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June 29, 1984

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: Catawba Nuclear Station, Unit 1
Docket No. 50-413
Draft Technical Specifications

Dear Mr. Denton:

Please find attached proposed changes to the Draft Technical Specifications for Catawba Unit 1. These changes clarify certain statements and make corrections to errors presently contained in the Specifications.

Very truly yours,

Hal B. Tucker

Hal B. Tucker

RWO/rhs

Attachment

cc: Mr. James P. O'Reilly
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U. S. Nuclear Regulatory Commission
Region II
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1300
1/1

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

| FUNCTIONAL UNIT | TOTAL ALLOWANCE (TA) | Z | SENSOR ERROR (S) | TRIP SETPOINT | ALLOWABLE VALUE |
|---|---|---|---|---|---|
| 10. Loss of Power | | | | | |
| a. 4 kV Bus Undervoltage-Loss of Voltage | N.A. | N.A. | N.A. | ≥ 3500 V | ≥ 3200 V |
| b. 4 kV Bus Undervoltage-Grid Degraded Voltage | N.A. | N.A. | N.A. | ≥ 3685 ~~3744~~ V | ≥ 3611 ~~3669~~ V |
| 11. Control Room Area Ventilation Operation | | | | | |
| a. Automatic Actuation Logic and Actuation Relays | N.A. | N.A. | N.A. | N.A. | N.A. |
| b. Loss-of-Offsite Power | N.A. | N.A. | N.A. | ≥ 3500 V | ≥ 3200 V |
| c. Safety Injection | See Item 1. above for all Safety Injection Setpoints and Allowable Values. | | | | |
| 12. Containment Air Return and Hydrogen Skimmer Operation | | | | | |
| a. Manual Initiation | N.A. | N.A. | N.A. | N.A. | N.A. |
| b. Automatic Actuation Logic and Actuation Relays | N.A. | N.A. | N.A. | N.A. | N.A. |
| c. Containment Pressure-High-High | 12.7 | 0.71 | 1.5 | ≤ 3 psig | < 3.2 psig |

TABLE 3.3-12

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

| INSTRUMENT | MINIMUM CHANNELS OPERABLE | ACTION |
|---|---|---|
| 1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release | | |
| a. Waste Liquid Discharge Monitor (Low Range - EMF-49) | 1 | 40 |
| b. Turbine Building Sump Monitor (Low Range - EMF-31) | 1 | 42 |
| c. Steam Generator Water Sample Monitor (EMF-34) | 1 | 43 |
| 2. Continuous Composite Samplers and Sampler Flow Monitor Conventional Waste Water Treatment Line | 1 | 42 |
| 3. Flow Rate Measurement Devices | | |
| a. Waste Liquid Effluent Line | 1 | 41 |
| b. Conventional Waste Water Treatment Line | 1 | 41 |
| c. Low Pressure Service Water Minimum Flow Interlock | 1 | 41 |

TABLE 4.3-8

RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| INSTRUMENT | CHANNEL CHECK | SOURCE CHECK | CHANNEL CALIBRATION | ANALOG CHANNEL OPERATIONAL TEST |
|---|---|---|---|---|
| 1. Radioactivity Monitors Providing Alarm and Automatic Termination of Release | | | | |
| a. Waste Liquid Discharge Monitor (Low Range - EMF-49) | D | P | R(2) | Q(1) |
| b. Turbine Building Sump Monitor (Low Range - EMF-31) | D | M | R(2) | Q(1) |
| c. Steam Generator Water Sample Monitor (EMF-34) | D | M | R(2) | Q(1) |
| 2. Continuous Composite Samplers and Sampler Flow Monitor (Low Range) | | | | |
| Conventional Waste Water Treatment Line | D | N.A. | R | Q |
| 3. Flow Rate Measurement Devices | | | | |
| a. Waste Liquid Effluent Line | D(3) | N.A. | R | Q |
| b. Conventional Waste Water Treatment Line | D(3) | N.A. | R | Q |
| c. Low Pressure Service Water Minimum Flow Interlock | D(3) | N.A. | R | Q |

## 3/4.5 EMERGENCY CORE COOLING SYSTEMS

### 3/4.5.1 ACCUMULATORS

### COLD LEG INJECTION

### LIMITING CONDITION FOR OPERATION

3.5.1.1 Each cold leg injection accumulator shall be OPERABLE with:

a. The discharge isolation valve open,

b. A contained borated water volume of between 7854 and 8172 gallons,

c. A boron concentration of between 1900 and 2100 ppm,

d. A nitrogen cover-pressure of between ~~406~~ 383 and ~~460~~ 481 psig, and

e. A water level and pressure channel OPERABLE.

APPLICABILITY: MODES 1, 2, and 3*.

ACTION:

a. With one cold leg injection accumulator inoperable, except as a result of a closed isolation valve, 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.

### SURVEILLANCE REQUIREMENTS

4.5.1.1.1 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.

*Pressurizer pressure above 1000 psig.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

3.6.1.2 Containment leakage rates shall be limited to:

a. An overall integrated leakage rate of:

1) Less than or equal to $L_a$, 0.20% by weight of the containment air per 24 hours at $P_a$, 14.7 psig, or

2) Less than or equal to $L_t$, 0.~~11~~122% by weight of the containment air per 24 hours at a reduced pressure of $P_t$, 7.3 psig.

b. A combined leakage rate of less than 0.60 $L_a$ for all penetrations and valves subject to Type B and C tests, when pressurized to $P_a$, and

c. A combined bypass leakage rate of less than 0.07 $L_a$ for all penetrations identified in Table 3.6-1 as secondary containment bypass leakage paths when pressurized to $P_a$.

