

September 12, 2002

Dr. Gery Wilkowski
Engineering Mechanics Corporation of Columbus
3518 Riverside Drive
Suite 202
Columbus, Ohio 43221-1735

Dear Dr. Wilkowski:

The U.S Nuclear Regulatory Commission (NRC) is conducting a risk-informed reevaluation of the Code of Federal Regulations (CFR) section 10, part 50.46 (10 CFR 50.46) relating to the emergency core cooling system (ECCS) requirements. The initiating events which govern ECCS actuation, loss of coolant accidents (LOCAs) and LOCA frequency estimates, are required to conduct the risk-informed reevaluation. The NRC is embarking on an effort to develop generic LOCA frequency estimates for small break (SB), medium break (MB), and large break (LB) LOCAs which will be applicable up through the end of the license renewal period.

The NRC is proposing to develop the LOCA frequencies using a combination of service history data to develop baseline estimates and expert elicitation to determine potential changes in the baseline. Elicitation will specifically be used to provide estimates in areas where data is sparse and to predict future trends. Additionally, partial LOCA estimates using probabilistic fracture mechanics (PFM) evaluation of important piping systems and failure mechanisms will be conducted using standardized input variables that will be developed as part of this effort. More detailed information is provided in Enclosure 1.

To accomplish the two objectives, a panel of experts is being organized to address the issues associated with developing LOCA frequencies and providing standardized inputs for conducting PFM analysis. The panel will consist of approximately ten individuals with technical expertise in the following areas: probabilistic risk assessment; probabilistic fracture mechanics; the ASME code; structural mechanics; thermo-hydraulics; piping systems; seismic, thermal and vibrational loading; environmentally assisted cracking; thermal aging; plant operating experience; human factors; nondestructive evaluation (NDE) and in-service inspection (ISI); piping fabrication and installation; and alternative LOCA mechanisms. Individuals are sought with broad-based knowledge in multiple areas as well as in-depth expertise in at least one area.

Please review Enclosure 1 and determine if you are interested in participating in the expert elicitation process. If so, please return the enclosed information sheet (Enclosure 2) along with your most current resume and/or curriculum vitae to Robert L. Tregoning of my staff at the address on the enclosed sheet (Enclosure 2). Also indicate any potential conflicts of interest or limitations that could preclude your service on the panel. Please return all information by September 30, 2002.

Dr. Wilkowski

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Over twenty people are initially being contacted for possible inclusion on this panel. This letter shall not be construed as a promise or commitment to fund or contract with you or your organization. We anticipate panel selection to be completed by October 11, 2002.

I am hopeful that you will be willing to participate on this panel. Your expertise and experience are certainly well known and would provide a valuable contribution to the end result. If you have questions, please contact Robert Tregoning at 301-415-6657 or at rlt@nrc.gov.

Sincerely,

/RA/

Michael E. Mayfield, Director
Division of Engineering Technology
Office of Nuclear Regulatory Research

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