NUREG-0628

NRC Staff Preliminary Analysis of Public Comments on Advance Notice of Proposed Rulemaking on Emergency Planning

Editors: C. A. Peabody, J. W. N. Hickey

Office of
Standards Development

U.S. Nuclear Regulatory
Commission

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Manuscript Completed: November 1979
Date Published: January 1980

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Environmental Protection Standards Branch
Division of Siting, Health, and Safeguards Standards
Office of Standards Development
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

TABLE OF CONTENTS

FOREWORD

The Nuclear Regulatory Commission (NRC) published an advance notice of proposed rulemaking on emergency planning on July 17, 1979 (44 FR 41483). In October and November 1979, the NRC staff submitted several papers to the Commission related to the emergency planning rulemaking. One of these papers was a preliminary analysis of public comments received on the advance notice (SECY-79-591B, November 13, 1979). This document consists of the preliminary analysis as it was submitted to the Commission, with minor editorial changes.

1. INTRODUCTION

Advance Notice of Rulemaking

On July 17, 1979, the Nuclear Regulatory Commission published an Advance Notice of Proposed Rulemaking on the subject of State and local emergency plans and those of licensees (see Section 4). The purpose of the advance notice was to seek public comment on a broad range of emergency planning issues (14 questions), which would be considered in a systematic analysis of emergency response planning requirements and effectiveness. Thirteen (13) of these issues are dealt with in the proposed rule changes described in SECY 79-591, "Proposed Amendments to 10 CFR Part 50, Sections 50.33, 50.54, and Appendix E; Plans for Coping with Emergencies at Production and Utilization Facilities" (All issues except question 5, which deals with financial assistance). Some of the other issues will be considered for future rulemaking. Other issues, although not amenable to resolution through rulemaking, may be considered in policy statements, regulatory guides, and topical reports.

Public Comments Received

Over 113 public comment letters were received, which contained approximately 700 comments on the specific issues raised in the advance notice.

The comment letters were received in the following categories:

43 individuals
17 State agencies
14 utilities
10 public interest groups
8 local governments
7 local citizens' groups
5 industry
3 consultants
2 Federal agencies
2 Congress
1 hospital
1 university.

An index is provided in the beginning of Section III, comment letters, listing all the letters received by (a) docket number, (b) name of commenter, (c) affiliation, and (d) location.

Organization of This Report

This report is divided into five sections:

- Section 1 is the introduction.
- Section 2 contains a discussion of the issues identified in the advance notice of rulemaking. Each issue is addressed as follows:
  - A. Current NRC Practice, including present NRC regulations and guidance.
  - B. Summary of Public Comments, including subordinate issues identified in the comment letters. Relevant comments are referenced by letter number (as docketed).
  - C. Staff Response, which notes if the issue has been treated in the proposed rule or will possibly be the subject of future rulemaking action.

  A separate discussion addresses general comments received (in addition to the 14 questions in the advance notice). Also, one subsection notes those letters received that are not applicable to the subject addressed in the advance notice.
- Section 3 contains the letters as docketed (Numbers 1 through 113).
- Section 4 contains the advance notice of proposed rulemaking.
- Section 5 contains the proposed rule and the statement of considerations.

2. DISCUSSION OF EMERGENCY PLANNING ISSUES

Question 1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?
b. To prevent public radiation exposure?
c. To be able to evacuate the public?

To what extent should these objectives be quantified?

CURRENT NRC PRACTICE

The broad objective of emer gency planning for offsite responses has been to provide reasonable assurance that appropriate measures can and will be taken, in the event of an emergency, to protect the public health and safety and to prevent damage to property. Appropriate offsite response measures can include evacuation, sheltering, restrictions on foodstuffs, administration of stable iodine to reduce the concentration of radioiodine in the thyroid, and controlled access to contaminated areas. Decisions as to which measure(s) may be appropriate in a particular emergency require consideration of (1) the actual or projected magnitude, type, and direction of the release of radioactive material, or possible pathways to the population at risk, (2) the time available to take action, and (3) the risks and benefits of possible alternative protective measures. Prior planning can be used to determine what protective measures would be appropriate in a variety of accident situations.

The benefits to be gained by taking protective actions as measured by the reduction in individual and population radiation exposures, which otherwise might occur if no offsite actions were taken at all, must be balanced against the risk to the population taking the protective action. Thus, it has been the basic objective of emergency planning to maximize this benefit to the extent reasonably achievable while minimizing the risk of taking the action.

The current NRC licensing requirements related to an applicant's emergency plans are set forth in Appendix E, "Emergency Plans for Production and Utilization Facilities," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," and in Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants." The guidance for preparation and evaluation of State and local emergency response plans by NRC is contained in NUREG-75/111 (December 1, 1974) and Supplement 1 (March 15, 1977).

SUMMARY OF PUBLIC COMMENTS

Fifty-eight (58) commenters responded to this question (see letters 5, 11, 16, 17, 18, 22, 23, 24, 25, 29, 34, 36, 40, 41, 43, 45, 48, 49, 50, 51, 53, 54, 55, 56, 57, 58, 60, 61, 62, 66, 69, 71, 72, 73, 74, 75, 77, 79, 81, 82, 83, 84, 85, 86, 88, 90, 95, 96, 97, 98, 99, 101, 103, 104, 105, 106, 107, 109). Twelve (12) of the comments identified prevention of public exposure as the primary objective of emergency planning (see letters 17, 18, 22, 23, 36, 58, 60, 66, 72, 81, 86, 99). Fourteen (14) of the comments identified reduction of public exposure as the primary objective of emergency planning (see letters 5, 16, 48, 49, 51, 55, 61, 62, 71, 74, 75, 82, 84, 85). Four (4) of the comments identified evacuation of the public as the primary objective of emergency planning (see letters 11, 24, 34, 109).

Twenty-eight (28) of the comments identified all three basic objectives as being needed in any emergency planning in order to protect the health and safety of the public in the event of an accidental release of radioactivity from a nuclear power plant (see letters 25, 29, 40, 41, 43, 45, 50, 53, 54, 56, 57, 69, 73, 77, 79, 83, 88, 90, 95, 96, 97, 98, 101, 103, 104, 105, 106, 107).

For those fifteen (15) commenters that addressed the question of quantification of these objectives, most referenced the EPA and FDA Protective Action Guides as reasonable criteria to be used for taking various protective actions. Some commenters addressed the NRC regulations of 10 CFR Part 20 as appropriate criteria as well as certain ICRP and NCRP recommendatons (see letters 5, 45, 49, 50, 61, 69, 71, 73, 75, 79, 81, 83, 84, 85, 88).

STAFF RESPONSE

The basic objectives of emergency planning underlie the present regulations as well as the proposed amendments to 10 CFR Part 50, Sections 50.33, 50.54, and Appendix E. For example, implicit in the Emergency Planning Zone (EPZ) concept are assumptions about the magnitude of the accident and conditions in the vicinity of a plant such as demography, topography, land characteristics, access routes, and local jurisdictional boundaries. Appendix E to 10 CFR Part 50 has established minimum requirements for use in attaining a state of emergency preparedness. The proposed rule changes would strengthen these requirements in order to provide more assurance that effective protective measures (including evacuation) could be taken to protect the health and safety of persons within and outside the site boundary in the event of a radiological emergency. The proposed rule specifies more stringent requirements for ensuring effective coordination between the licensee and the local, State, and Federal groups that would have the responsibility for taking emergency response actions. The revision of Section IV, "Content of Emergency Plans," in Appendix E contains the additional requirements to ensure that emergency plans will meet these basic objectives.

Question 2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements? If so, how should NRC requirements and guidance be modified?

CURRENT NRC PRACTICE

Two characteristics of an emergency response plan are considered essential for the plan's effectiveness in meeting the basic emergency planning objectives identified in Question 1. First, the plan should contain essential planning elements that define the organizational and operational roles of the various agencies which comprise the emergency response organization. Second, the emergency response organization must be able to function, in an operational sense, during a real or simulated emergency. (This latter characteristic is further addressed under Question 9.)

For licensees, the necessary elements of emergency plans are identified in the regulations, Appendix E to 10 CFR Part 50, "Emergency Plans for Production and Utilization Facilities," and amplified by the staff's position statement in Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants" and Regulatory Guide 3.42 ("Emergency Planning for Fuel Cycle Facilities and Plants Licensed Under 10 CFR Parts 50 and 70") for material licensees. For State and local agencies, the planning elements that to date have been identified as important to an effective plan are found in the "Guide and Checklist for the Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities" (NUREG-75/111 and Supplement 1).

SUMMARY OF PUBLIC COMMENTS

Forty-nine (49) commenters responded to this question (see letters 16, 17, 22, 23, 25, 29, 34, 38, 40, 41, 43, 45, 48, 49, 50, 51, 53, 55, 56, 57, 58, 60, 61, 62, 66, 69, 71, 73, 74, 75, 77, 79, 81, 82, 83, 84, 85, 86, 88, 95, 96, 97, 98, 99, 103, 104, 106, 107, 109). Eighteen (18) of the comments addressed primarily the broad issues of protecting the public health and safety, the need for coordination and communication among all parties concerned with emergency response, i.e., licensee and local, State, and Federal governments, and the need to develop emergency plans jointly (see letters 17, 23, 29, 51, 58, 61, 62, 74, 82, 83, 84, 85, 86, 88, 98, 99, 104, 107). Twenty-eight (28) of the comments addressed the actual elements for an effective emergency plan. Most of the comments listed the major elements to be: lines of communication; elements set forth in NUREG-75/111; training of personnel; education of the general public; evacuation routes; offsite monitoring; established lines of authority between State/local governments; and periodic review and testing of plans (see letters 16, 22, 25, 38, 40, 41, 43, 45, 48, 49, 50, 53, 55, 56, 57, 60, 66, 69, 71, 73, 75, 77, 81, 95, 96, 97, 103, 106). Three of the comments did not address the issues of the question (see letters 34, 79, 109).

STAFF RESPONSE

The proposed rule changes would elaborate existing Appendix E requirements for licensees by explicitly identifying organizatonal and operational parameters that need to be addressed in the licensee's emergency response plans, with special attention given to coordination between the licensee's and offsite agencies' emergency response organizations and operations. The proposed rule changes would also require licensees to submit their emergency response plan implementing procedures to NRC for review. In order to obtain better assurance

that the emergency response organizations can function, in an operational sense, during an emergency, the proposed rule changes require testing of communication links and joint drills and exercises.

The proposed rule changes do not place requirements on State and local government emergency response plans. However, they do affect them since the quality of these plans will be a factor in future NRC licensing decisions and in determinations as to whether a nuclear power plant will be allowed to continue operation. The present NRC guidelines for State and local emergency response planning are referenced as guidance in the proposed rule changes. The guidelines are presently undergoing examination for possible revision and conversion to regulatory requirements.

Question 3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

Question 4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

CURRENT NRC PRACTICE

Appendix E, "Emergency Plans for Production and Utilization Facilities," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," presently requires that licensee emergency plans include plans for coping with radiological emergencies within their plant sites and that arrangements be made with State and local organizations to respond to accidents that might have consequences beyond the site boundary. The current regulations do not require NRC concurrence of State and local emergency response plans as a condition of issuance or continued operation of a nuclear power facility.

SUMMARY OF PUBLIC COMMENTS

Sixty (60) commenters addressed either one or both of these issues (see letters 11, 16, 17, 22, 23, 24, 25, 28, 29, 31, 34, 38, 40, 41, 43, 44, 45, 48, 49, 50, 51, 54, 55, 56, 57, 58, 60, 61, 62, 63, 66, 69, 71, 73, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 88, 89, 95, 96, 97, 98, 99, 101, 103, 104, 106, 107, 109, 113). Twenty (20) commenters stated that NRC concurrence in State and local emergency plans should NOT be required as a condition of license issuance or continued operation of nuclear power plants (see letters 25, 29, 41, 45, 49, 50, 55, 56, 69, 63, 71, 73, 75, 81, 84, 85, 86, 88, 95, 104). A number of these commenters indicated approval of the present voluntary and,

hence, informal process of NRC concurrence in State and local emergency plans (see letters 25, 41, 49, 50, 55, 56, 71, 73, 85, 86, 104).

Commenters expressed concern over the following issues as part of their disapproval: Federal Emergency Management Agency (FEMA) is a more appropriate agency for reviewing State/local emergency plans (see letters 75 and 69); radiological accidents are but one element of overall disaster planning (see letters 69, 75, 81); State and local political structures should allow flexibility in planning, which a formal versus voluntary program might diminish excessively (see letters 16, 25, 41, 50, 86); shut down could result arbitrarily through unilateral actions of State or local governments over which neither the licensee nor NRC has any control (see letters 45, 55, 85), especially since NRC has no legal authority over State/local emergency planning efforts (see letter 104); this is an issue which Congress and not the NRC should decide (see letters 45 and 81).

One commenter (see letter 16) believed that NRC concurrence should not be required as a condition of continued operation, but should be required for new licensees.

Thirty-six (36) commenters believed NRC concurrence should be required as a condition of either continued operation or issuance of a new license (see letters 11, 17, 22, 23, 24, 28, 31, 34, 40, 44, 48, 50, 54, 57, 58, 60, 61, 62, 66, 74, 76, 79, 80, 82, 83, 89, 96, 97, 98, 99, 101, 103, 106, 107, 108, 113).

Opinion varied as to how long a period of time should be allowed to achieve concurrence from immediately to when standards are developed. Three commenters

(see letters 44, 74, 107) expressed concern about the possibility of shutdowns because of artibrary actions on the part of State or local governments. At least one commenter (see letter 77) tied together the question of site suitability and the feasibility of evacuation; and at least one commenter called for State participation in developing standards for judging NRC concurrence (see letter 22).

STAFF RESPONSE

These comments are addressed in Sections 50.33(g), 50.54(s) and (t), and Section I of Appendix E to 10 CFR Part 50 of the proposed rule. The proposed rule requires NRC concurrence in State and local emergency response plans for new licenses and for continued operation of licensed nuclear power facilities.

