Duke Power Company
Catawba Nuclear Station
4800 Concord Road
York, SC 29745

(803)831-3000

DUKE POWER

March 31, 1997

RE: Catawba Nuclear Station
Selected License Commitment Manual

Please update the following Selected License Commitments (SLC):

16.5.1 - MID-LOOP Operation with Irradiated Fuel in the Core
16.9.1 - Fire Suppression Water System
16.9.2 - Spray and/or Sprinkler Systems
16.9.3 - CO_2 Systems
16.9.4 - Fire Hose Stations
16.9.5 - Fire Barrier Penetrations

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If you have any questions concerning contents of this package update, contact Denise Smith at 803-831-3810.

Beverly Tauer FOR
M.S. Kitlan, Jr., Manager
Regulatory Compliance - CNS

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CATAWBA NUCLEAR STATION
FINAL SAFETY ANALYSIS REPORT
SELECTED LICENSEE COMMITMENTS
CHAPTER 16.5

REACTOR COOLANT SYSTEM

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16.5 REACTOR COOLANT SYSTEM

16.5.1 MID-LOOP OPERATION WITH IRRADIATED FUEL IN THE CORE

COMMITMENT:

Operations with Reactor Coolant (NC) system level less than or equal to 16% with fuel in the core shall be conducted under the following conditions:

1) At least one hot leg will be maintained with no S/G nozzle dam installed until the reactor vessel head has been removed.

2) If S/G nozzle dams are to be used, one hot leg dam and a hot or cold leg manway on the associated S/G shall remain out anytime the reactor vessel head is in place. If a cold leg manway is being used, then all cold leg nozzle dams must be installed.

3) Two independent trains of NC level instruments are required. These instruments shall have independent transmitters and shall not include the NC System sightglass (NCLG-6450) or tygon tubing.

4) Two core exit thermocouples shall be maintained operating with temporary high alarms set at 140 F and monitored except as noted below:

   - Final disconnection of the last two core exit thermocouples shall occur no sooner than two hours prior to reactor vessel head removal.

   - Reconnection of at least two thermocouples within two hours after reinstalling the reactor vessel head.

   - The total time without thermocouple indication shall not exceed 12 hours.

5) Three power sources shall be available as follows:

   - Two off-site power sources and one D/G, or

   - One off-site power source and two D/Gs.

6) Two independent makeup paths of borated water shall be available, during each of the following conditions:

   a) Reactor Coolant System intact:

- One Centrifugal Charging Pump (NV) as required per Technical Specifications 3.1.2.1 and 3.1.2.3.

- One Safety Injection Pump (NI) having its breaker installed in its associated cubicle and a flow path available from the FWST to the NC System.

b) Reactor Coolant System open to Containment atmosphere via a hot leg vent path:

- One Centrifugal Charging Pump (NV) as required per Technical Specifications 3.1.2.1 and 3.1.2.3.

- One of the following gravity flowpaths:

1. FWST through ND-33 to the cold legs via NI-173A and/or NI-178B.
2. FWST through the ND suction lines to the hotlegs.
3. FWST through ND-33 to the hotlegs via NI-183B.

NOTE: The number of open containment penetrations is limited such that the penetrations can be closed within two hours of losing ND.

7) Containment Closure must be established. Containment Closure is verified by the performance of PT/1/(2)/A/4200/02C-I, Containment Closure Verification, with penetrations not verified acceptable, administratively controlled per OP/0/A/6100/14, Penetration Control During Modes 5 and 6.

8) The reactor has been subcritical for at least 7 days; or Design Engineering has provided a required subcritical time based on plant operating history and actual reduced NCS level.

APPLICABILITY:

Whenever irradiated fuel is in the reactor vessel and NC System wide range level is less than or equal to 16%.

REMEDIAL ACTION:

a) If the primary method of monitoring core exit thermocouples is unavailable then the backup means shall be used to check core exit temperatures. The backup means is the use of the Incore Instrumental Panel.

The thermocouple temperatures on the Incore Instrument Panel are to be periodically checked and recorded by an operator in the control room at no greater that 15 minutes.

b) If any of the above commitments cannot be met during the time that the reactor vessel is in a reduced inventory condition, take immediate corrective actions to bring the plant into compliance with the COMMITMENT and contact the Station Manager and/or responsible Group Superintendent for additional guidance.

