

**Gerry L. Stirewalt, PhD, PG, CEG**  
**Senior Geologist**  
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Dr. Stirewalt is a structural geologist with more than 52 years of national and international experience, including teaching geology classes at 3 universities; working as a consultant with engineering firms and federal agencies on geologic site characterization of proposed nuclear and non-nuclear power facility sites and the proposed high-level radioactive waste (HLW) site at Yucca Mountain (YM); and serving at the U. S. Nuclear Regulatory Commission (NRC) to protect public health and safety and the environment by ensuring that licensees and applicants for new nuclear power reactors properly address geologic characteristics of existing or proposed nuclear facility sites. He is a Registered Professional Geologist (PG) in North Carolina and Oregon and a Certified Engineering Geologist (CEG) in Oregon. His primary technical specialty is geologic site characterization for critical facilities, which specifically includes investigation of tectonic structures (i.e., faults, shear zones, fractures, and folds) and non-tectonic features (e.g., dissolution features) to evaluate their potential for surface deformation and related geologic hazards, as well as evaluation of geologic data for characterization of seismic sources.

As a consultant, he worked with engineering firms on geologic site characterization projects in Southeast Asia and the U.S at proposed nuclear and non-nuclear power facility sites; the U.S. Department of Energy in the HLW disposal program, including interfacing with the Canadian and Swedish HLW site characterization programs; and the NRC for 3D geospatial modeling of the proposed HLW disposal site at YM and non-HLW facilities, as well as overview of the geologic site characterization program for the proposed HLW disposal site at YM.

He has been employed by the NRC for more than 15 years, during which time his experience was derived from the following activities: [1] participating in public outreach activities to address concerns related to geologic site characterization of the proposed HLW disposal site at YM; [2] preparing geologic chapters of the NRC's Safety Evaluation Reports for six license applications related to proposed sites in the eastern U.S.; [3] participating in Advisory Committee on Reactor Safeguards (ACRS) briefings and mandatory public hearings for six license applications related to proposed sites in the eastern U.S., and one contested public hearing for a proposed site in the eastern U.S.; [4] functioning as a member of the Technical Integration Team for characterization of seismic sources in the central and eastern U.S. using the Senior Seismic Hazard Analysis Committee (SSHAC) Level 3 process, the results of which were published as NUREG-2115; [5] reassessing seismic hazard at an operating nuclear power plant in the western U.S., as required by the NRC after the incident at the Fukushima nuclear facility in Japan involving an earthquake and tsunami that resulted from displacement along a major offshore fault; [6] developing and implementing the NRC's Geologic Mapping License Condition to ensure that licensees adequately characterize geologic features found in excavations for safety-related structures at proposed new nuclear power reactor sites; [7] interfacing with external stakeholders in meetings addressing site characterization issues at potential new reactor sites; and [8] mentoring new geologists.

Dr. Stirewalt has authored or co-authored more than 65 technical publications related to the field of geoscience. He has made numerous presentations at technical conferences to discuss the results of his work throughout his entire career, including during his time at the NRC.