

August 29, 2003

Mr. Gregory Rzentkowski  
Canadian Nuclear Safety Commission  
P.O. Box 1046, Station B  
280 Slater Street  
Ottawa, Canada K1P 5S9

Dear Mr. Rzentkowski:

The U.S. NRC is embarking on a number of activities to support the pre-application and anticipated Design Certification of the Advanced CANDU Reactor (ACR-700). Among the first of these is a process called Phenomena Identification and Ranking Technique (PIRT), which forms the basis for subsequent review activities. It is used to provide guidance to assess the adequacy of the experimental data base, code modeling requirements and code validation and assessment.

The PIRT is developed using a panel of experts. The objective is to identify potentially important safety issues, and technical basis for resolution of such issues as they apply to the ACR-700 design, and to ensure a sufficient experimental data base and applicable, validated, assessed analysis tools. The Office of Research will develop data, tools, and methods to allow the staff to independently assess advanced reactor safety margins, and to evaluate reactor safety analyses submitted by Atomic Energy of Canada Limited. This includes thermal hydraulic, nuclear, and severe accident and source term analysis.

I believe it would be advantageous to include experts from the Canadian Nuclear Safety Commission in this activity, and am inviting CNSC to share its expertise on CANDU reactors and designate staff to be members of the PIRT panels. If you agree, please send me the names of your staff to serve as expert panel members. We expect to hold several meetings (~4) over the next nine months, and will provide details to the designated experts to actively participate in this activity.

Sincerely,

**/RA/**

Farouk Eltawila, Director  
Division of Systems Analysis and Regulatory Effectiveness  
Office of Nuclear Regulatory Research

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