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March 25, 2015

Mr. John W. Lubinski  
Director, Division of Engineering  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**Subject:** NEI 15-01, "An Analytical Approach for Establishing Degraded Voltage Relay (DVR) Settings,"  
March 2015

**Project Number: 689**

Dear Mr. Lubinski:

On behalf of the nuclear energy industry, the Nuclear Energy Institute (NEI)<sup>1</sup> would like to submit the attached NEI 15-01 "An Analytical Approach for Establishing Degraded Voltage Relay (DVR) Settings", dated March 2015 for review and endorsement through a regulatory guide.

On December 29, 2011, NRC Regulatory Issue Summary (RIS) 2011-12, Revision 1 (ML113050583) was published and was intended to clarify the staff's technical positions on existing regulatory requirements specified in General Design Criteria (GDC) 17 to 10 CFR Part 50, Appendix A. On February 2, 2012, NEI submitted a letter outlining concerns with the content and application of the RIS. In addition, NEI formed a Degraded Voltage Task Force to work with the staff in an effort to provide an acceptable technical resolution to these concerns. Based on discussions with the staff and IEEE Nuclear Power Engineering Committee (NPEC) Working Group, an analytical approach was identified that can be used to establish the settings for the degraded voltage protection scheme that meets the design basis of safety-related equipment (at running and starting voltage requirements). This analytical approach is the basis for NEI 15-01. The analytical techniques in this document should apply to a variety of plant power system designs (bus arrangements and configurations) with degraded voltage protection schemes.

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<sup>1</sup> NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

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Since there are a number of existing inspection findings and violations related to this issue, we request that the staff review and endorse this document as soon as practical. Once the NRC endorses NEI 15-01, we understand that it may be used as a basis for revising RIS 2011-12.

Thank you in advance for consideration of this document. If you or the staff have any questions, please contact me, Gordon Clefton (202.739.8086; [gac@neo.org](mailto:gac@neo.org)) or Steven Hutchins (202.739.8132; [sph@nei.org](mailto:sph@nei.org)).

Sincerely,

A handwritten signature in black ink that reads "Chris Earls". The signature is written in a cursive style with a long horizontal stroke at the end.

Christopher E. Earls

Attachment

c: Mr. Jacob Zimmerman, NRR/DE/EEEB, NRC  
NRC Document Control Desk