Question 5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the surce of funds?

CURRENT NRC PRACTICE

Currently, there is no specific staff practice regarding financial assistance to State and local governments for peacetime radiological emergency response planning and preparedness.

SUMMARY OF PUBLIC COMMENTS

Fifty-nine (59) commenters responded to this question (see letters 11, 13, 14, 16, 17, 22, 23, 24, 28, 29, 30, 36, 41, 43, 44, 45, 46, 47, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 62, 66, 68, 69, 71, 73, 75, 77, 79, 80, 81, 82, 83, 84, 85, 86, 88, 89, 95, 96, 97, 98, 99, 100, 101, 103, 104, 105, 106). All commenters agreed that some form of financial assistance would be desirable; but wide diversity existed in the comments as to the authority under which financial assistance should be conducted. Twenty-one (21) commenters said that utilities should carry the burden of financial assistance (see letters 11, 14, 16, 23, 24, 28, 36, 46, 47, 50, 54, 58, 60, 61, 68, 76, 96, 99, 100, 103, 106). Twenty-four (24) commenters said that the Federal government should finance any assistance (see letters 22, 30, 44, 45, 48, 49, 53, 56, 57, 69, 71, 73, 75, 77, 79, 80, 81, 82, 83, 85, 89, 98, 101, 104). Two (2) commenters believed that those States benefiting, i.e., receiving the power, should finance their own assistance (see letters 62, 95). Finally, seven (7) commenters said that financial assistance should be jointly funded by Federal, State, and local governments and the licensee (see letters 29, 41, 43, 66, 84, 86, 97).

STAFF RESPONSE

This issue is not addressed in the proposed rulemaking. However, there is a staff review underway to determine the feasibility of providing financial assistance to State and local governments.

Question 6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State, or local government? To what extent should Federal, State, and local governments and licensees be required to participate?

CURRENT NRC PRACTICE

Appendix E, "Emergency Plans for Production and Utilization Facilities," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," presently requires that licensees' emergency plans include provision for testing, by periodic drills, of radiation emergency plans to assure that employees of the licensee are familiar with their specific duties, and provisions for participation in the drills by other persons whose assistance may be needed in the event of a radiation emergency (Section IV.F). The identity of those persons is also a requirement (Section IV.A). The scenarios to be used in drills are not specified nor is the extent of involvement of offsite support groups or the fidelity of the exercises.

Generally, drills have been held on an annual basis. Most drills have not involved full-scale participation of offsite groups but have included simulated responses and communications checks with such groups. NRC inspectors sometimes observe such drills but do not participate actively.

SUMMARY OF PUBLIC COMMENTS

Forty-nine (49) letters responded to this question (see letters 16, 17, 22, 23, 24, 29, 41, 43, 45, 48, 49, 50, 53, 54, 55, 56, 57, 58, 60, 61, 62, 63, 66, 69, 70, 71, 73, 74, 75, 77, 79, 80, 81, 82, 83, 84, 85, 86, 88, 95, 96, 98, 99, 101, 103, 104, 106, 107, 109). All commenters agreed that radiological response drills should be a requirement, but there was no agreement as to the

authority under which the drills should be conducted. Nine (9) commenters said drills should be conducted under State authority alone (see letters 22, 24, 29, 54, 55, 60, 62, 77, 98); two (2) commenters stated combined State and local authority (see letters 50, 66); two (2) commenters preferred combined State, local (offsite), and licensee (onsite) authority (see letters 7, 75),(letter 70 would have Federal authority exercised as well); six (6) commenters stated combined State, local, and Federal authority (see letters 17, 23, 56, 95, 96, 99); two (2) commenters said combined State and Federal authority (see letters 71 and 80); one (1) commenter stated licensee authority alone (see letter 61); five (5) commenters said under Federal authority alone (see letters 79, 86, 101, 106, 109); and five (5) commenters spoke to an observer role for the Federal government (see letters 22, 29, 57, 60, 70).

A number of commenters pointed out that drills are already a requirement under the present Appendix E to 10 CFR Part 50 (see letters 41, 45, 56, 63, 69, 73, 81, 84, 104).

While almost all commenters agreed on the desirability of the participation of the relevant State and local governmental agencies in emergency response drills, a number of commenters pointed out that a requirement in NRC regulations for State and local governmental participation could raise legal questions (see letters 41, 50, 69, 73, 81, 85). With respect to public participation in drills, four (4) commenters said "no" (see letters 50, 73, 74, 82); four (4) said "yes" (see letters 43, 53, 54, 58); two (2) gave a qualified "yes" (see letters 49 and 61).

STAFF RESPONSE

The staff agrees with the need to upgrade requirements for drills. The proposed rule would require annual licensee drills with participation of State and local officials and Federal participation every 5 years. Public participation would not be required.

Question 7. How and to what extent should the public be informed prior to any emergency concerning emergency actions it might be called upon to take?

CURRENT NRC PRACTICE

Appendix E "Emergency Plans for Production and Utilization Facilities" to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," requires the licensee to include "procedures for notifying, and agreements reached with, local, State, and Federal officials and agencies for the early warning of the public and for public evacuation or other protective measures should such warning, evacuation, or other protective measures become necessary or desirable, including identification of the principal officials, by title and agencies;" (Section IV.D)

SUMMARY PUBLIC OF COMMENTS

Fifty-four (54) comments addressed this issue. There was unanimity among all 55 commenters that the public should be kept informed of, and prior to, any emergency (see letters 11, 13, 14, 16, 17, 18, 22, 23, 24, 29, 31, 34, 38, 40, 41, 42, 45, 48, 50, 53, 55, 56, 57, 60, 62, 66, 69, 70, 71, 73, 74, 75, 76, 77, 79, 80, 81, 83, 84, 85, 86, 88, 95, 96, 97, 98, 99, 100, 101, 103, 104, 106, 107, 109.) However, there is wide diversity among the commenters as to how best to inform the public. Fourteen (14) commenters cited the use of television, newspapers, radio and other news media (see letters 13, 16, 23, 24, 29, 34, 38, 40, 48, 53, 55, 98, 99, 100, 104); six (6) commenters suggested some sort of direct mailing scheme, i.e, newsletters, inserts into utility bills, or voter registration (see letters 43, 66, 97, 107); three (3) commenters suggested holding local public meetings (see letters 22, 66, 107).

In addition to these more conventional methods, one (1) letter recommended using wardens as in air-raid warden, (see letter 34); one (1) letter suggested pre-placement of an emergency packet in each home to give advice upon the sounding of some special alarm (see letter 85), one (1) letter called for the installation of an alarm system in each home (see letter 109); one (1) commenter cited the use of tube horns, telephones, and/or helicopters with loud speakers (see letter 24). Finally, one (1) commenter suggested that it was unnecessary to inform everyone and that emergency plans be made available only on request to the general public (see letter 71).

STAFF RESPONSE

These comments are addressed in Section IV.D, paragraphs 1 and 2 of the proposed rule (Appendix E to 10 CFR Part 50). The proposed rule requires that a licensee disseminate emergency planning information to the public within the Emergency Planning Zone on a yearly basis.

Question 8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

CURRENT NRC PRACTICE

Although a spectrum of design basis accidents are evaluated by the NRC staff in the safety evaluation review, only the accident resulting in the highest predicted exposures is used in the evaluation of emergency plans for nuclear power reactor sites. Since the results of the safety evaluation review determine the predicted exposures at the inner boundary of the low population zone (LPZ) (the exclusion area boundary) and the outer boundary of the LPZ, the review of emergency plans for the low population zone and beyond uses the predicted exposures and time of exposures evaluated for the design basis accidents. The existing guidance documents used in the review of emergency plans are NUREG-75/111, EPA-520/1-75-001, and Regulatory Guide 1.101.

The conclusions of the joint NRC/EPA Task Force were that:

1. A spectrum of accidents should be considered in developing a basis for emergency planning.

2. Emergency Planning Zones (EPZs) of about 10 miles for plume and 50 miles for ingestion are sufficient to scope planning areas for initiation of predetermined protective actions.

3. Time frames and radiological characteristics of releases should provide support for planning and preparedness.

4. Establishment of EPZs should not result in large increases in costs if existing guidance for emergency planning has been considered.

SUMMARY OF PUBLIC COMMENTS

Thirty-seven (37) commenters responded to this question (see letters 17, 22, 24, 29, 30, 32, 34, 41, 45, 48, 49, 50, 54, 55, 56, 57, 61, 66, 69, 71, 73, 74, 75, 79, 81, 83, 84, 85, 88, 95, 96, 98, 103, 104, 104, 107.) Twenty (20) of the comments stated that the recommendations should be implemented; but the extent of implementation ranged from recommending guidance to State and local governments to Federal regulatory requirements. Also, the comments addressed the difference between the use of LPZ from Part 100, "Reactor Site Criteria," and the use of EPZ from the Task Force requiring further discussion. Eleven (11) of the comments stated the recommendations should not be implemented and that further evaluation of the EPZ concept was required before specific distances were recommended for emergency planning purposes. Also, the comments addressed the need for factoring many other important elements of emergency planning into EPZ distances for the different pathways. Six (6) of the comments did not address the specific issue but stated general conclusions regarding the Task Force or the report.

STAFF RESPONSE

The recommendations of the Task Force report have been endorsed by the Commission in a Policy Statement published in the Federal Register on October 18, 1979. The concept of EPZs has been incorporated into the proposed rule change to Sections 50.33, 50.54 and Appendix E to 10 CFR Part 50. The distances for the EPZs have been included as regulatory requirements in the proposed rule

changes. The remaining guidance documents have been referenced and not incorporated as regulatory requirements in the proposed rule changes. The remainder of the conclusions by the Task Force have not been implemented in the proposed rule change but will be used as guidance.

Question 9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agenices of incidents, including emergencies? When, how, and by whom should the public be notified of these incidents?

CURRENT NRC PRACTICE

Current regulations permit the release of low levels of radioactivity for activities regulated by the NRC. Licensees are presently prohibited from releasing to unrestricted areas amounts of radioactivity in excess of those limits specified in Appendix B, Table II, of 10 CFR Part 20, Section 20.106. Moreover, releases from nuclear power reactors in amounts lower than those specified in Table II are to be kept "as low as is reasonably achievable" ("ALARA") [10 CFR §§50.34a, 50.36a]. Numerical guidance interpreting the ALARA standard is provided in Appendix I to Part 50. Those low-level releases must be monitored by licensees, and the total reported to the Commission semiannually [10 CFR §50.36a(a)(2), 70.59, 40.65].

In contrast, the reporting requirements of §20.403 are triggered at significantly higher release levels. Those requirements are designed "to give the [Commission] prompt notice of potentially serious accidents involving licensed material, in order that appropriate steps may be taken to protect against further hazard to life or property" [22 FR 3389]. It is inconsistent with the purpose of §20.403 to trigger emergency reporting requirements, upon the release of the low levels of radioactivity now permitted under normal operating conditions.

Section 20.403 requires immediate notification of incidents involving designated levels of radiation exposure by individuals, loss of operation of facilities, and property damage, as well as the release of radioactive materials.

Section 50.34(b)(6)(v) of the Commission's regulations requires that each application for an operating license for a production or utilization facility contain an emergency plan as part of the required final safety analysis report. Sections 70.22(i) and 70.23(a)(11) require that each application for a license to possess and use special nuclear material for processing and fuel fabrication, scrap recovery, or conversion to uranium hexafluoride shall contains plans for coping with radiological emergencies. Requirements for emergency plans are contained in Appendix E to Part 50. Emergency plans must contain arrangements for the notifications of appropriate State and local agencies in cases of emergency (10 CFR Part 50, App. E, Sections IV, A, C, and D).

Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," recommends that appropriate offsite agencies should be notified in the case of an emergency, including some situations where it is unlikely that an offsite hazard will be created. Fires and explosions in the plant having no radiological consequences offsite will generally fall into this latter class. This recommendation, in some cases, has been made a part of nuclear power plant licensees' existing emergency plans.

Regulatory Guide 1.16, "Reporting of Operating Information -- Appendix A, Technical Specifications," recommends that the Director of the appropriate NRC Regional Office should be informed by telephone of events of potential public

interest as soon as possible after the event has been discovered. This recommendation has been made a part of the technical specifications of all nuclear power plant licenses.

The following factors and constraints are applicable to consideration of this issue:

- Notification of State and local government agencies should provide early warning to provide more time on preparations for responding.
- Notification to public should emphasize the provision of understanding of the significance of what has happened and actions taken.
- Consideration might be given to establishing "information only" notification criteria outside the context of emergency plans.
- Notification of public must avoid any appearance of withholding substantive information.
- Notification of public must avoid unnecessary alarm (although this factor should not control whether notification is to be made).

Incidents occur at nuclear facilities that either do not result in any release of radioactivity or result only in releases that are within relevant license conditions. These, therefore, do not technically qualify as radiological emergencies. Some of these have been called "public interest occurrences" and have resulted in some anxiety on the part of the public and/or public officials who may initially be reluctant to rely solely on the licensee's assessment or are uncomfortable with learning of such occurrences through the news media. To the extent that notifications to the authorities of "public interest occurrences" events might be required, in the context of emergency plans, there is a

chance of creating a "cry wolf" attitude and thus adversely affect the potential benefit of the plans when a real emergency occurs.

SUMMARY OF PUBLIC COMMENTS

Fifty-one (51) letters responded to this question (see letters 13, 16, 17, 22, 24, 29, 31, 34, 38, 40, 41, 43, 45, 48-50, 54-58, 60-62, 66, 69, 71, 73-77, 79, 81-86, 88, 95, 96, 97, 98, 99, 101, 103, 104, 106, 107, and 109). The suggestions were highly varied with no significant number supporting any specific suggestion.

