

August 30, 2004

ORGANIZATION: ATOMIC ENERGY OF CANADA LIMITED (AECL)

SUBJECT: SUMMARY OF MEETING HELD ON JULY 27-29, 2004, TO DISCUSS
ACR-700 REACTOR PHYSICS

On July 27-29, 2004, Anthony Attard, and Belkys Sosa from the Office of Nuclear Reactor Regulation (NRR) and Don Carlson from the Office of Nuclear Regulatory Research (RES) participated in a meeting with Atomic Energy of Canada Limited (AECL) at the Chalk River Laboratory (CRL) in Ontario, Canada to: (1) obtain information on AECL's research and development programs (existing and planned) to address reactor physics issues for ACR-700; (2) obtain information on AECL's evolving analysis and experimental validation efforts concerning ACR-700 coolant void reactivity; and (3) obtain information on the enhancements to the AECL standard reactor physics toolset designed to demonstrate the adequacy of the physics analysis methodology for ACR-700 applications. This meeting was part of the approved pre-application review activities for AECL Focus Topics 3, "Computer Codes and Validation Adequacy," and 9, "Confirmation of Negative Void Reactivity." For a list of meeting attendees refer to Enclosure 1.

AECL presented an overview of the ACR reactor physics toolset qualification program. AECL described ongoing and planned sets of experiments at CRL's Zero Energy Deuterium 2 (ZED-2) critical facility that will provide validation of ACR physics. The presentations and ZED-2 facility tour were useful toward gaining a broad understanding of AECL's ACR-700 nuclear analysis validation program.

Additional details on the material covered in this meeting may be accessed through the ADAMS system under Accession No. ML042290259. If you do not have access to ADAMS or if there are problems in accessing the handouts located in ADAMS, contact the NRC Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdrc@nrc.gov.

/RA/

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Project No. 722

Enclosure: As stated

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on ACR Reactor Physics
July 27-29, 2004

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ACR-700

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