

July 09, 2003

Our File: 108US-013210-021-001  
Your File: Project No. 722

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

Attention: Ms. B. Sosa  
Project Manager, ACR

**Re: Database of CANDU Thermal Hydraulic Experiments for Code Validation**

In response to an NRC staff request at a review meeting on the RD-14M integral test facility held in Winnipeg, Canada, June 4<sup>th</sup>, 2003, and in support of the NRC's pre-application review of the ACR (i.e., specifically focus topic #3 - computer codes and validation adequacy, and focus topic #12 - ACR technology base), please find enclosed a CD titled "COG Safety Thermalhydraulics and RD-14/ACR Databases", which contains a database that summarizes recent thermal hydraulic tests relevant to the CANDU and ACR-700 design. Attachment 1 provides instructions on installing and running the database.

The thermal hydraulics data contained on the enclosed CD are 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 2. 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.

If you have any questions on this letter and/or the enclosed information please contact the undersigned at (905) 823-9060 extension 6543.

Yours sincerely,



for: Vince J. Langman  
ACR Licensing Manager

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**/Attachments:**

1. Instructions on installing and running the COG Safety Thermalhydraulics and RD-14/ACR Databases
2. AECL Proprietary Information Affidavit

**/Enclosures:**

1. A CD titled "COG Safety Thermalhydraulics and RD-14/ACR Databases", containing thermal hydraulics test databases

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**Attachment 1**

**Instructions on installing and running the COG Safety Thermalhydraulics and RD-14/ACR Databases**

(Letter to B. Sosa, "Database of CANDU Thermal Hydraulic Experiments for Code Validation", July 09, 2003)

The databases on the enclosed CD run under MS-Access 2000. If you do not have Access 2000, a runtime version has been supplied on the CD-ROM. Installation instructions are given below. Each CD-ROM contains two database files: **COGSafetyThermHydrDBase\_2000.mdb** and **RD14\_ACR\_Database.mdb**. The COG database contains information on experiments carried out for the CANDU Owner's Group (COG). This includes RD-14M and RD-14, as well as a number of other facilities. The RD-14/ACR database contains information on the tests carried out recently in the ACR single channel per pass configuration of RD-14M.

**Installation**

If you have MS-Access 2000 on your system, then all you need are the database files located in the root directory of the CD-ROM. You can copy these files to your hard drive or a network drive, or access the databases directly from the CD-ROM.

**If you do not have Access 2000, then you need to install the runtime version included on the CD-ROM.** This can be freely distributed to all users. The runtime version allows users to view databases, but not create/change them. To install, go to the "\Access\Package" sub-directory on the CD-ROM, and double-click on file "SETUP.EXE". For more information on the installation of the runtime version of Access 2000, see Appendix A.

If you are installing the runtime version, only the COG database will be installed. The RD-14/ACR database would then need to be copied or accessed from the CD-ROM.

**Starting-Up**

To start either database, just double click on the "mdb" file. The menus in each database are self-explanatory.

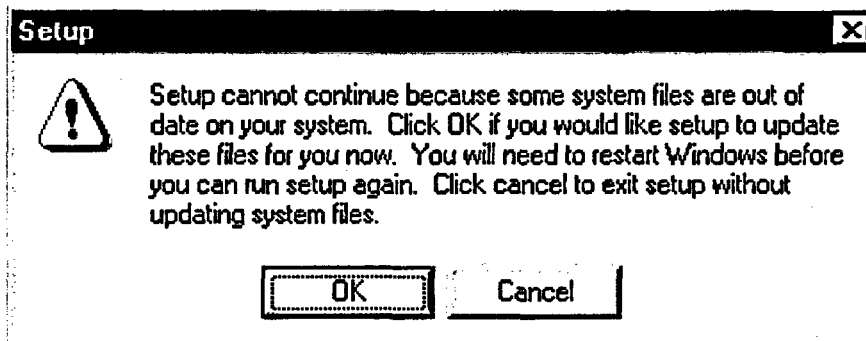
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APPENDIX A

**Installing MS-Access 2000 Runtime**

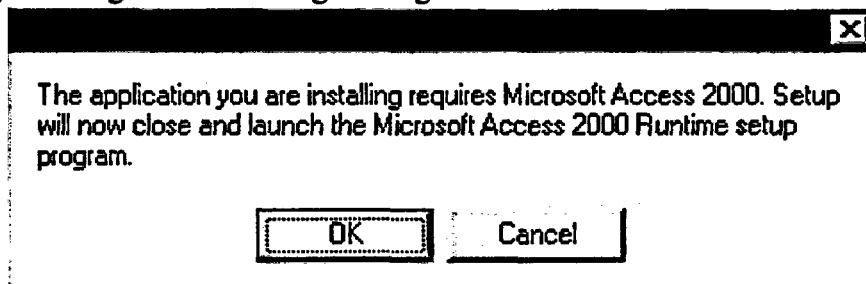
To install the runtime version of MS-Access 2000, double-click on file \Access\Package\Setup.exe on the CD-ROM. **The runtime version should only be installed if Access 2000 is not installed on your computer system.**

After installing some of the files, the system may give the following message:



If you get this message, click on "OK". Your system will be automatically rebooted. You then need to run \Access\Package\Setup.exe again.

After a while you will get the following message:



Click on "OK". You will then get the MS-Access 2000 Runtime installation screen, giving you the option of "Install Now" or "Customize". Select "Install Now". When finished it will ask to reboot the system. After rebooting, the "COGSafetyThermHydrDBase\_2000 Setup" installation screen is displayed. Follow the instructions. Note that you can change the default directory where the database file **COGSafetyThermHydrDBase\_2000.mdb** is stored. The default is "c:\Program Files\COGSafetyThermHydrDBase\_2000\". If desired, the file can be stored on a network drive. You are also asked where you want to store a shortcut on the Windows Start Menu (defaults to COGSafetyThermHydrDBase\_2000... COGSafetyThermHydrDBase\_2000).

The runtime version of Access 2000 requires about 100 MB of disk space, and the database itself requires 121 MB of disk space.

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**ATTACHMENT 2**  
**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, "Database of CANDU Thermal Hydraulic Experiments for Code Validation", dated July 09, 2003, and the CD (titled "COG Safety Thermalhydraulics and RD-14/ACR Databases"), enclosed with that letter, 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 thermal hydraulics test database contained on the enclosed CD constitute 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.

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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 exception 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. 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.

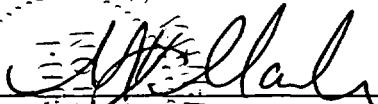
- iii. This information is being transmitted to the NRC in confidence.
- iv. This information is generally not available in public sources and could not be gathered readily from other publicly available information.
- v. Public disclosure of this information would create substantial harm to the competitive 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).

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 9 day of July, 2003.



Notary Public