Docket File
50-413/414

SEP 22 1982

MEMORANDUM FOR: E. Adensam, Chief, Licensing Branch No. 4
Division of Licensing

FROM: F. Rosa, Chief, Instrumentation & Control Systems Branch
Division of Systems Integration

SUBJECT: SUMMARY AND STATUS OF INSTRUMENTATION AND CONTROL CONCERNS AND OPEN ITEMS FOR CATAWBA

Plant Name: Catawba 1 & 2
Docket No.: 50-413/414
Licensing Status: OL
Responsible Branch: LB #4
Project Manager: K. Jabbour
Review Branch: ICSB
Review Status: Incomplete

A site visit and meetings to discuss ICSB concerns were held from September 7, 1982 through September 9, 1982 with the applicant. In order to document the outcomes of the site visit and discussions, the enclosed summary is provided and should be sent to the applicant for his use in future discussions.

*Original Signed By:

Faust Rosa, Chief
Instrumentation & Control Systems Branch
Division of Systems Integration

Enclosure:
As stated

cc: R. Mattson
T. Speis
K. Jabbour
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Certified By Cheri Thompson

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NRC FORM 318 (10-80) NRCM 0240

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SUMMARY AND STATUS OF INSTRUMENTATION

& CONTROL CONCERNS AND OPEN ITEMS

FOR CATAWBA

SER OPEN ITEMS:

1. Steam Generator Level Control and Protection - Applicant is still looking at possible hardware changes. This item remains open.

2. Auxiliary Feedwater System - Applicant has been requested to provide written responses to our positions. This item is open.

3. TMI-2 Action Plan Item II.E.1.2, Auxiliary Feedwater System Automatic Initiation and Flow Indication -

   (a) Automatic Initiation - Part of 2 above.

   (b) Flow Indication - Applicant's response (See 420.7) is acceptable. This part is closed.

4. Test of Engineered Safeguards P-4 Interlock - Applicant's response (See 420.5) is acceptable. This item is closed and installation will be confirmatory.

5. Non-Detectable Failure in Power Lockout Circuitry - Applicant's design change is acceptable, but they should commit to test circuitry in the closure direction at least once per refueling outage. This item remains open.

6. Main Feedwater Isolation on High Doghouse Level - Applicant's response was acceptable. Technical Specifications should be developed to test this circuitry during refueling outages.

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Certified By Chris Thompson

7. Switchover from Injection to Recirculation Mode - Applicant's response was acceptable. This item is closed.

8. Steam Generator PORV Isolation - Part of 2 above.

9. Containment Pressure Control System - Applicant's response was acceptable, but the staff is concerned about lack of indication for each containment pressure transmitter. Additionally, technical specifications should be developed by expanding "Functional Unit 2, Containment Spray" in Tables 3.3-4 and 4.3-2 of the Standard Westinghouse Technical Specifications to include all the Containment Pressure Control System (spray, air return, hydrogen skimmer, etc.) and the low pressure interlocks. The test frequencies for the low pressure interlocks should be:Channel Check - Daily, Channel Calibration - once per 18 months, Analog Channel Operational Test - monthly. This item is open.

10. Remote Shutdown Instrumentation and Controls - This item is open.

11. Instrumentation Used to Initiate Safety Functions - Applicant has been requested to provide written responses to our positions. This item is open.

12. Upper Head Injection Automatic Termination - Staff is still concerned about testing. Technical Specifications should be developed by adding Upper Head Injection Accumulator to Tables 3.3-4, 3.3-5 and 4.3-2 of the Standard Westinghouse Technical Specifications. The test frequency for manual actuation (see 13 below) should be "R" under "Trip Actuating Device Operational Test". The test frequencies for low level termination should be: Channel Calibration - once per 18 months, Trip Actuating Device Operational Test - Each train tested every 62 days on a staggered test basis.

13. Upper Head Injection Manual Control - This item is open.

14. Upper Head Injection Level Indication - This item is open.

15. TMI-2 Action Plan Item II.K.3.1, Installation and Testing of Automatic Power-Operated Relief Valve Isolation System - This item is open.

16. High Energy Line Breaks and Consequential Control System Failures - The applicant has been requested to look at the environmental impacts of high energy line breaks and will respond around November 15, 1982. This item is open.

CONCERNS/TECHNICAL SPECIFICATIONS:

1. Lockout of Manual Control by Load Sequencer - Applicant's response was acceptable. However, the staff is concerned that some protective actions may not be initiated due to manual resetting of SI and the sequencer (after 30-120 sec. time delay). This concern is open for further discussions.

2. Key-Locked Switches Used to Override Isolation of HVAC Systems - Applicant will provide design change to insure these key-locked switches do not block safety action. This concern is open until design change write-up is provided. Installation will be confirmatory.

3. Loss of Both Trains of RHR Due to Single Instrument Bus Failure - This concern is open for further discussion.

4. Water Level Measurement Errors (SER Section 7.2.2.3) - Applicant is considering Westinghouse microprocessor based system in lieu of insulation on the reference legs. The staff will review the applicant's method during our review of setpoint methodology and technical specifications.

5. Response Time Testing (SER Section 7.2.2.5) - Applicant intends to deviate from the Standard Westinghouse Technical Specifications. The staff has suggested that the applicant provide a formal presentation prior to our review of the technical specifications.

6. Testing of Reactor Trip Breakers and Manual Trip Switches (SER Section 7.2.2.1) - The applicant opposes testing of the shunt trip coils. This item is open for further discussion.

7. Testability of Circuitry for Transfer of NSW Suction from Lake Wylie to SNSWP (SER Section 7.4.2.4) - The applicant's response was unacceptable. This item remains open for further discussion.

8. NSW Pump Damage Due to a Single Failure - A single failure may prevent an inlet valve from the SNSWP from opening while the normal inlet valves from Lake Wylie close on the SI/Low Level transfer. The staff is concerned that an NSW pump could be damaged due to lack of suction. This item is open for further discussions.