Docket Nos. 50-413 and 50-414

> Mr. H. B. Tucker, Vice President Nuclear Production Department Duke Power Company P.O. Box 1007 Charlotte, North Carolina 28201-1007

Dear Mr. Tucker:

ISSUANCE OF AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NPF-35 SUBJECT:

AND AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NPF-52 - CATAWBA

NUCLEAR STATION, UNITS 1 AND 2 (TACS 76449/76450)

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 81 to Facility Operating License NPF-35 and Amendment No. 75 to Facility Operating License NPF-52 for the Catawba Nuclear Station, Units 1 and 2. These amendments consist of changes to the Technical Specifications (TSs) in response to your application dated March 13, 1990, as supplemented May 4, 1990.

The amendments relocated the fire protection requirements from the TSs to the Final Safety Analysis Report, Chapter 16.0, Catawba Selected Licensee Commitments. This relocation is in accordance with NRC Generic Letters 86-10 and 88-12.

A copy of the related Safety Evaluation supporting the amendments is also enclosed. Notice of issuance of the amendments will be included in the Commission's biweekly Federal Register notice.

Sincerely.

Original signed by:

Kahtan N. Jabbour, Project Manager Project Directorate II-3 Division of Reactor Projects I/II Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 81 to NPF-35

Amendment No. 75 to NPF-52

Safety Evaluation

cc w/enclosures: See next page

OFFICIAL RECORD COPY

Document Name: CATAWBA AMEND FIRE, PRO

LA:PDII-3 RIngram∫∿ 10/9/90

KJabbour: sa 10/9/90

1 / / / 90

DATED: November 30, 1990

AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NPF-35 - Catawba Nuclear Station, Unit 1 AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NPF-52 - Catawba Nuclear Station, Unit 2

DISTRIBUTION:

Docket File NRC PDR Local PDR PD II-3 R/F Catawba R/F S. Varga

14-E-4 S. Varga G. Lainas 14-H-3 D. Matthews 9-H-3 9-H-3 R. Ingram K. Jabbour 9-H-3 OGC-WF 15-B-18 D. Hagan MNBB 4702 MNBB-3701 E. Jordan G. Hill (8) P1-37 W. Jones MNBB 7103 J. Calvo 11-F-22 ACRS (10) P-135 17-F-2 GPA/PA OC/LFMB MNBB 4702

T. Dunning, OTSB

الرائع معاليات

Mr. M.S. Tuckman Duke Power Company

cc: Mr. A.V. Carr, Esq. Duke Power Company 422 South Church Street Charlotte, North Carolina 28242-0001

J. Michael McGarry, III, Esq. Bishop, Cook, Purcell and Reynolds 1400 L Street, N.W. Washington, D. C. 20005

North Carolina MPA-1 Suite 600 P.O. Box 29513 Raleigh, North Carolina 27626-0513

Ms. S.S. Kilborn
Area Manager, Mid-South Area
ESSD Projects
Westinghouse Electric Corp.
MNC West Tower - Bay 239
P.O. Box 355
Pittsburgh, Pennsylvania 15230

County Manager of York County York County Courthouse York, South Carolina 29745

Richard P. Wilson, Esq. Assistant Attorney General S.C. Attorney General's Office P.O. Box 11549 Columbia, South Carolina 29211

Piedmont Municipal Power Agency 121 Village Drive Greer, South Carolina 29651

Mr. Alan R. Herdt, Chief Project Branch #3 U.S. Nuclear Regulatory Commission 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323 Catawba Nuclear Station

North Carolina Electric Membership Corp. P.O. Box 27306 Raleigh, North Carolina 27611

Saluda River Electric Cooperative, Inc. P.O. Box 929 Laurens, South Carolina 29360

Senior Resident Inspector Route 2, Box 179N York, South Carolina 29745

Regional Administrator, Region II U.S. Nuclear Regulatory Commission 101 Marietta Street, NW, Suite 2900 Atlanta, Georgia 30323

Mr. Heyward G. Shealy, Chief Bureau of Radiological Health South Carolina Department of Health and Environmental Control 2600 Bull Street Columbia, South Carolina 29201

