



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

AUG 14 1984

MEMORANDUM FOR: George W. Knighton, Chief
Licensing Branch No. 3, DL

THRU: *NBF* James P. Knight, Assistant Director for
Components & Structures Engineering, DI

FROM: Leon Reiter, Acting Chief
Geosciences Branch, DE

SUBJECT: SAFETY EVALUATION REVIEW - GEOLOGY AND SEISMOLOGY

Plant Name: Beaver Valley Power Station, Unit 2 (BVPS 2)
Applicant: Duquesne Light Co. (DLC)
Licensing Stage: OL
Responsible Branch: LB-3, M. Ley, LPM
Review Status: SER
Docket No.: 50-412
Documents under Review: Seismic Design Response Spectra and
Beaver Valley FSAR

During a conference call on July 13, 1984 with the applicant (DLC) the following subjects were discussed:

- a) The procedures followed to compute the displacement amplification factors shown in Table 2-1, Seismic Design Response Spectra Report, Stone & Webster Engineering Corp. (SWEC).
- b) The manner in which the BVPS soil shear wave profile was used in the soil amplification study.

The staff noted that the generalized shear wave velocity profile (SWEC Report, Figure 6-2) was representative of the "upper bound" velocities of the soil as determined by the 1977 survey (SWEC Report Figure 6-1). As a result the staff recommended that the SHAKE analysis which resulted in the spectra shown in Figure 7-6 (SWEC Report) be repeated using the "lower bound" soil properties of the BVPS site.

The applicant agreed to address the problems mentioned and to elaborate on the methodology used to obtain the reported results.

The staff recommends that the SWEC Seismic Design Response Spectra Report be expanded to include the following:

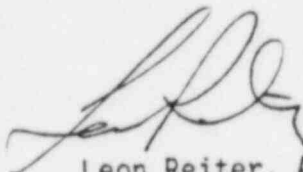
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1. Document the procedure used to obtain the displacement amplification factors listed in Table 2-1.
2. Expand the Soil Response Analysis (Section 7) to include a comparison of response spectra using the upper limits and lower limits of the shear wave velocities of the densified soil profile (Figure 6-1, 1977 survey, dashed lines) at foundation level of the Containment Building.

This memorandum was prepared by Gus Giese-Koch, Geophysicist, Geosciences Branch.



Leon Reiter, Acting Chief
Geosciences Branch, DE

cc: G. Giese-Koch
L. Heller