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DMB

December 2, 1983

Mr. James G. Keppler, Regional Administrator
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

Subject: LaSalle County Station, Unit 2
10CFR50.55(e) Notification 83-07
Final Report, Design Calculation for
Fire Water System
NRC Docket No. 50-374

Reference (a): Telecon T.E. Watts, CECO to R. Walker, NRC
Region III of November 2, 1983

Dear Mr. Keppler:

Commonwealth Edison notified your office in Reference (a) above of problems with design calculations for the Fire Water System at LaSalle Station. This letter is the 30 day report required by 10CFR50.55(e). The deficiency can be closed based on our November 23, 1983 commitments to H.R. Denton regarding fire protection.

The preliminary calculations (refuel floor and cable spreading rooms) have been completed on schedule and the consultants' formal reports will be submitted to CECO. in December 1983. Their final reports will include the under turbine non-safety related areas. We will review and evaluate these submittals according to our procedures. Our final report on this matter will be completed and submitted to the NRC approximately 20 days prior to exceeding 5% power on Unit 2, and address all sprinklered areas.

We are applying the above plan and commitments to both Units 1 and 2. Any required long term corrections will also be applied to both units.

A computerized Hardy Cross analysis has been completed on LaSalle's complex fire protection water supply piping networks. Hydraulic calculations were also made on the most demanding sprinkler systems from the most remote nozzle to the interface valve. The calculations were performed with as-built drawings, the most recent pump test data (corrected to 1760 rpm) and included elbows, valves, strainers, tees and the inside diameter of pipes. The demand of the refuel floor and the cable spreading rooms was calculated back to the screen house and compared with the water supply available with one of the two diesel fire

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pumps operating or one service water pump operating. In each case, the friction loss through the looped supply networks was calculated assuming the most hydraulically severe main break (blockage).

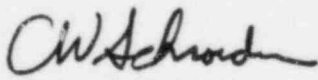
Subject to CECO's review of the data, the following preliminary judgements may be made: (1) Both the fire pump and the service water pump can supply an adequate pressure and volume of water to meet a demand of 100 gpm at 65 psi at the highest outlet of the hydraulically most remote standpipe on the refuel floor. A second calculation was made to determine if a total flow of 750 gpm would be available at the refuel floor at a minimum pressure of 65 psi. This demand is also met by both the fire and service water pump. (2) Calculations for the sprinkler systems were based on a "C" factor of 100 for the preaction piping and a "C" of 120 for wet piping. LaSalle piping is relatively new and the above plant lifetime "C" factors do not represent the existing conditions. We can supply the cable spreading rooms with 1000 gpm at 85 psi by the fire pump at 0.3 gpm per sq. foot over approximately 2700 sq. feet using "C" factors of 120 for dry pipe and 130 for wet pipe on an interim basis. These "C" factors more closely represent the existing conditions and are the basis of our conclusion that there is adequate coverage until the first refueling outage. Using the lifetime "C" factors the supply would be deficient.

The next steps are to evaluate the reports to be received this month for completeness and accuracy; to reaffirm the 40 year design bases for the fire water system (including the service water system); to identify and evaluate any alternatives necessary to restore the 40 year margins ("C" factors) for all sprinkler systems. Our report due before exceeding 5% power will identify any changes required and specify a time period for implementation.

To the best of my knowledge and belief the statements contained herein are true and correct. In some respects there statements are not based on my personal knowledge but upon information furnished by other Commonwealth Edison and contractor employees. Such information has been reviewed in accordance with Company practice and I believe it to be reliable.

If you or your staff have any questions concerning this activity, please contact this office.

Very truly yours,

 12/2/83

C.W. Schroeder
Nuclear Licensing Administrator

cc: NRC Resident Inspector - LSCS
Director of Inspection and Enforcement
Washington, DC