Ms. Karen E. Long Assistant Attorney General N.C. Department of Justice P.O. Box 629 Raleigh, North Carolina 27602

Mr. Robert G. Morgan Nuclear Production Department Duke Power Company P.O. Box 1007 Charlotte, North Carolina 28201-1007

Mr. R.L. Gill, Jr.
Nuclear Production Department
Duke Power Company
P.O. Box 1007
Charlotte, North Carolina 28201-1007



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

DUKE POWER COMPANY

NORTH CAROLINA ELECTRIC MEMBERSHIP CORPORATION

SALUDA RIVER ELECTRIC COOPERATIVE, INC.

DOCKET NO. 50-413

CATAWBA NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 81 License No. NPF-35

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 1 (the facility) Facility Operating License No. NPF-35 filed by the Duke Power Company, acting for itself, North Carolina Electric Membership Corporation and Saluda River Electric Cooperative, Inc. (licensees) dated March 13, 1990, as supplemented May 4, 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 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 attachments to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-35 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 81, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company 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: November 30, 1990



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

DUKE POWER COMPANY

NORTH CAROLINA MUNICIPAL POWER AGENCY NO. 1

PIEDMONT MUNICIPAL POWER AGENCY

DOCKET NO. 50-414

CATAWBA NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 75 License No. NPF-52

- 1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment to the Catawba Nuclear Station, Unit 2 (the facility) Facility Operating License No. NPF-52 filed by the Duke Power Company, acting for itself, North Carolina Municipal Power Agency No. 1 and Piedmont Municipal Power Agency (licensees) dated March 13, 1990, as supplemented May 4, 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 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 attachments to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-52 is hereby amended to read as follows:

<u>Technical Specifications</u>

The Technical Specifications contained in Appendix A, as revised through Amendment No. 75, and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. Duke Power Company 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: November 30, 1990

ATTACHMENT TO LICENSE AMENDMENT NO. 81

FACILITY OPERATING LICENSE NO. NPF-35

DOCKET NO. 50-413

AND

TO LICENSE AMENDMENT NO. 75

FACILITY OPERATING LICENSE NO. NPF-52

DOCKET NO. 50-414

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 overleaf page is also provided to maintain document completeness.

Remove Pages	Insert Pages
VI	ΛΙ
I X	I X X
XIV	χιν
3/4 3-71 thru 3/4 3-78	3/4 3-71
3/4 7-27 thru 3/4 7-37	3/4 7-27
3/4 7-38	3/4 7-38*
B 3/4 3-5	B 3/4 3-5
B 3/4 3-6	B 3/4 3-6
B 3/4 7-6 B 3/4 7-7	B 3/4 7-6 B 3/4 7-7
B 3/4 7-8	-
6-2	6-2
6-8	6-8
6-13	6-13

*Overleaf page.

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION		PAGE
TABLE 3.3-8 METEOROLOGICAL MONITORING INSTRUMENTATION	3/4	3-60
TABLE 4.3-5 METEOROLOGICAL MONITORING INSTRUMENTATION SURVEILLANCE	-, .	
REQUIREMENTS	3/4	3-61
Remote Shutdown System	3/4	3-62
TABLE 3.3-9 REMOTE SHUTDOWN MONITORING INSTRUMENTATION	3/4	3-63
TABLE 4.3-6 REMOTE SHUTDOWN MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4	3-64
Accident Monitoring Instrumentation	3/4	3-65
TABLE 3.3-10 ACCIDENT MONITORING INSTRUMENTATION	3/4	3-66
TABLE 4.3-7 ACCIDENT MONITORING INSTRUMENTATION SURVEILLANCE		
REQUIREMENTS		3-68
Chlorine Detection Systems	3/4	3-70
TABLE 3.3-11 (Deleted)		
Loose-Part Detection System	_	3-79
Radioactive Liquid Effluent Monitoring Instrumentation	-•	3-80
TABLE 3.3-12 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION	3/4	3-81
TABLE 4.3-8 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS	3/4	3-83
Radioactive Gaseous Effluent Monitoring Instrumentation	3/4	3-85
TABLE 3.3-13 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION	3/4	3-86
TABLE 4.3-9 RADIOACTIVE GASEOUS EFFLUENT MONITORING		
INSTRUMENTATION SURVEILLANCE REQUIREMENTS	-	3-90
Boron Dilution Mitigation System	-	3-92a
3/4.3.4 TURBINE OVERSPEED PROTECTION	3/4	3-93
3/4.4 REACTOR COOLANT SYSTEM		
3/4.4.1 REACTOR COOLANT LOOPS AND COOLANT CIRCULATION		
Startup and Power Operation	3/4	4-1
Hot Standby	3/4	4-2
Hot Shutdown	3/4	4-3
Cold Shutdown - Loops Filled	3/4	4-5
Cold Shutdown - Loops Not Filled	3/4	4-6