TESTING REQUIREMENTS:

None

REFERENCES:

1) Generic Letter 88-17 (Loss of Decay Heat Removal)

2) NUREG 1410 (Loss of Vital AC Power and Residual Heat Removal during Mid-Loop Operation at Vogtle)

3) Catawba Nuclear Station Directive 3.1.30 (Mid-Loop Operation)

4) OP/1(2)/A/6150/06 (Draining the Reactor Coolant System)

5) Catawba Nuclear Station Technical Specifications

6) Catawba Nuclear Station Technical Specification Interpretations

7) Oconee Nuclear Station Selected Licensee Commitment 16.5.3

8) Integrated Scheduling Management Procedure 3.1 (Outage Planning a. Execution Responsibilities)

9) Catawba Nuclear Station responses to Generic Letter 88-17 dated January 3, 1989

BASES:

Generic Letter 88-17 and NUREG 1410 involve concerns associated with a loss of Residual Heat Removal during NC System reduced inventory. Numerous events have occurred in the industry that resulted in a loss of residual heat removal during reduced inventory operation. This is of great concern due to the potential for substantial core damage occurring in a relatively short time period. This Selected Licensee Commitment depicts those commitments which are extremely important to nuclear safety, however, are not presently covered by Technical Specifications.

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.1 FIRE SUPPRESSION WATER SYSTEM

COMMITMENT:

The Fire Suppression Water System shall be OPERABLE with:

a. At least two fire suppression pumps, each with a capacity of 2500 gpm, with their discharge aligned to the fire suppression header, and

b. An OPERABLE flow path capable of taking suction from Lake Wylie and transferring the water through distribution piping with OPERABLE sectionalizing control valves and isolation valves for each sprinkler, hose standpipe, or Spray System riser required to be OPERABLE per Commitments 16.9.2 and 16.9.4.

APPLICABILITY:

At all times.

REMEDIAL ACTION:

a. With one of the above required pumps and/or one Water Supply/Distribution System inoperable, restore the inoperable equipment to OPERABLE status within 7 days or provide an alternate backup pump or supply.

b. With the Fire Suppression Water System otherwise inoperable establish a backup Fire Suppression Water System within 24 hours.

TESTING REQUIREMENTS:

a. The Fire Suppression Water System shall be demonstrated OPERABLE:

   i. At least once per 31 days on a STAGGERED TEST BASIS by starting each electric motor- driven pump and operating it for at least 15 minutes on recirculation flow,

TESTING REQUIREMENTS (con't)

ii. By visual verification that each valve (manual, power-operated, or automatic) in the flow path, which is accessible during plant operations, is in the correct position. The frequency of the verification shall be determined by the performance based criteria st .ted in the Bases Section.

iii. At least once per 6 months by performance of a system flush of the outside distribution loop to verify no flow blockage by fully opening the hydraulically most remote hydrant,

iv. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,

v. At least once per 18 months by verifying that each valve (manual, power-operated, or automatic) in the flow path which is inaccessible during plant operations is in its correct position,

vii. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:

1) Verifying that each automatic valve in the flow path actuates to its correct position,

2) Verifying that each pump develops at least 2500 gpm at a net pressure of 144 psig by testing at three points on the pump performance curve,

3) Cycling each valve in the flow path which is not testable during plant operation through at least one complete cycle of full travel, and

4) Verifying that each fire suppression pump starts within 10 psig of its intended starting pressure (A pump, primary switch-95 psig; B pump, primary switch -90 psig; and C pump, primary switch-85 psig).

viii. At least once per 3 years by performing a flow test of the system in accordance with Chapter 8, Section 16 of the Fire Protection Handbook, 15th Edition, published by the National Fire Protection Association.

REFERENCES:

1) Catawba FSAR, Section 9.5.1
2) Catawba SER, Section 9.5.1
3) Catawba SER, Supplement 2, Section 9.5.1
4) Catawba SER, Supplement 3, Section 9.5.1
5) Catawba Fire Protection Review, as revised
6) Catawba Fire Protection Commitment Index
7) Startup and Normal Operation of Fire Protection System - OP/1/A/6400/02A

BASES:

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The Fire Suppression System consists of the water system, spray, and/or sprinklers, CO_2 , and fire hose stations. The collective capability of the Fire Suppression Systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility Fire Protection Program.

