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Alabama Power

the southern electric system

March 24, 1981

Docket Nos. 50-348
50-364

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

Attention: Mr. A. T. Schwencer
Mr. S. A. Varga

Gentlemen:



TEMPORARY CHANGE TO OPERATING LICENSE
NO. NPF-2 AND NPF-8 TECHNICAL SPECIFICATIONS

As reported by Prompt Report on March 24, 1981, it has been determined (based on recently completed flow testing for the Farley Unit 2 river water system) that under a postulated accident condition involving the extremely unlikely event of a service water pond dam break coupled with the single most limiting active failure (e.g., loss of one train of river water), the time stipulated in the FSAR for operator action is not available. This situation is applicable only when both units are operating. FSAR Section 9.2.1.3 states that there will be 30 minutes following a loss of pond dam and loss of one train of river water before the operator is required to take action to balance service water requirements with river water supply.

Based on the flow tests, the operator will have approximately 20 minutes available to take action to balance service water flow with river water flow when both units are operating and the postulated accident conditions occur.

In order to restore the time available for operator action, Alabama Power Company will make available an additional source of water to the service water pumps under these conditions. This will be accomplished by the addition of a safety grade 36" line running from the two existing 60" service water recirculation lines (service water return to pond) directly into the service water wet pit. (See Figure 1 for schematic of line addition.) Under the accident conditions described in FSAR Section 9.2.1.3, recirculation of service water directly to the service water structure wet pit via the two 60" return lines and the new 36" line would be automatically initiated. This modification will ensure a period of time substantially in excess of 30 minutes before operation action would be required to balance

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service water requirements with river water supply. The completion of this modification is currently scheduled for May 15, 1981.

Alabama Power Company proposes to operate both units in Modes 1 through 4 prior to completing this modification. Unit 1 is in the process of returning from refueling operations and is scheduled for full power operation during the week of March 30, 1981. Unit 2 is presently in initial startup sequence and is scheduled to enter Mode 4 on or about April 4, 1981 and Mode 1 on or about May 6, 1981. This course of action is based on the following:

1. It is extremely unlikely that a dam failure at Farley Nuclear Plant will occur because of the following:
 - a. The dam is conservatively designed and constructed to withstand the design basis seismic event selected for the site. The acceleration levels assumed for the design basis earthquake are conservative since Farley Nuclear Plant is located in one of the lowest seismic regions of the United States as stated in FSAR Section 2.5.
 - b. The dam is conservatively designed and constructed to withstand the probable maximum flood postulated to occur at the site coupled with the wave heights that could be reached for extremely high wind levels.
2. The accident scenario also requires loss of one train of river water. This in and of itself is unlikely within the short time period of the modification.
3. Operators will receive additional emphasis on the specific actions required to balance service water flow under the postulated accident conditions.
4. Upon entering Mode 1, Unit 2 will be performing power range testing at low to intermediate power levels and no appreciable decay heat would be generated prior to the scheduled completion of the modification.

Alabama Power Company has determined that no unreviewed safety question will exist as a result of implementation of this modification. Implementation of this modification will require voluntary entry into limiting conditions for operation (LCO's) for both units for the service water system while the return lines to the pond are being modified to install the line to the service water pump wet pit. This work is estimated to require the current technical specification time limit of 72 hours for service water train inoperability without further action to be exceeded while the return lines to the pond are being modified.

It is requested that a temporary change to the Farley Units 1 & 2 Technical Specifications Section 3.7.4 be granted to allow Alabama Power Company's Farley Unit 1 and Unit 2 to be in Modes 1 through 4 during the period of time associated with the modification requiring the voluntary LCO. This period of time will be no longer than 10 days for each train (e.g., only one train will be modified at a time). Attached is the requested technical specification change with bases. Alabama Power Company plans to initiate the modification requiring the temporary change on April 10, 1981 and requests approval prior to this date.

The Plant Operations Review Committee and the Nuclear Operations Review Board have reviewed the above proposed changes and have determined that the changes do not involve an unreviewed safety question as shown in the attached safety evaluation.

The class of each item in this proposed amendment is designated as Class III for Unit 1 and Class I for Unit 2 according to 10 CFR 170.22 requirements. Enclosed is a check for \$4,400 to cover the total amount of fees required.

In accordance with 10 CFR 50.30(c)(1)(i), three signed originals and thirty-seven additional copies of these proposed changes are enclosed.

If you have any questions, please advise.

Yours very truly,

F. L. Clayton, Jr.
for F. L. Clayton, Jr.

FLCjr/CLB:de

Attachments

cc: Mr. J. P. O'Reilly
Mr. R. A. Thomas
Mr. G. F. Trowbridge
Mr. E. A. Reeves
Mr. L. L. Kintner
Mr. W. H. Bradford

SWORN TO AND SUBSCRIBED BEFORE
ME THIS 25 DAY OF
MARCH, 19 81.

