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COMMENTS ON DRAFT REGULATORY GUIDE DG-1077

Virginia Electric and Power Company (Dominion) appreciates the opportunity to provide the following comments on Draft Regulatory Guide DG-1077, "Guidelines for Environmental Qualification of Microprocessor-Based Equipment Important to Safety in Nuclear Power Plants."

DG-1077 is written to account for qualification of equipment in environments other than harsh or EQ environments as per 10CFR50.49. There is concern on the part of Dominion that DG-1077 could evolve into a "Mild Environment EQ Program" which would be as extensive as our existing harsh environment EQ program. Dominion would be concerned if the NRC intends to invoke requirements for nuclear utilities to establish and maintain a mild environment EQ program as part of the plant's design basis.

Dominion does not presently have any interest in qualifying microprocessors through our 10CFR50 Appendix B program for use in safety related applications. Accordingly, the established design change process would be utilized for any installations of this example. Good engineering practices and use of the plant's accident Environmental Zone Descriptions (EZDs) would be used to prescribe elements of a purchase specification which would be distributed to potential vendors for their evaluation/bid. As such, any qualification requirements [in DG-1077] would be imposed on the vendor to supply the equipment through compliance with the specification. Dominion would not consider a vendor who had not gone through the SER process to qualify their equipment. Dominion is concerned that the population of vendors supplying safety related microprocessors may be reduced should the requirements in DG-1077 be too stringent. Dominion recommends the NRC give the subject vendors an opportunity to comment on their ability to provide microprocessors in accordance with DG-1077. Dominion also recommends DG-1077 not affect SERs already issued for some vendor's equipment.

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On page 5 of DG-1077, three locations are established for mild environments (A, B, and C). The intent is to minimize environmental stresses on digital equipment by establishing threshold values for temperature, dose and humidity for these three locations. Dominion is concerned that these values may be in conflict with values already established in the EZDs for each plant. Dominion is concerned that the creation of these new locations could have an impact on the existing design basis EQ programs.

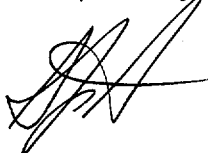
EMI/RFI is introduced into the draft on page 6 as an element which must be evaluated in the qualification process. EMI/RFI is not presently an EQ variable from the standpoint of 10CFR50.49. EMI/RFI is addressed in the design change process for installations of this nature and is an established good engineering practice. Dominion is concerned that the introduction of EMI/RFI into DG-1077 could affect existing EQ programs. There is not sufficient guidance in DG-1077 for EMI/RFI testing of digital equipment.

If you would like further information, please contact either:

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Respectfully,

A handwritten signature in black ink, appearing to be 'S. P. Sarver', written over a horizontal line.

S. P. Sarver, Director
Nuclear Licensing and Operations Support