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION			PAG
	Divider Barrier Personnel Access Doors and		
	Equipment Hatches	3/4	6-47
	Containment Air Return and Hydrogen Skimmer Systems	3/4	6-48
	Floor Drains	3/4	6-50
	Refueling Canal Drains	3/4	6-51
	Divider Barrier Seal	3/4	6-52
TABLE 3.6	-3 DIVIDER BARRIER SEAL ACCEPTABLE PHYSICAL PROPERTIES	3/4	6-53
3/4.6.6	CONTAINMENT VALVE INJECTION WATER SYSTEM	3/4	6-54
3/4.7 PL	ANT SYSTEMS		
3/4.7.1	TURBINE CYCLE		
	Safety Valves	3/4	7-1
TABLE 3.7	-I MAXIMUM ALLOWABLE POWER RANGE NEUTRON FLUX HIGH SETPOINT WITH INOPERABLE STEAM LINE SAFETY VALVES DURING		
710/F 0 7	FOUR LOOP OPERATION	3/4	
TABLE 3.7	-2 STEAM LINE SAFETY VALVES PER LOOP	3/4	-
	Auxiliary Feedwater System	3/4	7-4
	Specific Activity	3/4	7-6
TABLE 4.7	-1 SECONDARY COOLANT SYSTEM SPECIFIC ACTIVITY SAMPLE AND ANALYSIS PROGRAM	3/4	7-7
	Main Steam Line Isolation Valves	3/4	7-8
	Condensate Storage System	3/4	7-9
	Steam Generator Power Operated Relief Valves	3/4	7-9a
3/4.7.2	STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	3/4	7-10
3/4.7.3	COMPONENT COOLING WATER SYSTEM	3/4	7-11
3/4.7.4	NUCLEAR SERVICE WATER SYSTEM	3/4	7-12
3/4.7.5	STANDBY NUCLEAR SERVICE WATER POND	3/4	7-13
3/4.7.6	CONTROL ROOM AREA VENTILATION SYSTEM	3/4	7-14
3/4.7.7	AUXILIARY BUILDING FILTERED EXHAUST SYSTEM	3/4	7-17
3/4.7.8	SNUBBERS	3/4	7-19
FIGURE 4.7	7-1 SAMPLE PLAN 2) FOR SNUBBER FUNCTIONAL TEST	3/4	7-24
3/4.7.9	SEALED SOURCE CONTAMINATION	3/4	7-25
3/4.7.10	(DELETED)		

