# **American Nuclear Society**

facilities and medical care for onsite nuclear power plant radiological emergencies

### an American National Standard

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American National Standard Facilities and Medical Care for Onsite Nuclear Power Plant Radiological Emergencies

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#### American National Standard

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#### **Foreword**

(This Foreword is not part of American National Standard Facilities and Medical Care for Onsite Nuclear Power Plant Radiological Emergencies, ANSI/ANS-3.7.1-1995)

The operation of a nuclear power plant introduces the potential for medical emergencies that involve the exposure of personnel to radiation or radioactive material contamination, either externally or internally. It is important in such an event to have adequate first aid and medical facilities, supplies, equipment, transportation capabilities, and trained personnel available to provide care for these persons. The care initiated onsite continues until the patient is treated and released, transferred to a local hospital, or referred to another, possibly distant, medical center for definitive care.

This revision includes more detailed criteria for equipment and supplies required for a medical emergency response inside the nuclear power plant. The concept of the local standard of care, as the level of care to be provided, has been introduced. Additional criteria—for equipment, supplies, and patient handling techniques at the hospital—are included.

Criteria are also provided for a definitive care hospital. Definitive care, if needed, might require the services of an advanced medical center or a specialized definitive care facility. Although specialized care is beyond the scope of this standard, a brief discussion of specialized care is provided in the Appendix to assist in planning efforts.

This standard does not include criteria for the management of injury or illness without radiological concerns; criteria to judge the quality of the treatment at any facility or location; response for hazardous-waste contamination; nor criteria for proper radiation protection practices that may have prevented or mitigated the radiological complications in a medical emergency. Other concerns beyond the scope of this standard are non-power production uses of radiation or radioactive material. Examples of such areas include the medical administration of radionuclides, accelerator facilities, research laboratories, fuel fabrication and reprocessing, and medical care associated with nuclear weapons and warfare.

Although elements of this standard might be useful to hospital administrators and government agencies, it is not intended to provide comprehensive criteria for the development of local and state disaster plans for the health and safety of the public. The circumstances under which medical attention would be required for offsite victims of a radiological incident should be determined with criteria provided by the state or local government public health officer in consultation with federal health authorities, private physicians, and hospitals.

The level of care beyond first aid provided at the power plant is a managerial prerogative and is not specified in this standard. In instances where specific facilities have been provided at a designated local hospital, there might be less of a need for an extensive first aid facility onsite. Although this standard does not provide criteria as to who is responsible for providing specific medical care functions, both onsite and offsite, it is essential that these responsibilities be clearly defined in the emergency plan.

The American Nuclear Society Working Group 3.7.1 had the following members at the time this standard was processed and approved:

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