The proper positioning of RF/RY valves is critical to delivering fire suppression water at the fire source as quickly as possible. The option of increasing or decreasing the frequency of valve position verification allows the ability to optimize plant operational resources. Should an adverse trend develop with RF/RY valve positions, the frequency of verification shall be increased. Similarly if the RF/RY valve position trends are positive, the frequency of verification could be decreased. Through programmed trending of RF/RY as found valve positions, the RF/RY System will be maintained at predetermined reliability standards. The RF/RY System Engineer is responsible for trending and determining verification frequencies based on the following:

Initially the frequency will be monthly.

Annually review the results of the completed valve position verification procedures.

- If the results demonstrate that the valves are found in the correct position at least 99% of the time, the frequency of conducting the valve position verification may be decreased from - monthly to quarterly or - quarterly to semiannually or - semiannually to annually - as applicable. The frequency shall not be extended beyond annually (plus grace period).
- If the results demonstrate that the valves are not found in the correct position at least 99% of the time, the frequency of conducting the valve position verification shall be increased from - annually to semiannually or - semiannually to quarterly or - quarterly to monthly - as applicable. The valve position verification need not be conducted more often that monthly.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

In the event the Fire Suppression Water System becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant.

This Selected Licensee Commitment is part of the Catawba Fire Protection Program and therefore subject to the provisions of the Catawba Facility Operating License Conditions #6 for NPF-52 and #8 for NPF-35.

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.2 SPRAY AND/OR SPRINKLER SYSTEMS

COMMITMENT:

Spray and/or Sprinkler systems in Table 16.9-1 shall be OPERABLE:

APPLICABILITY:

Whenever equipment protected by the Spray/Sprinkler System is required to be OPERABLE.

REMEDIAL ACTION:

a. With one or more of the above required Spray and/or Sprinkler Systems inoperable, within 1 hour, in accordance with the "Fire Watch Code" given in Table 16.9-1, established a continuous fire watch or an hourly fire watch.

b. Verify backup fire suppression (fire extinguisher, nearby fire hose station) is available, and if not, establish backup fire suppression equipment for the affected area. This must be accomplished within the 1 hour given above.

TESTING REQUIREMENTS:

a. Each of the above required Spray and/or Sprinkler Systems shall be demonstrated OPERABLE:

   i. By verifying that each valve (manual, power-operated, or automatic) in the flow path, which is accessible during plant operations, is in the correct position. The frequency of the verification shall be determined by the performance based criteria stated in the Bases Section.

   ii. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel,

   iii. At least once per 18 months by verifying that each valve (manual, power-operated, or automatic) in the flow path which is inaccessible during plant operations is in its correct position, and

   iv. At least once per 18 months:

1) By performing a system functional test which includes simulated automatic actuation of the system, and cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.

2) By a visual inspection of each Sprinkler System starting at the system isolation valve to verify the system's integrity; and

3) By a visual inspection of each nozzle's spray area to verify the spray pattern is not obstructed.

REFERENCES:

1) Catawba FSAR, Section 9.5.1
2) Catawba SER, Section 9.5.1
3) Catawba SER, Supplement 2, Section 9.5.1
4) Catawba SER, Supplement 3, Section 9.5.1
5) Catawba Fire Projection Review, as revised
6) Catawba Fire Protection Commitment Index
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BASES:

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The Fire Suppression System consists of the water system, spray, and/or sprinklers, CO_2, and fire hose stations. The collective capability of the Fire Suppression Systems is adequate to minimize potential damage to safety -related equipment and is a major element in the facility Fire Protection Program.

The proper positioning of RF/RY valves is critical to delivering fire suppression water at the fire source as quickly as possible. The option of increasing or decreasing the frequency of valve position verification allows the ability to optimize plant operational resources. Should an adverse trend develop with RF/RY valve positions, the frequency of verification shall be increased. Similarly if the RF/RY valve position trends are positive, the frequency of verification could be decreased. Through programmed trending of RF/RY as found valve positions, the RF/RY System will be maintained at predetermined reliability standards. The RF/RY System Engineer is responsible for trending and determining verification frequencies based on the following:

Initially the frequency will be monthly.

Annually review the results of the completed valve position verification procedures.

