American Nuclear Society

WITHDRAWN

the development of technical specifications for research reactors

an American National Standard

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Standards Committee
Working Group ANS-15.1

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Foreword

(This Foreword is not a part of American National Standard for The Development of Technical Specifications for Research Reactors, ANSI/ANS-15.1-1982.)

In the fall of 1970 the ANS-15 Subcommittee, under Section 1 of the American Nuclear Society Standards Committee, was established to prepare a standard for the operation of research reactors. A letter of inquiry requesting a statement of interest was sent to the management of seventy-five research reactors listed in the U.S. Atomic Energy Commission Report, "Nuclear Reactors Built, Being Built, or Planned," TID-8200 (22nd Rev.). Of forty-five responses, those who indicated both a positive interest and the ability to support the requisite travel expenses of meetings were asked to become members of the Committee. The Committee was formally organized at the 1971 ANS Annual Meeting in Boston.

ANSI N378-1974 (ANS-15.1) was approved in 1974. Since then, additional standards relating to research reactor facilities have been approved. It was noted that several of the approved standards had duplicate sections. The current version of ANS-15.1 has essentially combined the common requirements from the following American National Standards: Development of Technical Specifications for Research Reactors, N378-1974 (ANS-15.1); Records and Reporting Requirements for Research Reactors, N399-1974 (ANS-15.3); Administrative Controls for Research Reactors, ANSI/ANS-15.18-1979; and certain administrative elements from American National Standard Review of Experiments for Research Reactors, N401-1974 (ANS-15.6).

This effort allowed ANS-15.3 to be withdrawn as well as administrative portions of ANS-15.6 and all of ANS-15.18, which was approved in 1979. ANSI/ANS-15.18-1979 was effectively lifted in total and placed in this standard as Section 6, "Administrative Controls." The contents of these standards and this version of ANS-15.1 are in no way contradictory with past or current standards, but do provide some elaboration in a few areas. This standard will be easier to use than the previous group of standards it replaces; i.e., ANS-15.18, ANS-15.3, and parts of ANS-15.6.

It is recognized that many of the requirements of this standard may not be applicable or may be too restrictive for reactors operating in the context of American National Standard Safety Guide For The Performance of Critical Experiments, ANSI/ANS-1-1981 (Reaffirmation of N405-1976) and it is beyond the mission of this working group to identify those differences. It is sufficient only to note that important differences exist and are accounted for by facility managements and chartering and licensing agencies.

The draft standard developmental program reflects extensive interplay of ANS-15 and the daughter work groups. The membership of Work Group ANS-15.1, which led to the renewal of the integrated standard, was:

R. R. Walston, Chairman, *U.S. Department of Energy*
J. P. Farrar, *University of Virginia*
G. S. Hoovler, *Babcock and Wilcox Company*
J. R. Miller, *U.S. Nuclear Regulatory Commission*
T. M. Raby, *U.S. National Bureau of Standards*
J. D. Randall, *Texas A & M University*

In the process of creating standards against the background of established and varied practices in many operating facilities, it is important to consider:

(1) It is not intended that the standard be used as a demand model for backfitting purposes.
(2) It should be a vital aid for the new owner-agency.
(3) It should be helpful for the facility undergoing change/modification.
(4) Its thoughtful use by industry should ease the burden of regulatory agencies.

This standard addresses itself exclusively to technical specifications for and administrative control of research reactors. Note that the administrative control section specified in this standard includes a review and audit section which effectively provides for the function of operational quality assurance at research reactors. Additional standards have been prepared addressing subjects such as siting, effluent evaluation, and other areas of interest and concern to operators of research reactors. Recommendations are welcomed and should be addressed to the Secretary, ANS Standards Committee, American Nuclear Society, 555 North Kensington Avenue, La Grange Park, Ill. 60525. Further guidance may be found in the following supplementary Research Reactor documents:

ANS-15.2 Quality Control for Plate-Type Uranium-Aluminum Fuel Elements, N398-1974
ANS-15.4 Selection and Training of Personnel for Research Reactors, ANSI/ANS-15.4-1977
ANS-15.6 Review of Experiments for Research Reactors, N401-1974
ANS-15.7 Research Reactor Site Evaluation, ANSI/ANS-15.7-1977
ANS-15.8 Quality Assurance Program Requirements for Research Reactors, N402-1976
ANS-15.10 Decommissioning of Research Reactors, ANSI/ANS-15.10-1981
ANS-15.11 Radiological Controls at Research Reactors, ANSI/ANS-15.11-1977
ANS-15.12 Design Objectives for and Monitoring of Systems Controlling Research Reactor Effluents, ANSI/ANS-15.12-1977
ANS-15.14 Physical Security for Reseach Reactors (Draft)
ANS-15.15 Criteria for Reactor Safety Systems of Research Reactors, ANSI/ANS-15.15-1978
ANS-15.16 Emergency Planning for Research Reactors, ANSI/ANS-15.16-1982
ANS-15.17 Fire Protection Programs for Research Reactors, ANSI/ANS-15.17-1981

We affirm, further, that the use of any standard of performance, conduct or excellence is volitional. The decision to use a standard is a management matter, presumably on technical advisement. The institutionalizing of a standard can and must be conditional; i.e., a high probability exists that some exception or addition will compromise the absolute, unconditional application of a document which was composed to cross lines of functional and material discipline.

It is a management function to ameliorate or mitigate conditional matters. It is not the function of a standard to attempt to accommodate the many different management systems. Neither is its function to preempt management prerogatives.

This standard is promulgated in the context of these considerations.

The membership of Subcommittee ANS-15, Operation of Research Reactors, at the time of its approval of this standard, was:

W. J. Richards, Chairman, *Argonne National Laboratory-West*
F. T. Binford, *Oak Ridge National Laboratory*
L. C. Brinkerhoff, *U.S. Department of Energy*
W. J. Brynda, *Brookhaven National Laboratory*
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J. D. Randall, *Texas A&M*
T. R. Schmidt, *Sandia National Laboratory*
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

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American Institute of Chemical Engineers	D. Duffey
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