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October 19, 1981

Mr. A. Schwencer, Chief
Licensing Branch #2
Licensing Division
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: LaSalle County Station Units 1 & 2
Ultimate Heat Sink Technical Specifications
NRC Docket Nos. 50-373/374

Dear Mr. Schwencer:

The purpose of this letter is to forward a proposed revision to the LaSalle County Station FSAR. This revision is necessary to resolve problems identified during a Technical Specification review. This topic has been discussed with Messrs. A. Bournia and R. Bottimore. Also included is a proposed Technical Specification associated with the ultimate heat sink (CSCS pond). The proposed FSAR change will be documented in an Amendment to the FSAR.

If you have any questions in this regard, please direct them to this office.

Very truly yours,

C E Sargent

C. E. Sargent
Nuclear Licensing Administrator

Attachment

cc: NRC resident Inspector - LSCS

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sink to all of the external conditions affecting it, (e.g., variable plant heat rejection, wind speed, dry bulb and dew-point air temperature, and solar radiation).

Results obtained for the heat sink inlet and outlet temperatures and lake drawdown are shown in the following exhibits for both worst temperature conditions (Figures 9.2-5 and 9.2-6) and worst evaporation conditions (Figures 9.2-7 and 9.2-8). Basic inputs of the heat sink area volume capacity curves (Figure 9.2-4) and the emergency heat rejection (Figure 9.2-9) are also shown.

The maximum plant intake temperature occurring during the maximum temperature period is 97° F (Figure 9.2-5). This is well within the maximum design inlet temperature of 100° F for the CSCS. The maximum drawdown under maximum evaporation conditions is about 1.5 feet (Figure 9.2-8). Additionally, results of a seepage study indicate that over a 30-day period the level of the essential cooling water pond could drop about 0.1 feet. A total maximum drop in water level of 1.6 feet would result during the worst 30-day evaporation period. Thus, the maximum evaporation loss and seepage loss utilizes approximately 30% of the initial ultimate heat sink volume. Therefore, this analysis shows that the ultimate heat sink has the capability to shut down the plant in the event of a postulated LOCA in one unit and a simultaneous shutdown of the other unit, assuming extreme evaporative conditions.

Insert →

9.2.6.3.3 Plant Shutdown

In accordance with the agreement reached with the NRC Regulatory Staff, CECo commits to the following action in the event of low cooling lake water level. In the event that the cooling lake water level drops to an elevation (MSL) of 690 feet or below, the nuclear reactors are shut down until the cause of the abnormally low water level is corrected and normal cooling lake water level is again obtained. For further information consult LSCS-PSAR, Amendment 10, Section 10.12.

9.2.7 Cycled Condensate System

The purpose of the cycled condensate system is to provide the necessary source of makeup water to various systems in the plant and also to provide additional water for refueling activities. For additional information concerning refueling water refer to Subsection 9.2.11.

9.2.7.1 Design Bases

9.2.7.1.1 Safety Design Bases

The cycled condensate and refueling water storage facilities are not required to function in any but normal station operating conditions and therefore have no safety design bases.

Amend 59

Insert to 9.2.6.3.2

The results of a sensitivity analysis indicate that the depth of the UHS pond could be decreased by siltation by as much as 18-inches from the present design value with no detrimental effects. Therefore, should unexpected siltation occur, the bottom elevation of the pond could be increased from the design value of 685 feet to 686.5 feet, corresponding to a depth decrease of 1.5 feet, without exceeding the design basis.

For the reduced depth case, maximum drawdown was not increased, and the maximum plant intake temperature occuring during the maximum temperature period was 98.4°F, again well within the 100°F limit established for design.

Therfore, it is concluded that significant margin exists in the UHS pond size, and the parameters subject to surveillance in the Technical Specification reflect this margin.