

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Ronald M. Spritzer, Chair
Dr. Richard F. Cole
Dr. Alice C. Mignerey
Alan S. Rosenthal

In the Matter of Virginia Electric and Power Company d/b/a Dominion Virginia Power and Old Dominion Electric Cooperative North Anna Unit 3 Combined License
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Docket Nos. 52-017
ASLBP No. 08-863-01-COL

April 8, 2014

REPLY TO ANSWERS OF DOMINION AND NRC STAFF

Pursuant to 10 C.F.R. § 2.309(i), the Blue Ridge Environmental Defense League with its chapter Peoples Alliance for Clean Energy (BREDL) hereby files its reply to the answers of Dominion-Virginia Power and the NRC Staff responding to the motion to reopen this proceeding and admit a new contention.

In short, the thorniest question raised by BREDL is on page 8 and 9 in the statement of facts to support the requestor's position; specifically, that probabilistic risk assessments conducted for the North Anna 3 license and other documents do not account for unexpected failure modes; that it is conceptually impossible to be complete in a mathematical sense in the construction of event-trees and fault-trees; that This inherent limitation means that any calculation using this methodology is always subject to revision

and to doubt as to its completeness; that "When it comes to future safety, nuclear designers and operators often assume that they know what is likely to happen, which is what allows them to assert that they have planned for all possible contingencies. Yet there is one weakness of the probabilistic risk assessment method that has been emphatically demonstrated with the Fukushima I nuclear accidents -- the difficulty of modeling common-cause or common-mode failures; that "The lesson from the Fukushima, Chernobyl, and Three Mile Island accidents is simply that nuclear power comes with the inevitability of catastrophic accidents"; and that, "there are good reasons to believe that they will be far more frequent than quantitative tools such as probabilistic risk assessments predict."¹ (emphases added)

There is no dispute that reactors are designed using probabilistic techniques, to account for ground motion from potential seismic sources in the region. However, describing North Anna, a geologist said, "Fundamentally, we don't know the cause of earthquakes in this part of the country."² BREDL Motion to Reopen and Admit New Contention at 11.

Finally, at a minimum, BREDL recommended that the extant licensing

¹ Quoted citations are M. V. Ramana's from "Beyond our imagination: Fukushima and the problem of assessing risk," *Bulletin of the Atomic Scientists*, April 19, 2011. Ramana is a physicist at Princeton University and a member of the Bulletin of Atomic Scientists Science and Security Board.

² "Learning from the 2011 Virginia Earthquake," Wright Horton, Geologist, U.S. Geological Survey, March 29, 2012, Slide 20

proceeding for North Anna Unit 3 be based on the final design certification, completing the design basis rulemaking before proceeding with the construction and operation license.

“What is the use of courts, if judges only quote authorities, and no judge exerts original jurisdiction, or recurs to first principles?”³ In this matter, first principles require a power plant not inimical to public health and safety.

Respectfully submitted,

A handwritten signature in black ink that reads "Louis A. Zeller". The signature is written in a cursive style and is followed by a horizontal line.

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³ Ralph Waldo Emerson, Essay VI

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CERTIFICATE OF SERVICE

I hereby certify that the
REPLY TO ANSWERS OF DOMINION AND NRC STAFF
has been filed through the Electronic Information Exchange system
this 8th day of April, 2014.



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