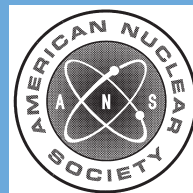


American Nuclear Society

**facilities and medical care for
on-site nuclear power plant
radiological emergencies**

an American National Standard



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**American National Standard
for Facilities and Medical Care
for On-Site Nuclear Power
Plant Radiological Emergencies**

Secretariat
American Nuclear Society

Prepared by the
**American Nuclear Society
Standards Committee
Working Group ANS-3.7.1**

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Foreword

(This Foreword is not a part of American National Standard for Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies, ANSI/ANS-3.7.1-1979)

This standard was developed by Working Group ANS-3.7.1 of the American Nuclear Society Standards Committee consisting of the following individuals:

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Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies

1. Purpose and Scope

1.1 Introduction and Purpose. The operation of a nuclear power plant introduces risks of injury or accidents that could also result in the exposure of personnel to radiation or radioactive materials. It is important in such an event to have adequate first aid and medical facilities, supplies, equipment, transportation capabilities, and trained personnel available to care for these persons.

The purpose of this standard is to give practical guidance to those persons responsible for preparing and implementing emergency plans at nuclear power plants for the care and handling of personnel involved in radiation accidents. This standard also provides a general guide for the extent of care which may reasonably be expected to be available at the plant site and at an off-site location, such as a local hospital.

The guidance contained in this standard for control of contamination, radiation, and exposure shall not be interpreted to preclude or inhibit life-saving efforts which is the prime consideration.

Emergency care may require treatment at a first aid decontamination facility on-site, or at the local hospital where initial medical care and follow-up or long-term definitive care is given. Definitive care, if needed, may require the services of a large medical center or a specialized definitive care facility. Emergency medical care requires a prepared plan involving on-site and off-site facilities and personnel, as well as communications and transportation. As such, it involves plant health physics and first aid personnel, ambulance and local hospital personnel, physicians and possibly consultant physicians.

Although this standard is intended primarily for those who operate nuclear power plants, it may also be useful to hospital administrators, as well as to local, state, and Federal agencies concerned with, or responsible for, public health and safety.

1.2 Scope. This standard provides guidance for first aid during an emergency and for initial medical care of those persons on-site who are overexposed to penetrating radiation (irradiated). It also provides guidance for medical care of persons contaminated with radioactive material or radionuclides who may also be irradiated or injured as a result of an accident at a nuclear power plant. It provides recommendations for facilities, supplies, equipment, and the extent of care both on-site where first aid and initial care may be provided and off-site at a local hospital where further medical and surgical care may be provided. This initial care continues until either the patient is released or admitted, or referred to another, possibly distant, medical center for definitive care. Recommendations are also provided for the transportation of patients and the training of personnel.

Recommendations for specialized care are considered to be beyond the scope of this standard on emergency medical care; however, since emergency and specialized care are related, a brief discussion of specialized care is provided in the Appendix.

This standard should be used by personnel responsible for planning facilities and implementing services to integrate the various capabilities at the on-site and off-site locations. A logical progression through first aid, transportation, initial medical care, and continued hospital care should be provided to be certain that quality services will be available at any time during such an emergency.

1.3 Exclusions

1.3.1 Radiation Accidents Not Directly Relating to Nuclear Power Plants. Because of the uniqueness of medical problems associated with nuclear warfare, medical administration of radionuclides, fuel fabrication and reprocessing, and all other uses of radiation or radioactive materials, other than those involved in the operation of a nuclear power plant, they are excluded from this standard. However,