Circumstances and criteria suggested for notification of State, local, and Federal agencies of incidents, including emergencies are listed below:

1. Abnormal conditions, including actualism of automatic alarms within the facility (see letters 50 and 96).
2. Where there is a potential hazard to the public (see letters 16, 22 and 99).
3. Abnormal release of radioactivity (see letters 24 and 95).
4. Newsworthy events or events of public interest (see letters 24 and 103).
5. Any technical specification violation (see letters 29 and 101).
6. Present NRC and EPA guidance (see letter 40).
7. Regulatory Guide 1.101 (see letter 41).
8. Potential and general emergencies (see letters 45 and 98).
9. 10 CFR Part 20, Section 20.403 (see letter 45).
10. Radioactive releases over a specified level (see letter 48).
11. Radioactive releases in excess of EPA and FDA protective action guides (see letters 49 and 79).

12. Accidents with potential for offsite exposures (see letter 55).
13. Accidents with a potential to exceed certain limits (see letter 56).
14. Potential emergencies (see letters 58, 62, 86 and 97).
15. Public threats (see letter 60).
16. Monitoring shows excess radiation (see letter 61).
17. Potential for excess radiological consequences (see letter 73).
18. To be determined by NRC onsite inspector or supervisor on a case-by-case basis (see letter 76).
19. Emergency with offsite release (see letter 79).
20. When emergency plan might reasonably be expected to be evoked (see letter 81).
21. Any threat of radiation exposure, including any SCRAM (see letter 82).
22. Present criterion (see letter 83 and 84).
23. Unusual incidents (see letter 85).
24. If event could lead to a release or public worry (see letter 107).
25. Set print trigger in independent sensors (see letter 109).

Suggestions for public notification of these incidents were as follows:

1. By single source (not NRC or licensee) giving reason for notice as determined by State and local government agencies, after being notified by licensee (see letters 50, 69, 85, 95, 96, 98, 99, 101 and 106).
2. By inter-nonprofit organization committee whenever there is a danger to public welfare (see letter 17).
3. By NRC's Public Information Office through radio and TV in emergencies after conferring with other agencies (see letter 29).
4. By State and/or local agencies (see letters 22, 49, 61, 62, 86, 97 and 103).

5. Through sirens, police, and home dosimeters (see letters 48 and 60).
6. By Media Center (see letter 49).
7. By public lead agency, which weighs risk in reporting to public (see letter 54).
8. By one State official (see letters 55, 56, and 73).
9. By official spokesperson designated by NRC or State (see letter 57).
10. By utility, NRC, State, and local governments if public must take action (see letter 71).
11. By licensee in short term and by Coordinating Center over longer term (see letters 75 and 107).
12. By Governor in short term and by NRC/Governor over longer term (see letter 77).
13. By government agency responsible for the evacuation (see letter 81).
14. If needed to implement the emergency plan (See letter 82).
15. By agencies with authority to institute countermeasures (see letter 83).
16. Directly by licensee when immediate action is required (see letter 84).
17. Using system incorporating various levels of advisories (see letter 104).
18. By daily report of radiation levels and weather (see letter 109).
19. By onsite NRC inspection (see letter 58).

STAFF RESPONSE

Proposed amendments to Appendix E to 10 CFR Part 50 contain relevant requirements of the contents of applicants' emergency plans concerning notification of State, local, and Federal agencies. They must include descriptions of:

1. Emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies, the NRC, and other Federal agencies.

2. Administrative and physical means for notifying, and agreements reached with local, State, and Federal officials and agencies for the early warning of the public and for public evacuation or other protective measures, should that become necessary. This description shall include identification of the principal officials, by title and agencies, for the Emergency Planning Zones.

3. Administrative and physical means and the time required for prompt alerting and providing instructions to the public within the plume exposure pathway Emergency Planning Zone. It is the applicant's responsibility to ensure that such means exist, regardless of who implements this.

Question 10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response plans?

CURRENT NRC PRACTICE

In the past, the responsible Federal agencies that would respond in the event of a radiological emergency have not requested State and local government input concerning Federal response plans.

SUMMARY OF PUBLIC COMMENTS

Forty-six (46) commenters responded to this question (see letters 14, 16, 17, 22, 24, 29, 40, 41, 45, 46, 47, 48, 49, 50, 54, 55, 56, 57, 58, 60, 61, 62, 69, 71, 73, 75, 79, 80, 81, 82, 83, 84, 85, 86, 88, 95, 97, 98, 99, 101, 103, 104, 105, 106, 107, 109).

Most commenters (37) agreed that State and local concerns should be incorporated into Federal emergency planning, with NRC in the lead. Five (5) commenters said local and State government has the responsibility for implementing protective actions - not Federal government (letters 50, 56, 95, 97, and 98) because the local agency (or State) would be the first to respond during an emergency. Two commenters (letters 60 and 84) also pointed out that site-specific issues should definitely be excluded from Federal planning. One commenter (letter 81) questioned the legal authority of NRC to set standards for State and local plans.

One commenter said the Federal role should only be advisory (letter 55).

Value impact and cost-benefit assessments are essential for any Federal agency in the emergency planning area, one commenter noted (letter 49). Another commenter (letter 57) pointed out that any new regulations should clearly delineate Federal, State, and local areas of responsibility.

Two commenters said that financial aid was the greatest need of local governments to carry out proper emergency planning and response (letters 61 and 103).

Meeting with local and State officials was suggested by one commenter (letter 88) as a way to maintain local and State concerns in Federal emergency planning.

One commenter noted (letter 83) that training sessions (for local, State, and Federal officials) are essential to prepare for proper response to emergencies.

Many commenters thought the Federal government could provide much more expertise, guidance, and manpower to local and State governments than they themselves could muster.

Two commenters said Federal planning should not preempt State and local plans (letters 71 and 85). They thought that because of wide variations in local conditions, over-planning by Federal agencies is not desirable.

One commenter stated that Federal regulations (not local/State) are needed to set rigid minimum national standards (letter 54).

Two (2) commenters (letters 50 and 56) suggested ways to involve local and State governments:

1. State and local governments should be invited to participate at the earliest stages of emergency planning (i.e., pre-licensing).
2. State and local participation in drills should provide opportunities for corrections and adjustments.

STAFF RESPONSE

The proposed regulations recognize the need for coordination between Federal, State, and local governmental authorities and the licensee. This is emphasized in the organizational area of the proposed rule, which would require the licensee to provide "Identification of and expected assistance from appropriate State, local, and Federal agencies". Likewise, in the area of assessment actions the licensee must establish "... emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies and the Commission and other Federal agencies ...".

Question 11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

CURRENT NRC PRACTICE

Federal agencies are prepared to serve as advisors and provide technical assistance to State and local governments during an emergency. NRC exercises sole regulatory authority over onsite activities.

SUMMARY OF PUBLIC COMMENTS

Forty-two letters commented on this issue (see letters 5, 16, 17, 18, 22, 24, 29, 40, 41, 44, 45, 46, 48, 49, 50, 54, 56, 57, 58, 61, 62, 69, 69, 70, 71, 73, 75, 81, 84, 85, 86, 88, 89, 95, 98, 99, 101, 103, 104, 105, 106, 107, 109). The most frequent comments were (1) that emergency plans should describe the interfaces between agencies (see letters 5, 41, 45, 46, 48, 49, 50, 56, 57, 69, 73, 99, 103, 106), and (2) that State and local officials should exercise primary offsite authority, using Federal assistance as needed (see letters 17, 22, 29, 41, 44, 49, 50, 54, 56, 70, 75, 95, 98). Some letters included specific comments to the effect that local authorities should take charge during the first part of an emergency with the Federal government coming in later to provide assistance or to take charge (see letters 62, 71, 101, 105). Other letters suggested that a committee of Federal, State, local, and licensee officials should handle the emergency (see letters 16, 24, 40, 45).

For onsite emergency activities, some letters stated that the licensee should have control under NRC supervision (see letters 22, 50, 69, 85). Four letters suggested that NRC be the lead in coordinating Federal agencies during an emergency (see letters 45, 49, 54, 57).

STAFF RESPONSE

Current practice is consistent with most of the comments received. NRC plans to assist State and local governments as appropriate during emergencies, while regulating onsite activities as necessary to protect public health and safety. The proposed rule requires the licensees' emergency plan to include a description of local offsite services to be provided, including expected assistance from State, local, and Federal agencies. The emergency plan must identify emergency action levels and describe plans for notifying local, State, and Federal officials when an emergency occurs.

Question 12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

CURRENT NRC PRACTICE

Licensees are not required to provide radiological emergency response training to State and local officials. Federal agencies do provide some training to State and local officials.

SUMMARY OF PUBLIC COMMENTS

Forty-three (43) commenters address this question (see letters 16, 17, 22, 23, 24, 29, 40, 41, 45, 48, 49, 50, 54, 56, 57, 58, 60, 61, 62, 69, 70, 71, 73, 75, 79, 80, 81, 82, 83, 84, 85, 86, 88, 95, 98, 99, 101, 103, 104, 105, 106, 107, 108). Ten (10) commenters stated that the licensee should have the primary role in providing training (see letters 22, 23, 24, 40, 41, 70, 79, 99, 105, 109). Fifteen (15) commenters stated that the Federal government should have a major role (see letters 16, 22, 49, 57, 60, 61, 71, 85, 86, 88, 101, 103, 104, 105, 107). Fourteen (14) commenters said that the licensee and Federal government should have a combined role (see letters 48, 50, 54, 57, 60, 62, 69, 75, 80, 81, 82, 95, 98, 106). Two (2) commenters would assign the State a primary role (letters 24 and 84). Three (3) commenters stated that NRC should merely specify training requirements and not designate who should provide the training (letters 17, 56, 73).

Some commenters specified training content such as familiarization with onsite facilities and emergency procedures, licensee capabilities, identification of

hazards, damage assessment, protective action guides, monitoring, and decontamination.

STAFF RESPONSE

The proposed rule requires that emergency plans include training to be provided by the licensee for their employees and State and local officials. Federal agencies will also continue to provide training.

Question 13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State, or local governments?

CURRENT NRC PRACTICE

As discussed in Question 12, with regard to NRC's role in an emergency, reliance in the past has been placed on the licensees to make projections of offsite consequences for guidance of local and State authorities. These projections rely on an assessment of system parameters to predict possible future releases and on measurement of actual plant effluents to form the basis for estimates of the offsite consequences of actual releases. Notification of local and State authorities by the licensee is based on predetermined action levels. However, these action levels are not uniform for operating plants and, in some cases, rely only on effluent release measurements rather than plant parameters, which could give advance warning of releases.

Should an incident continue for more than a few hours, other sources of information and evaluation can augment the licensee's projections. This was the case during both the Ft. St. Vrain incident and the Three Mile Island accident.

As in the discussion of the role of the NRC in Question 12, the timeliness of the response, the capability of the evaluating organization, and the ability to obtain information on which to base a decision are major considerations. The credibility of the licensee and the adequacy of predetermined action levels (both for the licensee and offsite authorities) are also major factors in

determining from what source a recommendation for offsite protective action should come.

SUMMARY OF PUBLIC COMMENTS

Forty-seven (47) commenters responded to this question (see letters 11, 16, 17, 22-24, 29, 40, 41, 45, 48-50, 54-57, 60-62, 69, 71, 73, 75, 77, 79-86, 88, 95, 96, 97, 98, 99, 100, 101, 103-107, 109).

Twenty-eight (28) commenters believed that the licensee should be involved in the initial assessment of any radiological assessment and that the appropriate State/local agencies should (1) be immediately informed and (2) have the ultimate responsibility for instituting any protective action (see letters 22, 24, 29, 40, 45, 50, 55, 56, 62, 69, 71, 73, 75, 80-85, 88, 95, 97, 104-107).

Eight (8) commenters stated that the NRC should be responsible for any initial assessment by having an NRC representative at the site (see letters 11, 23, 24, 48, 50, 79, 96, and 100).

One (1) commenter stated that assessment should be accomplished by a regional center (see letter 40).

Seven (7) commenters stated that any responsibility should be held jointly by the Federal, State, and local agencies (see letters 16, 17, 56, 77, 99, 100, and 109).

Other comments were very broad and offered no specific suggestions (see letters 54, 60, 61, 86, and 103).

STAFF RESPONSE

Proposed amendments to Appendix E to 10 CFR Part 50 contain relevant requirements of the conterts of applicant's emergency plans, as follows.

"The means to be provided for determining the magnitude and continued assessment of the release of radioactive materials shall be described, including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies and the Commission and other Federal agencies, and the emergency action levels that are to be used as criteria along with appropriate meteorological information for determining when protective measures should be considered within and outside the site boundary to protect health and safety and prevent damage to property. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. These emergency action levels shall be discussed and agreed upon by the applicant and State and local governmental authorities. They shall also be reviewed with the State and local governmental authorities on an annual basis."

Question 14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation? If not, how should the public be informed of emergency actions it might be asked to take?

CURRENT NRC PRACTICE

Currently, NRC regulations do not require licensees to test public evacuation plans in realistic drills, but power reactor licensees' emergency plans are tested on an annual basis. Members of the licensee's emergency organization are required to participate in these drills, and provisions exist for participation in the drills by other persons whose assistance may be needed in the event of a radiation emergency. No provisions exist for public participation. There are potential costs, in terms of deaths and injuries to the public, associated with public evacuation drills.

It is doubtful whether States have the legal right to compel citizen participation in a practice drill. Similarly it should be noted that evacuations are a relatively common occurrence resulting from accidents, floods, weather, etc. Evacuation experts have indicated, substantiated by a few governors' replies to the PCM-50-14 petition, that evacuations have been and will probably continue to be performed, approximately once a week within the United States, with no major problems anticipated.

