

THE CINCINNATI GAS & ELECTRIC COMPANY



E. A. BORGMANN
VICE PRESIDENT - ENGINEERING

Docket No. 50-358

December 22, 1978

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

RE: WM. H. ZIMMER NUCLEAR POWER STATION - UNIT 1
RESPONSE TO STAFF QUESTIONS 212.74 AND 221.387,
AND ASME CODE CASE N-196

Dear Mr. Denton:

By letter of December 5, 1978, Mr. John Stolz transmitted a request for additional information. The requested information was in the form of questions/positions in the 110, 121, 212, and 221 categories. Revision 51 to the FSAR, scheduled to be filed on January 2, 1979, will contain the Applicant's response to all of these questions/positions.

The Staff has expressed an interest in being advised promptly of the responses to Q212.74 and Q221.387. In order to accommodate the Staff, Attachment 1 of this letter contains the responses to these two questions. They will be further documented in Revision 51 to the FSAR.

The NRC is advised that ASME Code Case N-196 is being applied to this docket. Revision 51 of the FSAR will also reflect this.

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By

E. A. Borgmann
E. A. BORGMANN
Vice President - Engineering
and Electric Production

EAB:dew
Enclosure

cc: Charles Bechhoefer
Glenn O. Bright
Frank F. Hooper
Troy B. Conner, Jr.
James P. Fenstermaker
Peter H. Forster
William J. Moran
J. Robert Newlin
William G. Porter, Jr.
James D. Flynn
Thomas A. Luebbers
Stephen Schumacher
John D. Woliver

State of Ohio)
County of Hamilton) ss

Sworn to and subscribed before me this
21st day of December, 1978.

Margaret L. Huber
Notary Public

MARGARET L. HUBER
Notary Public, State Of Ohio
My Commission Expires Aug. 13, 1983

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Q212.74

In analyzing anticipated operational transients, the applicant has taken credit for plant operating equipment which has not been shown to be reliable as required by General Design Criterion 29. The staff has discussed the application of this equipment generically with General Electric. Based on these discussions, it is the staff's understanding that the most limiting transient that takes credit for this equipment is the excess feedwater event. Further, it is the staff's understanding that the only plant operating equipment that plays a significant role in mitigating this event is the turbine bypass system and the Level 8 high water level trip (closes turbine stop valves).

In order to assure an acceptable level of performance, it is the staff's position that this equipment be identified in the plant Technical Specifications with regard to availability, set points, and surveillance testing. The applicant must submit his plan for implementing this requirement along with any system modifications that may be required to fulfill the requirements.

Response

In discussions between GE and the NRC on November 20 and 21, 1978, GE reported on the results of transient analysis when performed to design basis accident conditions assumptions, and equipment availabilities, that failure to give credit to the L8 Turbine Trip and the Main Turbine Bypass system could respectively result in Δ CPR's of 0.02 and 0.08. In no manner could these postulated accident events result in unacceptable impacts on the health and safety of the public as GDC criteria #29 requires.

L8 Tech Spec

The L8 instrumentation is already subject to technical specifications requirements associated with the HPCS. If the NRC should require such a trip tech spec, such a requirement can be accommodated by the present design.

Main Turbine Bypass System Tech Spec

The turbine bypass system and stop valves are furnished with the main turbine generator by Westinghouse and have exhibited high reliability on existing nuclear and fossil fueled operation units.

Normal CG&E operating procedures require that the valves be functionally exercised daily. This will ensure valve operability and provide adequate assurance that the valves will operate when required.

Q221.387

It is the staff's position that the Zimmer FSAR is not sufficiently complete so as to demonstrate that feedwater system level sensors N004A, N004B, and N004C are electrically isolated from each other. Therefore, the staff requires that you:

- (1) Revise the FSAR, Section 7.7 to clearly describe the design and qualification of the circuitry and equipment which is common to two or more of the level 8 sensor/alarm trip unit channels utilized in the feedwater control system. This revision should contain sufficient information and drawings to permit the staff to review the feedwater control system as specified in Section 7.7 of the Standard Review Plan.
- (2) Demonstrate by using the material which is provided in the response to (1) above, that the N004A, N004B and N004C signal paths are independent.
- (3) Justify not removing the plant process computer inputs A1723 and A1727 from the feedwater control system.

Response

In discussions between GE and the NRC Reactor Systems and C&I Branches on November 20 and 21, 1978, the failure of the reactor feedwater level sensing subsystem was shown to have resulted in no Δ CPR effects on the four leading limiting transients. The failure of the L8 instrumentation, including computer would result in a negligible Δ CPR effect (0.02). Therefore, it would seem inappropriate to further explore the failure aspects of this subsystem since even given their failure, they do not result in any effect on the previously described (FSAR) transient analysis.

An adequate description of the feedwater control system is contained in Section 7.7.1.3 and figure 7.7-8.

A failure of the computer inputs, as discussed above, would have a negligible effect on Δ CPR.