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UNION ELECTRIC COMPANY

1901 GRATIOT STREET  
ST. LOUIS, MISSOURI

December 28, 1983

DONALD F. SCHNELL  
VICE PRESIDENT

MAILING ADDRESS:  
P. O. BOX 149  
ST. LOUIS, MISSOURI 63166

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

ULNRC- 709

Dear Mr. Keppler:

FINAL 10CFR50.55(e) REPORT NO. U-51  
CABLE MINIMUM BEND RADIUS VIOLATIONS  
CALLAWAY PLANT

On March 14, 1983, Union Electric informed the NRC Region III office of a potential 10CFR50.55 (e) deficiency concerning cable routing through field-designed electrical junction boxes. The junction boxes were sized in a manner such that cables pulled through them could have violated minimum bend radius requirements.

We have conducted a review of all field-designed junction boxes and have identified twenty-three undersize boxes containing cables which violate minimum bend radius criteria. Other boxes were found undersized, but these did not yet contain cables or were not yet installed. We have reworked or redesigned these boxes to eliminate the minimum bend radius problems.

Bechtel has analyzed the cables which violated the bend radius criteria and determined that some should be replaced while others with minor violations of radius criteria were found acceptable by testing. Such cables were subjected to a 1,000-volt megger test, which ensures the bending radius violation has not degraded the insulation or dielectric properties of the cable.

To date, Union Electric has tested or replaced cables in nineteen of the twenty-three junction boxes. Of the cables tested, all have passed the acceptance criteria.

The remaining four junction boxes contain cables which are essential to support plant hot functional testing and cannot be readily deenergized for replacement or megger testing. Union Electric will test and/or replace the remaining cables prior to fuel load.

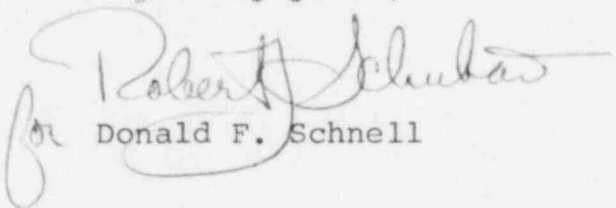
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Union Electric acknowledges that the cables replaced might have failed and possibly affected plant safety. Therefore, we consider this item significant and reportable under the guidelines of 10CFR50.55(e). This letter serves as our final report on this subject.

Very truly yours,

  
for Donald F. Schnell

MAC:glp

cc: J. E. Konklin, Region III  
Richard DeYoung, Director I&E  
Bruce Little, NRC Resident Inspector  
John Neisler, NRC Resident Inspector  
Missouri Public Service Commission