SUMMARY OF PUBLIC COMMENTS

Fifty-one commenters responded to the question (see letters 5, 16, 17, 18, 23, 24, 29, 30, 40, 41, 45, 48, 49, 50, 54, 55, 56, 57, 58, 59, 60, 61, 62, 69, 70, 71, 73, 75, 80, 81, 82, 83, 84, 85, 86, 88, 95, 96, 97, 98, 99, 101, 103, 104, 105, 106, 107, 109). Twenty-seven (27) of the commenters recommended that

some kind of public participation is desirable with most considering active public participation in evacuation drills to be necessary (see letters 17, 18, 23, 24, 29, 30, 40, 48, 50, 54, 60, 61, 77, 80, 83, 84, 85, 86, 96, 97, 99, 100, 101, 103, 105, 107, 109). Twenty-three (23) of the commenters recommended that public participation should not be required in evacuation drills (see letters 5, 16, 41, 45, 49, 55, 56, 57, 59, 62, 69, 70, 71, 73, 75, 79, 81, 82, 88, 95, 98, 104, 106). Only one commenter did not address the issue. Generally, all commenters agreed that periodic drills, which involve the licensee and State and local governments, are necessary.

STAFF RESPONSE

Past public evacuations have been performed without benefit of prior public drills. On January 19, 1973, 3000 out of an overall population of 3,300 people were evacuated from Morgan City, Louisiana, in 4 hours. On June 2, 1972, 8700 out of an overall population of 9000 people were evacuated from Rapid City, South Dakota, in 1 hour. And in 1971, 80,000 out of an overall population of 81, 000 people were evacuated from an area in Los Angeles in 6 hours. The first two of these evacuations were conducted with the use of existing evacuation plans, but with no prior drills, involving the public. Because of an impending collapse of a dam, the Los Angeles evacuation was performed without the benefit of an evacuation plan.

Realizing that there are potential disadvantages of performing realistic public evacuation drills, it is important to look at the potential merits of such drills. In analyzing the merits of this concept, one should note whether realistic evacuation drills involving the public were performed in the past and if they were beneficial. Also, if they were not undertaken in the past, consideration should

be given as to whether public evacuations have been successfully conducted without such drills. To the staff's knowledge, no public evacuation drills have ever been performed before an actual evacuation. Furthermore, public evacuations that were relatively successful were performed without prior drills.

Responsible State authorities and/or governors were asked to evaluate this concept of public participation in evacuation drills, on the basis of experience and judgment, regarding the PRM-50-14 petition request. For the most part, their responses expressed concerns similar to those of the Iowa governor's office, quoted below:

> "...Actual evacuation drills would tend to stereotype or pattern a response, which is undesirable because of the multitude of variables in an actual radiation incident. Of equal concern, the statutory authority for the State to enforce an evacuation is questionable, and the legal liabilities for injury contracted during a drill would have to be pre-affixed. The evacuation requirements...would involve extensive State and local resources and staff planning time. The conduct of the evacuation drill would also place a financial burden on State and local governments."

For these reasons, the proposed rule change does not require public participation in emergency response drills but does require periodic drills by the licensee and State and local governments as well as Federal organizations. The revision of Section IV.F., "Training", in Appendix E to 10 CFR Part 50 contains these additional requirements for testing of the emergency plan.

Question 15. Miscellaneous Comments.

Many comments were received that did not relate directly to the fourteen issues listed in the Advance Notice of Proposed Rulemaking. These comments are discussed below.

a. Need for rule changes

Many letters suggested efforts to upgrade emergency plans through additional regulatory requirements. Several other letters opposed changes, or at least opposed hasty changes. Based on evaluations of emergency planning by both external and internal groups, the NRC staff has concluded that improvements are necessary, and the proposed rule reflects these improvements.

b. Siting problems, low population zone (LPZ), and emergency planning zone (EPZ)

Many letters stated that it is necessary to consider siting and emergency planning together, that the use of the LPZ and the EPZ should be reexamined, and that plants should not be sited in populated areas because of evacuation problems. The staff agrees with the use of the EPZ, and this is included in the proposed rule. Population around proposed sites is considered in the siting process. However, emergency plans are not completed until after the site is chosen.

c. NRC guidance

Some comments were received that asked NRC to provide accident scenarios and other guidance to aid in development of acceptable emergency plans.

The proposed rule contains additional guidance. Accident scenarios are being developed and will be provided in guidance to be issued at a later date.

d. Specific aspects of emergency plans

Many letters made specific suggestions on what should be described in emergency plans. These included evacuation methods, provisions for hospitals and shelters, radiation protection methods, alarms, communication networks, plans for avoiding spread of contamination, establishment of emergency centers, emergency monitoring, and State and local border problems. These factors will be included in licensee and State emergency plans. The level of detail will depend on the specific case.

e. Other comments

Many comments were received which did not relate directly to emergency planning. Many letters opposed specific nuclear power plants or nuclear power in general. Other letters called for stricter radiation protection standards. Other letters questioned the competence of NRC, State, and local officials. Other letters called for Class 9 accidents to be analyzed in the reactor licensing process. One letter called for plants to be protected against terrorists, and another called for emergency plans for transportation accidents. All these comments are outside the scope of rulemaking on emergency planning.

Question 16. Letters Not Applicable.

There were 14 letters that were not considered in the staff evaluation of public comments (see letters 1, 2, 3, 7, 10, 12, 15, 19, 26, 27, 37, 89, 111 and 112). Three (3) letters were repeats of other docketed letters (see letters 3/10, 44/89, and 43/111). Five (5) letters addressed transportation of wastes rather than emergency plans for nuclear power reactors (see letters 1, 15, 19, 26, and 27). Four (4) letters did not address any specific issue (see letters 2, 3/10, and 37). One (1) letter discussed a specific reactor site (see letter 12). One (1) letter was responding to a rule change involving research reactors (see letter 112).

3. COMMENT LETTERS

INDEX OF COMMENT LETTERS

Docket No.	Name	Affiliation	Location
1	Marvin I. Lewis	Individual	Philadelphia, PA
2	Helen Kelchner	Individual	Berwick, PA
3	Irene S. Schoutens	Individual	Santa Barbara, CA
4	Bo Yerra	Individual	So. Princeton, ME
5	Florida Dept. of Health and Rehabilitative Services	State agency	Orlando, FL
6	Okeechabee County Civil Defense	Local government	Okeechabee, FL
7	Charles Seveca	Individual	Atascadero, CA
8	Ocala-Marion County Civil Preparedness	Local government	Ocola-Marion, FL
9	Richard Manzer	Individual	San Luis Obispo, CA
10	Irene S. Schoutens	Individual	Santa Barbara, CA
11	Mr./Mrs. D. Elliott	Individual	San Luis Obispo, CA
12	Edgecomb Citizens Comm. Concerned about Nuclear Power	Local government	North Edgecomb, ME
13	Guy F. Hunt	Individual	Portland, ME
14	Rodney and Elizabeth Orr	Individual	Portland, ME
15	J. A. Brown	Individual	Muncy, PA
16	Racine County Office of Emergency Govt.	Local government	Racine, WI
17	Mt. Lavrel Workshops	Private consultant	Coburn, PA
18	Roberta A. Broda	Individual	Omaha, NB
19	David A. Stine	Individual	Muncy, PA
20	Livingston College Dept. of Community Development Rutgers University	Individual	New Brunswick, NJ
21	Niagara Mohawk Power Corp.	Utility	Syracuse, NY
22	Virginia Office of Emergency and Energy Services	State agency	Richmond, VA
23	H. L. Lock and F. J. Orlando	Individuals	Steuben, ME
24	Sensible Maine Power	Local citizens	Boothbay, ME
25	Indiana State Bd. of Health	State agency	Indianapolis, IN
26	Office of the Governor	State agency	Raleigh, NC
27	Citizens Against Nuclear Dangers	Public interest group	Berwick, PA
28	Bergen Energy Action Network	Local citizens	Montvale, NJ
29	Alabama Dept. of Public Health	State agency	Montgomery, AL
30	Connecticut College (Michael Burlingame)	Individual	New London, CT
31	California League of Women Voters	Public interest group	San Francisco, CA
32	Floyd J. Fithian	Congress	2nd District, Indiana
33	J. Sam Miller	Individual	Northwood, NH

Docket No.	Name	Affiliation	Location
34	Ruth I. Taylor	Individual	Saco, ME
35	Patricia T. Felton	Individual	Portland, ME
36	Network	Local citizens	Santa Barbara, CA
37	Mothers Day Commitment and Concerned Citizens of York County	Local citizens	York County, PA
38	John Fales/Judy August	Individuals	Portland, ME
39	Ann Hedgcook	Individual	Boothbay, ME
40	Dale Evolf	Individual	Florence, AL
41	KMC	Utility	Washington, D.C.
42	Roberta C. Pevear	Individual (NH House of Representatives)	Hampton Falls, NH
43	League of Women Voters of San Luis Obispo	Public interest group	San Luis Obispo, CA
44	Southern States Energy Board	State agency	Atlanta, GA
45	Washington Public Power Supply System	Utility	Richland, WA
46	Hartsville Project Coor. Committee, Inc.	Local government	Hartsville, TN
47	Marvin I. Lewis	Individual	Philadelphia, PA
48	Katherine V. Thompson	Individual	Wiscasset, ME
49	Northeast Utilities	Utility	Hartford, CT
50	Edison Electric Institute	Industry	Washington, D.C.
51	Geauga County Board of Commissioners	Local government	Chardon, OH
52	Calif. Office of Emergency Services	State agency	Sacramento, CA
53	Town of Elon College	Local government	Elon College, NC
54	San Luis Obispo Task Force on Nuclear Power Issues	Local citizens	San Luis Obispo, CA
55	Houston Lighting and Power Co. and Texas Utilities Generation Co.	Utility	Washington, D.C.
56	LeBoeuf, Lamb, Leiby and MacRae for Edison Electric Institute	Industry	Washington, D.C.
57	U.S. EPA	Federal agency	Washington, D.C.
58	Paul H. Allen	Individual	San Luis Obispo, CA
59	Commonwealth Edison	Utility	Chicago, IL
60	Sheldon, Harmon, Rossman and Weiss for Concerned Citizens of Rhode Island	Public interest group	Washington, D.C.
61	Russell M. Bimber	Individual	Painesville, OH
62	Nebraska Dept. of Health	State agency	Lincoln, NB
63	Ann Herald	Individual	Waterville, NY
64	Betsy Neale	Individual	Raymond, ME
65	Westchester County Executive	Individual	White Plains, NY
66	Union Concerned Citizens	Public interest group	Washington, D.C.

Docket No.	Name	Affiliation	Location
67	Maryland Dept. of National Resources	State agency	Annapolis, MD
68	Susquehanna Alliance	Local citizens	Lewisburg, PA
69	Yankee Atomic Electric Co.	Utility	Westborough, MA
70	Florida Power and Light Co.	Utility	Miami, FL
71	Duke Power Company	Utility	Charlotte, NC
72	Elaine Rosenfield	Individual	San Luis Obispo, CA
73	Exxon Nuclear Company, Inc.	Industry	Richland, WA
74	Citizens for a Better Environment	Public interest group	Chicago, IL
75	Atomic Industrial Forum	Industry	Washington, DC
76	Joanne Crowe	Individual	Lindenwood, IL
77	South Carolina Dept. of Consumer Affairs	State agency	Columbia, SC
78	Yankee Atomic Electric Co.	Utility	Westborough, MS
79	Environmental Policy Assoc.	Consultant group	Hirom, OH
80	Georgia Dept. of Nat. Res.	State agency	Atlanta, GA
81	Shaw, Pittman, Potts and Trowbridge	Utility	Washington, DC
82	Dames and Moore	Consultant firm	Los Angeles, CA
83	Union of Cincinatti Med. Center	University	Cincinatti, OH
84	Georgia Power Company	Utility	Atlanta, GA
85	Manicopa County Dept. of C.D. and Emergency Srvs.	Local government	Phoenix, AZ
86	New York Federation for Safe Energy	Public interest group	Saugerties, NY
87	Lorraine A. Koury	Individual	No address
88	Tennessee Valley Authority	Federal agency	Chattanooga, TN
89	Southern States Energy Board	State agency	Atlanta, GA
90	Walter N. Johansson	Individual	Pemaquid Harbor, ME
91	Eleanor G. Waren	Individual	Bath, ME
92	Hugh Chapman Crouch	Individual	Springvale, ME
93	Reynolds and Eleanor Miller	Individuals	Boothbay, ME
94	Monmouth Medical Center	Hospital	Long Branch, NJ
95	Power Authority of the State of New York	State agency	New York, NY
96	League of Women Voters of Rockford	Public interest group	Rockford, IL
97	Public Interest Research Group in Michigan	Public interest group	Lansing, MI
98	New York Dept. of Health	State agency	Albany, NY
99	Jane F. Doughty	Individual	Durham, NH
100	Katheryn Kearney	Individual	Lewiston, ME
101	Environmental Policy Inst.	Public interest group	Washington, DC
102	Kay R. H. Evans	Individual	Westport Island, ME
103	Town of Waterford	Local government	Waterford, CT
104	Middle South Services, Inc.	Utility	New Orleans, LA
105	Portland General Electric	Utility	Portland, OR

Docket No.	Name	Affiliation	Location
106	Illinois Commerce Comm.	State agency	Springfield, IL
107	Colorado Dept. of Health	State agency	Denver, CO
108	Charles H. Lamoneux III	Individual	No address
109	Barbara Boehler	Individual	Damariscotla, ME
110	Jane Lee	Individual	Etters, PA
111	Robert J. Lagomarsino	Congress	19th District, CA
112	Babcock and Wilcox	Industry	Lynchburg, VA
113	New Hampshire Attorney General	State agency	Concord, NH

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 44483) (1)

Marvin I. Lewis
6504 Bradford Terrace
Phila. Pa 19149
7-23-79.

USNRC
Sirs:
The Office of Public Affairs has sent me a notice that the NRC is considering the Additional regulations on evergency plans. The Comment period ends in August. This is too short a comment period.

Also send the notice to the list of enclosed people as they are very interested in commenting on this.

Also consider transportation accidents . What would be the circumstances if a load of spent fuel crackedopen on the elevated part of the Roosevelt Boulevard Extension where it passes over Germantown neighborhood? Imagine it crashing down hundreds of feet upon the houses below and releasing that load of radiation.

