8005010828

REGULATORY DOCKET FILE COPY

P

HELPING BUILD ARKANSAS

ARKANSAS POWER & LIGHT COMPANY
9TH & LOUISIANA STREETS • LITTLE ROCK, ARKANSAS 72203 • (501) 372-4311

November 20, 1974

TELECOPY

Mr. A[illegible]co
Deputy [illegible]r Reactor Projects
Director[illegible]nsing
Office of Regulation
United States Atomic Energy Commission
Washington, D. C. 20545

Subject: Arkansas Power & Light Company
Arkansas Nuclear One-Unit 1
Docket No. 50-313
License No. DPR-51
Environmental Technical Specifications

Dear Mr. Giambusso:

Environmental Technical Specification (ETS) 2.1.1 limits the maximum differential temperature (ΔT) across the Arkansas Nuclear One-Unit 1 condenser to 15°F during normal operation with all four circulating water pumps in operation. The ΔT is to be measured at the condenser inlet and outlet every hour utilizing the computer output or every two hours utilizing the condenser temperature recorder when the computer is inoperable.

The ΔT measured at 75% Full Power (FP) was 18-20°F using the computer and the condenser temperature recorder. However, when the outlet temperature was measured at the end of the discharge flume (before mixing with lake water) it was found to be only 6-7°F higher than the inlet. From this, it was determined that the outlet temperature detector, which is located in the discharge pipe just outside the condenser water box, was not measuring the true average condenser outlet temperature. The assumed cause of this is thermal stratification of the water in the water box.

To alleviate this problem we plan to move the condenser outlet temperature detector to a location in the discharge flume where the circulating water will be thoroughly mixed but will be prior to mixing with the lake water. This will provide an accurate indication of the condenser ΔT to the computer and the condenser temperature recorder.

11889

In the interim period prior to implementation of this design change, we propose to perform the following monitoring of the condenser ΔT:

1. With the plant operating at steady state power levels, the condenser ΔT will be monitored once each shift using measurements at the condenser inlet and near the end of the discharge flume.

2. At each power plateau reached in the Power Escalation Sequence the condenser ΔT will be measured within two (2) hours after the power level has stabalized.

3. If the condenser inlet temperature exceeds 85°F with all four circulating water pumps running or 70°F with less than four circulating water pumps running, the condenser outlet temperature will be monitored every two (2) hours to assure that ETS 2.1.2 on maximum outlet temperature is met.

As soon as the design change can be made and implemented, we will propose a revised Environmental Technical Specification to reflect the new detector location. The proposed monitoring of once per shift rather than every two hours will help to reduce the currently high workload on plant personnel due to the testing program in progress.

Your prompt attention to this matter and concurrence with our proposed action is requested.

Very truly yours,

J. D. Phillips
Senior Vice President

JDP:lt

cc: Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
United States Atomic Energy Commission
Region II
230 Peachtree Street, N.W., Suite 818
Atlanta, Georgia 30303