American Nuclear Society

specification for radiation shielding materials

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Foreword

(This Foreword is not a part of American National Standard "Specification for Radiation Shielding Materials," ANSI/ANS-6.4.2-2006.)

The need for this standard was identified in mid-1977 by Working Group ANS-6.4. At that time, it was recognized that an increasing number of different material/design shielding concepts were being introduced into nuclear power plants to solve neutron and gamma-ray streaming problems. For protection against neutron streaming, materials varying from water-filled rubber bags, rubber balls, special concretes, treated plastics, and silicone gels were proposed, while lead-filled silicone rubber and gels were proposed for gamma-ray streaming. With such a variety of materials, some only a year or two after initial commercial introduction, a clear need was discerned to standardize the specification of these materials to assist the material manufacturer in the type of information he or she needs to provide to the user.

The focus of the working group's initial work was to orient the standard toward the reporting requirements used by material suppliers rather than toward the preparation of specifications by designers and end users. This focus has been maintained through the development of this standard as that representing the true needs of nuclear power plants in this area. The standard was reaffirmed in 1997 and again in 2004, at which time a working group was appointed and charged with revision of the standard.

Working Group 6.4.2 of the American Nuclear Society Standards Committee had the following membership at the time of this revision:

R. E. Faw (Chair), *Individual*

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Subcommittee ANS-6, Radiation Protection and Shielding, had the following membership at the time of its approval of this standard:

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Consensus Committee N-17, Research Reactors, Reactor Physics, Radiation Shielding, and Computational Methods, had the following membership at the time it reviewed and approved this standard:

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