This is a question which I have brought up before without any answer from the NRC.

Marvin I. Lewis
6504 Bradford Terrace
Phila. Pa 19149

PS You can also send Proposed Rule Changes in Anticipation of US/IAEA Safeguards Agreement, requests for public commentxxxxx.

3-6

Acknowledged by card 7/27/79

Dr. Judith Johnsrud
433 Orlando Ave
State College, Pa 16801

George Boomsma
R D #1 Box 88
Peach Bottom, Pa 17563

Dr Wm Lochstet
~~199~~ E Aaron Dr
State College, Pa 16801

Muriel Fishbough
60 Red Rose Dr.
Levittown, Pa 19056

George Carmichel
28 Jasmine Rd.
Levittown, Pa. 19056

Doug Baker
Old Rt 113 R D #2
Phoenixville, Pa 19460

Freda Berryhill
2610 Grendon Dr.
Wilmington, Delaware 19808

Bill Buskirk
R D #2 Box 288
Bath, Pa 18014

Robert W. Freedman
5028 Debra Dr.
Pittsburgh, Pa. 15236

Laurie Graham
R. D. #1
Uniondale, Pa. 18470

Richard Hayden
111 Orchard Square
Pittsburgh, Pa. 15229

Pat Hoffman
24 Salem Dr. R D #4
Greensburg, Pa 15601

Dr Chauncey Kepford
433 Orlando Ave
State College, Pa 16801

Dr Oliver Larmi
638 E. 3rd St
Bloomsburg, Pa 17815

Marvin I Lewis
6504 Bradford Terrace
Phila., Pa. 19149

Nora Natoff
R D #2 Box 306
Lovettsville, Va. 22080

Eleanor Outwater
R D #5 Lake Wesauking
Towanda, Pa 18848

Virginia Southard
3514 Walnut St.
Harrisburg, Pa 17109

Mary Swann
R D #1
New Park, Pa 17352

Phyllis Zitzer
Box #207
Salford, Pa. 18957

C Coleman
35 E Drive
Pennsville, Pa 08070

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483) (2)

July 25, 1979
Helen Kelchner
310 East Second Street
Berwick, Pa. 18603
717-752-4619

Secretary of the Commission
N. R. C.
Washington D. C. 20555
Attention:
Docketing and Service Branch

Dear Sir or Madam:

In reference to your request for public input for emergency readiness due to nuclear crisis (see enclosure): Do you really expect the public to respond and to what degree would you except their proposals if they did?

First of all, speaking from my position and those like me — average intelligence, average status, average influence, I know damn little about the use of nuclear elements and anything resulting from the use of them and I'm not consoled by the fact that even the experts don't know enough. It's a very dangerous excuse for not putting the same amount of money into alternate SAFE power supplies. And don't say it's not practical. Think for a minute of the unaccountable billions that has been spent on an element so fierce that vast areas can and have become a "waste" forever because of "an accident", not even counting the enormous cesspools being created by dump sites. And what I hate most is that Berwick will become one of these cesspools with what the "powers that be" lead us to believe is going to be "temporary storage" of nuclear waste at the Susquehanna Steam Electric at Beach Haven. And following close on the heels of this neighborhood dump we must recognize the Susquehanna River from Berwick to the Chesapeake and beyond with similar defiling quality. It's like an ominous mushroom from beneath - where we can't see, smell or feel it rather than the giant skyward variety from which we can at least run.

Acknowledged by card.

3-7

Secondly, the public has had these nuclear monsters thrust upon us whether we favor them or not. NO., after they have been established you have the unmitigated gall to ask us now we'd like our necks saved. It's like asking a man about to be hanged who he'd like to have "cut him down". And, to top things off, you then ask us how we'd like to finance the whole exercise (with our money, of course.) YOU are suppose to be the experts. We are the rank amateurs. It gives us little confidence that you haven't recognized that and acted accordingly.

The public could generate a great deal more good feeling toward this whole forboding business if you'd assure us of a reasonable resettlement if a catastrophe occurs. And please spare us the assurance that such a thing is impossible. The public may be of average intelligence, but they really only accept so much propaganda. Currently, a great deal of it has been silently unaccepted, but don't underestimate the breaking point. When a community (or country) reaches a condition where they have nothing more to loose, look out!!!

If I seem angry with my outspoken adjectives, I AM! I happen to be an ecocognizing housewife. I'm 54 years old. I came into a world of kerosene lamps and when I had the luxury of electricity, I treated it with reverence. I still hang my wash in the good Lord's fresh air rather than wasting heat in a machine for drying purposes. My home is not air-conditioned. I use other electrically produced conveniences wisely -- for many years it was for thriftiness, but lately it's more because of exhaustibility of it's source.

My husband has a small business that hasn't made us rich, but has produced a comfortable living. With hard work, sweat (yes, and tears), we've been physically able to reconstruct those old houses into very acceptable apartments which are intended as a social security for our old age. We don't want government help for a life we can make for ourselves.

But, what happens to all this if the Susquehanna Steam Electric has a catastrophic accident?

We walk away forever!! We walk away from a life of love and pith

in the American way of life. We walk away from little things like a photograph of our wedding, our four babies, our grandchildren. We try to console a 90 year old mother by saying, "Everything will be all right," as we evacuate her from the only place with which she's familiar, this aged woman who still tenderly cares for a property and house for which she and her husband worked long and hard to pay off.

If you intend to investigate me because of my outspoken opposition to anything nuclear (except strictly controlled x-ray diagnosis and therapy for medical purposes), save me and other taxpayers the money. I'm an upstanding citizen in a wide area of Berwick surroundings. I may not be loved by all, but I'm respected. I try to help where help is needed, participate in community charities and affairs relating to the betterment of all citizens. I'm not one of the silent majority and I urge those who are to express their opinions rather than accept what is often determined by a "red-necked" few.

One thing more — when your hearings on licensing the Susquehanna Steam Electric come up, please, please don't make a statement that the public wasn't interested enough to respond. If, by some stroke of luck, they do respond, I'd be scared stiff if you considered taking their suggestions seriously. I love my neighbors, friends and acquaintances, but on a decision of life and death dealing with an unknown destructor, they are not, I repeat, "not" experts. And if the N. R. C. isn't sure enough of themselves that they approach the inexperienced public for help, the American people can be assured that our government is dealing with something much greater than it can handle.

Yours truly,

Helen Kelchner

3-88

Copy to President
" " Mrs. Carter

NRC seeks your input

"Believe it or not, there is a federal agency that wants your input.

It's the Nuclear Regulatory Commission (NRC) and it's in response to the proposed adoption of additional regulations that would establish as a condition for power reactor operation increased emergency readiness for public protection in the vicinity of such facilities.

The regulations, the NRC stated, would involve utility licensees as well as state and local government authorities. One such licensee will be the Pennsylvania Power & Light Company (PP&L), which is scheduled to put its Susquehanna Steam Electric Station on line in 1981.

The action is one of many being taken by the commission in response to the March 28 accident at the Three Mile Island Nuclear Power Station and also is responsive to recommendations from the General Accounting Office and requests from a number of organizations including renewed and supplemental petitions for rulemaking from Critical Mass and Public Interest Research Groups.

The commission is seeking public comment on the following subjects:

—1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposures? Capability to evacuate the public? To what extent should these objectives be quantified?"

—2. What constitutes an effective emergency response plan for state and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements."

—3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

—4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

—5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

—6. Should radiological emergency response drills be a requirement? If so, under whose authority: federal, state or local government? To what extent should federal, state and local governments, and licensees be required to participate?

—7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

—8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report?

—9. Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

—10. How and to what extent should the concerns of state and local governments be incorporated into federal radiological emergency response planning?

—11. How should federal agencies interface with state and local governments and the licensee during emergencies?

—12. Should the licensees be required to provide radiological emergency response training for state and local government personnel? If so, to what extent? Should the federal government provide such training? If so, to what extent?

—13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by federal, state or local governments?

—14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Comments should be addressed to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch within 45 days of publication in the Federal Register on July 17.

Note:

These questions are not written in a form conducive to easy understanding — which should (without a doubt) be the case. They are simple inquires made complicated by condensing up to 5 queries under one item. It is a rule of good newspaper writing that composition should be made understandable for a 5th grade level so that ALL people in the literate area will retain concentration enough to understand it. In anything as serious as the subject to which you are addressing, simplicity should be of prime importance.

Are you aware that most, if not all, the questionnaires that you send out bare the same characteristic as I am describing? You bog-down your source before they have a chance to comprehend your main issue.

(3) (44FR41493)

Secretary of the Commission
Nuclear Regulatory Commission
Landow Building
Washington, D.C. 20555
Att'n: Docketing and Service Branch

July 26, 1979

To whom it may concern:

I am writing in response to the request for public response which the NRC has publicized in the media. You express a concern for emergency planning and preparedness. In view of the nature of the dangers of radiation at every step of the nuclear power process (from mining uranium through the operation of the power plant to the final waste disposal) the only sensible cure would seem to be prevention.

Our country with less than 6% of the world's population is currently using more than 30% of the world's energy resources. 13% of our present energy demand is being met by nuclear power. Even a small conservation effort (if honestly and confidently led) would be able to reduce our energy consumption by 13%, thereby eliminating the need for such an inefficient and dangerous program.

I believe that the American people would, if they were given the truth about nuclear power, much prefer conservation to radiation (even low-level). No after-the-fact emergency plan will be sufficient to undo the damage which is a threat as long as we continue to pretend that nuclear power is a viable alternative. Solar energy, renewable energy resources and conservation are the only realistic alternatives.

You of the Nuclear Regulatory Commission have in your power the possible future of mankind. In your place I could do no less than require the total halting of nuclear power. I earnestly hope that you see your position as a prophetic one for the current generation of decision-makers as well as for the generations to come who will certainly demand an accounting from us.

3-9

Sincerely,

Irene S. Schoutens

Acknowledged by card. dlh 8/13/79

Irene S. Schoutens
2115 State Street
Santa Barbara, CA
93105

copies to:
Mr. Joseph M. Hendrie, Chairman
Nuclear Regulatory Commission

President Jimmy Carter

Pocomoonshine Lake
So. Princeton, Maine
04668
8/2/79

To: Secretary
Nuclear Regulatory Comm
Washington DC 20555

(4) PR-50 (44FR41483)

Re: Public protection/emergency readiness plans (Redington 7/17/79

A significant portion of the population of Washington County, Maine, lies within a 40 mile radius of Point Lepreau, New Brunswick, Canada, where a heavy-water CANDU reactor is in the process of being constructed. Discussions with the Maine State Police and Maine Office of Civil Emergency Preparedness indicate that they have no communication link with Canadian officials concerning emergency evacuation procedures, nor do they intend to establish such a link. This, to our way of thinking, is totally irresponsible.

Radiation does not observe international boundries!

We would hope that the Commission will address this issue, and request a response as to the nature of any action (or plan) relating to the lack of any such safety considerations.

Sincerely,
Bo Yerxa
Concerned Parents Group

Acknowledged by card. dlh 8/16/79

STATE OF FLORIDA

DOCKET NUMBER (5)
PROPOSED RULE PR - 50 (44FR41493)

DEPARTMENT OF Health & Rehabilitative Services

Bob Graham, Governor

P.O. BOX 15490 ORLANDO, FLORIDA 32858

July 31, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Docket 79-22078

Dear Sir:

I consider Item II of this document to be the basic question which must be addressed before other items can be considered. State and local emergency plans, no matter how elaborate, will not serve any useful purpose when pre-empted by Federal Agencies. To be effective they must be permitted to operate as designed and concurred in. Pathways of communication from Federal Agencies to local governments should proceed in the channels established by pre-planning. Ad hoc revisions can only result in conflicting advice and confusion damaging to the public safety and to public confidence.

It is my opinion that under Item I, the basic objective of emergency planning should be to reduce public radiation exposure. This is already adequately quantified in the form of U.S. EPA Protective Action Guides.

Item 5 - radiological emergency response drills should be a requirement. This is already addressed in NUREG 75/111 as a requirement for Concurrence in State plans.

Item 14 - exposure of the public to the hazards of evacuation for the purpose of response drills is not, in my opinion, a rational action. The total hazard of such evacuation drills over years, would far exceed the potential hazard of a nuclear power plant accident.

In my opinion, the Commission should exercise great restraint to prevent a flood of new rules on the topic of radiological emergency planning. The problem which NRC staff perceives to have arisen from Three Mile Island is not a lack of rules, but rather a lack of serious application of those which exist.

Sincerely,

Wallace Johnson
Chief
Radiological Surveillance
and Laboratory Services

Acknowledged by card.

8110

COUNTY COMMISSIONERS

L.E. HERBERT
DIST. 1

OSCAR THOMAS
DIST.

H. H. RAULERSON
DIST. 3

CLYDE R. CURRANCE
DIST. 4

CHARLES W. HARVEY
DIST. 5

CIVIL DEFENSE DIRECTOR
CLYDE E. KAUFFMAN

COMMUNICATIONS OFFICER
ELLIE WATERS

PHONE
763-3212

SEAL 1917

Okeechobee County Civil Defense

OKEECHOBEE, FLORIDA 33472
POST OFFICE BOX 1045

(6)

August 1, 1979

DOCKET NUMBER PR - 50 (44FR41493)
PROPOSED RULE

Nuclear Regulatory Commission
Docketing & Service Department
Washington, D.C. 20555

Dear Sir,

I the Civil Defense Director of Okeechobee County and the people of Okeechobee County think and believe that it is asinine to think that intelligent people of this county could believe and want something like this to be done is out of their minds.

As for trial evacuation of the people from thier homes on a trial bases is absurd. To try and get the people of Okeechobee to leave their homes would start a major war. To tell them that this is an exercise and to leave their homes unguarded, some one is out of their minds. To think that for one minute that the Sheriff Office, the City Police or any of the Civil Defense Volunteers and Staff would go and tell a family this is an exercise, not us, we want to live.

