

Docket Nos.: 50-413
50-414

Mr. H. B. Tucker, Vice President
Nuclear Production Department
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

DEC 07 1987

Dear Mr. Tucker:

Subject: Correction to License Amendments

My letter dated November 10, 1987, forwarded Amendments 32 and 23 to Facility Operating Licenses NPF-35 and NPF-52, respectively, for the Catawba Nuclear Station, Units 1 and 2.

Please replace the following pages which were transmitted with that letter with the enclosed revised pages:

- 3/4 5-1a
- 3/4 5-1b (new page)
- 3/4 5-2
- 3/4 5-2a (new page)
- 3/4 5-2b (new page)
- 3/4 5-3
- 3/4 5-4
- 3/4 5-4a (new page)

Sincerely,

KNT

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

Enclosures: As stated

cc w/enclosure: See next page

DISTRIBUTION:

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NRC PDR	WJones
Local PDR	TBarnhart (8)
PRC System	EButcher
PDII-3 Reading	GPA/PA
MRood	ARM/LFMB
KJabbour	
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OGC-Bethesda	
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EJordan	
SVarga/GLainas	

8712150335 871207
PDR ADDCK 05000413
P PDR

PD#II-3/DRP-I/II
MRood/mac
12/7/87

KNT
PD#II-3/DRP-I/II
KJabbour
12/7/87

KNT
PD#II-3/DRP-I/II
KJabbour, Acting PD
12/7/87



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

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Sincerely,

Kahtan N. Jabbour

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

Enclosures: As stated

cc w/enclosure: See next page

Mr. H. B. Tucker
Duke Power Company

Catawba Nuclear Station

cc:

A.V. Carr, Esq.
Duke Power Company
422 South Church Street
Charlotte, North Carolina 28242

North Carolina Electric Membership
Corp.
3400 Summer Boulevard
P.O. Box 27306
Raleigh, North Carolina 27611

J. Michael McGarry, III, Esq.
Bishop, Liberman, Cook, Purcell
and Reynolds
1200 Seventeenth Street, N.W.
Washington, D. C. 20036

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

North Carolina MPA-1
Suite 600
3100 Smoketree Ct.
P.O. Box 29513
Raleigh, North Carolina 27626-0513

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

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

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

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

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

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

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

Piedmont Municipal Power Agency
100 Memorial Drive
Greer, South Carolina 29651

Spence Perry, Esquire
General Counsel
Federal Emergency Management Agency
Room 840
500 C Street
Washington, D. C. 20472

Mr. Michael Hirsch
Federal Emergency Management Agency
Office of the General Counsel
Room 840
500 C Street, S.W.
Washington, D. C. 20472

Brian P. Cassidy, Regional Counsel
Federal Emergency Management Agency,
Region I
J. W. McCormack POCH
Boston, Massachusetts 02109

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

- 3) The volume weighted average boron concentration of the three limiting accumulators 1500 ppm or less, return the volume weighted average boron concentration of the three limiting accumulators to greater than 1500 ppm and enter ACTION c.2 within 1 hour of the low boron determination or be in HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.1.1.1 Each cold leg injection accumulator shall be demonstrated OPERABLE:

- a. At least once per 12 hours by:
 - 1) Verifying, by the absence of alarms, the contained borated water volume and nitrogen cover-pressure in the tanks, and
 - 2) Verifying that each cold leg injection accumulator isolation valve is open.
- b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 75 gallons by verifying the boron concentration of the accumulator solution;
- c. At least once per 31 days when the Reactor Coolant System pressure is above 2000 psig by verifying that power is removed from the isolation valve operators on Valves NI54A, NI65B, NI76A, and NI88B and that the respective circuit breakers are padlocked; and
- d. At least once per 18 months by verifying that each cold leg injection accumulator isolation valve opens automatically under each of the following conditions:**
 - 1) When an actual or a simulated Reactor Coolant System pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) Setpoint, and
 - 2) Upon receipt of a Safety Injection test signal.

4.5.1.1.1.2 Each cold leg injection accumulator water level and pressure channel shall be demonstrated OPERABLE:

**This surveillance need not be performed until prior to entering HOT STANDBY following the Unit 1 refueling.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- a. At least once per 31 days by the performance of an ANALOG CHANNEL OPERATIONAL TEST, and
- b. At least once per 18 months by the performance of a CHANNEL CALIBRATION.

3/4.5 EMERGENCY CORE COOLING SYSTEMS

3/4.5.1 ACCUMULATORS

COLD LEG INJECTION

LIMITING CONDITION FOR OPERATION

3.5.1.1.2 Each cold leg injection accumulator shall be OPERABLE with:

- a. The discharge isolation valve open,
- b. A contained borated water volume of between 7704 and 8004 gallons,
- c. A boron concentration of between 1900 and 2100 ppm,
- d. A nitrogen cover-pressure of between 585 and 678 psig, and
- e. A water level and pressure channel OPERABLE.

