

American Nuclear Society

**evaluation of subsurface
radionuclide transport at commercial
nuclear power plants**

an American National Standard

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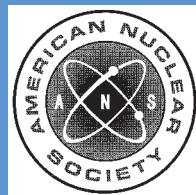
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This standard does not necessarily reflect recent industry initiatives for risk informed decision-making or a graded approach to quality assurance. Users should consider the use of these industry initiatives in the application of this standard.



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**American National Standard
Evaluation of Subsurface
Radionuclide Transport at Commercial
Nuclear Power Plants**

Secretariat
American Nuclear Society

Prepared by the
**American Nuclear Society
Standards Committee
Working Group ANS-2.17**

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American National Standard

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Foreword

(This Foreword is not a part of American National Standard “Evaluation of Subsurface Radionuclide Transport at Commercial Nuclear Power Plants,” ANSI/ANS-2.17-2010.)

This standard constitutes a major revision of the original standard, ANSI/ANS-2.17-1980, which was adopted on April 9, 1980, reaffirmed on October 3, 1989, and withdrawn on July 28, 2000. A new working group, Working Group ANS-2.17 of ANS-25 Subcommittee (Siting: Environmental & Emergency Preparedness) of the American Nuclear Standards Committee, was constituted November 2005 to revise the original standard.

This standard might reference documents and other standards that have been superseded or withdrawn at the time the standard is applied.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.

This standard mentions, but does not exhaustively describe, the concepts of generating risk-informed insights, performance-based requirements, and a graded approach to quality assurance. The user is advised that one or more of these techniques could enhance the application of this standard.

Two appendices are provided to assist practitioners who would implement the guidance in this standard. Appendix A provides information on relevant U.S. Nuclear Regulatory Commission regulatory criteria and guidance, and its Table A provides a listing of standard documents (e.g., ANS, ASTM, ISO, etc.) for conducting subsurface radionuclide transport characterization, monitoring, and modeling programs. Appendix B provides tables that summarize information and parameters identified in the guidance.

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