- If the results demonstrate that the valves are found in the correct position at least 99% of the time, the frequency of conducting the valve position verification may be decreased from - monthly to quarterly or - quarterly to semiannually or - semiannually to annually - as applicable. The frequency shall not be extended beyond annually (plus grace period).

- If the results demonstrate that the valves are not found in the correct position at least 99% of the time, the frequency of conducting the valve position verification shall be increased from - annually to semiannually or - semiannually to quarterly or - quarterly to monthly - as applicable. The valve position verification need not be conducted more often that monthly.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

This Selected Licensee Commitment is part of the Catawba Fire Protection Program and therefore subject to the provisions of the Catawba Facility Operating License Conditions #6 for NPF-52 and #8 for NPF-35.

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TABLE 16.9-1
SPRAY AND SPRINKLER SYSTEM

a. Elevation 522+0 - Auxiliary Building

Room No.	Equipment	Fire Watch Code
100, 101, 106 111,112	ND & NS Connecting Corridor	(2)
104	ND Pump 1B	(3)
105	ND Pump 1A	(3)
109	ND Pump 2B	(3)
110	ND Pump 2A	(3)

b. Elevation 543+0 - Auxiliary Building

230	NV Pump 1A	(3)
231	NV Pump 1B	(3)
240	NV Pump 2A	(3)
241	NV Pump 2B	(3)
250	Unit 1 CA Pump Room	(1)
260	Unit 2 CA Pump Room	(1)

c. Elevation 554+0 - Auxiliary Building

340	U2 Battery Room Corridor (DD-EE)	(2)
350	U1 Battery Room Corridor (DD-EE)	(2)

d. Elevation 560+0 - Auxiliary Building

300	KC Pumps 1A1, 1A2,	(3)
300	KC Pumps 1B1, 1B2	(3)

e. Elevation 574+0 - Auxiliary Building

480	U2 Cable Room Corridor (DD-EE)	(2)
490	U1 Cable Room Corridor (DD-EE)	(2)

f. Elevation 577+0 - Auxiliary Building

400	KC Pumps 2A1, 2A2,	(3)
400	KC Pumps 2B1, 2B2	(3)

g. Reactor Buildings

	Annulus	(1)

New Page

Fire Watch Codes for Table 16.9-1 (Spray and Sprinkler Systems):

(1) Continuous.

(2) Hourly unless SSS is inoperable. If SSS is inoperable - continuous watch is required.

(3) Hourly unless opposite train component is inoperable, OR sprinkler system for opposite train component is inoperable, OR SSS is inoperable. If opposite train component, or sprinkler for opposite train component, or SSS is inoperable - continuous watch is required.

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.3 CO2 SYSTEMS

COMMITMENT:

The following High Pressure and Low Pressure CO_2 Systems shall be OPERABLE:

a. Low Pressure CO_2 System - Diesel generator rooms, and
b. High Pressure CO_2 System - Auxiliary feedwater pump rooms

APPLICABILITY:

Whenever equipment protected by the Systems is required to be OPERABLE.

REMEDIAL ACTION:

a. With one or more of the Low Pressure CO_2 System (Diesel Generator Rooms) inoperable, within one hour establish an hourly fire watch with backup fire suppression equipment as long as the fire barrier between the affected A and B train D/G rooms is intact. If the fire barrier between the affected A and B train D/G rooms is not intact or backup fire suppression equipment is not available, establish a continuous fire watch.

b. With one or more of the High Pressure CO_2 Systems (Aux. Feedwater Pump Rooms) inoperable, within one hour establish a continuous fire watch.

TESTING REQUIREMENTS:

a. Each of the above required CO_2 Systems shall be demonstrated OPERABLE by visual verification that each valve (manual, power operated, or automatic) in the flow path is in the correct position. The frequency of the verification shall be determined by the performance based criteria in the Bases Section.

b. Each of the above required Low Pressure CO_2 Systems shall be demonstrated OPERABLE:

   i. At least once per 7 days by verifying the CO_2 storage tank level to be greater than 44% of full capacity, and

TESTING REQUIREMENTS cont'd

ii. At least once per 18 months by verifying:

1) Each system actuates manually and automatically, upon receipt of a simulated actuation signal,

2) Normal and Emergency Ventilation System Fans receive an "off" signal upon system operation, and

3) By a visual inspection of discharge nozzles to assure no blockage.

c. Each of the above required High Pressure CO_2 Systems shall be demonstrated OPERABLE:

i. At least once per 6 months by verifying the weight of each CO_2 storage cylinder to be at least 90% of full charge weight, and

ii. At least once per 18 months by:

1) Verifying each system actuates manually and automatically upon receipt of a simulated actuation signal,

2) Verifying that damper closure devices receive an actuation signal upon system operation, and

3) A visual inspection of the discharge nozzles to assure no blockage.

