

April 11, 1994

Project No. 679

Dr. Victor G. Snell, Director
Safety and Licensing
AECL Technologies
9210 Corporate Boulevard
Suite 410
Rockville, Maryland 20850

Dear Dr. Snell:

In the course of our preapplication efforts for the CANDU-3 reactor design, the NRC was given access to two versions of the CATHENA reactor analysis computer code. The first version was denoted CATHENA-3.4b for the DEC workstation. The second version is CATHENA-3.5 for the HP workstation. Both code versions have been used by the NRC's contractor, INEL, to perform calculations for the CANDU-3 design that we might better understand the plant.

It is our understanding that CATHENA will be the code of record for the CANDU-3 design certification application. If this is the case, the NRC Office of Nuclear Reactor Regulation would like to begin its review of the code and its performance. We have been attempting to compile the CATHENA-3.5 code on a Sun SPARC2 workstation. That effort has to date been unsuccessful.

To further our preapplication efforts with regard to the CANDU-3 design review, the NRC requests that AECL Technologies provide a Sun SPARC2 version of the CATHENA-3.5, or later version if it exists. The material should include the CATHENA source code files, build files for the Sun system, a Sun binary executable file, and CANDU-3 input deck. The code should be compiled with, and be compatible with, the Sun SPARC2 architecture, running the SunOS 4.1.3 operating system, and the Sun Fortran 1.4 version of the Fortran-77 compiler.

Should you have any questions regarding this request, please contact me at (301) 504-1104.

Sincerely,

Original signed by:

003036

Dino C. Scaletti, Senior Project Manager
Advanced Reactors Project Directorate
Division of Advanced Reactor
and Special Project
Office of Nuclear Reactor Regulation

cc: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Should you have any questions regarding this request, please contact me at (301) 504-1104.

Sincerely,

A handwritten signature in dark ink, appearing to read "Dino C. Scalliti".

Dino C. Scalliti, Senior Project Manager
Advanced Reactors Project Directorate
Division of Advanced Reactor
and Special Project
Office of Nuclear Reactor Regulation

cc: See next page

CANDU
Project No. 679

cc: Louis N. Rib, Licensing Consultant
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