

August 13, 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

Reference: 1. Letter V. Langman to B. Sosa, "Further to the ACR Pre-Application Plan – Detailed Deliverables and Schedule for Focus Topics", December 18, 2002.  
2. Letter V. Langman to B. Sosa, "Phase 2 of ACR Pre-Application Review", July 30, 2003.

**Re: The Technology of CANDU Fuel Channels**

In support of the NRC's pre-application review of the ACR, in particular focus topic # 1 (Class 1 Pressure Boundary Design) of attachment 1 to Reference 1, and as committed in Reference 2, please find enclosed a CD copy containing the AECL Report 108US-31100-LS-001 Revision 0, "The Technology of CANDU Fuel Channels".

The enclosed report "The Technology of CANDU Fuel Channels" provides the technology base for the principle design features of the ACR fuel channel which form part of the RCS Class 1 pressure boundary (e.g., Zr-2.5wt%Nb pressure tubes, rolled joints and end fittings). Based on the supporting technical information provided in the enclosed report, AECL requests NRC staff acceptance of the use of Zr-2.5wt% Nb pressure tubes, rolled joints and end fittings as parts of the RCS Class 1 pressure boundary for the ACR-700 reactor, by June 30, 2004.

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,



Vince J. Langman  
ACR Licensing Manager

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/Enclosures:

1. A CD containing the AECL Report 108US-31100-LS-001 Revision 0, "The Technology of CANDU Fuel Channels", August 2003.