

May 05, 2004

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

References:

1. E-mail B. Sosa to V. Langman, "CATHENA RAIs - Advanced Copy", March 19, 2004.
2. Letter V. Langman to B. Sosa, "Response to NRC's Requests for Additional Information (RAIs) on CATHENA: RAIs 189, 199(a), 203(b), and 203(c)", April 13, 2004.

**Re: Revised Response to NRC's Requests for Additional Information (RAIs) on  
CATHENA: RAIs 203(b) and 203(c)**

In response to NRC's request (Reference 1) and in support of the NRC's pre-application review of the ACR (i.e., specifically focus topic # 3 - Computer Codes and Validation Adequacy), as well as in support of the future ACR-700 design certification application, attachment 1 provides revised AECL responses to RAIs 203(b) and 203(c). These responses supersede our initial responses and submissions on RAIs 203 (b & c) which were provided in Reference 2. The enclosed CD contains an AECL proprietary report that is submitted to the NRC in response to RAIs 203(b) and 203(c).

The information provided on the enclosed CD and listed in Attachment 1 contains 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 reports listed in Attachment 1, and 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.

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

Yours sincerely,

A handwritten signature in cursive script that reads "Vince Langman". A horizontal line is drawn to the right of the signature.

Vince J. Langman  
ACR Licensing Manager

/Attachments:

1. Revised Response to NRC's RAIs 203(b) and 203(c) on CATHENA
2. AECLT Proprietary Information Affidavit

/Enclosure:

1. CD titled "Revised Response to RAIs 203(b) and 203(c)", containing the AECL proprietary report specified in Attachment 1 to this letter

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**Attachment 1**

(Letter V. Langman to B. Sosa, "Revised Response to NRC's Requests for Additional Information (RAIs) on CATHENA: RAIs 203(b) and 203(c)", May 05, 2004)

**Revised Response to NRC's RAIs 203(b) and 203(c) on CATHENA**

AECL's revised responses to NRC's requests for additional information on CATHENA are provided in italic fonts following each of the NRC's questions as follows:

203.

b. Please provide report RC-1584-3 describing CATHENA validation using Dartmouth countercurrent flow data.

*AECL Revised Response:*

*An updated report on validation of the newer version of CATHENA MOD-3.5c/Rev 0 has been issued and a copy is provided on the enclosed CD:*

- *RC-2475, "Validation of CATHENA MOD-3.5b/Rev 0 for Countercurrent Flow-Overview Report", December 2001; (file "RC-2475.pdf").*

*Please disregard the copy of report RC-1584-3 that has been sent to you with Reference 2.*

203.

c. Please provide report RC-1584-4 describing CATHENA validation using data from the WNRE elbow flooding tests.

*AECL Revised Response:*

*An updated report on validation of the newer version of CATHENA MOD-3.5c/Rev 0 has been issued and a copy is provided on the enclosed CD:*

- *RC-2475, "Validation of CATHENA MOD-3.5b/Rev 0 for Countercurrent Flow-Overview Report", December 2001; (file "RC-2475.pdf").*

*Please disregard the copy of report RC-1584-4 that has been sent to you with Reference 2.*

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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. § 2.390  
AFFIDAVIT OF JOHN POLCYN

I, John Polcyn, President, AECL Technologies Inc., do hereby affirm and state:

1. I am the President of 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, "Revised Response to NRC's Requests for Additional Information (RAIs) on CATHENA: RAIs 203(b) and 203(c)", dated May 05, 2004, and the information contained on the CD 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 information provided constitutes proprietary commercial information that should be held in confidence by NRC pursuant to 10 CFR § 2.390(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

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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.

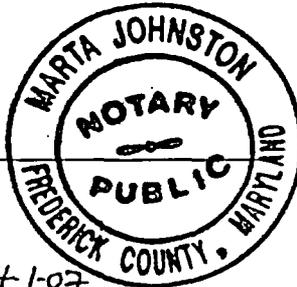
- iii. This information is being transmitted to the NRC in confidence.
- iv. This information is generally not available in public sources and could not be gathered readily from other publicly available information.
- v. Public disclosure of this information would create substantial harm to the competitive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

3. Accordingly, AECL Technologies Inc. requests that the information provided in Enclosure 1 be withheld from public disclosure pursuant to the policy reflected in §§ 2.390(a)(4) and 9.17(a)(4).

John Polcyn  
John Polcyn, President, AECL Technologies Inc.

Subscribed and sworn before me on this 11th day of May, 2004.

Marta Johnston  
Notary Public



My Commission expires 4-1-07