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John Polcyn DOC DT: 07/07/03
NRR RCVD DATE: 07/29/03

TO:
Chairman Diaz

FOR SIGNATURE OF : ** YEL **

DESC:
Safety characteristics of the advanced CANDU
reactor design ACR-700

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Dyer
Borchardt
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ASSIGNED TO: CONTACT:
DRIP Matthews

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Date Printed: Jul 08, 2003 17:06

PAPER NUMBER: LTR-03-0440 LOGGING DATE: 07/08/2003

ACTION OFFICE: EDO

AUTHOR: John Polcyn

AFFILIATION: MD

ADDRESSEE: Nils Diaz

SUBJECT: Safety characteristics of the advanced CANDU reactor design ACR-700

ACTION: Appropriate

DISTRIBUTION: RF, ACRS, OIP...Encls to: EDO

LETTER DATE: 07/07/2003

ACKNOWLEDGED No

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July 07, 2003

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

The Honorable Nils J. Diaz, Chairman
U.S. Nuclear Regulatory Commission,
Washington, D.C. 20555

Dear Chairman Diaz:

AECL is engaged with the NRC in the pre-application review of the ACR-700 nuclear plant design with a targeted completion of late summer 2004. AECL, through AECL Technologies, intends to submit an application for Standard Design Certification (SDC) for the ACR-700 in late 2004. AECL believes that the introduction of the ACR-700 to the United States will greatly enhance the competitive choices available to American utilities for safe, cost-effective, future nuclear power generation.

The timely introduction of the ACR-700 to the US hinges on NRC's success in efficiently and rationally applying U.S. regulations developed for light water reactors to a different type of reactor design, grounded in a pressure tube technology, whose maturity and safety have been demonstrated by the successful operation of CANDU-type reactors in seven countries throughout the world encompassing over 450 reactor-years of operations. While there are a number of differences in the regulatory requirements, the basic approach to nuclear safety in both the United States and Canada is the same. Significant progress in understanding the technical and regulatory bases of ACR safety is occurring through the co-operative discussions currently being held between the NRC and the Canadian Nuclear Safety Commission (CNSC). We appreciate the openness shown by the NRC to work with the CNSC in this regard.

To highlight the similarity in approach to nuclear safety and to introduce the safety characteristics of the ACR-700 to the Commissioners, the ACRS and the senior NRC staff, AECL requested an overview report from two former senior regulators with broad experience: Dr. Kenneth Rogers, former NRC Commissioner, and Mr. John Waddington, former Director-General of the CNSC. AECL asked them to summarize the safety of the ACR-700 at a level which would be useful to senior regulators in both countries. Their report, entitled "Safety Characteristics of the Advanced CANDU Reactor Design ACR-700", is attached for your information. I believe the report will prove a useful overview for your future deliberations on the ACR-700.



If you have any questions on this letter and/or the enclosed report please contact either of us at 301-228-8409, and (905) 823-9060 extension 2005, respectively.

Yours sincerely,

A handwritten signature in dark ink, appearing to read "J. Polcyn".

John Polcyn
President

AECL Technologies, Inc.

A handwritten signature in dark ink, appearing to read "Dr. Ken Hedges".

Dr. Ken Hedges
Vice President
AECL – ACR Business Unit

cc.

E. McGaffigan, Jr. (USNRC)
J. Merrifield (USNRC)
W. Travers (USNRC)
S. Collins (USNRC)
A. Thadani (USNRC)
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