

FROM: John A. Blum & Associates San Francisco, Calif. Roland L. Sharpe	DATE OF DOCUMENT 4-29-70	DATE RECEIVED 5-4-70	NO.:
	LTR. X	MEMO:	REPORT: OTHER:
TO: E. G. Case	ORIG.:	CC:	OTHER:
	ACTION NECESSARY <input type="checkbox"/>	CONCURRENCE <input type="checkbox"/>	DATE ANSWERED BY:
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DESCRIPTION: (Must Be Unclassified) Ltr furnishing info on general review for seismic design of the Keowee hydro. facilities as they relate to Oconee Nuclear Station (Duke Power	REG. NO:	50-269-270-287	
ENCLOSURES:	REFERRED TO	DATE	RECEIVED BY
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April 29, 1970

Mr. Edson G. Case, Director
Division of Reactor Standards
U. S. Atomic Energy Commission
Washington, D.C. 20343

Contract No. AT(49-5)-3011
Blume Project No. 2085511
Subject: Oconee Nuclear Station Units 1, 2, and 3
Duke Power Company
Final Safety Analysis Report
Docket Nos. 50-269, -270, -287



Dear Mr. Case:

In accordance with your request, we have conducted a general review of the data received on April 20 concerning seismic design of the Keowee hydroelectric facilities as they relate to the Oconee Nuclear Station. We have the following comments:

1. We understand that the Keowee and Little River Dams, intake canal dikes and submerged weir were approved during the Construction Permit phase. Therefore, we have not reviewed these items.
2. An equivalent static load approach has been used in the analysis of all the hydroelectric facilities. This approach is justified in analysis of structures which may be considered essentially rigid but is not necessarily justified in the analysis of other structures and components. The applicant should present justification that the equivalent static load approach is appropriate for the following structures and components:

Intake Structure
Powerhouse Concrete Substructure and Steel Superstructure,
Spillway Concrete Gate Structure,
Tainter Gates and Anchorage, and
Substructure Concrete Control Building
3. We assume that the Emergency Breaker Vault is a critical facility. If this is so, drawings should be submitted.
4. The effects on the dams and structures of earthquake-generated waves on Lake Keowee have not been discussed. Their effects should be evaluated.

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Consultant

Mr. Edson G. Case

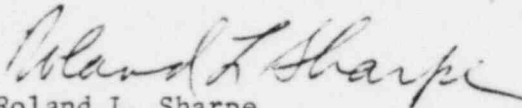
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April 29, 1970

5. The seismic design of Jocassee Dam has not been discussed. If this Dam is critical, as we assume it is, the effects of its failure on the other dams and on the Nuclear Station should be evaluated or an analysis presented that substantiates its seismic adequacy.

Very truly yours,

JOHN A. BLUME & ASSOCIATES, ENGINEERS


Roland L. Sharpe
Executive Vice President

RLS:nlk