In closing, we the people of Okeechobee County are strongly against this proposal.

Yours truly,

Clyde E. Kauffman, Director

CEK/vca

Acknowledged by card.

EXACT NUMBER PR -50 (44FR 41493)
PROPOSED RULE

AUG 9 1979

Nuclear Regulatory Commission

This letter is in response to your request for recommendations concerning emergency plans for evacuation in case of another nuclear accident. I, too, am fighting off alarmist reactions because creating a society filled with paranoia breeds more social neuroses. It is my reasoning, however, that emergency plans are merely a political tool to allay fears, which are real deep-seated fears. Radiation will not listen to your plans. Contamination will not listen to your plans. What is simply is and any attempt to bandage a society suffering from the malaise of highly consumptive technology will not work. Simply put - the atomic age society is an infant totally indulged - The terror of a screaming infant is reality to him, but sometimes we mustn't indulge the infant in its fears by pacification, but rather take the infant and shock its own self- indulgent, ego-centered world with a splash of cold-water underneath the shower of wakening to a more conscious world of all of this world's surroundings. Some call it socialization.

Getting back to this evacuation plan,

Acknowledges by card. 8/14/79

don't you think that this is a symptom of a people riddled by paranoia? Fear from breathing the air, or eating the food, or drinking the milk of all that sweet Creation Father-Mother Earth has provided us - your criteria is meaningless to my safety, because once it goes, we are only running away from ourselves - The mobile society, uprooted from the very land - Listen to the Indians - we don't own the land, the land owns us! So without limitless energy supplies, what might this force us to do? Become a little more conscious of our usage of the finite resources of the earth - Our lives are finite, why do we desire to transcend it to the infinite and become creatures of sloth and laziness, limitless consumption, and a growing economy that is, like the palm tree, growing to unreachable heights and whose ultimate direction is its own self-destruction. There is a movement, a New Age movement, turning off this highly-consumptive brainwashing, and our lives are better for it. We know that the American public has a long way to go, but have faith that the people will respond in a time of need by strapping up the belts. One does not get in shape by adding weight.

Please - No Nukes - Charles Sawyer
NO DIABLO Atascadero, Cal.

W-11

OCALA-MARION COUNTY
CIVIL PREPAREDNESS DEPARTMENT

POST OFFICE BOX 605
OCALA, FLORIDA 32670

JOE D. GILBREATH
DIRECTOR

DOCKET NUMBER (8)
PROPOSED RULE PR -50 (44FR41483)

(904) 622-3205

25 July 1979

Secretary,
Nuclear Regulatory Commission
Attention: Docketing & Service Branch
Washington, D.C. 20555

Gentlemen:

I have discussed the proposed rules changes at great length with fellow Civil Preparedness Coordinators in the Central Florida Region and we all arrive at the same conclusion:

The proposals are absurd.

We are not so much concerned that the execution of the proposals are inconvenient to planners and the general public, but rather that the implied proposals are designed to play on ignorance and fear tactics aimed at the general public.

It is obvious that the proposals are designed to terminate, not regulate nuclear power.

Vote NO on these proposals, Please !

Sincerely,

Joe D. Gilbreath,
Civil Preparedness Coordinator

JDG:jj

Acknowledged by card 8/14/79

3-12

POOR ORIGINAL

July 26, 1979

DOCKET NUMBER (9)
PROPOSED RULE PR -50 (44FR41483)

Secretary
Nuclear Regulatory Commission
Washington, D.C 20555

Dear NRC Secretarial person
I read in my local paper the NRC requested public input on Nuclear Plant Emergency Plans. I live near a plant soon to be licensed & I fear for my safety as a result. The following are some of the things the plan must include if I am to believe the NRC is actually concerned for my safety

1. What precautions are taken to insure the plant & fuel/waste carrying vehicles from sabotage by terrorists?
2. What people in surrounding communities might do if radioactive (contaminated by accident) people flee to their area?
3. Where will radioactive cooling water be stored, transported to in the event of a T.M.I type accident?
4. How will radioactive waste be transported safely through my city?
5. How many radioactive contaminated persons can be treated at one time by our local hospitals?
6. What coordinating efforts →

Acknowledged by card 8/9/79

plans currently exist? (None in our county at present) The Volunteer Fire Department which responds to Diablo Canyon has no modern equipment! The Sheriff's office has no knowledge of the State Forestry plans for disaster. The National Guard Camp Nearby has no plans at present for Diablo Disasters. Can some coordination be accomplished here so when the earthquake occurs & Diablo spews its poison, we'll have some order & efficiency amongst the government emergency services.

7. What happens to the prisoners in the prison? Do we turn them loose to prey upon the evacuated cities? Do we transport them elsewhere? How? How fast? How much time do we have?

8 How do we evacuate the elderly / invalid / hospital patients? Where do we take them?

9 The safety plan must prove that I am safe from exposure to ALL Diablo generated radiation.

10 When the disaster occurs How will anyone know what to do? We should have drills to let people know how much / little time they have.

Keep going →

As I said earlier, this is only some of the things the emergency plan for Diablo should include. I am sure the NRC is better informed than I am on just how hideous a nuclear accident could really be. So I would assume that your office will at least insure that these (plus many others) are included prior to Diablo getting its inevitable license.

Also, prior to the granting of any plant's licenses, the poor ignorant people (like myself) who have the misfortune of owning property down wind from such a plant should be informed that such a plan may not work. But Get a plan anyway. Then run drills - often - & coordinate activities. If you in all your wisdom do in fact license Diablo Canyon, you had better prove to me what you & property are. To ME was evacuated by such a plan's operation, under any circumstances.

IMPORTANT: I want to see the plan or ... about ... I want to be informed & ... hearings or plan discussions. I want an immediate response.

to this letter (Not one of your usual 3x5 cards w/ appropriate boxes checked) where some discussion of my bias is mentioned.

If your playing games w/ my life, I want to know what your rules are.

Thank you -

RICHARD MANCER
762 Higuera
San Luis Obispo, Ca
93401

3-14

(10)
50 FR 41483

Secretary of the Commission
Nuclear Regulatory Commission
Landow Building
Washington, D.C. 20555
Att'n: Docketing and Service Branch

July 26, 1979

To whom it may concern:

I am writing in response to the request for public response which the NRC has publicized in the media. You express a concern for emergency planning and preparedness. In view of the nature of the dangers of radiation at every step of the nuclear power process (from mining uranium through the operation of the power plant to the final waste disposal) the only sensible cure would seem to be prevention.

Our country with less than 6% of the world's population is currently using more than 30% of the world's energy resources. 13% of our present energy demand is being met by nuclear power. Even a small conservation effort (if honestly and confidently led) would be able to reduce our energy consumption by 13%, thereby eliminating the need for such an inefficient and dangerous program.

I believe that the American people would, if they were given the truth about nuclear power, much prefer conservation to radiation (even low-level). No after-the-fact emergency plan will be sufficient to undo the damage which is a threat as long as we continue to pretend that nuclear power is a viable alternative. Solar energy, renewable energy resources and conservation are the only realistic alternatives.

You of the Nuclear Regulatory Commission have in your power the possible future of mankind. In your place I could do no less than require the total halting of nuclear power. I earnestly hope that you see your position as a prophetic one for the current generation of decision-makers as well as for the generations to come who will certainly demand an accounting from us.

Sincerely,

Irene S. Schoutens

copies to:
Mr. Joseph M. Hendrie, Chairman
Nuclear Regulatory Commission

President Jimmy Carter

Irene S. Schoutens
2116 State Street
Santa Barbara, CA
93105

Acknowledged by card. 8/13/79

DOCKET NUMBER
PROPOSED RULE PR - 50 (11) (44FR41483)

July 22, 1979

Dear Secretary of the Nuclear Regulatory Commission:

We are residents of San Luis Obispo County and are strongly opposed to the opening of Diablo Canyon nuclear power plant. But we also see in the event of the opening regardless of the dangers and consequences, an Emergency Evacuation Plan must be established. In compliance to an article in the newspaper on suggestions for the components of an Emergency plan, we are writing with the following suggestions:

1) Exposure of radiation to the public should be completely eliminated within a 15 mile radius.
2) The plan should include treatment for other forms of radiation exposure to the public.
3) Naturally, the plan should be proven capable of evacuation of the public.
4) The plan must be mandatory before licensing of a new power plant.
5) The individual power companies must be responsible for informing the public in the event of disaster, and the residents of the evacuation area should receive a letter informing them of the Plan before a disaster.
6) A member of the Nuclear Regulatory Comm. should be posted at all power plants, and
7) The utility company owning & operating the plant should bear the entire cost of the plan, and the public cannot be responsible for any of the cost.

We hope you understand how very important this issue is to us.

Sincerely,

Mr. and Mrs. D. E. [illegible]

ACKNOWLEDGED BY DNSIR

3-15

DOCKET NUMBER
PROPOSED RULE PR - 50 (12) (44FR41483)

EDGECOMB CITIZENS COMMITTEE
CONCERNED ABOUT NUCLEAR POWER
RD Box 346,
North Edgecomb, Maine 04556
8 August 1979

U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

PETITION TO INTERVENE

SUBJECT: NRC Document #7590-01, 12 July 1979
(10 CFR Part 50 Appendix E)
ADEQUACY AND ACCEPTANCE OF EMERGENCY
PLANNING AROUND NUCLEAR PLANTS

The Edgecomb Citizens Committee Concerned About Nuclear Power, a non-profit group incorporated in the State of Maine, seeking to represent public interest in the matter of nuclear power, and comprised of citizens living within the evacuation zone of Maine Yankee nuclear plant hereby petitions to intervene in the matter of proposed rulemaking (NRC Document #7590-01, dated 12 July 1979). We petition the Nuclear Regulatory Commission to extend the deadline for public imput on radiological emergency rulemaking an additional 60 days from the end of August to the end of October 1979.

The reason for this petition is that sufficient notice has not been provided for a reasonable amount of public imput in a matter vital to public safety. Before reasonable and productive suggestions can be developed, time and money-consuming assessments must be undertaken.

SOME FACTORS BEARING ON THE SITUATION OF MAINE YANKEE:

1) GEOGRAPHY: Maine Yankee is sited at the head of an estuary next to an unprobed and major geologic fault. The earthquake

resistance of its containment is dubious beyond force 6. Peninsulas with limited access contain various population clusters and project seaward of the plant limiting evacuation possibilities. Coastal snowstorms frequently blanket the area closing even principal arteries for extended periods of time. Temperature inversions are common over Maine Yankee. Gale winds and vulnerability to hurricanes could present special problems for air and sea evacuation. Many of the region's side roads are unpaved and impassable for periods of four to six weeks during Springtime due to mudding.

NOTE: The area is served by light duty overhead power and telephone lines which are frequently knocked out of service by even small storms.

2) ECONOMICS: The costs of an adequate response to radiological emergency would be monumental. Maine is the poorest state in the Union on a per capita basis. Lincoln County - most affected by an emergency at Maine Yankee is one of the poorer counties in the state. Lincoln County has a substantial number of elderly citizens on fixed incomes. Most towns are served by under-equipped, volunteer Fire Departments. Only a few can afford First Aid and Ambulance services.

3-16

3) LIFE STYLE: Because of its rural, wooded and seacoast nature many area people spend a good deal of time out-of-doors and out of reach of communication - away from their homes. These would include (but not exclusively) woodcutters, hunters, farmers, clam diggers, wormers, and fishermen. Adding to evacuation difficulties are four hospitals within the evacuation zone, several isolated nursing homes and, less than 30 miles downwind, Thomaston State Prison. To date Maine also lacks adequate reception facilities for evacuees.

4) POLITICAL: Maine people are, by and large, loyal and conservative. At present they tend to confuse accepting undue risk with patriotism. The distinction between a government

licensed - private utility and a Commonwealth necessity has not been made clear. Of a consequence most area citizens are unaware that the licensee bears no responsibility in an emergency situation beyond plantsite. It is a common, though at present unsupportable, belief that they will somehow "be taken care of". In fact, the question remains - who will bear responsibility for the lives, property, and future generations of Maine people in the event of a Class 9 accident?

SUMMATION:

The input of national public interest groups cannot be depended upon to best represent the interests of the region inasmuch as there is nothing to indicate that they are familiar with all the factors particular to, and affecting this area. While publication in the Federal Register may reach national public interest groups, area citizens were totally unaware of the proposed rulemaking, until the Edgecomb Citizens Committee attempted to disseminate such information after July 31, 1979. In fact the Edgecomb group would not have been aware of the call for public input had not a regular reader of the Federal Register in Washington forwarded a copy of the document referenced above.

We conclude that the legal charge of the Commission to provide for the public safety to the best of their ability has not been fulfilled. We so conclude because while de jure public notice may have been given, de facto notice (best accomplished in common media) was not given.

Raymond G. Shadis

Raymond G. Shadis
for the Board of Directors
EDGECOMB CITIZENS COMMITTEE
CONCERNED ABOUT NUCLEAR POWER

RGS/jpr

cc: file

P.O. Box 4017
Station A
Portland, Maine 04101
August 14, 1979

(13)

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

To the Secretary of the Commission:

My name is Guy T. Hunt. I live in the State of Maine. In the community of Wiscasset there is a 790,000 kilowatt nuclear power plant. In the State of New Hampshire a twin reactor nuclear power plant is in the process of being constructed in the town of Seabrook. I live in a village called Buxton which is within a 50 mile radius of each N-power plant. I am concerned about the potential hazards of raciation (both high level and low level), the possibilities of leakage of storage units of radioactive wastes, and the evacuation plans for people in the event of a nuclear catastrophe.

I have been informed that the Nuclear Regulatory Commission is seeking public input into the potential establishment of evacuation planning around nuclear facilities. In the ensuing paragraphs I will outline my thoughts on this critical subject.

