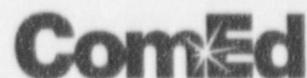


Commonwealth Edison Company  
Quad Cities Generating Station  
22710 206th Avenue North  
Cordova, IL 61232-9740  
Tel 309-654-2241



SVP-98-072

February 27, 1998

U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Document Control Desk

Subject: Quad Cities Station Units 1 and 2  
**Appendix R Safe Shutdown Improvement Project:  
NRC and ComEd Management Meeting of February 6, 1998  
At NRC Region III Headquarters  
NRC Dockets 50-254 and 50-265**

The purpose of this letter is to provide additional information about specific aspects of the Quad Cities safe shutdown improvement actions discussed at the February 6, 1998 public meeting at the Region III offices. Four activities were of particular interest: (1) the extent to which ongoing changes to Quad Cities' safe shutdown analysis (SSA) and conformed, implementing safe shutdown (SSD) procedures result in increased unit independence for the purposes of shutdown in the event of a fire; (2) the continued role of the interim alternate shutdown methodology (IASM) after Quad Cities has adopted the modified SSA and conformed SSD procedures; (3) the nature and extent of NRC staff review of changes; and (4) the character of actions which would constitute validation of the revised SSA and SSD procedures for the purposes of the NRC Confirmatory Action Letter (CAL) RIII-98-001, dated January 16, 1998. These and other items related to some of the details associated with the ongoing safe shutdown improvement activities at Quad Cities are discussed below.

#### Unit Independence

Quad Cities' design as a two unit plant has required it to rely on equipment in the unit that is not affected by a fire in order to safely shut down the unit that is affected by a fire. That cross-unit interdependence has been recognized in the SSA and its implementing SSD procedures. Some of the need for this cross-unit interdependence will be eliminated after the station completes the upcoming revision of the SSA and implementing SSD procedures. Further reduction in cross-unit interdependence will be realized after the Independent Shutdown Pumps (ISP) are installed in early 1999.

ADOCK/0

9803060239 980227  
PDR ADOCK 05000254  
F PDR



### Continued Role of the IASM

To understand Quad Cities' intentions regarding the continued role of the IASM, it is first useful to briefly review the historical motivation for its adoption. The IASM was adopted as an interim strategy to deal with the unexpectedly high value that was calculated for the core damage frequency as part of the Independent Plant Examination of External Events (IPEEE), which included the response to fire.

Currently ongoing actions to enhance the station's ability to safely shut down in the event of a fire are independent of the IASM. These actions address inconsistencies and other issues that had been recently discovered in the prior SSA and implementing SSD procedures for the plant's response to design basis fires. Modifications to the SSA and its implementing procedures do not address the IASM because it is not an element of compliance with Appendix R. The IASM is solely limited to extraordinary measures which would be taken in response to a fire beyond the plant's design basis. Revisions to the SSA will not be impacted by the IASM. After the ISP is installed, retention of the IASM will be re-evaluated.

### NRC Staff Review of the Revised SSA

Quad Cities' license includes the standard condition which the NRC's Generic Letter 86-10 urged licensees to adopt. That condition authorizes Quad Cities to revise its SSA and the implementing SSD procedures under 10 C.F.R. 50.59. If a safety evaluation shows that no unreviewed safety question (USQ) arises from the changes, e.g., that the changes do not adversely affect the plant's ability to shutdown safely in the event of a fire, then the changes may be made without prior NRC review and approval. As a separate matter, even if the changes do result in a USQ, the plant may restart in accordance with Generic Letter 91-18, Rev. 1.

Quad Cities has not yet completed the safety evaluations for the changes to the SSA, the implementing SSD procedures, or all of the modifications which support the changes to the SSA and improve the plant's ability to shutdown safely in the event of a fire. Those safety evaluations are being prepared by experienced individuals who have been trained in the intricacies of 10 C.F.R. 50.59. When completed, those safety evaluations will be independently reviewed in accordance with the project plan. If there are USQs, they will be submitted to the NRC in accordance with the regulations, as reiterated in RIII / AL-98-001.

