

American Nuclear Society

**operation of fast
pulse reactors**

an American National Standard

REAFFIRMED

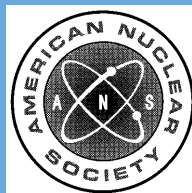
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**American National Standard
Operation of Fast
Pulse Reactors**

Secretariat
American Nuclear Society

Prepared by the
**American Nuclear Society
Standards Committee
Working Group ANS-14.1**

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by the
American National Standards Institute, Inc.

American National Standard

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Foreword

(This foreword is not part of American National Standard “Operation of Fast Pulse Reactors,” ANSI/ANS-14.1-2004.

Nuclear devices designed and operated for purposes of research and as sources of sharp, intense pulses of fission-produced radiation have functioned successfully for more than 40 years. In the usual operation, superprompt criticality is established in a mass of unmoderated fissile metal, radiation is produced, and the nuclear reaction is immediately terminated by characteristics inherent in the fissile material itself. These devices have come to be known as fast pulse reactors. This standard provides direction in the use of such specialties so that the risk of damage to personnel and equipment can be controlled. It was prepared by individuals having extensive and intimate experience in the operation of this type of reactor.

At the time of the initial publication in 1975, the membership of Subcommittee 14 was as follows:

A. De La Paz (Chair), *White Sands Missile Range*

L. M. Bonson, *Sandia National Laboratories*
K. Elliott, *Albuquerque Operations Office, U.S. Atomic Energy Commission*
L. P. Holland, *Oak Ridge National Laboratory*
A. H. Kazi, *Aberdeen Pulse Radiation Facility*
R. L. Long, *University of New Mexico*
J. M. Reuscher, *Sandia National Laboratories*
T. F. Wimett, *Los Alamos Scientific Laboratory*

In 2000, a working group was reestablished to review and update the standard. The standard had been reaffirmed in 1982, 1989, and 2000. The standard needed to be updated to reflect changes in procedures and to reference associated standards. The members of Working Group 14.1 producing the revised standard are as follows:

T. R. Schmidt (Chair), *Sandia National Laboratories*

R. E. Anderson, *Los Alamos National Laboratory*
J. W. Bryson, *Sandia National Laboratories*
M. J. Burger, *Sandia National Laboratories*
A. De La Paz, *Vista Technologies*
J. R. Felty, *Science Applications International Corporation*
T. Michael Flanders, *White Sands Missile Range*
A. H. Kazi (Retired), *Aberdeen Pulse Radiation Facility*
R. A. Knief, *XE Corporation*
R. L. Long, *Nuclear Stewardship, LLC*
M. Mendonca, *U.S. Nuclear Regulatory Commission*
D. M. Minnema, *National Nuclear Security Administration*
G. A. Schlapper, *National Nuclear Security Administration*

This standard was processed and approved for submittal to ANSI by the American Nuclear Society’s Research Reactors, Reactor Physics, Radiation Shielding & Computational Methods (N17) Committee on ANSI/ANS-14.1-2004, “Operation of Fast Pulse Reactors.” Committee approval of the standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the N17 committee had the following members:

T. M. Raby (Chair), *National Institute of Standards and Technology*
A. Weitzberg (Vice-Chair), *Scientech, Inc.*

R. E. Carter, *Individual*
D. Cokinos, *Brookhaven National Laboratory*
B. Dodd, *Health Physics Society*
W. A. Holt, *American Public Health Association*
W. C. Hopkins, *Individual*
L. I. Kopp, *Individual*

L. B. Marsh, *U.S. Nuclear Regulatory Commission*
(Alt. A. Adams, *U.S. Nuclear Regulatory Commission*)
J. F. Miller, *Institute of Electrical and Electronics Engineers, Inc.*
J. E. Olhoeft, *Individual*
W. J. Richards, *University of California*
R. Seale, *University of Arizona*
T. R. Schmidt, *Sandia National Laboratories*
A. O. Smetana, *Savannah River National Laboratory*
E. G. Tourigny, *U.S. Department of Energy*
D. K. Trubey, *Individual*
S. H. Weiss, *National Institute of Standards and Technology*
(Alt. T. J. Myers, *National Institute of Standards and Technology*)
W. L. Whittemore, *General Atomics*

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