

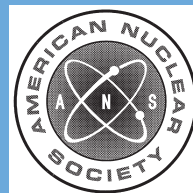
# American Nuclear Society

**WITHDRAWN**

**criticality accident alarm system**

**an American National Standard**

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**published by the  
American Nuclear Society  
555 North Kensington Avenue  
La Grange Park, Illinois 60526 USA**

**American National Standard  
Criticality Accident  
Alarm System**

**Secretariat  
American Nuclear Society**

**Prepared by the  
American Nuclear Society  
Standards Committee  
Work Group ANS-8.3**

**Published by the  
American Nuclear Society®  
555 North Kensington Avenue  
La Grange Park, Illinois 60525 USA**

**Approved October 10, 1979  
by the  
American National Standards Institute, Inc.**

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Published by

**American Nuclear Society**  
**555 North Kensington Avenue, La Grange Park, Illinois 60525 USA**

Price: \$16.00

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## Foreword

(This Foreword is not a part of American National Standard Criticality Accident Alarm System, ANSI/ANS-8.3-1979.)

The usefulness and protective features of criticality alarm systems have been demonstrated in instances of accidental criticality that have occurred during the processing of fissionable materials. This standard provides guidance for the establishment and maintenance of an alarm system to initiate personnel evacuation in the event of inadvertent criticality. Preparation of the standard, begun in 1966, resulted in the issuance of N16.2-1969. The mandatory five-year review to determine reaffirmation, revision or withdrawal began in 1973. In the course of the review, comments from individuals and from the American Nuclear Society (ANS) committees responsible for certification were considered. Estimates of maximum radiation dose to personnel expected to arise from potential criticality accidents have been reconsidered, resulting in a reassessment of detector need and capability. The section concerning emergency planning has been retained since no other American National Standard deals with this subject. Extensive reordering and revision of the text for clarification constitute the principal changes in the revised standard. Additionally, however, the original Appendix (now Appendix B) has been greatly amplified to exemplify utilization of the standard in typical applications. Further, Appendix A, now added, provides the bases for the assumed "minimum accident of concern."

Suggestions for improvement of this standard derived from its use should be sent to the American National Standards Institute, 1430 Broadway, New York, NY 10018.

The revision was drafted by a Work Group of Subcommittee 8 of the Standards Committee of the American Nuclear Society comprised of:

D. R. Smith, Chairman, <i>Los Alamos Scientific Laboratory</i>	Stephen A. McGuire, <i>U. S. Nuclear Regulatory Commission</i>
Donald L. Dunaway, <i>National Lead Company of Ohio</i>	James E. McLaughlin, <i>Health and Safety Laboratory, U. S. Department of Energy</i>

At the time of its approval of this standard in 1975, the membership of Subcommittee 8, Fissionable Materials Outside Reactors, was:

J. D. McLendon, Chairman, <i>Union Carbide Corporation, Nuclear Division</i>	D. M. Dawson, <i>General Electric Company</i>
E. B. Johnson, Secretary, <i>Oak Ridge National Laboratory</i>	W. A. Johnson, <i>U. S. Department of Energy</i>
F. M. Alcorn, <i>Babcock and Wilcox Company</i>	Norman Ketzlach, <i>U. S. Nuclear Regulatory Commission</i>
H. K. Clark, <i>Savannah River Laboratory</i>	W. G. Morrison, <i>Allied Chemical Corporation</i>
E. D. Clayton, <i>Battelle Pacific Northwest Laboratories</i>	David R. Smith, <i>Los Alamos Scientific Laboratory</i>
	J. T. Thomas, <i>Oak Ridge National Laboratory</i>
	Frank E. Woltz, <i>Goodyear Atomic Corporation</i>

The American National Standards Committee N16, Nuclear Criticality Safety, which reviewed and approved this standard in 1979, had the following membership:

Dixon Callihan, Chairman  
E. B. Johnson, Secretary

*Organization*

*Representative*

Allied-General Nuclear Services .....	William R. Waltz
American Institute of Chemical Engineers .....	Alex F. Perge
American Nuclear Society .....	Dixon Callihan
American Society for Testing and Materials .....	Ricardo Artigas J. H. Bystrom (Alternate)
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Health Physics Society .....	Fred W. Sanders F. F. Haywood (Alternate)
Institute of Nuclear Materials Management .....	Leo E. Hansen
U. S. Department of Energy .....	Lorin Brinkerhoff
U. S. Nuclear Regulatory Commission .....	Robert L. Stevenson

*Individual Members*

C. Leslie Brown  
E. B. Johnson  
H. C. Paxton

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