O. B. Palatky
Notary Public

My Commission Expires:

5-22-82

Figure 1 - Modification to Farley Nuclear Plant
Service Water Recirculation System

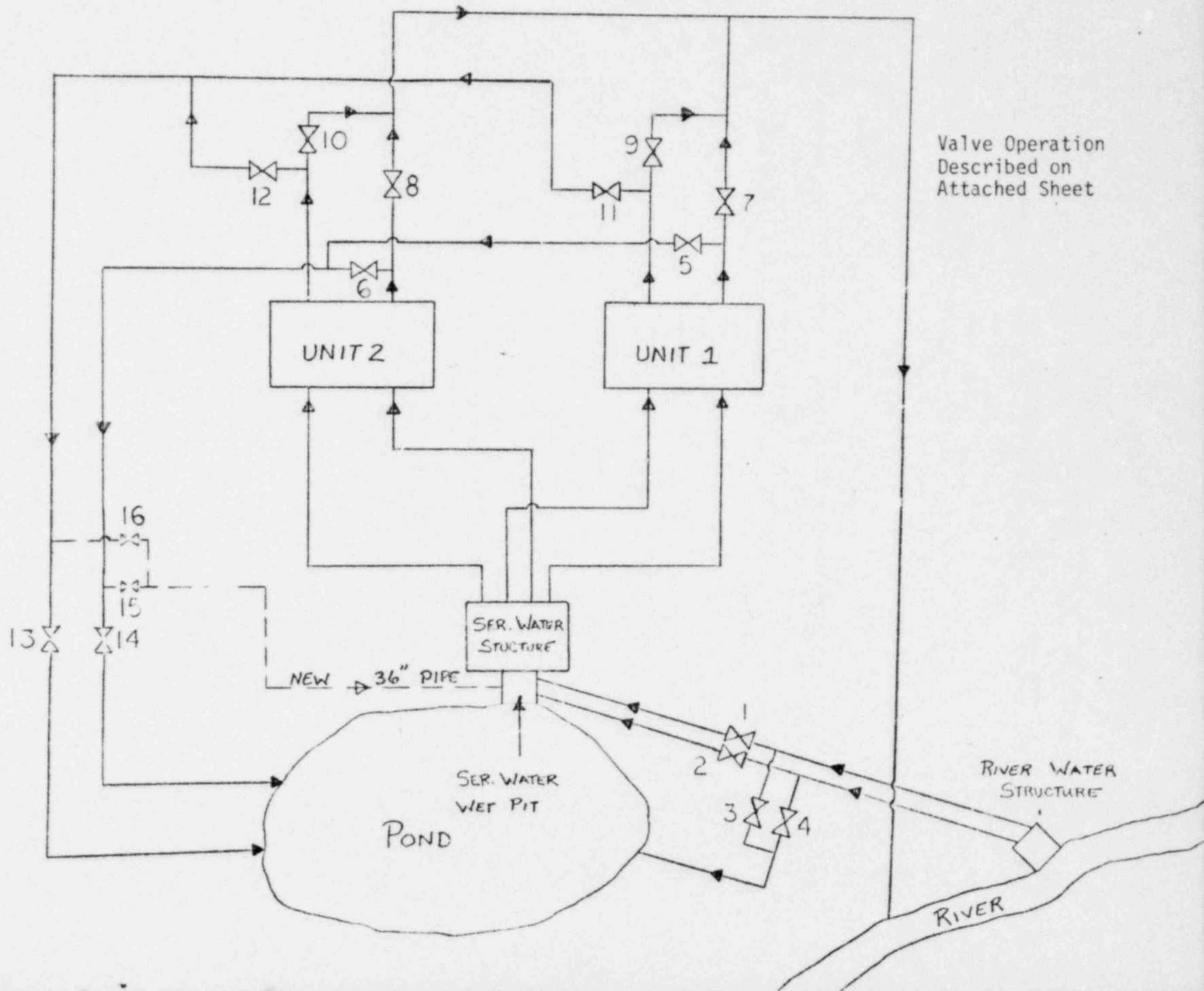


Figure 1-Attachment

During normal operation, river water valves 1 and 2 are closed and normal flow is to the pond through valves 3 and 4. Service water is supplied to the plant and discharged to the river through valves 7 and 9 for Unit 1 and valves 8 and 10 for Unit 2. The pond recirculation valves 5 and 11 for Unit 1 and valves 6 and 12 for Unit 2 are closed. The proposed valves 13 and 14 are opened and valves 15 and 16 are closed.

For the failure modes and effects analysis, the following scenario is assumed to occur instantaneously:

1. Loss of pond dam
2. Loss of off-site power
3. Loss of control air
4. Worst case single failure of loss of one train of river water due to failure of either valves 1 and 3 or 2 and 4 to divert river water to the service water wet pit.

When this scenario occurs, the service water flow out of the wet pit exceeds the river water make-up to the wet pit. The stoplogs in the service water wet pit are at elevation 180'-0". Upon reaching 179'-6", train "A" and train "B" level switches will open the valves 5, 6, 11, 12, 15 and 16 and valves 7, 8, 9 and 10 will close. Valves 13 and 14 will close to a throttled position such that a portion of the flow will be diverted to the service water wet pit and a portion to the pond.

NOTE: The system is designed such that one train of recirculation flow will provide the necessary flow to the service water wet pit to extend the operator action time to greater than 30 minutes. At this time the operator will take action to balance service water requirements with the river water flows and restore the service water valves to the normal configuration.