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION			PAGE
3/4.7.11 (DEL	ETED)		
3/4.7.12 GROU	NDWATER LEVEL	3/4	7-38
3/4.7.13 STAN	DBY SHUTDOWN SYSTEM	3/4	7-40
3/4.8 ELECTRI	CAL POWER SYSTEMS		
3/4.8.1 A.C.	SOURCES		
0per	ating	3/4	8-1
TABLE 4.8-1 D	IESEL GENERATOR TEST SCHEDULE	3/4	8-9
TABLE 4.8-2 LG	DAD SEQUENCING TIMES	3/4	8-10
Shute	down	3/4	8-11
3/4.8.2 D.C.	SOURCES		
	ating	3/4	8-12
•	ATTERY SURVEILLANCE REQUIREMENTS		8-15
	lown	-	8-16
	TE POWER DISTRIBUTION	2/4	0 17
•	ating		8-17 8-18
Shuce	10wff	3/4	9-19
	TRICAL EQUIPMENT PROTECTIVE DEVICES		
	ainment Penetration Conductor Overcurrent otective Devices	2/4	8-19
	WIT 1 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT	J/ 4	0-13
PROTE	CTIVE DEVICES	3/4	8-21
	IT 2 CONTAINMENT PENETRATION CONDUCTOR OVERCURRENT	3/4	8-44
		.	• • • •
3/4.9 REFUELII	IG OPERATIONS		
3/4.9.1 BORO	CONCENTRATION	3/4	9-1
3/4.9.2 INST	RUMENTATION	3/4	9-2
3/4.9.3 DECA	/ TIME	3/4	9-3
3/4.9.4 CONT/	AINMENT BUILDING PENETRATIONS	3/4	9-4
3/4.9.5 COMM	UNICATIONS	3/4	
3/4.9.6 MANII	PULATOR CRANE	3/4	
3/4.9.7 CRANI	TRAVEL - SPENT FUEL STORAGE POOL BUILDING	3/4	9-9

Pages 3/4 3-71 through 3/4 3-78 deleted.

Pages 3/4 7-27 through 3/4 7-37 deleted.

SECTION	PAGE
TABLE B 3/4.4-1 REACTOR VESSEL TOUGHNESS	В 3/4 4-9
FIGURE B 3/4.4-1 FAST NEUTRON FLUENCE (E>1MeV) AS A FUNCTION OF	F
FULL POWER SERVICE LIFE	
3/4.4.10 STRUCTURAL INTEGRITY	
3/4.4.11 REACTOR COOLANT SYSTEM VENTS	B 3/4 4-17
3/4.5 EMERGENCY CORE COOLING SYSTEMS	
3/4.5.1 ACCUMULATORS	B 3/4 5-1
3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS	
3/4.5.4 REFUELING WATER STORAGE TANK	· ·
3/4.6 CONTAINMENT SYSTEMS	
3/4.6.1 PRIMARY CONTAINMENT	B 3/4 6-1
3/4.6.2 DEPRESSURIZATION AND COOLING SYSTEMS	-,
3/4.6.3 CONTAINMENT ISOLATION VALVES	
3/4.6.4 COMBUSTIBLE GAS CONTROL	
3/4.6.5 ICE CONDENSER	
3/4.7 PLANT SYSTEMS	
3/4.7.1 TURBINE CYCLE	B 3/4 7-1
3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION	
3/4.7.3 COMPONENT COOLING WATER SYSTEM	В 3/4 7-3
3/4.7.4 NUCLEAR SERVICE WATER SYSTEM	В 3/4 7-3
3/4.7.5 STANDBY NUCLEAR SERVICE WATER POND	B 3/4 7-3a
3/4.7.6 CONTROL ROOM AREA VENTILATION SYSTEM	B 3/4 7-3a
3/4.7.7 AUXILIARY BUILDING FILTERED EXHAUST SYSTEM	В 3/4 7-4
3/4.7.8 SNUBBERS	
3/4.7.9 SEALED SOURCE CONTAMINATION	
3/4.7.10 (DELETED)	
3/4.7.11 (DELETED)	
3/4.7.12 GROUNDWATER LEVEL	В 3/4 7-7
3/4.7.13 STANDBY SHUTDOWN SYSTEM	В 3/4 7-7

PLANT SYSTEMS

3/4.7.12 GROUNDWATER LEVEL

LIMITING CONDITION FOR OPERATION

3.7.12 The groundwater level shall be maintained at or below the top of the adjacent floor slabs of the Reactor Containment Building and the Auxiliary Building.

APPLICABILITY: At all times.

