

# A PRACTICAL GUIDE FOR RADIOLOGICAL SURVEILLANCE OF THE ENVIRONMENT

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## AT FEDERALLY-OWNED NUCLEAR SITES IN THE USA

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The variety, complexity, and staff resources of nuclear facilities operated for the U.S. Energy Research and Development Administration (USERDA) made a completely uniform environmental surveillance program both unwarranted and unwise. Some commonalty of treatment of common surveillance problems is required for comparable evaluations of site management and adequate public information. The USERDA Division of Safety, Standards and Compliance has sponsored the preparation of an Environmental Surveillance Guide to achieve this purpose.

Key features of the Guide include the following :

1. Environmental pathway analysis, with emphasis on identification and monitoring of critical pathways for population exposure.
2. General program design and performance criteria, including designation of environmental dose levels requiring specific monitoring.
3. Guidance for data analysis and statistical treatment, including values below minimum detectable levels.
4. Guidance on quality assurance for environmental programs.
5. Advices on data display and documentation.
6. A review of U.S. measurement techniques and equipment, with performance criteria and comparisons.

Although the Guide is addressed specifically to USERDA sites, the principles and methods are generally applicable to all nuclear facilities.

This paper is based on work performed under U.S. Energy Research and Development Administration Contract No. AT (45.1)-1830.