Docket No. 50-373

Commonwealth Edison Company ATTN: Mr. Cordell Reed Senior Vice President Post Office Box 767 Chicago, IL 60690

Gentlemen:

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We have reviewed your letter of August 26, 1987, in which you described your intention of making a schedular modification to an earlier commitment to us regarding certain long-term corrective actions to address the problem of high temperatures in the Unit 1 drywell. Specifically, you notified us of your intent to defer work inside the drywell for additional coolers with associated piping and duct work from the second refueling outage to the third refueling outage. This is your second deferral request pertaining to the Unit 1 drywell modification. The first deferral was granted on December 10, 1985. We understand that you have performed analyses which indicate that the deferral will not affect the qualification of safety-related equipment inside the drywell. We also understand that careful attention will be given by you to the ongoing temperature monitoring program to assure any high drywell temperatures that might develop will be promptly detected, analyzed and resolved. Given these understandings, we have no objections to the scope and timing of your intended deferral as described in your August 26, 1987, letter.

If you have any questions regarding this matter, please contact us.

Sincerely,

(ORIGINAL SIGNED BY N. J. CHRISSOTIMOS FOR)

Hubert J. Miller, Director Division of Reactor Safety

cc: D. Butterfield, Nuclear

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PDR

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PDR

Licensing Manager G. J. Diederich, Plant Manager

cc w/ltr dtd 08/26/87: DCD/DCB (RIDS) Licensing Fee Management Branch Resident Inspector, RIII Richard Hubbard J. W. McCaffrey, Chief, Public Utilities Division David Rosenblatt, Governor's Office of Consumer Services



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Davis 10/2/87

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Common Ith Edison One First National Plaza, Chicago, Illinois Address Reply to: Post Office Box 767 Chicago, Illinois 60690 - 0767

August 26, 1987

Mr. A. Bert Davis Regional Administrator U.S. Nuclear Regulatory Commission Region III 799 Roosevelt Road Glen Ellyn, IL 60137

> Subject: LaSalle County Station Unit 1 Deferral of Drywell Ventilation Temperature Modification NRC Docket No. 50-373

References (a): C.W. Schroeder letter to J.G. Keppler dated December 22, 1983, Report on High Drywell Temperature.

- (b): C.W. Schroeder letter to J.G. Keppler dated February 9, 1984.
- (c): J.G. Marshall letter to J.G. Keppler dated September 4, 1984, High Drywell Temperature Long Term Corrective Actions.
- (d): H.L. Massin letter to J.G. Keppler dated August 21, 1985.
- (e): C.J. Paperiello letter to Commonwealth Edison Company dated December 10, 1986.

Dear Mr. Davis:

The purpose of this letter is to provide current status on our commitment to upgrade the drywell cooling system and to request an extension on the Unit 1 completion date.

BACKGROUND:

Reference (a) and (b) above define action to be taken on both units to ameliorate the high drywell temperature problem initially observed on LSCS Unit 1 in the fall of 1982. For both units the program consisted of interim changes in operating procedures, extensive inspections/corrections of insulation, temperature monitoring, and a long-term modification. The first long term commitment to modify the drywell cooling system was made in reference (c).

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As the scope of the modifications to upgrade the drywell cooling became better defined, it was readily apparent that neither the scope of the work nor the status of the design could support completion of this modification during the first refueling outage. Reference (d) requested that this project be accomplished in two outages. The work outside the drywell being accomplished during first refuel and the work inside the drywell be accomplished during second refuel. This request was agreed to by Region III, in Reference (e).

STATUS:

As scheduled, all work outside the drywell was completed on Unit 1 and Unit 2 during first refueling outage. In addition, a major portion of the inside drywell work will be completed on Unit 2 prior to startup following first refueling outage. Unit 2 will complete work on the drywell cooling modifications during the second refueling outage as scheduled. However, experience gained during work in the Unit 2 drywell has demonstrated that it is not reasonable to accomplish this scope of work on Unit 1 during a single 19-week outage. The work inside the drywell falls into three categories: electrical, structural and mechanical. While electrical work is relatively minor, neither it nor the mechanical (piping and valves) can be accomplished until the upgrade of the supporting steel (structural) work is complete.

The design and installation has required the full-time efforts of a seven-man design team. Each support revision must be analyzed to determine the impact (operability) of components supported by the existing steel and to design interim supporting structures during the work. As a result of limited space and the large number of components located in the upper levels of the drywell, over 150 minor design changes have been required to date on Unit 2.