ACTION:

- a. With the groundwater level above the top of the adjacent floor slab by less than or equal to 5 feet, reduce the groundwater level to or below the top of the affected adjacent floor slab within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With the groundwater level above the top of the adjacent floor slab by greater than 5 feet but less than 15 feet, reduce the groundwater level to less than or equal to 5 feet above the top of the affected adjacent floor slab within 24 hours and to or below the top of the affected adjacent floor slab within 7 days of initially exceeding the above limits or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- c. With the groundwater level above the top of the adjacent floor slab by greater than or equal to 15 feet, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the next 30 hours. Perform an engineering evaluation to determine the effects of this higher groundwater level on the affected building(s) and submit the results of this evaluation and any corrective action determined necessary to the Commission as a Special Report pursuant to Specification 6.9.2 prior to increasing $T_{\rm avg}$ above $200^{\rm o}{\rm F}.$
- d. Determine the rate of rise of groundwater when the level reaches the top of the floor slab. If the rate of rise of the groundwater level is greater than or equal to 0.3 foot per hour, determine the rate of rise at least once per 30 minutes. If the rate of rise exceeds 0.5 foot per hour for more than 1 hour, be in at least HOT STANDBY within 1 hour and in COLD SHUTDOWN within the following 30 hours. If the rate of rise is less than 0.5 feet per hour, comply with the requirements of ACTIONS a., b., and c. above.

INSTRUMENTATION

BASE	ES
------	----

REMOTE SHUTDOWN SYSTEM (Continued)

control and power circuits and transfer switches necessary to eliminate effects of the fire and allow operation of instrumentation, control and power circuits required to achieve and maintain a safe shutdown condition are independent of areas where a fire could damage systems normally used to shutdown the reactor. This capability is consistent with General Design Criterion 3 and Appendix R to 10 CFR Part 50.

3/4.3.3.6 ACCIDENT MONITORING INSTRUMENTATION

The OPERABILITY of the accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables following an accident. This capability is consistent with the recommendations of Regulatory Guide 1.97, Revision 3, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant Conditions During and Following an Accident," May 1983 and NUREG 0737, "Clarification of TMI Action Plan Requirements," November 1980.

3/4.3.3.7 CHLORINE DETECTION SYSTEMS

The OPERABILITY of the Chlorine Detection Systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental chlorine release. This capability is required to protect control room personnel and is consistent with the recommendations of Regulatory Guide 1.95, Revision 1, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release," January 1977.

3/4.3.3.8 (Deleted)

BASES

3/4.3.3.9 LOOSE-PART DETECTION SYSTEM

The OPERABAILITY of the loose-part detection instrumentation ensures that sufficient capability is available to detect loose metallic parts in the Reactor System and avoid or mitigate damage to Reactor System components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors," May 1981.

3/4.3.3.10 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

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 of liquid effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding 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.

3/4.3.3.11 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

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 of gaseous effluents. The Alarm/Trip Setpoints for these instruments shall be calculated and adjusted in accordance with the methodology and parameters in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. This instrumentation also includes provisions for monitoring (and controlling) the concentrations of potentially explosive gas mixtures in the WASTE GAS HOLDUP SYSTEM. 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 sensitivity of any noble gas activity monitor used to show compliance with the gaseous effluent release requirements of Specification 3.11.2.2 shall be such that concentrations as low as 1 x 10-6 mCi/cc are measurable.

BASES

SNUBBERS (Continued)

The service life of a snubber is established via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubbers, seal replaced, spring replaced, in high radiation area, in high temperature area, etc.). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life.

3/4.7.9 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(a)(3) limits for plutonium. This limitation will ensure that leakage from Byproduct, Source, and Special Nuclear Material sources will not exceed allowable intake values.

Sealed sources are classified into three groups according to their use, with Surveillance Requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

3/4.7.10 (Deleted)

3/4.7.11 (Deleted)

3/4.7.12 GROUNDWATER LEVEL

This specification is provided to ensure that groundwater levels will be monitored and prevented from rising to unacceptable levels. High groundwater levels could result in unacceptable structural stresses in the Containment and/or Auxiliary Building due to uplift and hydrostatic forces during design basis events. Although these buildings have been statically analyzed to withstand soil pressure along with the uplift and hydrostatic forces resulting from groundwater rebound to yard elevation (593'6"), this analysis did not include any other loadings and was not a design condition for these buildings.

