



# Criteria for Assessing Tectonic Surface Fault Rupture and Deformation at Nuclear Facilities

An American National Standard

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**American National Standard  
Criteria for Assessing Tectonic Surface  
Fault Rupture and Deformation  
at Nuclear Facilities**

Secretariat  
**American Nuclear Society**

Prepared by the  
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Standards Committee  
Working Group ANS-2.30**

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## Foreword

(This foreword is not a part of the American National Standard “Criteria for Assessing Tectonic Surface Fault Rupture and Deformation at Nuclear Facilities,” ANSI/ANS-2.30-2015.)

This standard provides criteria and guidelines for assessing permanent ground deformation (PGD) hazard due to tectonic surface fault rupture and deformation at nuclear facilities. Specifically, the purpose of this standard is to provide an outline of procedures and methods for performing probabilistic fault displacement hazard analysis (PFDHA) and probabilistic tectonic deformation hazard analysis (PTDHA).

This standard replaces ANSI/ANS-2.7-1982, “Criteria and Guidelines for Assessing Capability for Surface Faulting at Nuclear Power Plants,” which is obsolete because of changes in the state-of-knowledge, technical methods, public concerns, and regulatory programs. This new standard includes updated information to make it useful for siting/licensing nuclear facilities in the U.S.

This standard is one of a series of national standards designed to provide criteria and guidelines to promote uniform and effective assessment of seismic hazards at nuclear facilities. These hazards must be properly identified and characterized commensurate with the level of risk and design-requirements associated with each nuclear facility as specified in ANSI/ANS-2.26-2004 (R2010), “Categorization of Nuclear Facility Structures, Systems, and Components for Seismic Design.”

Two complementary standards describe procedures for performing site characterization and assessing seismic hazards, respectively: ANSI/ANS-2.27-2008, “Criteria for Investigations of Nuclear Facility Sites for Seismic Hazard Assessments,” and ANSI/ANS-2.29-2008, “Probabilistic Seismic Hazard Analysis.”

This standard might reference documents and other standards that have been superseded or withdrawn at the time the standard is applied. A statement has been included in the references section that provides guidance on the use of references.

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