REFERENCES

1) Catawba FSAR, Section 9.5.1

2) Catawba SER, Section 9.5.1

3) Catawba SER, Supplement 3, Section 9.5.1

BASES:

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The Fire Suppression System consists of the water system, spray, and/or sprinklers, CO_2, and fire hose stations. The collective capability of the Fire Suppression Systems

is adequate to minimize potential damage to safety-related equipment and is a major element in the facility Fire Protection Program.

The proper positioning of RF/RY valves is critical to delivering fire suppression CO_2 at the fire source as quickly as possible. The option of increasing or decreasing the frequency of valve position verification allows the ability to optimize plant operational resources. Should an adverse trend develop with CO_2 Systems valve positions, the frequency of verification shall be increased. Similarly if the CO_2 Systems valve position trends are positive, the frequency of verification could be decreased. Through programmed trending of CO_2 Systems as found valve positions, the CO_2 fire protection systems will be maintained at predetermined reliability standards. The RF/RY System Engineer is responsible for trending and determining verification frequencies based on the following:

Initially the frequency will be monthly.

Annually review the results of the completed valve position verification procedures.

- If the results demonstrates that the valves are found in the correct position at least 99% of the time, the frequency of conducting the valve position verification may be decreased from - monthly to quarterly or - quarterly to semiannually or - semiannually to annually - as applicable. The frequency shall not be extended beyond annually (plus grace period).

- If the results demonstrates that the valves are not found in the correct position at least 99% of the time, the frequency of conducting the valve position verification shall be increased from - annually to semiannually or - semiannually to quarterly or - quarterly to monthly - as applicable. The valve position verification need not be conducted more often than monthly.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

This Selected Licensee Commitment is part of the Catawba Fire Protection Program and therefore subject to the provisions of the Catawba Facility Operating License Conditions #6 for NPF-52 and #8 for NPF-35.

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.4 FIRE HOSE STATIONS

COMMITMENT:

The fire hose stations given in Table 16.9-2 shall be OPERABLE:

APPLICABILITY:

Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

REMEDIAL ACTION:

With one or more of the fire hose stations given in Table 16.9-2 inoperable, provide gated wye(s) on the nearest OPERABLE hose stations(s). One outlet of the wye shall be connected to the standard length of hose provided for the hose stations. The second outlet of the wye shall be connected to a length of hose sufficient to provide coverage to the unprotected area resulting from the inoperable hose station. To prevent a hazard to station personnel, plant equipment, or the hose itself, the fire hose shall be stored in a roll at the outlet of the OPERABLE hose station. Signs shall be mounted above the gated wye(s) to identify the proper hose to use. The above REMEDIAL ACTION requirement shall be accomplished within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise route the additional hose within 24 hours.

TESTING REQUIREMENTS:

a. Each of the fire hose stations given in Table 16.9-2 shall be demonstrated OPERABLE:

   i. By a visual inspection of the fire hose stations, accessible during plant operations, to assure all required equipment is at the station and the fire hose shows no physical damage. The frequency of the inspection shall be determined by the performance based criteria stated in the Bases Section.

   ii. At least once per 18 months, by:

      1) Visual inspection of the stations not accessible during plant operations to assure all required equipment is at the station, and the fire hose shows no physical damage.

2) Inspecting all gaskets and replacing any degraded gaskets in the couplings.

iii. At least once per 3 years, by:

1) Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage, and

2) Conducting a hose hydrostatic test at a pressure of 200 psig or at least 50 psig above maximum fire main operating pressure, whichever is greater, and

3) Removing the hose from fire hose stations for inspection and reracking.