PLANT SYSTEMS

BASES

3/4.7.13 STANDBY SHUTDOWN SYSTEM

The Standby Shutdown System (SSS) is designed to mitigate the consequences of certain postulated fire incidents by providing capability to maintain HOT STANDBY conditions and by controlling and monitoring vital systems from locations external to the main control room. This capability is consistent with the requirements of 10 CFR Part 50, Appendix R.

The Surveillance Requirements ensure that the SSS systems and components are capable of performing their intended functions. The required level in the SSS diesel generator fuel storage tank ensures sufficient fuel for 72 hours uninterrupted operation. It is assumed that, within 72 hours, either offsite power can be restored or additional fuel can be added to the storage tank.

Although the Standby Makeup Pump is not nuclear safety-related and was not designed according to ASME code requirements, it is tested quarterly to ensure its OPERABILITY. The Surveillance Requirement concerning the Standby Makeup Pump water supply ensures that an adequate water volume is available to supply the pump continuously for 72 hours.

UNIT STAFF (Continued)

- A Health Physics Technician* shall be on site when fuel is in either reactor;
- d. All CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Operator or licensed Senior Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation; and
- e. (Deleted)
- f. Administrative procedures shall be developed and implemented to limit the working hours of unit staff who perform safety-related functions (e.g., licensed Senior Operators, licensed Operators, health physicists, auxiliary operators, and key maintenance personnel).

Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a nominal 40-hour week while the unit is operating. However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification, on a temporary basis the following guidelines shall be followed:

- 1) An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.
- 2) An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 7-day period, all excluding shift turnover time.
- 3) A break of at least 8 hours should be allowed between work periods, including shift turnover time.
- 4) Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Station Manager or his designee, or higher levels of management, in accordance with established procedures and with documentation of the basis for granting the deviation. Controls shall be included in the procedures such that individual overtime shall be reviewed monthly by the Station Manager or his designee to assure that excessive hours have not been assigned. Routine deviation from the above guidelines is not authorized.

^{*}The Health Physics Technician may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence, provided immediate action is taken to fill the required positions.

TECHNICAL REVIEW AND CONTROL ACTIVITIES (Continued)

- 6.5.1.6 All REPORTABLE EVENTS and all 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, and to the Nuclear Safety Review Board.
- 6.5.1.7 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.
- 6.5.1.8 The station security program, and implementing procedures shall be reviewed at least once per 12 months. Recommended changes shall be approved by the Superintendent of Station Services and transmitted to the Vice President, Nuclear Production, and to the Nuclear Safety Review Board.
- 6.5.1.9 The station emergency plan, and implementing procedures, shall be reviewed at least once per 12 months. Recommended changes shall be approved by the Station Manager and transmitted to the Vice President, Nuclear Production, and to the Nuclear Safety Review Board.
- 6.5.1.10 The Station Manager shall assure the performance of a review by a qualified individual/organization of every unplanned onsite release of radio-active material to the environs including the preparation and forwarding of reports covering evaluation, recommendations, and disposition of the corrective ACTION to prevent recurrence to the Vice President, Nuclear Production and to the Nuclear Safety Review Board.
- 6.5.1.11 The Station Manager shall assure the performance of a review by a qualifed individual/organization of changes to the PROCESS CONTROL PROGRAM, OFFSITE DOSE CALCULATION MANUAL, and Radwaste Treatment Systems.
- 6.5.1.12 The Station Manager shall assure the performance of a review by a qualified individual/organization of the Fire Protection Program and implementing procedures and the submittal of recommended changes to the Nuclear Safety Review Board.
- 6.5.1.13 Reports documenting each of the activities performed under Specifications 6.5.1.1 through 6.5.1.11 shall be maintained. Copies shall be provided to the Vice President, Nuclear Production, and the Nuclear Safety Review Board.