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

ACTION:

With: (a) the measured overall integrated containment leakage rate exceeding 0.75 $L_a$ or 0.75 $L_t$, as applicable, or (b) the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding 0.60 $L_a$, or (c) the combined bypass leakage rate exceeding 0.07 $L_a$, restore the overall integrated leakage rate to less than 0.75 $L_a$ or less than 0.75 $L_t$, as applicable, and the combined leakage rate for all penetrations and valves subject to Type B and C tests to less than 0.60 $L_a$, and the combined bypass leakage rate to less than 0.07 $L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR Part 50 using the methods and provisions of ANSI N45.4-1972 or the mass-plot method:

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SURVEILLANCE REQUIREMENTS (Continued)

a. Three Type A tests (Overall Integrated Containment Leakage Rate) shall be conducted at 40 ± 10 month intervals during shutdown at either $P_a$, 14.7 psig, or at $P_t$, 7.3 psig, during each 10-year service period. The third test of each set shall be conducted during the shutdown for the 10-year plant inservice inspection;

b. If any periodic Type A test fails to meet either 0.75 $L_a$ or 0.75 $L_t$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet either 0.75 $L_a$ or 0.75 $L_t$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet either 0.75 $L_a$ or 0.75 $L_t$ at which time the above test schedule may be resumed;

c. The accuracy of each Type A test shall be verified by a supplemental test which:

1) Confirms the accuracy of the test by verifying that the ~~supplemental test result, $L_c$, minus the sum of the Type A and the superimposed leak, $L_o$, is equal to or less than 0.25 $L_a$ or 0.25 $L_t$~~;

2) Has a duration sufficient to establish accurately the change in leakage rate between the Type A test and the supplemental test; and

3) Requires that the rate at which gas is injected into the containment or bled from the containment during the supplemental test is between 0.75 $L_a$ and 1.25 $L_a$ or 0.75 $L_t$ and 1.25 $L_t$.

d. Type B and C tests shall be conducted with gas at a pressure not less than $P_a$, 14.7 psig, at intervals no greater than 24 months except for tests involving:

1) Air locks,

2) Purge supply and exhaust isolation valves with resilient material seals, and

3) Dual-ply bellows assemblies on containment penetrations between the containment building and the annulus.

e. The combined bypass leakage rate shall be determined to be less than 0.07 $L_a$ by applicable Type B and C tests at least once per 24 months except for penetrations which are not individually testable; penetrations not individually testable shall be determined to have no detectable leakage when tested with soap bubbles while the containment is pressurized to $P_a$, 14.7 psig, or $P_t$, 7.3 psig, during each Type A test;

difference between the supplemental test and total observed leak rate is within 0.25 $L_a$ or 0.25 $L_t$

3) Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position is in its correct position; and

4) Verifying that each automatic valve in the flow path is in the fully open position whenever the Auxiliary Feedwater System is placed in automatic control or when above 10% RATED THERMAL POWER.

5) Verifying that the isolation valves in the auxiliary feedwater pump suction lines are open and that power is removed from the valve operators on Valves CA-2, CA-7A, CA-9B, and CA-11A and that the respective circuit breakers are padlocked.

b. At least once per 18 months during shutdown by:

1) Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of an Auxiliary Feedwater Actuation test signal, and

2) Verifying that each motor-driven auxiliary feedwater pump starts as designed automatically upon receipt of an Auxiliary Feedwater Actuation test signal.

4) Verifying that the valve in the suction line of each auxiliary feedwater pump from the Nuclear Service Water System automatically actuates to its full open position within less than or equal to 15 seconds* on a Loss-of-Suction test signal.

4.7.1.2.2 An auxiliary feedwater flow path to each steam generator shall be demonstrated OPERABLE following each COLD SHUTDOWN of greater than 30 days prior to entering MODE 2 by verifying normal flow to each steam generator.

*Includes 5 second time delay.

3) Verifying that the turbine-driven auxiliary feedwater pump steam supply valves open upon receipt of an Auxiliary Feedwater Actuation test signal.

## 6.1 RESPONSIBILITY

6.1.1 The Station Manager shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Shift Supervisor (or during his absence from the control room, a designated individual) shall be responsible for the control room command function. A management directive to this effect, signed by the ~~Manager~~ Vice President Nuclear Production Department of Nuclear Production shall be reissued to all station personnel on an annual basis.

## 6.2 ORGANIZATION

### OFFSITE

6.2.1 The offsite organization for unit management and technical support shall be as shown in Figure 6.2-1.

### UNIT STAFF

6.2.2 The unit organization shall be as shown in Figure 6.2-2 and:

a. Each on-duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1;

b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in MODE 1, 2, 3, or 4, at least one licensed Senior Operator shall be in the control room;

c. A Health Physics Technician* shall be on site when fuel is in the 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;

e. A site Fire Brigade of at least five members* shall be maintained on site at all times. The Fire Brigade shall not include the three members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency; and

*The Health Physics Technician and Fire Brigade composition 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.