

# PLANNING BASIS FOR EMERGENCY RESPONSES TO NUCLEAR POWER REACTOR ACCIDENTS

AGENCY: Nuclear Regulatory Commission

ACTION: NRC Policy Statement

## Purpose

This is a statement of policy with regard to an Environmental Protection Agency (EPA) and Nuclear Regulatory Commission (NRC) task force report on guidance for use in state and local radiological emergency response plans at nuclear power plants.

## Background

The NRC received a request from the Conference of Radiation Control Program Directors, an organization of State officials, to "make a determination of the most severe accident basis for which radiological emergency response plans should be developed by offsite agencies." In response, an EPA and NRC task force was established which prepared a report entitled "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," NUREG-0396, EPA 520/1-78-016, dated December 1978. Single copies of the report can be obtained by writing to the Director, Division of Technical Information and Document Control, Nuclear Regulatory Commission, Washington, D.C. 20555. The task force report was published for public comment in the Federal Register on December 15, 1978 and the comment period was extended to May 15, 1979 to allow additional comments resulting from the accident at Three Mile Island. A synopsis of the comments received and the task force consideration of these comments is available from the Assistant Director for Emergency Preparedness, Office of State Programs, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

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#### NRC Policy

NRC concurs in and endorses for use the guidance contained in the task force report. In endorsing this guidance, the Commission recognizes that it is appropriate and prudent for emergency planning guidance to take into consideration the principal characteristics (such as nuclides released and distances likely to be involved) of a spectrum of design basis and core melt accidents. While the Commission recognizes that the guidance may have significant response impacts for many local jurisdictions, it believes that implementation of the guidance is nevertheless needed to improve emergency response planning and preparedness around nuclear power reactors.

The Commission is directing its staff to incorporate the planning basis guidance into existing documents used in the evaluation of state and local emergency response plans to the extent practicable. The NRC has recently published an Advance Notice of Proposed Rulemaking concerning additional regulations on emergency plans, 44 FR 41484, Tuesday, July 17, 1979. Additional guidance will be provided following this rulemaking. This additional guidance can be expected to consider how local conditions such as demography, land use, and meteorology can influence the size and shape of the EPDs and to address other issues, such as evacuation planning.

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### Planning Basis

The major recommendation of the report is that two Emergency Planning Zones (EPZs) should be established around light water nuclear power plants. The EPZ for airborne exposure has a radius of about 10 miles; the EPZ for contaminated food has a radius of about 50 miles. Predetermined protective action plans are needed for the EPZs. The exact size and shape of each EPZ will be decided by emergency planning officials after they consider the specific conditions at each site. These distances are considered large enough to provide a response base which would support activity outside the planning zone should this ever be needed.

The report also provides planning basis guidance in the form of a range of time values in which emergency response officials should be prepared to implement protective action. The report indicates that, depending on such factors as the specific sequence of events during an accident which results in the release of radioactivity to the atmosphere and the prevailing meteorological conditions, protective action may be required from perhaps one-half hour to one day after the initiation of the accident. Development and periodic testing of procedures for rapid notification of emergency response officials is encouraged, since the time available for action is strongly affected by the time consumed in notification.

The chemical and physical characteristics of those radionuclides which contribute most significantly to human exposure are presented.

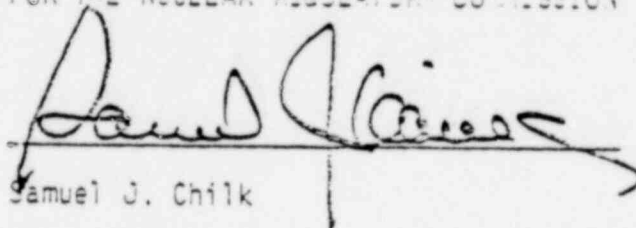
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Specific implementation dates for full implementation of the task force recommendations and any others that are developed will be established as part of the ongoing rulemaking effort. The Commission also expects the staff to assist state and local governments in improving their emergency response capabilities at existing sites in the immediate future.

Dated at Washington, D.C. this 18<sup>th</sup> day of October 1979.

FOR THE NUCLEAR REGULATORY COMMISSION



Samuel J. Chilk

Secretary of the Commission

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