AECL
TECHNOLOGIES INC.

December 16, 2003

Our File: 108US-01321-021-001
Your File: Project No. 722

U.S. Nuclear Regulatory Commission,
Document Control Desk,
Washington, D.C. 20555

Attention: Ms. B. Sosa
Project Manager, ACR

Dear Ms. Sosa,

Re: **Proprietary Reports in Support of the ACR Pre-Application Review and in Support of ACR-700 PIRT Physics Subpanel**

In support of NRC's assessment of pre-application review of key focus topic # 8 (Confirmation of negative void reactivity), and in support of the ACR-700 PIRT Physics Subpanel efforts related to ACR-700, please find enclosed a CD containing the following two proprietary reports:

- "Calculations of Coolant-Void-Reactivity Components in Lattices of NG CANDU Type", AECL Report FFC-RRP-398, January 2002, and
- "Recommended Composition for Simulated Burned-up ACR Fuel for ZED-2 Measurements", AECL Report 108-119190-440-005, July 2003.

These reports are of interest in addressing the issue of void reactivity breakdown into its constituent components. Please note that the first report makes reference to the NG (Next Generation) CANDU, ACR's conceptual design phase designation, and while the fuel design is somewhat different than the current reference, it is still applicable to ACR-700.

The two enclosed reports "Calculations of Coolant-Void-Reactivity Components in Lattices of NG CANDU Type" (AECL Report FFC-RRP-398) and "Recommended Composition for Simulated Burned-up ACR Fuel for ZED-2 Measurements" (AECL Report 108-119190-440-005), contain proprietary information of the type that AECL normally maintains in confidence and withholds from public disclosure. The information has been handled and classified as proprietary to AECL as cited in the affidavit provided in Attachment 1. Therefore, it is requested that the AECL proprietary information contained on the enclosed CD, be handled by the USNRC on a confidential basis and be withheld, in their entirety, from public disclosure in accordance with the provisions of 10CFR2.790 and 9.17.

Dist. ZZZZ File Center 1 CD
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If you have any questions with regards this letter and/or the enclosed report please contact the undersigned at (905) 823-9060 extension 6543.

Yours sincerely,

Vince Langman
ACR Licensing Manager

/Attachments:
1. AECL Proprietary Information Affidavit

/Enclosures:
1. CD containing the proprietary reports:
    - "Calculations of Coolant-Void-Reactivity Components in Lattices of NG CANDU Type", AECL Report FFC-RRP-398, January 2002, and
    - "Recommended Composition for Simulated Burned-up ACR Fuel for ZED-2 Measurements", AECL Report 108-119190-440-005, July 2003.

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ATTACHMENT 1
APPLICATION FOR THE NUCLEAR REGULATORY COMMISSION'S WITHHOLDING FROM PUBLIC DISCLOSURE OF PROPRIETARY AECL REPORTS

10 C.F.R. § 2.790
AFFIDAVIT OF KEN HEDGES

I, Ken Hedges, Vice-President, Technology, AECL Technologies Inc., do hereby affirm and state:

1. I am the Vice-President, Technology for AECL Technologies Inc., and have been delegated the function of reviewing the proprietary information sought to be withheld from public disclosure, and am authorized to apply for its withholding on behalf of AECL Technologies Inc.

2. In the attached letter B. Sosa from V. Langman, "Proprietary Reports in Support of the ACR Pre-Application Review and in Support of ACR-700 PIRT Physics Subpanel", dated December 16, 2003, and the enclosed CD containing the proprietary reports "Calculations of Coolant-Void-Reactivity Components in Lattices of NG CANDU Type" (AECL Report FFC-RRP-398) and "Recommended Composition for Simulated Burned-up ACR Fuel for ZED-2 Measurements" (AECL Report 108-119190-440-005), AECL Technologies Inc. is providing information in support of the Nuclear Regulatory Commission's (NRC) pre-application review of the Advanced CANDU Reactor (ACR). The information provided constitutes proprietary commercial information that should be held in confidence by NRC pursuant to 10 CFR §§ 2.790(a)(4) and 9.17(a)(4), because of one, or more, of the following reasons:

   i. This information is confidential and has been held in confidence by AECL, which is the parent company of AECL Technologies Inc. The information is contained in AECL reports or other documents that are normally held in confidence in accordance with AECL's procedures for the protection of information. The reports or other documents are part of AECL's comprehensive safety and technology base for the CANDU design, and their commercial value extends beyond the original development costs, which in themselves are considerable.

   ii. The information is contained in CANDU Owners Group Inc. (COG) reports that are held in confidence by both AECL and the Canadian nuclear utilities that participate in research and development programs via COG. There is a rational basis for holding the reports in confidence since the information contains sensitive technical and/or commercial information relating to the supporting research, design and/or operation of CANDU reactors. Also, COG reports are only distributed to participants in COG research and development programs. These participants expend significant amounts of money to fund the COG research and development programs, which produce the

information described in these reports. Additionally, public disclosure by the NRC of the information contained in COG reports, which are supplied in confidence by COG to AECL, could jeopardize the future availability of such information to AECL. AECL is contractually obligated to COG and to other participants in COG programs to maintain the confidentiality of such reports. AECL relies, in part, on COG reports to improve the safety, operability and maintainability of the ACR, and to help develop and recommend improvements to enhance the safety, operability and maintainability of existing CANDU plants. COG would be reluctant to provide such information to AECL, and could move to restrict AECL Technologies' ability to provide such reports to the NRC, if there was a possibility that the NRC might make the information publicly available, after being supplied to the NRC by AECL Technologies Inc. AECL would suffer harm to its commercial business and competitive position if it did not have access to these reports and was unable to improve existing and future designs. Further, other participants in COG research and development programs would be reluctant to enter into such programs in which AECL was a participant; those participants enter into and fund such programs with the expectation that the results will remain confidential to COG and program participants; if there is a possibility that information generated in such programs would become publicly available through AECL Technologies' provision of COG reports to the NRC, they will not wish to participate in research programs with AECL. For the same reason, disclosure of such reports by the NRC would also hinder the ability of the NRC to receive similar reports in the future from AECL Technologies, since COG would likely withhold such reports from AECL.

iii. This information is being transmitted to the NRC in confidence.

iv. This information is generally not available in public sources and could not be gathered readily from other publicly available information.

v. Public disclosure of this information would create substantial harm to the competitive position of AECL by disclosing sensitive commercial information about the design and/or operation of CANDU reactors and/or the ACR to other parties whose commercial interests may be adverse to those of AECL. Also, the information contained in these reports has been developed at significant cost to AECL (the parent company of AECL Technologies).

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3. Accordingly, AECL Technologies Inc. requests that the information provided in Enclosure 1 be withheld from public disclosure pursuant to the policy reflected in §§ 2.790(a)(4) and 9.17(a)(4).

Ken Hedges, Vice-President, Technology, AECL Technologies Inc.

Subscribed and sworn before me on this 16 day of Dec., 2003.

Notary Public

Gregory Sayer
Barrister & S...