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Criteria for Radiological Emergency Response Functions and Organizations

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American Nuclear Society

Prepared by the
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American National Standard

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Foreword

(This Foreword is not a part of American National Standard Criteria for Radiological Emergency Response Functions and Organizations, ANSI/ANS-3.8.1-1995.)

Every nuclear power plant owner organization is required by federal regulations to have a detailed radiological emergency response plan. The plant operators are required to perform routine, abnormal, and emergency actions in a manner to reduce to the extent feasible the likelihood of any particular event developing into an emergency condition. An objective of sound operations is to prevent emergency conditions. The objective of an emergency response program is emergency mitigation. The plant operators are the key to emergency prevention and mitigation at all times.

If a situation arises which activates the radiological emergency response plan, the plant operators identify developing trends and take the appropriate action to prevent or mitigate a radiological release. The plant operators identify the need for emergency support, make initial contact with emergency response organizations, and activate the radiological emergency response plan. As the emergency develops, the administrative, notification, and coordinating functions are transferred from the plant operators to other individuals within the emergency organization as defined in the radiological emergency response plan. Regardless of the functions shifted from the plant operators to the emergency organization, the responsibility for placing the plant in a safe configuration remains with the plant operators.

The ANS-3.8 series of standards provides guidance to nuclear power plant utilities pertaining to radiological emergency response plan preparation based upon the experience of the licensed nuclear facilities. The American National Standards in this series are:

ANSI/ANS-3.8.1-1995 - Criteria for Radiological Emergency Response Functions and Organizations

ANSI/ANS-3.8.2-1995 - Criteria for Functional and Physical Characteristics of Radiological Emergency Response Facilities

ANSI/ANS-3.8.3-1995 - Criteria for Radiological Emergency Response Plans and Implementing Procedures

ANSI/ANS-3.8.4-1995 - Criteria for Maintaining Radiological Emergency Response Capability

ANSI/ANS-3.8.5-1992 - Criteria for Emergency Radiological Field Monitoring, Sampling, and Analysis

ANSI/ANS-3.8.6-1995 - Criteria for Conduct of Offsite Radiological Assessment for Emergency Response for Nuclear Power Plants

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Contents

Criteria for Radiological Emergency Response Functions and Organizations

1. Scope

This standard establishes criteria for developing an overall preplanned emergency response organization for commercial nuclear power plants. The criteria address:

(1) basic emergency response functions
(2) emergency response support functions to ensure that the basic functions are adequately implemented
(3) emergency response organization
(4) personnel responsibilities.

2. Definitions

The definitions given below are of a restricted nature for the purpose of this standard.

corrective actions. Those measures taken to terminate or mitigate the consequences of an emergency at or near the source of the emergency.

emergency. Any unplanned situation which activates the plant's radiological emergency response plan.

emergency classes. The following four emergency classes have been established:

notification of unusual event (NUE): Events which are in progress or have occurred, which indicate a potential degradation of the level of safety of the plant. Notification of unusual events are nonroutine occurrences which might be of interest to government authorities or to the public. No releases of radioactive material requiring offsite response or monitoring are expected unless further degradation of safety systems occurs.

alert: Events which are in progress or have occurred, which involve actual or potential substantial degradation of the level of safety of the plant. Any radiological releases are expected to be limited to small fractions of the Environmental Protection Agency (EPA) Protective Action Guideline (*Manual of Protective Action Guides and Protective Actions for Nuclear Incidents,* EPA 400-R-92-001, [1][1]) exposure levels.

site area emergency: Events which are in progress or have occurred, which involve actual or likely major failures of plant functions needed for protection of station personnel and the public. Any radioactive releases are not expected to exceed EPA Protective Action Guideline exposure levels except near the site boundary.

general emergency: Events which are in progress or have occurred, which involve actual or imminent substantial core degradation with potential for loss of containment integrity. Radiological releases can reasonably be expected to exceed EPA Protective Action Guideline exposure levels offsite.

emergency response facility (ERF). An area or collection of areas designated for emergency use that include:

control room (CR): Onsite facility from which the nuclear power plant is operated. The control room is normally the facility where basic response functions are initially performed.

emergency news center (ENC): Facility outside protected area where designated Public Information Officers, from licensee and government agencies, provide media updates and respond to information requests.

emergency operations facility (EOF): Facility outside the protected area from which the overall accident management and coordination with offsite response organizations are performed.

operations support center (OSC): Onsite facility separate from the control room where designated operations, health physics, and maintenance support personnel assemble and await specific assignments during an emergency.

technical support center (TSC): Onsite facility separate from the control room where

[1] Numbers in brackets refer to corresponding numbers in Section 5, References.