12-1-75

EXHIBIT B

LICENSE AMENDMENT REQUEST DATED DECEMBER 1, 1975

Exhibit B, attached, consists of newly prepared pages for the Appendix A Technical Specifications as listed below. These pages incorporate the proposed changes.

PAGES
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189D
189F

Table 3.2.1
Instrumentation That Initiates Primary Containment Isolation Functions

Function	Trip Settings	Total No. of Instrument Channels Per Trip System	Min. No. of Operable or Operating Instrument Channels Per Trip System (1,2)	Required Conditions*
1. Main Steam and Recirc Sample Lines (Group 1)				
a. Low Low Reactor Water Level	≥6'-[illegible]'10"	2	2	A
b. High Flow in Main Steam Line	≤140% rated	8	8	A
c. High temp. in Main Steam Line Tunnel	≤200°F	8	2 of 4 in each of 2 sets	A
d. Low Pressure in Main Steam Line (3)	≥825 psig	2	2	B
e. High Radiation In Main Steam Line Tunnel	≤10 X Normal background at rated power	2	2	A
2. RHR System, Head Cooling, Drywell, Sump, TIP (Group 2)				
a. Low Reactor Water Level	≥10'6" above the top of the active fuel	2	2	C

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REV

Bases Continued:

3.2 instrumentation is provided which causes a trip of Group 1 isolation valves. The primary function of the instrumentation is to detect a break in the main steamline, thus only Group 1 valves are closed. For the worst case accident, main steamline break outside the drywell, this trip setting of 140% of rated steam flow in conjunction with the flow limiters and main steamline valve closure, limit the mass inventory loss such that fuel is not uncovered, fuel clad temperatures remain less than 1000° F and release of radioactivity to the environs is well below 10 CFR 100 guidelines. Reference Sections 14.6.5 FSAR.

Temperature monitoring instrumentation is provided in the main steamline tunnel to detect leaks in this area. Trips are provided on this instrumentation and when exceeded cause closure of Group 1 isolation valves. Its setting of 200° F is low enough to detect leaks of the order of 5 to 10 gpm; thus, it is capable of covering the entire spectrum of breaks. For large breaks, it is a back-up to high steam flow instrumentation discussed above, and for small breaks with the resultant small release of radioactivity, gives isolation before the guidelines of 10 CFR 100 are exceeded.

High radiation monitors in the main steamline tunnel have been provided to detect gross fuel failure resulting from a control rod drop accident. This instrumentation causes closure of Group 1 valves, the only valves required to close for this accident. With the established setting of 10 times normal background, and main steamline isolation valve closure, fission product release is limited so that 10 CFR 100 guidelines are not exceeded for this accident. Reference Section 14.6.2 FSAR. The performance of the process radiation monitoring system relative to detecting fuel leakage shall be evaluated during the first five years of operation. The conclusions of this evaluation will be reported to the Atomic Energy Commission.

Pressure instrumentation is provided which trips when main steamline pressure drops below 825 psig. A trip of this instrumentation results in closure of Group 1 isolation valves. In the "refuel" and "Startup" mode this trip function is bypassed. This function is provided primarily to provide protection against a pressure regulator malfunction which would cause the control and/or bypass valves to open. With the trip set at 825 psig inventory loss is limited so that fuel is not uncovered and peak clad temperatures are much less than 1500°F; thus, there are no fission products available for release other than those in the reactor water. Reference License Amendment Request Dated December 1, 1975 from L. O. Mayer (NSP) to R S. Boyd (USNRC).

3.0 LIMITING CONDITIONS FOR OPERATION	4.0 SURVEILLANCE REQUIREMENTS
C. Minimum Critical Power Ratio (MCPR) During steady state power operation, the Operating MCPR Limit shall be ≥ 1.38 for 8x8 fuel and ≥ 1.29 for 7x7 fuel at rated power and flow. For core flows other than rated the Operating MCPR Limit shall be the above value multiplied by K_f, where K_f is given by Figure 3.11.2. If at any time it is determined that the limiting value of MCPR is being exceeded, action shall be taken immediately to restore operation to within prescribed limits.	C. Minimum Critical Power Ratio (MCPR) 1. MCPR shall be checked daily during reactor power operation at $\geq$ 25% rated thermal power. 2. Whenever the plant technical staff determines that more frequent surveillance of MCPR is necessary, it shall specify an augmented surveillance program commensurate with reactor conditions.

Bases 3.11 (continued)

C Minimum Critical Power Ratio (MCPR)

The ECCS evaluation presented in Reference 4 assumed the steady state MCPR prior to the postulated loss of coolant accident to be 1.18 for all fuel types. The Operating MCPR Limit of 1.38 for 8x8 fuel and 1.29 for 7x7 fuel is determined from the analysis of transients discussed in Bases Sections 2.1 and 2.3. By maintaining an operating MCPR above these limits, the Safety Limit of 1.06 (T.S.2.1.A) applicable to all fuel types is maintained in the event of the most limiting abnormal operational transient.

For operation with less than rated core flow the Operating MCPR Limit is adjusted by multiplying the above limit by K_f. Reference 5 discusses how the transient analysis done at rated conditions encompasses the reduced flow situation when the proper K_f factor is applied.

It is recognized that MCPR is a calculated parameter that is not continually monitored and alarmed directly during core power distribution and thermal-hydraulic changes. If at the time of the evaluation it is found that the limits are being exceeded, there is always an action which will return the MCPR to within prescribed limits, namely power reduction. Under most circumstances, this will not be the only alternative. Whenever the limit is exceeded the monitored value will be documented and available for review, audit and inspection of plant operations. The only way to violate the Limiting Condition for Operation is to knowingly allow operation beyond the prescribed limits without taking the necessary action to restore the MCPR to within prescribed limits.

References

1. "Fuel Densification Effects in General Electric Boiling Water Reactor Fuel," Supplements 6, 7, and 8, NEDM-10735, August, 1973.

2. Supplement 1 to Technical Report on Densification of General Electric Reactor Fuels, December 14, 1974 (USAEC Regulatory Staff)

3. Communication: V A Moore to I S Mitchell, "Modified GE Model for Fuel Densification," Docket 50-321, March 27, 1974.

4. "Monticello Nuclear Generating Plant Loss-Of-Coolant Accident Analysis Conformance with 10 CFR 50 Appendix K, August 1974," L O Mayer (NSP) to J F O'Leary, August 20, 1974.

5. "General Electric BWR Generic Reload Application for 8 x 8 Fuel," NEDO-20360, Revision 1, November, 1974.

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ENCLOSURES: Request for Amdt to OL/DPR-22 notarized 12-1-75 / Tech Specs with Exhibit A entitled "Proposed Changes to Tech Specs App. A of OL/DPR-22" & ExhibitB entitled "License Amdt Request dated Dec. 1, 1975"...

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ACKNOWLEDGED

PLANT NAME: Monticello Plant

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