



April 3, 2000

U.S. Nuclear Regulatory Commission  
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Braidwood Station, Units 1 and 2  
Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457

Byron Station, Units 1 and 2  
Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. STN 50-454 and STN 50-455

Subject: Supplement To Request for Amendment to Technical Specifications  
Extension of Allowable Completion Times and Surveillance Requirement  
Change for Emergency Diesel Generators.

Reference: Letter from R. M. Krich (Commonwealth Edison Company), "Request for  
Amendment to Technical Specifications Extension of Allowable  
Completion Times and Surveillance Requirement Change for Emergency  
Diesel Generators," dated January 20, 2000.

The Reference transmitted Commonwealth Edison (ComEd) Company's proposed changes to Appendix A, Technical Specifications (TS) of Facility Operating Licenses NPF-72, NPF-77, NPF-37 and NPF-66 for Braidwood Station, Units 1 and 2, and Byron Station, Units 1 and 2, respectively. The proposed changes to TS Section 3.8.1 "AC Sources – Operating," will extend the allowable Completion Times for the Required Actions associated with restoration of an inoperable Emergency Diesel Generator (EDG). As stated in that submittal, plant modifications are required to address an identified flooding vulnerability. It should be noted that these vulnerabilities arise from beyond design basis events; however, we have reviewed them and determined that mitigation is desirable. The purpose of this letter is to provide additional information on the resolution of the identified vulnerabilities. We committed in the Reference letter to submit this information by April 3, 2000.

The flooding concerns involve two specific issues. The first issue is only applicable to Braidwood Station and involves the potential for introduction of water to the Auxiliary Building via the Essential Service Water (i.e., SX) System discharge lines. Failure of one of the Essential Service Water (ESW) discharge lines inside the Auxiliary Building, (i.e., a large break in excess of design basis requirements with no operator action to isolate the break), has the potential to flood the lower level of the Auxiliary Building and cause the ESW pumps to fail. This postulated failure is due to the termination of the ESW System discharge piping below the level of the cooling lake (i.e., The Ultimate Heat Sink). The modification being implemented to eliminate this concern involves extending the discharge piping such that it terminates above the lake level.

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The second concern is applicable to both Braidwood and Byron Stations and involves the consequences of a loss of ESW System cooling. Loss of ESW results in (1) loss of cooling flow to the Centrifugal Charging Pump oil coolers and associated gearboxes, and (2) loss of cooling flow to the Component Cooling Water (CCW) system heat exchangers. This, in turn, would result in a loss of Reactor Coolant Pump (RCP) seal injection due to the loss of the charging pump, and the loss of RCP Seal cooling provided by the CCW flow to the RCP thermal barrier. With both of the functions lost, the RCP seals could degrade and Reactor Coolant System (RCS) inventory could be lost through the RCP seals. In order to ensure at least one method of cooling is available to the RCP seals, a modification will be made to provide alternate cooling to the oil coolers and associated gearboxes on at least one Centrifugal Charging Pump per unit. Using available hoses and fittings, the ability to supply the charging pump oil coolers from the plant Fire Protection system will be established. This supply will ensure the continued operation of the charging pump to provide the necessary seal injection for the RCPs, thus, ensuring continued operability at the RCPs. With seal injection maintained, the potential for a loss of Reactor Coolant inventory is minimized.

The above modifications will be installed at Braidwood Station, Unit 2 by August 15, 2000, and Braidwood Station, Unit 1 during the first quarter of 2001. The modification will be installed at Byron Station, Unit 1 by September 1, 2000, and Byron Station Unit 2 by first quarter of 2001. These modifications will ensure that the flooding concerns are addressed prior to utilizing the extended Completion Times for the EDGs.

Should you have any questions relative to this submittal, please contact Ms. Kelly Root at (630) 663-7292.

Respectfully,



R. M. Krich  
Vice President – Regulatory Services

cc: Regional Administrator – NRC Region III  
NRC Senior Resident Inspector – Braidwood Station  
NRC Senior Resident Inspector – Byron Station  
Office of Nuclear Facility Safety – Illinois Department of Nuclear Safety