6.5.2 NUCLEAR SAFETY REVIEW BOARD (NSRB)

FUNCTION

- 6.5.2.1 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,

6.8 PROCEDURES AND PROGRAMS

- 6.8.1 Written procedures shall be established, implemented, and maintained covering the activities referenced below:
 - a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978;
 - b. The emergency operating procedures required to implement the requirements of NUREG-0737 and Supplement No. 1 to NUREG-0737 as stated in eneric Letter No. 82-33;
 - c. Security Plan implementation;*
 - d. Emergency Plan implementation;
 - e. PROCESS CONTROL PROGRAM implementation;
 - f. OFFSITE DOSE CALCULATION MANUAL implementation;
 - g. Quality Assurance Program implementation for effluent and environmental monitoring;
 - h. Fire Protection Program implementation;
 - i. Commitments contained in FSAR Chapter 16.0.
- 6.8.2 Each procedure of Specification 6.8.1, and changes thereto, shall be reviewed and approved by the Station Manager; or by: (1) Operating Superintendent, (2) Technical Services Superintendent, (3) Maintenance Superintendent, or (4) Superintendent of Integrated Scheduling, as previously designated by the Station Manager; prior to implementation and shall be reviewed periodically as set forth in administrative procedures.
- 6.8.3 Temporary changes to procedures of Specification 6.8.1 may be made provided:
 - a. The intent of the original procedure is not altered;
 - b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Operator license on the unit affected; and
 - c. The change is documented, reviewed, and approved by the Station Manager; or by: (1) Operating Superintendent, (2) Technical Services Superintendent, (3) Maintenance Superintendent, or (4) Superintendent of Integrated Scheduling, as previously designated by the Station Manager; within 14 days of implementation.
- 6.8.4 The following programs shall be established, implemented, and maintained:
 - a. <u>Primary Coolant Sources Outside Containment</u>

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the containment spray, Safety Injection, chemical

*Review and approval may be performed by the Superintendent of Station Services.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION RELATED TO AMENDMENT NO. 81 TO FACILITY OPERATING LICENSE NPF-35 AND AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NPF-52

DUKE POWER COMPANY, ET AL.

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

1.0 INTRODUCTION

By letter dated March 13, 1990, as supplemented May 4, 1990, Duke Power Company, et al. (the licensee) proposed changes to the Appendix A Technical Specifications (TSs) for Catawba Nuclear Station, Units 1 and 2. The proposed changes would remove requirements for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing as recommended by Generic Letter 86-10. The proposed changes would also modify the administrative control requirements of the TSs to add requirements for the Fire Protection Program. Guidance on these proposed changes to the TSs was provided to all power reactor licensees and applicants by Generic Letter 88-12 dated August 2, 1988.

Specifically, the proposed changes would delete TS 3/4.3.3.8, referenced TS Table 3.3-11 and corresponding Bases, each titled "Fire Protection Instrumentation;" TS 3/4.7.10, "Fire Suppression Systems," including all subsections, referenced TS Table 3.7-3, "Fire Hose Stations," and associated Bases; TS 3/4.7.11, "Fire Barrier Penetrations," and its corresponding Bases; and TS 6.2.2e. which addresses staffing requirements for the site Fire Brigade. Additionally, reference to the "Fire Brigade" composition within the footnote referenced by TS 6.2.2e. would be removed. The TS Index would be revised to reflect these deletions.

The proposed amendments would supplement the administrative controls requirements of TS 6.5.1, "Review and Audit/Technical Review and Control Activities," to require that the Station Manager ensure the performance of a review by a qualified individual/organization of the Fire Protection Program and implementing procedures and submittal of recommended changes to the Nuclear Safety Review Board. The amendments would also supplement TS 6.8.1, "Procedures and Programs," to add the following to the existing activities requiring written procedures: "h. Fire Protection Program implementation" and "i. Commitments contained in FSAR Chapter 16.0."

The standard fire protection license conditions have been implemented for both Catawba Units 1 and 2. For Unit 1, it was implemented by the issuance of Amendment 57 on January 3, 1989, to Facility Operating License NPF-35. The Unit 2 license, NPF-52 issued May 15, 1986, included License Condition 2.C.(6) on the fire protection program.