REFERENCES:

1) Catawba FSAR, Section 9.5.1
2) Catawba SER, Section 9.5.1
3) Catawba SER, Supplement 3, Section 9.5.1
4) Catawba Fire Protection Review, as revised
5) Catawba Fire Protection Commitment Index

BASES:

The OPERABILITY of the Fire Suppression Systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety-related equipment is located. The Fire Suppression System consists of the water system, spray, and/or sprinklers, CO_2, and fire hose stations. The collective capability of the Fire Suppression Systems is adequate to minimize potential damage to safety-related equipment and is a major element in the facility Fire Protection Program.

The location of the required equipment at the fire hose station and the physical condition of fire hose is critical to fire brigade operations. The option of increasing or decreasing the frequency of the fire hose inspections allows the ability to optimize plant operational resources. Should an adverse trend develop with fire hose station equipment or fire hose condition, the frequency of the inspection shall be increased. Similarly if the fire hose station equipment or fire hose condition trends are positive, the frequency of verification could be decreased. Through programmed trending of fire hose station inspections, fire

hose stations will be maintained at predetermined reliability standards. The RF/RY System Engineer is responsible for trending and determining inspection frequencies based on the following:

Initially the frequency will be monthly.

Annually review the results of the completed fire hose station inspection procedure.

- If the results demonstrate that the fire hose stations are found acceptable at least 99% of the time, the frequency of conducting the fire hose station inspection may be decreased from - monthly to quarterly or - quarterly to semiannually or - semiannually to annually - as applicable. The frequency shall not be extended beyond (plus grace period).

- If the results demonstrates that the fire hose stations are not found acceptable at least 99% of the time, the frequency of conducting the fire hose station inspections shall be increased from - annually to semiannually or - semiannually to quarterly or - quarterly to monthly - as applicable. The verification need not be conducted more often that monthly.

In the event that portions of the Fire Suppression Systems are inoperable, alternate backup fire-fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire-fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting that if the inoperable equipment is the primary means of fire suppression.

This Selected Licensee Commitment is part of the Catawba Fire Protection Program and therefore subject to the provisions of the Catawba Facility Operating License Conditions #6 for NPF-52 and #8 for NPF-35.

TABLE 16.9-2
FIRE HOSE STATIONS

	LOCATION	ELEVATION	HOSE RACK #
1.	AUXILIARY BUILDING		
	59, FF	522+0	1RF235
	55, FF	522+0	1RF248
	63-64, KK	543+0	1RF210
	63, MM	543+0	1RF211
	60, MM	543+0	1RF212
	58, PP	543+0	1RF218
	59, GG-HH	543+0	1RF236
	60-61, FF-GG	543+0	IRF237
	63, CC	543+0	1RF238
	57, JJ	543+0	1RF242
	54-55, GG	543+0	1RF249
	57, FF	543+0	1RF250
	52-53, GG	543+0	1RF255
	51, CC	543+0	1RF256
	50-51, JJ-KK	543+0	1RF262
	53, MM	543+0	1RF268
	50-51, NN	543+0	1RF271
	62, MM-NN	560+0	1RF203
	63, JJ-KK	560+0	1RF213
	58, PP	560+0	1RF219
	56, NN	560+0	1RF220
	59, HH	560+0	1RF239
	57, KK	560+0	1RF243
	54-55, FF-GG	560+0	1RF251
	51, KK	560+0	1RF263
	52, MM-NN	560+0	1RF269
	58, BB	554+0	1RF484
	65, BB-CC	560+0	1RF485
	62, AA-BB	560+0	1RF486
	56, BB	554+0	1RF487
	52, AA-BB	560+0	1RF488
	49, BB-CC	560+0	1RF489
	68-69, BB	560+0	1RF996
	45-46, BB	560+0	1RF997
	63, NN	577+0	1RF204
	61, LL	577+0	1RF214
	63, KK-LL	577+0	1RF215
	58, PP	577+0	1RF221
	59, JJ	577+0	1RF230
	58, GG	577+0	1RF240
	56, KK	577+0	1RF244
	54, GG	577+0	1RF252
	52-53, KK	577+0	1RF258
	51, KK	577+0	1RF264
	51-52, NN	577+0	1RF272
	56, PP	577+0	1RF278

