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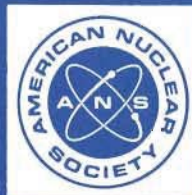
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on and design criteria for area radiation
systems for light water nuclear reactors

an American National Standard

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American Nuclear Society
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**American National Standard
Location and Design Criteria for Area Radiation
Monitoring Systems for Light Water Nuclear Reactors**

Secretariat
American Nuclear Society

Prepared by the
**American Nuclear Society
Standards Committee
Working Group ANS/HPSSC-6.8**

Published by the
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Foreword (This Foreword is not a part of American National Standard Location and Design Criteria for Area Radiation Monitoring Systems for Light Water Nuclear Reactors, ANSI/ANS-HPSSC-6.8.1-1981.)

In early 1975, a need for a standard was identified which would clearly enumerate which areas and processes within nuclear plant environments should be monitored, and over what range of measurement such monitoring devices should be operated. A proposal for the development of such a standard was submitted to the American Nuclear Society Standards Steering Committee in April of 1975, and was approved in August of 1975. A joint working group, consisting of members of the American Nuclear Society and the Health Physics Society, designated as ANS/HPSSC-6.8, was formed and held its first meeting in November 1975 to develop the standard's scope. A subsequent meeting in February 1976 resulted in an agreement to direct the committee's activity in the near term to area radiation monitoring systems.

The final scope was approved by the American National Standards Institute (ANSI) Nuclear Standards Management Board (NSMB) in July of 1976.

Various meetings were subsequently held, and resulted in the present standard.

The purpose of this standard is to provide criteria and information on the selection, design, and placement of radiation detectors and other components in the Area Radiation Monitoring System in a nuclear power plant. The objective is to assure that such a system will provide accurate and reliable information concerning the radiation levels in the plant, and provide such alarms as may be necessary to assist the operator in taking appropriate action.

In preparing this standard, the working group considered the location of detectors, indicators and recording devices, range of measurement, sensitivity, accuracy, precision, alarms, power sources, environmental qualifications, and calibration methods and frequency. This standard is consistent with good radiation protection and engineering practice, and the availability of state-of-the-art instrumentation.

Suggestions for improvement of this standard are welcome. They should be sent to the American Nuclear Society, 555 N. Kensington Ave., La Grange Park, Illinois 60525.

The working group (ANS/HPSSC-6.8) participating in the preparation of this standard consisted of the following personnel:

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