

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.
3. Letter V. Langman to B. Sosa, "Safety Basis for ACR", July 31, 2003.
4. Letter V. Langman to B. Sosa, "Technical Description of the ACR-700", July 15, 2003.

Re: Initial Conditions and Standard Assumptions Safety Analysis Basis

In support of the NRC's pre-application review of the ACR, in particular focus topic # 2 (Design Basis Accidents and Acceptance Criteria) of attachment 1 to Reference 1, and as committed in Reference 2, please find enclosed a CD copy containing the AECL Report 10810-03510-AB-001 Revision 0, "Initial Conditions and Standard Assumptions Safety Analysis Basis".

The enclosed report presents the acceptance criteria and the major plant system assumptions to be used in the safety analysis of the ACR-700 design. The assumptions pertain to the operating state before an event and to the plant response after a postulated event, but are not specific to any particular analysed event. The use of this document by safety analysts and designers ensures a consistent, well-supported approach to all the safety analysis in modelling the plant response to postulated accidents.

This report is part of a hierarchy of documents, which define the event classification for the ACR-700 design, as well as the methodology and assumptions to be used in the safety analysis. Within this hierarchy, the Safety Basis (Reference 3) is a high-level document, which describes and explains the event classification and overarching acceptance criteria and performance targets. The enclosed report makes use of the Safety Basis, as well as the reference design (Reference 4) and existing safety analysis practices to establish the acceptance criteria and system assumptions. Discipline-specific Analysis Basis reports are being prepared to define the methodology, models and codes to be used in the ACR-700 safety analyses.

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We request NRC feedback on the acceptability of the approach outlined in the enclosed report by November 15, 2003, or earlier if possible.

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

/Enclosures:

1. A CD containing the AECL Report 10810-03510-AB-001 Revision 0, "Initial Conditions and Standard Assumptions Safety Analysis Basis", August 2003.