

American Nuclear Society

**operation of fast
pulse reactors**

an American National Standard

REAFFIRMED

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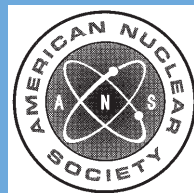
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**American National Standard
Operation of Fast
Pulse Reactors**

Secretariat
American Nuclear Society

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

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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:

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K. Elliott, *Albuquerque Operations Office, U.S. Atomic Energy Commission*
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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:

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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:

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