APPLICABILITY: MODES 1, 2, and 3*. (UHI physically disconnected; Cold Leg Accumulators and discharge paths suitably modified)

ACTION:

- a. With one cold leg injection accumulator inoperable, except as a result of a closed isolation valve or boron concentration less than 1900 ppm, restore the inoperable accumulator to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. With one cold leg injection accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in at least HOT STANDBY within 6 hours and in HOT SHUTDOWN within the following 6 hours.
- c. With one accumulator inoperable due to boron concentration less than 1900 ppm and:
 - 1) The volume weighted average boron concentration of the three limiting accumulators 1900 ppm or greater, restore the inoperable accumulator to OPERABLE status within 24 hours of the low boron determination or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.
 - 2) The volume weighted average boron concentration of the three limiting accumulators less than 1900 ppm but greater than 1500 ppm, restore the inoperable accumulator to OPERABLE status or return the volume weighted average boron concentration of the three limiting accumulators to greater than 1900 ppm and

*Pressurizer pressure above 1000 psig.

EMERGENCY CORE COOLING SYSTEMS

LIMITING CONDITION FOR OPERATION (Continued)

ACTION: (Continued)

enter ACTION c.1 within 6 hours of the low boron determination or be in HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

- 3) The volume weighted average boron concentration of the three limiting accumulators 1500 ppm or less, return the volume weighted average boron concentration of the three limiting accumulators to greater than 1500 ppm and enter ACTION c.2 within 1 hour of the low boron determination or be in HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than 1000 psig within the following 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.1.2.1 Each cold leg injection accumulator shall be demonstrated OPERABLE:

- a. At least once per 12 hours by:
 - 1) Verifying, by the absence of alarms, the contained borated water volume and nitrogen cover-pressure in the tanks, and
 - 2) Verifying that each cold leg injection accumulator isolation valve is open.
- b. At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 75 gallons by verifying the boron concentration of the accumulator solution;
- c. At least once per 31 days when the Reactor Coolant System pressure is above 2000 psig by verifying that power is removed from the isolation valve operators on Valves NI54A, NI65B, NI76A, and NI88B and that the respective circuit breakers are padlocked; and
- d. At least once per 18 months by verifying that each cold leg injection accumulator isolation valve opens automatically under each of the following conditions:**
 - 1) When an actual or a simulated Reactor Coolant System pressure signal exceeds the P-11 (Pressurizer Pressure Block of Safety Injection) Setpoint, and
 - 2) Upon receipt of a Safety Injection test signal.

** This surveillance need not be performed until prior to entering HOT STANDBY following the Unit 1 refueling.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

4.5.1.1.2.2 Each cold leg injection accumulator water level and pressure channel shall be demonstrated OPERABLE:

- a. At least once per 31 days by the performance of an ANALOG CHANNEL OPERATIONAL TEST, and
- b. At least once per 18 months by the performance of a CHANNEL CALIBRATION.

EMERGENCY CORE COOLING SYSTEMS

UPPER HEAD INJECTION

LIMITING CONDITION FOR OPERATION

- 3.5.1.2 Each Upper Head Injection Accumulator System shall be OPERABLE with:
- The discharge isolation valves open,
 - A minimum contained borated water volume of 1807 cubic feet,
 - A boron concentration of between 1900 and 2100 ppm, and
 - The nitrogen-bearing accumulator pressurized to between 1185 and 1285 psig.

APPLICABILITY: MODES 1, 2, and 3.*

ACTION:

- With the Upper Head Injection Accumulator System inoperable, except as a result of closed isolation valve(s), restore the Upper Head Injection Accumulator System to OPERABLE status within 1 hour or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- With the Upper Head Injection Accumulator System inoperable due to the isolation valve(s) being closed, either immediately open the isolation valve(s) or be in HOT STANDBY within 6 hours and be in HOT SHUTDOWN within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1.2 Each Upper Head Injection Accumulator System shall be demonstrated OPERABLE:

- At least once per 12 hours by:
 - Verifying the contained borated water level in the surge tank and nitrogen pressure in the accumulators, and
 - Verifying that each accumulator discharge isolation valve is open.
- At least once per 31 days and within 6 hours after each solution volume increase of greater than or equal to 138.3 gallons by verifying the boron concentration of the solution in the water-filled accumulator;

*Pressurizer pressure above 1900 psig.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 18 months by:
 - 1) Verifying that each accumulator discharge isolation valve closes automatically when the water level is 93.2 ± 2.7 inches (Unit 1) and 93.1 ± 2.7 inches (Unit 2) above the working line on the water-filled accumulator, and
 - 2) Verifying that the total dissolved nitrogen and air in the water-filled accumulator is less than 80 scf per 1800 cubic feet of water (equivalent to 5×10^{-5} pound of nitrogen per pound of water).

- d. At least once per 5 years and if the requirements of Specification 4.5.1.2c.2) are not met by replacing the membrane installed between the water-filled and nitrogen-bearing accumulators.

EMERGENCY CORE COOLING SYSTEMS

UPPER HEAD INJECTION

(Deleted upon the physical disconnection of the UHI System from the Reactor Coolant System)