TABLE 16.9-2
FIRE HOSE STATIONS

LOCATION	ELEVATION	HOSE RACK #
68-69, BB	577+0	1RF478
65, BB-CC	577+0	1RF479
59, DD	574+0	1RF480
60, AA	574+0	1RF481
49, BB-CC	577+0	1RF490
45, BB	577+0	1RF491
55 DD	574+0	1RF492
54, AA	574+0	1RF493
63, AA	577+0	1RF993
51, AA	577+0	1RF998
62, NN	594+0	1RF205
57, MM	594+0	1RF222
63, JJ	594+0	1RF231
57, HH	594+0	1RF245
57, EE	594+0	1RF253
51, JJ	594+0	1RF259
53, NN	594+0	1RF275
64, BB	594+0	1RF984
50, BB	594+0	1RF985
51, KK	605+10	1RF265
63, JJ	605+10	1RF233
63-64, MM	631+6	1RF483
50-51, MM	631+6	1RF495
2. Fuel Pools		
65, TT-UU	605+10	1RF208
48, TT-UU	605+10	1RF276
63-64, MM	605+10	1RF482
50-51, MM	605+10	1RF822
3. Nuclear Service Water Pump Structure		
East Section	600+0	1RF939
West Section	600+0	1RF940

16.9 AUXILIARY SYSTEMS - FIRE PROTECTION SYSTEMS

16.9.5 FIRE BARRIER PENETRATIONS

COMMITMENTS:

All fire barriers (walls, floor/ceilings, cable tray enclosures and other fire barriers) and all sealing devices in fire barrier penetrations (fire doors, fire dampers, cable, pipe and ventilation duct penetration seals) separating:

- Safety from non-safety related areas or,
- Redundant analyzed Post Fire Safe Shutdown Equipment or,
- Control Complex (Control Room, Cable Rooms and Battery Rooms) from the remainder of the plant or,
- Containment from non-containment areas,

SHALL BE OPERABLE.

Note: (1) Fire Barriers are identified on drawing series CN-1105-...
(2) A list of committed fire doors is located in the Bases Section.

APPLICABILITY:

At all times.

REMEDIAL ACTION:

With one or more of the above required fire barrier penetrations and/or sealing devises inoperable, within 1 hour either establish a continuous fire watch on at least one side of the affected penetration, or verify the OPERABILITY of fire detectors on at least one side of the inoperable penetration and establish an hourly fire watch patrol.

If a continuous fire watch is required for the fire door(s) at the upper or lower containment entrances (AX352D, AX353D, AX701 or AX 715A), this fire watch may be established using a closed circuit camera and monitor. The camera shall be adjusted so that the fire door can be fully viewed on the monitor. The monitor shall be placed in a constantly attended location. If the ability to view the open fire door with the camera and monitor is lost, the continuous fire watch shall be moved from the location of the monitor and reestablished at the opened fire door.

TESTING REQUIREMENTS:

a. At least once per 18 months the above required fire barrier penetrations and sealing devices shall be verified OPERABLE by performing a visual inspection of:

i. The exposed surfaces of each Fire Barrier;

ii. At least 10% of all fire dampers. Any abnormal changes or abnormal degradation noted during the inspection shall be identified, investigated, and resolved through the Problem Investigation Process. Based on the results of the investigation process, additional dampers may be selected for inspection. Samples shall be selected such that each fire damper will be inspected every 15 years; and

iii. The committed fire barrier penetrations as identified in the predefined fire barrier penetration inspection schedule provided in the work control program. Any abnormal changes or abnormal degradation noted during the inspection shall be investigated through the Problem Investigation Process. Based on the results of the investigation process, additional fire barrier penetrations may be selected for inspection. Samples shall be selected such that each fire barrier penetration will be inspected every 15 years.

b. Each of the above required fire doors shall be verified OPERABLE by inspecting the closing mechanism and latches at least once per 6 months, and by verifying:

i. The position of each interior closed fire door at least once per 24 hours,

ii. The OPERABILITY of the fire door supervision system for each electricitly supervised fire door by performing a TRIP ACTUATING DEVICE OPERATIONAL TEST at least once per 31 days, and

iii. That each locked closed fire door is closed at least once per 7 days.

REFERENCES:

1) Catawba FSAR, Section 9.5.1
2) Catawba SER, Section 9.5.1
3) Catawba SER, Supplement 3, Section 9.5.1
4) Catawba Fire Protection Review, as revised
5) Catawba Fire Protection Commitment Index

BASES:

The functional integrity of the fire barrier and associated penetration seals ensures that fires will be confined or adequately retarded so that the following criteria is achieved:

- Fire will not spread from non-safety related areas to safety related areas,
- Fire will not damage redundant analyzed post Fire Safe Shutdown equipment,
- Fire will not spread from the balance of plant to the control complex,
- Fire will not spread from non-containment areas to containment areas.

