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Alabama Power
the southern electric system

July 7, 1980

Docket No. 50-364

Director of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. A. Schwencer

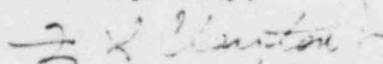
JOSEPH M. FARLEY NUCLEAR PLANT
REQUEST FOR ADDITIONAL INFORMATION

Gentlemen:

Enclosed is Alabama Power Company's response to NRC Containment System Branch question CSB.57 for Farley Unit 2.

If you have any further questions, please advise.

Yours very truly,


F. L. Clayton, Jr.

RWS:rt

Enclosure

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. L. Kintner
Mr. W. H. Bradford

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REQUEST FOR ADDITIONAL INFORMATION
JOSEPH M. FARLEY NUCLEAR PLANT
CONTAINMENT SYSTEMS BRANCH QUESTION CSB.57

Question:

Closed systems outside containment (e.g., the emergency core cooling system and the containment spray system) having a post-accident function, become extensions of the containment boundary following a LOCA. Certain of these systems may also be identified as one of the redundant containment isolation barriers. Since these systems may circulate contaminated water or the containment atmosphere, system components which may leak are relied on to provide containment integrity. Therefore, discuss your plans for specifying a leakage limit for each system that becomes an extension of the containment boundary following a LOCA, and leak testing the systems either hydrostatically or pneumatically. Also, discuss how the leakage will be included in the radiological assessment of the site.

Response:

In order to maintain leakage rates of systems outside containment to as low as practical, Alabama Power Company has initiated a leak reduction program at Plant Farley Unit 2. The plant systems were reviewed and the following systems were identified that could potentially contain highly radioactive fluids following a serious accident:

- (1) High head safety injection system (recirculation portion only)
- (2) Low head safety injection system (recirculation portion only)
- (3) Residual heat removal system
- (4) Reactor coolant system letdown and makeup system
- (5) Reactor coolant sampling system
- (6) Containment spray system (recirculation portion only)
- (7) Radioactive waste gas system

In an effort to provide leak reduction the following measures will be taken prior to full power operation:

- (1) All vent and drain lines will be capped to prevent release due to seat leakage.
- (2) The packing of all valves (except Kerotest packless valves) in the scoped liquid systems will be inspected for leakage and maintenance performed where required.
- (3) The seals and packing on all pumps in the scoped liquid systems will be inspected for leakage.
- (4) Valves, fittings, and compressor seals in the scoped gaseous systems will be "snooped" for leakage and maintenance performed as required.

To determine the amount of leakage from the affected systems, leak rate tests will be performed periodically at intervals not to exceed each refueling outage. These leakage rates will be determined by using integrated leak rate tests for all systems except the radioactive waste gas system which will be tested using a bubble ("snoop") test of individual valves, fittings, and seals.

Due to the measures taken to reduce and maintain leakage rates to as low as practical, the amount of release from these systems will be small. With the overconservativeness of the radiological assessment of the site, and the fact that these releases would be within the auxiliary building, the added release from these systems would be insignificant and are adequately covered in the present radiological assessment; therefore, there is no need to set additional leakage limits for these systems or account for the specific releases from these systems in the site dose rates.