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iteria and guidelines for assessing capability surface faulting at nuclear power plant sites

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American National Standard
Criteria and Guidelines for Assessing Capability for Surface Faulting at Nuclear Power Plant Sites

Secretariat
American Nuclear Society

Prepared by the
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Working Group ANS-2.7

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Foreword

(This Foreword is not a part of American National Standard Criteria and Guidelines for Assessing Capability for Surface Faulting at Nuclear Power Plant Sites, ANSI/ANS-2.7-1982.)

This standard is intended to provide applicants and consultants with criteria and guidelines for investigations for assessing the potential for surface faulting at nuclear power plant sites.

The Code of Federal Regulations, Title 10, "Energy," Part 100, "Reactor Site Criteria," Appendix A, "Seismic and Geologic Siting Criteria For Nuclear Power Plants," includes required investigations for surface faulting. These regulations in part include criteria for obtaining information to determine whether, and to what extent, a nuclear power reactor facility need be designed for surface faulting. Whereas Appendix A of 10 CFR 100 lists the criteria for surface faulting determination, methods and procedures for obtaining the data needed for the assessment of the potential for surface faulting are the responsibility of the applicant. In the past, applicants and consultants have been faced, at times, with conducting difficult and expensive investigations of capable faulting, including age dating, without full knowledge of the available methods and procedures.

Considerable experience in assessing the "capability" for surface faulting at nuclear power plant sites has been accumulated by the industry at many sites across the nation. Whereas reports of these faulting investigations are available in open files of the Nuclear Regulatory Commission, the approaches and the results of these evaluations are not widely disseminated. Consequently, the need arose to develop some type of guideline or standard outlining available methods and procedures for making an acceptable assessment of the potential for surface faulting. American National Standard Criteria and Guidelines for Assessing Capability for Surface Faulting at Nuclear Power Plant Sites, ANSI/ANS-2.7-1982, was developed to fulfill this need.

Although the objective of this standard is clearly defined, the procedures for attaining the objective cannot be defined specifically. Following a series of set procedures does not assure that a reasonable or acceptable assessment of the capability for surface faulting at a specific site has been made. The assessment in many situations derives from the judgment of qualified professionals based on interpretations of complex groups of data at various levels of accuracy and completeness. These guidelines are based on a consensus of a group of professionals knowledgeable in the geologic and seismic aspects of faulting.

ANS-2.7-1982 is not intended to restrict or limit alternate approaches or innovations in assessing the capability for surface faulting. Understandably, there may be situations in which methods or procedures other than those addressed in ANS-2.7-1982 would provide the data needed for assessing the potential of surface faulting at power plant sites.

The members of working group ANS-2.7 who prepared this document are:

C. R. McClure, Chairman, *Bechtel Civil and Minerals, Inc.*
C. R. Allen, *California Institute of Technology*
R. L. Blum, *Pacific Gas & Electric Company*
M. G. Bonilla, *U. S. Geological Survey*
L. S. Cluff, *Woodward-Clyde Consultants*
G. B. Dalrymple, *U. S. Geological Survey*
*M. B. Dobrin, *University of Houston*
G. O. Gates, *Consultant*
D. H. Hamilton, *Earth Sciences Associates*
R. H. Jahns, *Stanford University*
R. A. Laurence, *U. S. Geological Survey*
V. J. Murphy, *Weston Geophysical Engineers, Inc.*
S. W. Smith, *University of Washington*
R. E. Wallace, *U. S. Geological Survey*
P. J. West, *Southern California Edison Company*
G. S. Hunt, *Southern California Edison Company*
R. D. McMullen, *U. S. Nuclear Regulatory Commission*

* Deceased

Subcommittee ANS-2, Site Evaluation, of the American Nuclear Society Standards Committee had the following members at the time of its approval of this standard:

R. V. Bettinger, Chairman, *Pacific Gas and Electric Company*
L. L. Beratan, *U. S. Nuclear Regulatory Commission*
A. Brearley, *Sargent & Lundy*
L. E. Escalante, *Los Angeles Department of Water and Power*
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G. E. Heim, *Harding-Lawson Associates*
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U. Kappus, *Dames & Moore*
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S. J. Milioti, *American Electric Power Service Corporation*
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T. Pickel, *Oak Ridge National Laboratory*
D. L. Siefken, *U.S. Nuclear Regulatory Commission*
J. M. Smith, *General Electric Company*
I. Spickler, *Dames & Moore*
J. D. Stevenson, *Woodward-Clyde Consultants*
S. Tucker, *Florida Power & Light Company*
A. K. Vaish, *EDS Nuclear Inc.*
R. W. Whalin, *U.S. Army Corps of Engineers*
K. Wiedner, *Bechtel Power Corporation*

The American Nuclear Society's Nuclear Power Plant Standards Committee (NUPPSCO) had the following membership at the time of its approval of this standard:

J. F. Mallay, Chairman
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Name of Representative	*Organization Represented*
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R. G. Benham	*General Atomic Company*
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R. W. Allen, Alt.	*United Engineers and Constructors*
	(for the Institute of Electrical and Electronics Engineers, Inc.)
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Contents