The fire barriers and associated penetration seals are passive elements in the facility fire protection program and are subject to periodic inspections.

Fire barriers penetration seals, including cable/pipe penetration seals, fire doors, and fire dampers, are considered functional when the visually observed condition indicates no abnormal change in appearance or abnormal degradation. An evaluation is performed to determine the cause of any identified fire barrier penetration seal abnormal change in appearance or abnormal degradation and the affect of this change on the ability of the fire barrier penetration seal to perform its function. Based on this evaluation additional inspections may be performed.

During periods of time when a barrier is not functional, either:

(1) a continuous fire watch is required to be maintained in the vicinity of the affected barrier, or

(2) the fire detectors on at least one side of the affected barrier must be verified OPERABLE and an hourly fire watch patrol established, until the barrier is restored to functional status.

This Selected Licensee Commitment is part of the Catawba Fire Protection Program and therefore subject to the provision of the Catawba Facility Operating License Conditions #8 for NPF-35 and #6 for NPF-52.

COMMITTED FIRE DOORS
16.9-5

Elevation 543+0

AX217D	52-53, BB
AX217F	51, AA-BB
AX217G	52-53, BB
AX228A	56-57, EE
AX228B	57-58, EE
AX248	57-58, QQ
AX260B	61-62, BB-CC
AX260F	62, AA-BB
AX260C	61-62, BB-CC
AX260H	61-62, BB-CC
T527#1	52-43, BB-CC

Elevation 554+0

AX354A	55, DD-EE
AX354B	59, DD-EE
AX418	57, BB
AX419	57, DD-EE
AX420A	59, DD-EE
AX421A	55, DD-EE
S102A	53-54, AA

Elevation 560+0

AX352B	53, CC-DD
AX352C	53, CC-DD
AX352D	46-47, BB-CC
AX353	45-46, BB
AX353B	45, AA-BB
AX353C	45, AA-BB
AX393B	61, CC-DD
AX393C	61, CC-DD
AX393D	67-68, BB-CC
AX394	69, BB
AX394B	69, AA-BB
AX394C	69, AA-BB
AX395	61, AA-BB
AX396	53, AA-BB
AX415	45-46, CC-DD
AX416	68-69, CC-DD
AX417	57, QQ

COMMITTED FIRE DOORS
16.9-5

Elevation 574+0

AX515	54, BB
AX516	56-57, DD
AX516A	57-58, DD
AX516K	57, AA-BB
AX517A	53-54, DD-EE
AX517B	60-61, DD-EE
AX517C	57, DD-EE
AX517D	57, DD-EE
AX517E	56-57, DD-EE
AX518	60, BB
S303A	54, AA
S304A	60, AA

Elevation 577+0

AX513B	53, CC-DD
AX514	45-46, BB
AX514B	45-46, AA-BB
AX517	57, EE
AX525	55-56, QQ
AX525B	56, QQ
AX526D	58, QQ
A314#3	61, CC-DD
AX533C	61, CC-DD
AX534	69, BB
AX534B	68-69, AA-BB
AX535	61, AA-BB
AX536	53, AA-BB
AX656	53, CC-DD

COMMITTED FIRE DOORS
16.9-5

Elevation 594+0

AX602	52, UU-VV
AX627	62, UU-VV
AX630	58, QQ
AX632	57, QQ
AX635	60-61, QQ
AX635E	53-54, QQ
AX635F	53-54, QQ
AX655	62-63, DD
AX656C	61, CC-DD
AX657	60-61, CC
AX657B	52-53, CC-DD
AX657F	60, DD-EE
AX657G	57-58, DD-EE
AX657H	54, DD-EE
AX657J	53, BB-CC
AX658B	51-52, DD
S400	55-56, AA
S406	58-59, AA

Elevation 605+0

AX700B	50-51, JJ-KK
AX701	50-51, JJ-KK
AX714B	63-64, JJ-KK
AX720	50-51, HH-JJ
AX721	63-64, HH-JJ
AX715A	63-64, JJ-KK

Nuclear Service Water Pump Structure

AX662A