



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

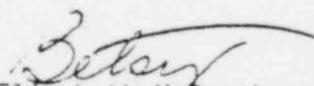
MAY 21 1980

MEMORANDUM FOR: Transportation Task Force Members

FROM: Elizabeth McCarthy
State Relations Assistant
Office of State Programs

SUBJECT: JUNE 3-4 MEETING

Attached is the draft material you are to review prior to next meeting. Please note that I incorrectly stated the address for DOT in the May 15 memo. It should read: Materials Transportation Bureau, 400 - 7th Street, S.W., Room 8332, Washington, D.C. 20590.


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Enclosure:
As stated

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I. INTRODUCTION

A. Purpose

The purpose of this document is to provide a common reference consisting of readily understandable uniform guidance for all who are involved in emergency response programs for handling transportation accidents involving radioactive materials. In addition it is intended to:

- 1) Identify the principal elements involved in emergency response programs for radiological transportation accidents.
- 2) Stimulate thinking and discussion on adapting the general guidance provided herein to the conditions and circumstances existing in the region under consideration.
- 3) Identify all agencies, societies, medical and academic institutions, social, military and industrial organizations and training facilities which could or should be considered as contributors to any emergency response program.
- 4) Indicate the similarities and differences between this program and those emergency response programs dealing with non-radiological hazardous material transportation accidents.

B. Scope

The scope of this document is limited to discussion of those facts and elements necessary to the understanding of the problems involved. The information contained herein is presented in the form of a guide, which will enable the user to adapt it to his own needs in developing and coordinating an emergency response program for his particular region. Also the following items are included:

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- 1) A brief discussion of typical transportation accident scenarios involving representative shipments which range from trivial (fender benders) to serious accidents and include several types of radioactive material shipments.
- 2) Some typical response actions to each of the scenarios in (1) designed to inspire state and local officials to adapt them to their particular regions.
- 3) A brief discussion of Federal, State and other assistance available for inclusion in emergency response planning.
- 4) A brief discussion of the responsibilities and operation of individuals, agencies and groups involved in emergency response programs.
- 5) Brief technical discussion of those aspects of radiation necessary to understand the need for certain response actions.

C. Background

This document was prepared as part of the responsibilities assigned to the NRC under Federal Register Notice 40 FR-59449, 24 ~~40 FR-59449, 24~~ December 1975 and which have recently been reassigned to FEMA. These responsibilities include the development of guidance to state and local governments in developing emergency response plans for transportation accidents involving radioactive material.

Current estimates of packages of radioactive material transported annually amount to several million packages. The largest number of these consist of medical radioisotopes, followed by industrial shipments and then by reactor fuel cycle shipments. It is reasonable to expect that some of these shipments will be involved in accidents with effects that range from trivial to severe.

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The consequences associated with any of these accidents depend on various factors, the more important of which are:

- (a) Accident location - (rural, suburban, urban)
- (b) Fraction of material released from the package
- (c) Wind velocity, stability and direction at the site
- (d) Nuclear, chemical and physical characteristics of the radioactive material
- (e) Time required for emergency response personnel at the site to act to diminish the consequences.

While the number of transportation accidents involving radioactive material has not been large and there have been no serious injuries or exposures due to radiation, there have been a few instances in which the responses to the accidents have been less than desirable. The following is a list of some of the more persistent problems involved in emergency response operations:

- 1) Lack of coordination between various state agencies (generally due to failure to have interagency agreements drawn up in advance)
- 2) Failure to have a pre-designated on-scene coordinator appointed to serve as the local authority
- 3) Failure to coordinate use of resources. (due to the non-existence of inter-state and inter-jurisdictional compacts for those accidents occurring near state or jurisdictional boundaries).
- 4) Lack of involvement of shipper and carrier organizations in the state and local emergency response program
- 5) Inadequate communication between the accident site and the emergency response agencies

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- 6) Over reaction of the public due to failure to develop proper public relations between the accident site and the news media.

Possibly the major goal of this document is to aid in the development of emergency response programs of such quality that public confidence in them is reestablished to the extent that item ~~(b)~~ above is no longer a problem.

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