

August 28, 2014  
RSM-082714-087

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

**Subject:** Review of EPRI 1021097 Earthquake Catalog for RIS Earthquakes in the Southeastern U. S. and Earthquakes in South Carolina Near the Time of the 1886 Charleston Earthquake Sequence

Please find attached an evaluation of the earthquake catalog in EPRI 1021097 (NUREG-2115, DOE/NE-0140) focusing on identification of additional reservoir induced seismicity (RIS) earthquakes in the southeastern U.S. and locations of earthquakes in South Carolina near the time of the 1886 Charleston earthquake sequence. Several RIS events were identified in the catalog and a number of South Carolina earthquakes were evaluated to be Charleston earthquake aftershocks. Further processing of the updated earthquake catalog was performed using the same procedures as performed in EPRI 1021097 including Magnitude evaluations, declustering, and completeness calculations.

The attached evaluation provides a complete description of the earthquakes evaluated and conclusions reached.

Sincerely,



John M Richards  
Principal Technical Leader  
Risk and Safety Management

Attachment

c: Mr. Neil Wilmshurst, EPRI  
Mr. Kenneth Canavan, EPRI  
Mr. Stuart Lewis, EPRI  
Mr. Nicholas DiFrancesco, NRC, NRR/JLD/PPSD/JHMB  
Mr. Clifford Munson, NRC, NRO/DSEA  
Mr. Jon Ake, NRC, RES/DE  
Mr. Paul Guill, Duke Energy  
Ms. Sara Dalick, South Carolina Electric & Gas  
Mr. Andrew Mauer, NEI

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**CHARLOTTE OFFICE**

1300 West W.T. Harris Boulevard, Charlotte, NC 28262-8550 USA • 704.595.2000 • Fax 704.595.2860  
Customer Service 800.313.3774 • www.epri.com