REQUEST:

Drywell cooling upgrade will be the critical path project for the completion of Unit 1 second refueling outage. In addition, during Unit 1 second refueling outage this modification will be competing for the limited space in the containment with the modifications required for the vessel level instrumentation reference legs. The following facts support a second deferral of this work on Unit 1:

 The modification is not required to decrease temperature in the drywell. Since 1984 no overall drywell temperature problems have been observed. Procedures and monitoring equipment have detected occasional "hot spots" (for which corrective actions were taken) but overall drywell temperature have been maintained well within required limits. The intent of this modification is to re-achieve the design redundancy of the drywell cooling system rather than improve cooling in the drywell.

- The massive resources dedicated to the project has demonstrated our desire to meet our commitments. The cost to partially complete work in the Unit 2 drywell (this past outage) will exceed \$4.5 million and 110,000 manhours.
- 3. This request for deferral reflects our desire to control and manage outages at LaSalle.

While LSCS intends to make every effort to complete this major project during second refueling outage on Unit 1, we believe that management of the outage and the eventual completion of the project would be better served by deferring our commitment to the third refueling outage.

EVALUATION:

The Commonwealth Edison (CECO) BWR Engineering Department has reviewed deferment of the Drywell Ventilation System Improvement Project and concluded that the deferment will not affect the safe operation of LaSalle County Station, Unit 1. The basis for this conclusion is discussed below.

The Primary Containment Ventilation (VP) System is used to remove heat from the drywell atmosphere during normal plant operation. As is stated in the LaSalle County Station Final Safety Analysis Report (FSAR) and Updated FSAR (UFSAR), except for primary containment isolation, the system is non-safety related. The only components of the VP System that are safety-related are the primary containment isolation valves.

The drywell cooling upgrade adds six area coolers (fans lVP15CA-F) in the drywell. These coolers will provide redundant capability to cool the drywell during normal operation. Therefore, the modified system is also non-safety-related, and the UFSAR commitment to provide drywell cooling during normal operation is unchanged.

The Technical Specification requirements for the system are to:

- Maintain the drywell temperatures as required by Technical Specification 3/4.7.7 to ensure that safety-related equipment will not be subjected to temperatures in excess of their environmental qualification temperatures.
- 2. Maintain the drywell average ambient temperature below 135°F as required by Technical Specification 3/4.6.1.7 so that the containment peak air temperature does not exceed the design temperatures of 340° during LOCA conditions and is consistent with the accident analysis.

The drywell atmosphere is cooled by two (2) existing large fan coolers (fans lVP02CA, B) located in the drywell. In order to verify that the existing system is providing sufficient cooling to meet Tech Spec requirements, the station has initiated the Drywell Temperature Monitoring Program, procedure LTP-300-17. Sargent and Lundy (S&L) has been using the information collected under this program to determine the status of equipment qualification. The procedure has been reviewed by NRC environmental qualification audits, and the program has been determined to be satisfactory. The Drywell Temperature Monitoring Program is also used to ensure that design requirements are maintained. As a result of the continuous engineering review, high temperatures at sensor ITE-VP211 were observed and a small steam leak on a main steam isolation valve (MSIV) was diagnosed. Although engineering review concluded the impact of the leak is minor at this time, increased surveillance has been initiated to monitor the leak.

An additional event which was monitored effectively was the failure of fan lVP02CB. In that case, elevated temperatures were evidenced throughout the drywell except in the area of the fan. It was concluded that the cool area was the result of:

- Fan 1VP02CB was not operating and was not drawing warm air from other regions of the drywell.
- 2. Fan 1VP02CA was still operating and was supplying cool air to 1VP02CB through the common supply ductwork. Upon failure of fan 1VP02CB, HVAC dampers 1VP07YA and B should have closed to prevent backfeeding of air from 1VP02CA to 1VP02CB, but the dampers had been wired open.

Dampers 1VP07YA and B had been wired open because the damper operators have had a historically high failure rate. To resolve this problem, the station had already scheduled to implement Modification M-1-1-85-018 during the second refueling outage. This modification will replace the electrically operated control dampers with gravity operated dampers (the identical Modification M-1-2-85-026 has already been implemented on Unit 2).

In summary, the normal drywell cooling operation is being closely monitored, and operation is within the design requirements. Therefore, the BWR Engineering Department has concluded that deferrment of the completion of the Drywell Ventilation System Improvement Project will not affect the continued safe operation of the station.

We would appreciate a response as soon as practical. If you have any further questions please direct them to this office.

C. M. Allen Nuclear Licersing Administrator