9012110112 901130 PDR ADOCK 05000413 PDC PDC

2.0 BACKGROUND

Following the fire at the Browns Ferry Nuclear Power Plant on March 22, 1975, the Commission undertook a number of actions to ensure that improvements were implemented in the Fire Protection Programs for all power reactor facilities. Because of the extensive modification of Fire Protection Programs and the number of open issues resulting from staff evaluations, a number of revisions and alterations occurred in these programs over the years. Consequently, licensees were requested by Generic Letter 86-10 to incorporate the final NRC-approved Fire Protection Program in their Final Safety Analysis Reports (FSARs). In this manner, the Fire Protection Program--including the systems, the administrative and technical controls, the organization, and other plant features associated with fire protection--would have a status consistent with that of other plant features described in the FSAR. In addition, the Commission concluded that a standard license condition, requiring compliance with the provisions of the Fire Protection Program as described in the FSAR, should be used to ensure uniform enforcement of fire protection requirements. Finally, the Commission stated that with the requested actions, licensees may request an amendment to delete the fire protection TSs that would now be unnecessary.

The licensees for the Callaway and Wolf Creek plants submitted lead-plant proposals to remove fire protection requirements from their TSs. This action was an industry effort to obtain NRC guidance on an acceptable format for license amendment requests to remove fire protection requirements from TSs. Additionally, in the licensing review of new plants, the NRC staff has approved applicant requests to remove fire protection requirements for TSs issued with the operating license. Thus, on the basis of the lead-plant proposals and the staff's experience with TSs for new licenses, Generic Letter 88-12 was issued to provide guidance on removing fire protection requirements from TSs.

3.0 EVALUATION

Generic Letter 86-10 recommended the removal of fire protection requirements from the TSs. Although a comprehensive Fire Protection Program is essential to plant safety, the basis for this recommendation is that many details of this program that are currently addressed in TSs can be modified without affecting nuclear safety. Such modifications can be made provided that there are suitable administrative controls over these changes. These details, that are presently included in TSs and which are removed by these amendments, do not constitute performance requirements necessary to ensure safe operation of the facility and, therefore, do not warrant being included in TSs. At the same time, suitable administrative controls ensure that there will be careful review and analysis by competent individuals of any changes in the Fire Protection Program, including those technical and administrative requirements removed from the TSs to ensure that nuclear safety is not adversely affected. These controls include: (1) the TS administrative controls that are applicable to the Fire Protection Program; (2) the license condition on implementation of, and subsequent changes to, the Fire Protection Program; and (3) the 10 CFR 50.59 criteria for evaluating changes to the Fire Protection Program as described in the FSAR.

The specific details relating to fire protection requirements removed from TSs by these amendments include those specifications for fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing requirements. The administrative control requirements have been modified to include Fire Protection Program implementation as an element for which written procedures must be established, implemented, and maintained.

As required by Generic Letter 86-10, the licensee confirmed that the NRC-approved Fire Protection Program will be incorporated into the FSAR. The current license condition on fire protection is the standard condition provided in Generic Letter 86-10.

The licensee also confirmed that the operational conditions, remedial actions, and test requirements associated with the removed fire protection TSs will be included in the Fire Protection Program and incorporated into the next update of FSAR Chapter 16.0. Any changes to the previous fire protection TS requirements will be made in accordance with the license condition on the fire protection program. This is in accordance with the guidance of Generic Letter 88-12.

On the basis of its review of the above items, the NRC staff concludes that the licensee has met the guidance of Generic Letter 88-12. Therefore, the staff finds the proposed changes acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments involve changes in requirements with respect to the use of facility components located within the restricted area as defined in 10 CFR Part 20 and changes in surveillance requirements. The amendments also relate to recordkeeping, reporting, or administrative procedures or requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding. Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

The Commission's proposed determination that the amendments involve no significant hazards consideration was published in the Federal Register (55 FR 34367) on August 22, 1990. The Commission consulted with the State of South Carolina. No public comments were received, and the State of South Carolina did not have any comments.

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: K. Jabbour, PDII-3/DRP-I/II

T. G. Dunning, OTSB/DOEA

Dated: November 30, 1990