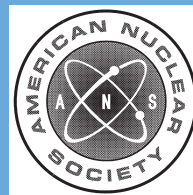


American Nuclear Society

WITHDRAWN

**emergency planning for
research reactors**

an American National Standard



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Foreword

(This Foreword is not a part of the American National Standard for Emergency Planning for Research Reactors, ANSI/ANS-15.16-1982.)

The American Nuclear Society Standards Secretariat established Subcommittee ANS-15, Operation of Research Reactors, in the fall of 1970 for the purpose of preparing a standard for the operation of research reactors. In January 1972, this charter was expanded to include the multiple task of preparing all standards for research reactors. To implement this enlarged responsibility, a number of subcommittee working groups were established to develop standards for consideration and complementary action by Subcommittee ANS-15. ANS-15.16 is one of these groups.

In August 1980 the U.S. Nuclear Regulatory Commission published new rules for Title 10, "Energy," Code of Federal Regulations, Part 50, "Licensing of Production and Utilization Facilities," Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities".

The changes to the regulations place emphasis on emergency preparedness in regard to notifying offsite authorities and initiating protective actions on the basis of severity of facility damage and potential as well as actual radiological releases that are occurring or have occurred. The regulations also require the identification of a spectrum of radiological emergencies applicable to a reactor facility and the grouping of these emergencies into specified classes of emergencies. They also require that a facility's emergency plan identify emergency action levels which are to be used to initiate the planned emergency responses for each emergency. In addition, the regulations require the determination of the need for establishing an offsite emergency planning zone on a case-by-case basis, and require the identification of predetermined actions for protecting individuals within this zone.

In June 1980, as a result of the substantial changes to the regulations, Working Group ANS-15.16 was assigned the task of revising ANSI/ANS-15.16-1978. The working group currently consists of the following members:

W. J. Brynda, Chairman, <i>Brookhaven National Laboratory</i>	W. R. Casey, <i>Brookhaven National Laboratory</i>
D. M. Alger, <i>University of Missouri</i>	A. E. Desrosiers, <i>Battelle Pacific Northwest Laboratories</i>
E. F. Bates, <i>U. S. Nuclear Regulatory Commission</i>	R. D. Neff, <i>Texas A&M University</i>

This revision of ANSI/ANS-15.16 identifies elements of an emergency plan. It provides criteria and guidance that should be considered in formulating an emergency plan. The standard identifies the emergency classes that should be used to categorize the spectrum of radiological emergencies and provides guidance for establishing the emergency classification system. It provides examples of typical emergency action levels associated with each emergency and guidance for establishing an emergency planning zone.

The applicability of the emergency plan elements presented in this standard will vary from one research reactor facility to another depending upon the potential radiological consequences that result from postulated events. The risk from credible radiological emergency situations at many research reactor facilities is usually minimal and may not require the application of all the emergency plan elements in this standard, or the establishment of an emergency planning zone.

Subcommittee ANS-15, Operation of Research Reactors, of the American Nuclear Society Standards Committee had the following members at the time of its approval of this standard:

W. J. Richards, Chairman, Argonne National Laboratory-West	R. D. Neff, Texas A&M
F. T. Binford, Oak Ridge National Laboratory	G. Nelson, University of Arizona
L. C. Brinkerhoff, U. S. Department of Energy	P. Nelson, Rensselaer Polytechnic Institute
W. J. Brynda, Brookhaven National Laboratory	T. M. Raby, U. S. National Bureau of Standards
A. C. Ellingson, Sandia National Laboratories	J. D. Randall, Texas A&M
J. P. Farrar, University of Virginia	T. R. Schmidt, Sandia National Laboratories
J. R. Miller, U. S. Nuclear Regulatory Commission	R. R. Walston, U. S. Department of Energy
	W. L. Whittemore, General Atomic Company

The American National Standards Committee N17, Research Reactors, Reactor Physics, and Radiation Shielding, had the following membership at the time it reviewed and approved this Standard:

R. S. Carter, Chairman
T. M. Raby, Secretary

<i>Organization Represented</i>	<i>Name of Representative</i>
American College of Radiology	M. M. Ter Pogossian
American Institute of Chemical Engineers	D. Duffey
American Nuclear Society	R. S. Carter
American Physical Society	W. W. Havens, Jr. H. Goldstein (Alt.)
American Public Health Association	W. A. Holt
American Society of Radiologic Technologists	J. H. Tolan
Health Physics Society	C. A. Willis
Institute of Electrical and Electronics Engineers, Inc. (Nuclear and Plasma Science Society)	E. A. Corte
National Bureau of Standards	T. M. Raby
National Council on Radiation Protection & Measurements	A. B. Chilton
U.S. Department of Energy	P. B. Hemmig J. W. Lewellen (Alt.)
U. S. Nuclear Regulatory Commission	J. R. Miller R. E. Carter (Alt.)
Individual Members	J. E. Olhoeft E. A. Warman W. L. Whittemore

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