



October 30, 1996

Donald F. Schnell  
Senior Vice President  
Nuclear

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, DC 20555-0001

Gentlemen:

ULNRC-3482

**DOCKET NUMBER 50-483**

**CALLAWAY PLANT**

**RESPONSES TO NRC RAI LETTER ON CALLAWAY IPEEE**

Reference: ULNRC-3319, dated February 2, 1996

The referenced letter submitted Union Electric's responses to the NRC Request for Additional Information (RAI) Letter concerning the Callaway Plant Individual Plant Examination of External Events (IPEEE) Report. A telecon between the NRC Staff and Union Electric was held on October 15, 1996 to discuss our response to the RAI to close out Generic Issue 103, "Design for Probable Maximum Precipitation," with respect to roof ponding of water on safety-related structures. Callaway Plant was designed to conform with the requirements of the Standard Review Plan and the requirements contained in Regulatory Guides 1.59 and 1.102. As part of the IPEEE evaluation of external flooding, Union Electric evaluated the effects of the revised National Weather Service methodology for estimating local intense rainfall. The new methodology changed the Probable Maximum Precipitation (PMP) estimates for higher rainfall intensities over shorter time intervals and smaller areas. Through Generic Letter 89-22, licensees were requested to assess the effects of these new estimates on their plants.

The Union Electric evaluation that was performed for the revised PMP, for increase in roof loading, demonstrates that the revised PMP estimates would not result in roof ponding depths which would adversely affect the safe operation of the plant. The roofs of the safety-related structures have no parapets or any other similar features that would induce loading in excess of the design basis in the event the roof drains could not discharge the maximum precipitation

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intensities of the revised PMP estimates. The roofs of the safety-related structures are designed to minimize ponding. Water could pond to a maximum of 2" at the edge of the roofs (slightly higher at the drains) if the roof drain system could not accommodate the revised PMP. Any additional accumulation of water would overflow the roof edges onto the ground. The load from this accumulation of water however is still less than the design snow load of 125 lb/ft<sup>2</sup>.

In conclusion the use of the latest PMP criteria to assess the affects on roof ponding has shown that there will not be any additional roof loading due to the increased local intensity of rainfall because the current roof design configurations of the safety-related structures precludes this from occurring.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Donald F. Schnell", written in a cursive style.

Donald F. Schnell

JMC/jdg

cc: M. H. Fletcher  
Professional Nuclear Consulting, Inc.  
19041 Raines Drive  
Derwood, MD 20855-2432

L. Joe Callan  
Regional Administrator  
U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive  
Suite 400  
Arlington, TX 76011-8064

Senior Resident Inspector  
Callaway Resident Office  
U.S. Nuclear Regulatory Commission  
8201 NRC Road  
Steedman, MO 65077

Kristine M. Thomas (2)  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
1 White Flint, North, Mail Stop 13E16  
11555 Rockville Pike  
Rockville, MD 20852-2738

Manager, Electric Department  
Missouri Public Service Commission  
P.O. Box 360  
Jefferson City, MO 65102