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Dr. Donald Bucci
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Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission-M Street
Washington, D.C. 20555

Subject: Wolf Creek Site Seismicity - the Trifunac-Bernreuter Controversy.

Dear Don:

Copies of letters I have received on the above topic suggest that the differences in interpretation between Drs. Trifunac and Bernreuter depend on the regionalization vs localization of the New Madrid seismicity. During the summer I had the privilege of seeing extensive confidential subsurface and reflection seismic data on the Mississippi Valley. This broader study shows that the New Madrid area is part of a rift zone system occupying the Mississippi Valley. There is no evidence in this data that the rift zone is present west of the New Madrid trend. It appears that the seismicity is directly related to the rift zone and that there is no evident basis for extending the characteristics of this zone to the rest of the continental interior. It would seem, therefore, that Dr. Bernreuter's analysis would better fit existing geologic subsurface evidence.

Cordially yours,

John C. Maxwell
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