

ILLINOIS POWER COMPANY



U-0381

L30-81 (12-03)-6

500 SOUTH 27TH STREET, DECATUR, ILLINOIS 62525

December 3, 1981

Mr. James R. Miller, Chief
Standardization & Special Projects Branch
Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Dear Mr. Miller:

Clinton Power Station Unit 1
Docket No. 50-461

Attached are details related to the following items which were discussed with D. Terao, Mechanical Engineering Branch, during a meeting on December 1, 1981 to resolve issues for the Clinton SER:

ISSUES

Feedwater Check Valves
Number of Earthquake Cycles Used for Fatigue
Reactor Internals Vibration Data for Prototype
Preservice Exam and Preop Testing of Snubbers
Pressure Isolation Valves

The above items are considered by the NRC and IP to be confirmatory for licensing purposes.

Sincerely,

J.E. Miller for J.D. Geier

J.D. Geier
Manager, Nuclear Station Engineering

Attachments

cc: J.H. Williams, NRC Clinton Project Manager
H.H. Livermore, NRC Resident Inspector
D. Terao, Mechanical Engineering Branch

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Issue

Feedwater Check Valves

IPC must provide the basis for assuming that the feedwater check valves can function adequately following a feedwater line rupture outside containment.

Response

The additional loads imposed on the feedwater check valves due to rapid closure as a result of a feedwater line break outside of containment have been considered. An analysis is being performed to show that the stresses on the feedwater check valves disc and seat area resulting from this event will be within satisfactory limits.

This same analysis has been performed on larger valves of the same manufacturer and model type. The results of that analysis show that the resultant stresses were within acceptable limits. Since Clinton's valves are smaller and geometrically similar, the resulting stresses should be lower for the Clinton valves than those of the analyzed valves and should therefore be acceptable. IPC will provide confirmation of this when the Clinton specific analysis is completed. It is anticipated that this analysis will be completed by the end of February, 1982.

Action Required

IP to provide the analytical results by March 15, 1982.

November 24, 1981

Dave Terao (MEB) Additional Question

Question

Related to Open Item #82

1. Describe the Feedwater Check Valves.
2. Are the valves testable?
3. Will the valves be tested or inspected periodically?
4. We require the results of the analysis.

Response

1. The inboard valves (1B21-F010 A, B) are Anchor-Darling 18-inch, non-slam, tilting disc valves.

The outboard valves (1B21-F032 A, B) are Anchor-Darling 20-inch, non-slam tilting disc testable check valves. They have air operators that permit exercising the valve part way shut with flow through the valve to verify that the disc is not stuck in position, and provide additional force to insure that the valves seal tightly when shut.

2. The outboard valves are testable as described above.
3. 1B21 F032 will be exercised full stroke every 18 months (maximum) in accordance with 1WB-3412.

1B 21-F010 will be leak rate tested every 18 months in accordance with 1WB-3420.
4. The results of the analysis will be available in February, 1982.

Issue

Number of earthquake cycles to be used for fatigue analyses.

Response

This was discussed at S&L/IP/NRE(MEB) meetings in March and April, 1981. Additional substantiation is required.

Action Required

IP to supply additional substantiating information.

Issue

Reactor internals vibration data for prototype.

(FSAR 3.9.2.3 discusses stresses on reactor internals caused by steady state vibration. These stresses are limited to + 10,000 psi based on predictions from operating reactors. Additional assurance for BWR/6's is required by measurements at a prototype BWR/6.)

Response

The use of Kuosheng data as justification for BWR/6 design was accepted by MEB at S&L/IPC/NRC meetings in April, 1981. However, the Kuosheng data is not yet available.

Action Required

IP supply Kuosheng data to NRC.

Issue

Preservice Exam and Preop Testing of Snubbers
(Because of numerous operational problems with snubbers,
NRC requires an extensive pre-service examination of them.)

Response

During the S&L/IPC/NRC(MEB) meetings in March and April, 1981, IPC committed to address all of NRC's concerns in our Pre-service testing program. This program is scheduled to be completed and submitted March 1982.

Action Required

Submit program when complete. (March 1982)

Issue

Pressure Isolation Valves

(For isolation valves between low pressure and high pressure (reactor) systems, NRC has developed leak rate, testing, limiting conditions for operation, and monitoring requirements.)

Response

In the MEB meetings (S&L/IPC/NRC) in March and April, 1981, we committed to basically LaSalle's answer. Our answer, Q&R MEB(DSER) item 87, included lists of valves involved and specific protection measures. Based on telecon between P. E. Walberg (IPC) and Dave Tarao (NRC-MEB) on 11/19/81 NRC is still evaluating our response. They need no additional information from IPC.

Action Required

None