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May 3, 2000

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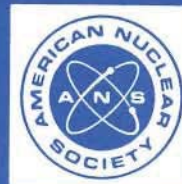
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American National Standard
Operation of Fast Pulse Reactors

Secretariat
American Nuclear Society

Prepared by the
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Standards Committee
Working Group ANS-14.1

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American National Standard

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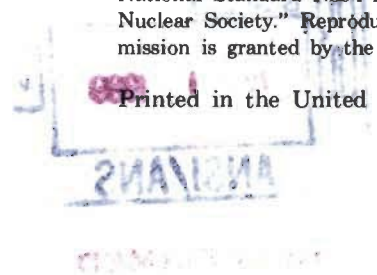
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Foreword

(This Foreword is not part of American National Standard Operation of Fast Pulse Reactors N394-1975/ANS-14.1)

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 a score of years. In the usual operation, super-prompt 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 minimized. It was prepared by individuals having extensive and intimate experience in the operation of this type of reactor.

Three drafts of the standard were prepared by Subcommittee 14 of the Standards Committee of the American Nuclear Society. The third draft was approved unanimously by letter ballot of the Subcommittee in April 1971. Revisions to that draft were issued in May 1972 and March 1974. At the time of the final issuance, the membership of the Subcommittee was:

A. De La Paz, Chairman, *White Sands Missile Range*
L. M. Bonson, *Sandia Laboratories*
K. Elliot, *Albuquerque Operations Office, U.S.*
Atomic Energy Commission
L. P. Holland, *Oak Ridge National Laboratory*

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The American National Standards Committee N17, Research Reactors, Reactor Physics and Radiation Shielding, which reviewed and approved this standard in 1973, had the following membership:

W. L. Whittemore, Chairman
R. S. Carter, Secretary

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American Institute of Chemical Engineers	R. Duffy
American Nuclear Society	W. L. Whittemore
American Physical Society	W. W. Havens, Jr. H. Goldstein (Alt.)
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