1. As telephone companies distribute telephone directories to the populace, I feel that electrical companies should circulate copies of evacuation plans along with gas masks and dosimeters to those people who could be effected by a nuclear accident.
2. Public utilities should establish temporary shelter for evacuees. At these depots food, clothing, and medical assistance should be provided to the evacuees free of charge.
3. In order to transport people buses, railways, a fleet of boats, airplanes should be purchased by the power companies to assist in the evacuation operation. This would help prevent mass panic.
4. In case of a nuclear accident radio and television programming should be interrupted, and the public should be notified of the severity of the accident and given instructions of possible evacuation procedures.
5. As in most communities there is unit of volunteer fire fighters, I feel that there should be community establishment of a group of people to volunteer their assistance in evacuation procedures.
6. Power companies should establish referral sevices to aid evacuees in finding permanent housing and employment, if towns and villages are sealed off for resettlement.
7. We have recently obtained information that a period of 20 years is neededto past in order that the ill effects of radiation show up. I feel that it is time that power companies and the nuclear industries assist in the medical expenses of those inflicted by unrue harm of radiation.

Throughout the history of the development of the peaceful atom the people of this country have had to foot the bill. There are those who mine uranium and are inflicted by cancer, and they have pay for their medical bills. For the construction of nuclear power plants money from our electrical bills are being used (even if the people disapprove of its construction). In case the nuclear plant is shutdown, and other sources of energy are needed to generate electricity; the people foot the increase in the cost. We have come to a point where the electrical companies should sharesome of the burden besides inheriting all the profits.

Thank you

Sincerely yours,
Guy T. Hunt
Guy T. Hunt

3-17

Acknowledged by card 8/21/79.

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41493)

(14)

DOCKETED
USNRC
AUG 20 1979
Office of the Secretary
Docketing & Service
Section

3-11-79

U.S. Nuclear Regulatory Commission
Secretary of the Commission

I understand that you are soliciting comments regarding adequacy and acceptance of emergency planning around nuclear facilities. As an observation and concern, I was amazed that in evaluating Point Hope and Seabrook in particular because the city of Portland, Maine is being considered as a point of reference.

First of all, in accident or attack, Portland would likely destroy its economy for years to come. It is a key port of the state economy and a key unit would surely destroy one of our industry. (Speculation, tourism, fish, etc.)

Next, one should not forget that Maine has a particularly difficult evacuation case in accident because of the peninsula effect. It also at the end of the line. Roads evacuating persons from Portland, Biddeford, Old Orchard would have to pass through the population base to get to other parts of the state.

I would like to see a serious appraisal and scenario plan presented to the public in accident within 20 miles of the site. The accident that the state selected is pure fiction of the imagination and both scientists would call it unbelievable in its parameters.

I am, I'm sure, not the only (and by no means the most) person to be concerned, also, that N.R.C. tolerated "evacuation plans".

I also feel that safety and not money should be the prime factor. Should be prior to cost. Safety should be given more than lip service. Please keep my name on the mailing list.

3-18

attitude and through every means of communication, free flow of information to the various concerns of citizens and by so doing be helpful and instructive. Public safety and hysteria be a two-way more important than secrecy.

Lastly I feel that the cost of safety and emergency plans should not be passed on by the consumer or the taxpayer. They should be paid for entirely by the stockholders. This I consider to be only fair.

Thank you for the consideration of my comments. I may not be the most informed person on the subject but I am very concerned with the safety and well being of all of us.

Sincerely,

Elizabeth

Rodney and Elizabeth Cox
23 Davey St
Portland, Maine
04103

DOCKET NUMBER (15)
PROPOSED RULE PR-50(44FR 41493)

August 9, 1979

Dear Secretary:

Based on the new rules for the protection of spent fuel shipments from sabotage which become effective July 16, 1979, I wish to make these suggestions of ways to improve these rules.

1. Require notification of each shipment to local authorities as well as the NRC.

2. Require publication of proposed routes in Federal Register and allow for public comment before the route can be approved.

3. Include a provision for holding local public hearings prior to route approval, if requested by citizens or governments along the route of shipment.

4. Require the shipper to prepare and submit to the NRC for approval emergency response plans for incidents which may occur en route.

5. Embargo all shipments of domestic spent fuel until such time as they can be directly shipped to a demonstrated permanent and safe disposal site.

For the safety of citizens who live along shipment routes I feel that these suggestions should be implemented into the existing rules.

Thank you.

Sincerely,

Ms. J. A. Broom
RD#1 Box 149
Muncy, PA. 17756

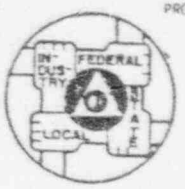
P.S. I would also like to request that a public information office be opened in Harrisburg so the citizens may keep an eye on the 700,000 gallons of water which has accumulated at TMI and have access to any relevant information concerning any leakages at the plant.

cc/ Rep. Allen E. Ertel

Acknowledged by card 8/21

8119

DOCKET NUMBER (16)
PROPOSED RULE PR-50(44FR 41493)



Racine County
OFFICE of EMERGENCY GOVERNMENT
Safety Building 730 Center Street Racine, Wisconsin 53403
Telephone 414 - 634 - 5331

July 30, 1979

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

This is in response to your press release (attached) by which you seek citizen comment pertaining to emergency preparedness plans for areas near a nuclear electric generating plant. You will note that due to my position and responsibilities that my viewpoints may differ from those of the general public, pro and con.

Racine County, Wisconsin, is beyond the ten-mile radius from the Commonwealth Edison Plant located at Zion, Illinois, but portions of the county are within a twenty-mile radius; and, of course, well within the fifty-mile food chain radius.

The questions asked in your press release will be answered in sequence.

1. From reliable information which we have been able to accumulate, prevention of public radiation exposure is out of the realm of realism. However, means of reducing public radiation exposure can be relatively easily accomplished by the two most recognized methods --- distance and mass. If we utilize the existing NRC guidelines for accumulated exposure over a seven-day period, and --- accept recently released information on the actual exposure in Pennsylvania as 25-30 mRem as accurate --- certainly sheltering of the public is far more workable and logical than is mass evaucation. However, true planning and actions for public safety measures should be based on the prompt and reliable reporting of existing and anticipated radiation levels when a nuclear incident/emergency occurs at a nuclear plant. The capability for sheltering or evacuating the public is a matter of planning at the State and local levels.

Acknowledged by card 8/21

2. An emergency response plan for State and local agencies, and for NRC licensees should consist of general planning and standing operating procedures. For example, the plan may indicate that certain agencies/individuals, by title, will be alerted by the licensee when an emergency or incident has occurred. However, previously developed standing operating procedures, kept current and updated, should describe who does what, when, and how, to insure that such alerting actually takes place. Alerting within the agencies alerted by the licensee should be the responsibility of the agency alerted. Actual response should also be by general plan and standing operating procedures developed by the licensee, and State and local emergency services, in consonance with each other. Municipal, county or State boundaries must be completely disregarded if response is to be assuredly adequate and effective.

3. In my opinion, the continued operation of any nuclear power plant should not be contingent upon NRC concurrence in State and local emergency response plans. Since the locale of each of the nuclear plants dictate wide variation in the response plans and procedures developed, where State and local plans have not been developed concurrence by NRC of newly developed plans could be a lengthy procedure, thus delaying resumption of plant operations for an extended period of time.

4. The question as written is somewhat unclear. However, if the subject license refers to a new plant not yet operating or a plant under construction, then certainly licensing should be contingent upon NRC concurrence in the associated State and local emergency response plans.

5. Since State and local civil preparedness/emergency management agencies have the responsibility for planning for all emergencies, including radiological emergencies, additional financial assistance should not be required for this purpose. However, since a radiological emergency/incident occurring at a nuclear power plant is man-made, and resulting from the failure of safety devices or procedures, --- and, since preparedness in the form of special equipment and specially-trained personnel would not be required were it not for the subject nuclear power plant --- these expenses and financial assistance for same should be borne as a loss to the operating utility and directly affecting the corporation's profit or loss to the stockholders.

6. Radiological emergency response drills should be a requirement. It is only by periodic drills that response can be tested for adequacy and currency.

7. Public information releases pertaining to actions to be taken by the public in the event of a nuclear power plant emergency/incident should be in the same forms (printed material, news media articles and broadcasts, etc.) as are used for tornado, hurricane, flood, winter storms and the like. If these methods are adhered to as diligently and conscientiously for nuclear power plant emergency/incident as for the possible emergencies above-mentioned, the public should be informed as well as is humanly possible.

8. A nuclear power plant licensee should notify NRC at least of incidents which occur within their plant, and from which there is no prospective hazard outside the confines of the plant. However, an incident which could even remotely cause a hazard to the public should be reported to Federal, State and local agencies with emergency responsibilities. At this time, also, the Federal, State and local agencies should be fully briefed on the situation, including the prospective hazard and prospective radiation levels. At any time there is danger to the welfare of the public, the public should be totally informed as to what the danger is, if any, and what specific actions should be taken by them for their welfare.

9. Federal radiological emergency response planning should reflect no less concern that the concerns of State and local governments, since Federal agencies have no less responsibility for the welfare of the public than do State and local governments.

10. During nuclear power plant emergencies Federal agencies, State and local governments, and the licensee should become a common committee, kept totally informed on the actions being taken or planned, and totally involved in decisions relating to the emergency.

11. Training in radiological detection and response is presently available to State and local government personnel through FEMA/civil defense channels. Since this training is now provided through the Federal government, it remains simply for the Federal government to continue this service. The real inadequacies exist in the instrumentation available to local government response personnel.

12. The assessment of actual or potential consequences of a nuclear power plant accident should be a joint effort by Federal, State and local governments, and the licensee. Expertise for reliable assessment should be developed among each, and responsibility borne by each.

13. Public participation in radiological emergency response drills is totally impractical. Liabilities involved would be beyond imagination. Reliance should be placed on public education and emergency public information.

Sincerely,

Nickolas H. Braun

Nickolas H. Braun, Coordinator
Racine County Emergency Government

lad

enclosure

2B The Journal Times, Wednesday, July 25, 1979
Racine, Wis.

Nuclear Commission seeks citizen advice

The federal Nuclear Regulatory Commission (NRC) is seeking comments from citizens to help in preparing stricter emergency preparedness plans for areas near a nuclear plant.

The rules would involve the nuclear plant utilities, local and state governments, and the NRC.

The Three Mile Island Nuclear Power Station accident March 28 has prompted the NRC to seek citizen comments, according to a press release.

The NRC wants to know:

"1. WHAT should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public?

"2. WHAT constitutes an effective emergency response plan for state and local agencies and for NRC licensees?

"3. SHOULD NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant?

"4. SHOULD prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant?

"5. SHOULD financial assistance be provide to state and local governments for radiological emergency response, planning and preparedness? What should be the source of the funds?

"6. SHOULD radiological emergency response drills be a requirement? Under whose authority?

"7. HOW and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

"8. UNDER what circumstances and using what criteria should a licensee notify state, local, and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified?

"9. HOW and to what extent should the concerns of state and local governments be incorporated into federal radiological emergency response planning?

"10. HOW should federal agencies interface with state and local governments and the licensee during emergencies?

"11. SHOULD the licensees be required to provide radiological emergency response training for state and local government personnel? Should the federal government provide such training?

"12. TO WHAT extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident? To what extent should this responsibility be borne by federal, state or local governments?

"13. WOULD public participation in radiological emergency response drills, including evacuation, serve a useful purpose?

Comments should be addressed to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D.C. 20555.

MOUNTAIN LAUREL WORKSHOPS
COBURN, PENNSYLVANIA 16832
TELEPHONE (814) 349-5968

NICHOLAS E. BRINK, Ph.D.
LICENSED CLINICAL PSYCHOLOGIST

TONI BRINK
REGISTERED DIETITIAN

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR 41483) (17)

1 August 1979

Secretary of the Nuclear Regulatory Commission
Washington, D.C. 20555
Attention: Docketing and Service Branch

As a member of the public, a resident of Central Pennsylvania and the mother of five children, I would like to comment on planning for nuclear power plant accidents which pose an emergency to the public.

First, the objective should be to prevent public radiation exposure and to evacuate whomever wants to be evacuated. People who do not approve of nuclear power should not have to be exposed to radiation hazards. Children and unborn children who have not had the chance to study the implications of nuclear power and the dangers, should not have to be exposed to it. So, we must be prepared to protect 100% of the people and evacuate 100% of the people from whatever area will be affected—the Update of Wash 740 says and area the size of the state of Pennsylvania could be contaminated, so we should be able to evacuate an area that size in order to be responsible about nuclear power. As to the time limit of such an evacuation, you would be the better judge of that. How long does it take for an accident to happen?—Days, hours, seconds, at any rate, the people must be out before the accident happens. You tell me how we can guarantee this!

3-22

As to what constitutes an effective emergency response plan for state and local agencies and for NRC liscensees, it would have to be extremely well organized and rapid. Communications would have to be instantaneous. If it happened in the middle of the night we would need sirens and people to go around waking up everyone and helping invalids and people who cannot hear or see, etc. We would need a lot of gas to get a whole state moved. We would need a lot of police to direct traffic. We would need much medical help for those having heart attacks and mental health workers for those having anxiety attacks. We'd bettar make up the rules beforehand if we could allow pets and livestock to be evacuated and take up space on the highways. Would we allow those who live in trailers to take their trailers with them? I don't think they should. Surely what I have just mentioned is not very complete and I doubt that the NRC has an evacuation plan of the state spelled out much better.

Of course the NRC should concur with state and local emergency response plans before nuclear power plants should be allowed to operate. People must be aware of what a nuclear emergency could be like. Every citizen should be sent a copy of the Update of Wash 740 so that each knows the implications of a nuclear disaster. The requirement for the NRC concurring in the associated state and local emergency response plans should be a prerequisite for plants to be liscensed and operated. Period. This should be effective now.

Financial assistance should be liberally provided to state and local governments for radiological emergency response drills and emergency responses, planning and preparedness. The taxpayers of the U.S. and any corporations involved in any way with the nuclear industry should foot the bill.