Independent of whether the safety evaluations reveal USQs, we are aware of the NRC's interest in reviewing the changes to the SSA, implementing SSD procedures, and the implementing modifications as part of the basis for the discussion that is contemplated by CAL RIII-98-001 prior to restart of the units. Accordingly, we are planning a series of meetings to discuss: (1) various aspects of the changes to the SSA and implementing SSD procedures; (2) the modifications that are underway; and (3) the extent to which those changes may be submitted for NRC staff review and the method of submitting those changes for review.

#### Validation of the SSA and SSD Procedures

Validation of the SSA and implementing SSD procedures will be conducted in accordance with criteria which reflect general industry practice. Validation activities will not be limited to only the changes that are being made, and may include an appropriate cross-section of the elements of the SSA and implementing SSD procedures. Validation criteria and methodology will be developed and applied to support the project.

#### Other Improvement Activity Details

A key feature of the revised SSA is the use of the Station Blackout diesels (SBO) to power safe shut down instead of the previously relied on Emergency Diesel Generators (EDG). Advantages of the change to use of the SBOs are that they have a greater load capacity than the EDGs and are available even when the EDGs are dismantled for maintenance. Although the SBOs are not safety related, they will be maintained to attain the same level of reliability as for the EDGs. Fire protection safe shutdown equipment is not required to be safety-related by Appendix R. Nevertheless, a question has been raised about the SBO Digital Control System (DCS) and what is the impact of its non-safety-related nature on a safety evaluation. That issue will be addressed in the normal course of the conduct of the safety evaluation of the changes to the SSA and can be expected to be discussed in the ongoing interactions between Quad Cities and the NRC on this project.

Information is transferred via Nuclear Design Information Transmittals (NDITs). A stop work order for apparent inconsistencies was issued but later lifted when it was determined that there were not inconsistencies in their use.

Where a battery cart is proposed to replace the 125 VDC system for certain shutdown scenarios, a comparison of the surveillance testing of the alternative methods was requested. The battery cart surveillances are under development.

Inadequate verification of the as-built station configuration has been suggested as a root cause of how the station arrived at its current situation regarding fire protection concerns. Quad Cities appreciates the need to determine if this is indeed the case, and, therefore, has initiated a root cause investigation into these matters.

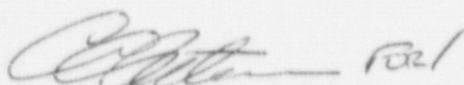
Exemptions which might improve plant safety in other than fire protection were encouraged to be considered. Exemptions are explicitly authorized by the rules which are generally applicable to nuclear power reactors and specifically to fire protection requirements. Quad Cities recognizes that the possibility of exemptions should not be ignored where they may substantially enhance safety. Quad Cities, therefore, will be alert to possible beneficial effects of additional exemptions as it conducts the revisions to the SSA implementing SSD procedures.

The 67 day administrative technical requirement (ATR) permits certain equipment that is relied on for safe shutdown to be out of service for up to 67 days. The station is reviewing this ATR and will determine what changes may be appropriate.

The Plant Operations Review Committee (PORC) has reviewed the Appendix R Safe Shutdown Improvement Project Plan and will review appropriate project activities.

If you have any questions concerning this letter, please contact Mr. Charles Peterson, Regulatory Affairs Manager, at (309) 654-2241, extension 3609.

Respectfully,



E. S. Kraft, Jr.  
Site Vice President  
Quad Cities Station

cc: A. B. Beach, Regional Administrator, Region III  
R. M. Pulsifer, Project Manager, NRR  
C. G. Miller, Senior Resident Inspector, Quad Cities  
W. D. Leech, MidAmerican Energy Company  
D. C. Tubbs, MidAmerican Energy Company  
F. A. Spangenberg, Regulatory Affairs Manager, Dresden  
INPO Records Center  
Office of Nuclear Facility Safety, IDNS  
DCD License (both electronic and hard copies)  
M. E. Wagner, Licensing, ComEd  
SVP Letter File