTEMS

3/4.8.2 D.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION:

- 3.8.2.1 The following D.C. channels shall be OPERABLE and energized:
- Channel 1 consisting of 125-Volt D.C. Bus No. EVDA, 125-Volt D.C. Battery Bank No. EVCA and a full-capacity charger,*#
 - Channel 2 consisting of 125-Volt D.C. Bus No. EVDB, 125-Volt D.C. Battery Bank No. EVCB and a full-capacity charger,*#
 - Channel 3 consisting of 125-Volt D.C. Bus No. EVDC, 125-Volt D.C. Battery Bank No. EVCC and a full-capacity charger,*# and
 - Channel 4 consisting of 125-Volt D.C. Bus No. EVDD, 125-Volt D.C. Battery Bank No. EVCD and a full-capacity charger,*#

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION: (Units 1 and 2)

- With one 125-volt D.C. bus inoperable or not energized, restore the inoperable bus to OPERABLE and energized status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- With one 125-volt D.C. battery and/or its normal and standby chargers inoperable or not energized, either:
 - Restore the inoperable battery and/or charger to OPERABLE and energized status within 2 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, or
 - Energize the associated bus with an OPERABLE battery bank via OPERABLE tie breakers within 2 hours; operation may then continue for up to 72 hours from time of initial loss of OPERABILITY, otherwise, be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*A vital bus may be disconnected from its D.C. source for up to 24 hours for the purpose of performing an equalizing charge on its associated battery bank provided the vital busses associated with the other battery banks are OPERABLE and energized.

#During periods of battery bank replacement only, the affected channel may be considered OPERABLE provided a temporary battery is configured to a full capacity charger and connected to the respective bus. All limiting conditions for operation, action statements, and surveillance requirements pertaining to the permanent batteries shall be maintained for the temporary battery during periods of battery bank replacement.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.2.1.1 Each D.C. channel shall be determined OPERABLE and energized with tie breakers open between redundant busses at least once per 7 days by verifying correct breaker alignment, indicated power availability from the charger and battery, and voltage on the bus of greater than or equal to 125 volts.

4.8.2.1.2 Each 125-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days:
 - 1) Verifying that the parameters in Table 4.8-3 meet the Category A limits, and
 - 2) Verifying total battery terminal voltage is greater than or equal to 125 volts on float charge.
- b. At least once per 92 days and within 7 days after a battery discharge (battery terminal voltage below 110 volts), or battery overcharge (battery terminal voltage above 150 volts), by:
 - 1) Verifying that the parameters in Table 4.8-3 meet the Category B limits,
 - 2) Verifying there is no visible corrosion at either terminals or connectors, or the connection resistance of these items is less than 150×10^{-6} ohms, and
 - 3) Verifying that the average electrolyte temperature of six connected cells is above 60°F.
- c. At least once per 18 months by verifying that:
 - 1) The cells, cell plates (if visible), and battery racks show no visual indication of physical damage or abnormal deterioration,
 - 2) The cell-to-cell and terminal connections are clean, tight, and coated with anti-corrosion material,
 - 3) The resistance of each cell-to-cell and terminal connection is less than or equal to 150×10^{-6} ohms, and
 - 4) The battery charger will supply at least 400 amperes at a minimum of 125 volts for at least 1 hour.

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 18 months by verifying that the battery capacity is adequate to either:
 - 1) Supply and maintain in OPERABLE status all of the actual emergency loads for 1 hour when the battery is subjected to a battery service test, or
 - 2) Supply a dummy load of greater than or equal to 440 amperes for 60 minutes while maintaining the battery terminal voltage greater than or equal to 105 volts.

- e. At least once per 60 months, during shutdown, by verifying that the battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. Once per 60-month interval, this performance discharge test may be performed in lieu of the battery service test required by Specification 4.8.2.1.2d.

- f. Annual performance discharge tests of battery capacity shall be given to any battery that shows signs of degradation or has reached 85% of the service life expected for the application. Degradation is indicated when the battery capacity drops more than 10% of rated capacity from its average on previous performance tests, or is below 80% of the manufacturer's rating.

TABLE 4.8-3

BATTERY SURVEILLANCE REQUIREMENTS (Gould Cells)

PARAMETER	CATEGORY A ⁽¹⁾		CATEGORY B ⁽²⁾
	LIMITS FOR EACH DESIGNATED PILOT CELL	LIMITS FOR EACH CONNECTED CELL	ALLOWABLE ⁽³⁾ VALUE FOR EACH CONNECTED CELL
Electrolyte Level	>Minimum level indication mark, and < 1/4" above maximum level indication mark	>Minimum level indication mark, and < 1/2" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥ 2.13 volts	≥ 2.13 volts ^(c)	> 2.07 volts
Specific Gravity ^(a)	≥ 1.200 ^(b)	≥ 1.195 Average of all connected cells > 1.205	Not more than .020 below the average of all connected cells or ≥ 1.195 Average of all connected cells ≥ 1.195 ^(b)

(a) Corrected for electrolyte temperature and level.

(b) Or battery charging current is less than 2 amps when on charge.

(c) Corrected for average electrolyte temperature.

(1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours all the Category B measurements are taken and found to be within their allowable values, and provided all Category B parameter(s) are restored to within limits within the next 6 days.

(2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category B parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.

(3) Any Category B parameter not within its allowable value indicates an inoperable battery.

TABLE 4.8-3 (continued)
BATTERY SURVEILLANCE REQUIREMENTS (AT&T CELLS)

Parameter	Category A ⁽¹⁾		Category B ⁽²⁾	Category C ⁽³⁾
	Limits for each designated pilot cell		Limits for each connected cell	Allowable value for each connected cell
Electrolyte Level	> Minimum level indication mark, and < 1/4" above maximum level indication mark		> Minimum level indication mark, and < 1/4" above maximum level indication mark	Above top of plates, and not overflowing
Float Voltage	≥ 2.20 Volts		≥ 2.17 Volts ⁽⁴⁾	> 2.14 Volts
Specific ⁽⁵⁾ Gravity	≥ 1.285 ⁽⁶⁾	C E L L	≥ 1.280	Not more than 0.020 below the average of all connected cells or ≥ 1.280
		B A T T E R Y	Average of all connected cells > 1.285 ⁽⁷⁾	Average of all connected cells > 1.280 ⁽⁶⁾ (7)

- (1) For any Category A parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that within 24 hours, all the Category C measurements are taken and found to be within their allowable values. All Category B parameter(s) must be within limits in the next 6 days.
- (2) For any Category B parameter(s) outside the limit(s) shown, the battery may be considered OPERABLE provided that the Category C parameters are within their allowable values and provided the Category B parameter(s) are restored to within limits within 7 days.
- (3) Any Category C parameter not within its allowable value indicates an INOPERABLE battery.
- (4) Corrected for average electrolyte temperature.
- (5) Corrected for electrolyte temperature and level.
- (6) Or battery charging current is less than 2 amps when on float charge.
- (7) With no more than 5 cells at the minimum limit.