

REPORT ON THE SEISMICITY OF THE
SENECA (OCONEE COUNTY), SOUTH CAROLINA AREA

At the request of the Division of Reactor Licensing of the Atomic Energy Commission, the Seismology Division of the Coast and Geodetic Survey has evaluated the seismicity of the area around the proposed reactor site near Seneca (Oconee County), South Carolina, and has reviewed the similar analysis by the applicant in their "Duke Power Company Oconee Nuclear Station Preliminary Safety Analysis Report." The applicant's seismicity report contains a complete listing of the earthquakes both distant and nearby, which may have affected the proposed site, and a detailed review of the geology within a few hundred miles of the site. Little is known, however, concerning the details of the geological structures in the area and the relationship of these structures to earthquakes. Because of this, the Survey believes that the largest earthquake recorded anywhere in the zone may occur along one of the faults near the site.

Based upon the review of the seismic history of the site and the surrounding area and the related geologic considerations, the Coast and Geodetic Survey agrees with the applicant that an acceleration of 0.05g on rock would be

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adequate for representing the ground motions from earthquake disturbances likely to occur within the lifetime of the facility. In addition, it agrees that an acceleration of 0.10g on rock would represent the ground motions from the maximum earthquake likely to affect the site. We believe this value would provide an adequate basis for designing protection against the loss of function of components important to safety. We also agree that an acceleration of 0.15g is an adequate basis for designing protection against the loss of function of components important to safety that are not located on rock.

U. S. Coast and Geodetic Survey
Rockville, Maryland 20852

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