Acknowledged by card ....8/21....mdc

MOUNTAIN LAUREL WORKSHOPS
COBURN, PENNSYLVANIA 16832
TELEPHONE (814) 349-5968

NICHOLAS E. BRINK, Ph.D.
LICENSED CLINICAL PSYCHOLOGIST

TONI BRINK
REGISTERED DIETITIAN

1 August 1979 (cont.)

I also believe that radiological emergency response drills should definitely be required. These drills should be under state, federal and local authority so that maximum public protection can prevail. We need checks for this sort of thing. All—states, federal, and local governments plus the licensees should be required to participate. Perhaps if all worked together we would have less informational gaps and better communication which is imperative.

The public should be informed immediately when an accident is expected. If this does not happen, the distrust in this nation will become even worse than it is today. The public should be FULLY informed. If we want nuclear power and unlimited energy, we must also be ready for the truth about hazards, accidents, human suffering, and the damage to life as we know it that results from radiation. The public should know well in advance what sort of nuclear accidents might possibly occur and what might result. Radiation sickness and cancer should be fully explained—with colored photographs. The public should know if the medical and nursing professions will be capable of their helping roles if they too are suffering from radiation sickness. How to inform the public? To be sure everyone knows, we should have qualified, unbiased people go door-to-door to every person in this nation and cover all essential material and have the person sign that the information has reached him or her. Until this is all done, nuclear power plants should cease operation.

I am sorry, but I am not aware of the recomendations of the joint NRC/EPA Task Force Report. Please send these to me as soon as possible. I will be waiting for your reply.

A qualified, unbiased person not financially or politically connected with the licensee should be at each nuclear power plant at all times and should have access to all documents and records and should attend all meetings. Plant operating records should be open to the public and the public should be notified of every incident, accident and emergency. Then we would see how "clean" and "safe" nuclear power is. It would be better to know than to feel constantly deceived. Who should notify the public? How about someone the public can trust. Perhaps a inter-nonprofit organizational committee with members from such groups as Friends of the Earth, American Friends Service Committee, Union of Concerned Scientists, the Clamshell Alliance, the Audobon Society, the Sierra Club, etc. could work out a network for getting information to every household in the U.S.

The concerns of state and local government should be given top priority in federal radiological emergency response planning. Citizens should represent themselves and if all cannot be satisfied the nuclear power plant should not operate or be planned. It is the local people that have to live with the health hazards of the plant the most.

Federal agencies should be just as responsible as the state and local governments and the licensees during emergencies and so should match the manpower of these during an emergency because the federal government is the insurance agency who makes the nuclear industry possible under the Price-Anderson Act. Actually, the federal government should interface the others by providing whatever assistance is necessary in the emergency whether it be transportation, food, relocation, clean up costs, medical expenses—and this responsibility should extend for indefinite time since cancers take years to be produced from radiation

DOCKET NUMBER (18)
PROPOSED RULE PR-50(44 FR 41483)

August 6, 1979

To: Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington,D.C. 20555

From: Roberta A. Broda
4214 Franklin Street
Omaha, Nebraska 68111

Re: Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities.

The clean, cheap energy produced by the nations seventy-two nuclear power plants across the country is a realty. America has 12.5% of their electricity produced by nuclear power plants, according to writers for the April 9, 1979 edition of Newsweek magazine, This percentage is only one indication of America's need for nuclear energy industry officials believe because it is less environmentally harmful than one alternative, coal. It has adverse effects such as, dangerous pollution, respiratory hazards, and it could cause drastic climate changes. Although nuclear energy is needed in this day and age, at the same time utmost safety precautions are inevitable.

Adequacy and acceptance of emergency planning around nuclear facilities is a major concern to the American people after the Three Mile Island incident. Partially because of bad publicity, many nuclear plants had to be inspected for safety measures and some even had to be shut down. The accident at Three Mile Island, followed by these safety inspections have raised a number of questions concerning the adequacy of radiological emergency response plans.

The commission has asked for public comment on many issues concerning the planning for state and local emergency response plans. One issue is concerned with the basic objectives of emergency planning. It should be to prevent public radiation exposure. If this objective cannot be accomplished due to an accident at a nuclear power plant, the next objective should be to evacuate the public to reduce its radiation exposure. After all, not being able to see, smell, hear, or touch radiation, people who are exposed have serious health diseased 20-30 years later. This fact is enough for anyone to believe the importance of safety measures, standards, and procedures for evacuating the public if a nuclear disaster should occur.

The commission also requests public comment on the issue of the radiological emergency response drills. Yes, this certaintly should be a requirement with the authority of the federal government and the procedures carried out to state and local governments. If the people are educated and aware of certain steps which are to be taken by officials concerning response to safety drills, this would prove to be an advantage when evacuating people in such an emergency. The American people would be less shocked, frightened, and easy to cooperate with if they are warned far enough in advance on procedures pertaining to emergency evacuating methods. Educating people on what would happen and what they should do is very important part of an emergency program. If these measures are handled properly, it can save many lives in the case of a nuclear accident.

Another important issue the commission is concerned relates to how soon do you feel the public should be informed, prior to any emergency procedures they may have to take. The American people should be informed as soon as the accident is determined harmful to any person's health, not just pregnant women or infants. If it is harmful to them, it is more than likely that it would be harmful to anyone. The public should be informed of emergency actions they may have to follow immediately upon the industry's knowledge of its harmful effects caused by the accident.

Finally, the commission request comments concerning Federal, State, and local concerns on emergency planning and how should these levels of of government work together. They should do what is necessary in their emergency programs and preparedness to keep nuclear energy as safe as possible. In doing so, the three levels of government should work as closely together as possible and compromise with each others needs.

According to an article in U.S. News and World Report of April 9, 1979, there has never been a meltdown at a US nuclear facility, but after the Three Mile Island incident on March 30, officials said that the potential existed. Safety is important concern for every American, it is safety and its consequences if not followed to the utmost degree, that determines whether or not another power plant will be constructed. It is necessary to keep up productions of these power plants for American energy sources, at the same time, it is necessary to use the greatest safety devices and measures known to us, not only during construction, use of the plant, and after it is in operation for the safety and well-being of every American.

Sincerly,

Roberta A. Broda

3-23

Acknowledged by card. 8/21

DOCKET NUMBER (19)
PROPOSED RULE PR-50(44FR 41483)

August 9, 1979

U.S. Nuclear Regulatory Commission
c/o Secretary of the Commission
Washington, D. C. 20555

Dear Secretary:

Based on the new rules for the protection of spent fuel shipments from sabotage which become effective July 16, 1979, I wish to make these suggestions of ways to improve these rules.

1. Require notification of each shipment to local authorities as well as the NRC.

2. Require publication of proposed routes in Federal Register and allow for public comment before the route can be approved.

3. Include a provision for holding local public hearings prior to route approval, if requested by citizens or governments along the route of shipment.

4. Require the shipper to prepare and submit to the NRC for approval emergency response plans for incidents which may occur en route.

5. Embargo all shipments of domestic spent fuel until such time as they can be directly shipped to a demonstrated permanent and safe disposal site.

For the safety of citizens who live along shipment routes I feel that these suggestions should be implemented into the existing rules.

Sincerely,

[redacted]

cc/ Rep. Allen E. Ertel

Acknowledged by card 8/21 mdc

Thank You —

3-24

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

DOCKET NUMBER (20)
PROPOSED RULE PR-50(44FR 41483)

LIVINGSTON COLLEGE - DEPARTMENT OF COMMUNITY DEVELOPMENT - NEW BRUNSWICK - NEW JERSEY 08903 - 201/932-4102

Secretary of the Commission
Nuclear Regulatory Commission
Attention: Docketing & Service Branch
Washington, D.C. 20555

Gentlemen,

Page 4 of the July 20, 1979 issue of News Release contained a request for comments regarding additional regulations on emergency plans. My comments focus on questions 1 and 2. If questions 1 and 2 cannot be answered then the others might as well be disgarded.

Six years ago, I worked as a consultant for a utility on the siting of a nuclear plant. My role was preparing demographic projections and land use studies. I testified before the then AEC about our work.

While engaged in that work, I could not help noticing the evacuation plan being designed for that proposed facility. What I heard and saw was sadly deficient. Only the most rudimentary transportation data had been developed. Some of the data were out-of-date, some had been misinterpreted. I recall my consternation at noting the fact that the "analyst" had traffic going on to a limited access road in the wrong directions, he was using a 1954 USGS map for field work because it was laminated. When I mentioned mathematically simulating evacuations, including allowances for traffic accidents, the person designing the so-called "plan" thought I was crazy. He didn't know how, nor did he think it necessary. The plan did not include specific relocation measures. If indeed, 10,000 or more had to be evacuated where would they go? He didn't know anything other than vague generalities. The plan was a bunch of facts of uneven quality that had not been tied together. If this case was unique, then disgard my letter. If it is typical, then major changes should be made.

I propose that the NRC bring together a group of experts and members of the public to design guidelines or regulations for evacuation plans. These would contain requirements for data, methods, and coordination of the data in studies of simulation of responses.

Acknowledged by card 8/21 mdc

I can elaborate my thoughts in detail if you are interested.

Respectfully,

Michael R. Greenberg
Professor of
Environmental Planning
and Health

3-25

NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

(21)

August 6, 1979

DOCKET NUMBER
PROPOSED RULE PR-50(44FR 41483)

Mr. Samuel J. Chilk, Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chilk:

Niagara Mohawk has noted with interest the petition for rulemaking by Critical Mass Energy Project, et. al.; to revise 10 CFR 50 Appendix E. Provided herein are Niagara Mohawk's comments on this petition for rulemaking.

The following are specific comments on each of the proposed amendments:

1) Coordinated Off-Site Emergency Response Plan

This is not a necessary amendment since 10 CFR 50 Appendix E now requires the development of an emergency plan. The major deviation from the existing regulation is the requirement to protect the public 50 miles from the licensed facility. There is no apparent benefit or technical justification for specifying this limit. Offsite emergency planning is usually the responsibility of the state and local governments.

2) Test Of The Plan

The benefit of testing the emergency plan, including an evacuation drill in which a representative sector of angular width of 7^{0} to a distance of 30 miles, should be quantified so that it can be compared to the cost. The cost of such a test should include the possible injury to individuals being transported.

In addition, the petitioners state that "All costs of conducting both offsite and onsite tests shall be borne by the licensee or licensee applicant." Do all costs include lost revenue to industry, lost income to individuals, transportation cost, etc?

Acknowledged by card 8/21

2) Test Of The Plan (Continued)

In an emergency situation, leadership by state and federal authorities, and the licensee involved is more important than practice by the general public. Therefore, it is more appropriate to require an emergency drill by a team of federal, state and licensee representatives without impacting the public. This type of drill could effectively train responsible individuals for leadership during emergency incidents.

3) Off-Site Radiological Monitoring

The need to maintain a system of offsite radiation detectors to determine radiation exposure to the public at ranges of 10 and 50 miles is unreasonable. Current specifications require monitoring of onsite and offsite locations, but not at these distances.

These monitors at 10 and 50 miles would only be used during an emergency situation. It is more practical to require that emergency plans include provisions for monitoring teams in the event of an accident. This will preclude unnecessary monitoring and maintenance of instrumentation and unnecessary expediture.

4) Public Notice and Hearing

Distribution of information such as physical characteristics and development of radiation release, the health dangers of radiation exposure, etc. would not benefit the public. This information would unjustifiably infer to the public that nuclear power plants are not safe.

Leadership by state and federal authorities, and a licensee is the most important issue in an emergency situation. Therefore, it is imperative that all responsible agencies, both state and federal, be kept abreast of changes in licensee emergency plans, authority and other items affecting the implementation of the plan during an emergency.

5) Consideration Of Emergency Protection In Licensing And Siting

This request for amendment states that "No construction permit or operating license shall be issued in a state in which the state radiological emergency response capability has not been certified effective by the NRC..." The licensee should not be penalized if the state in which the plant is to be located does not have a certified radiological emergency response plan. This is a matter which should be resolved between the state and federal authority.

6) Emergency Response Plans For Existing Reactors And Interim NRC Safety Action

Currently, 10 CFR 50 Appendix E requires that nuclear power facilities have emergency plans and that these be periodically tested. This proposed amendment is to retrofit existing plans to be consistent with the other proposed amendments. As stated above, the other five amendments are not necessary; therefore, there is no need for this amendment.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION

Donald P. Dise
Vice President-Engineering

GJG/szd

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)
(22)

COMMONWEALTH of VIRGINIA

State Office of Emergency and Energy Services

August 14, 1979

Secretary
Nuclear Regulatory Commission
Docketing and Service Branch
Washington, D.C. 20555

Dear Sir:

The following comments pertain to the Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities (10 CFR Part 50) and respond to the questions posed in the Proposed Rules, Federal Register, Volume 44, No. 138, Tuesday, July 17, 1979, page 41483.

Reference paragraph 1:

The basic objective of the plan should be to prevent public radiation exposure. Barring that, the primary goal should be to prevent adverse health effects to individuals. The plan should include procedures for evacuation of the public in the event this becomes necessary to prevent adverse health effects.

Reference paragraph 2:

1. An effective State or local government emergency response plan should include:

   a. A clear statement of the potential hazards.

   b. Identification of the organization and procedures for direction and control of emergency response actions.

   c. A clear definition of emergency task assignments.

   d. Effective communications, warning, reporting and mutual support procedures between the facility, State and local governments. It should provide for prompt notification of State and local governments whenever an incident occurs that might require on-site injury or evacuation or threatens to cause off-site radiation.

Acknowledged by card. 8/21

3-27

   e. Procedures for public warning, public information and emergency communications.

   f. Rapid and thorough accident assessment procedures.

   g. Identification of a spectrum of graded protective action responses.

   h. Protective action guide for emergency workers.

   i. Procedures for notifying the public of protective actions to be taken.

   j. Procedures for implementing protective actions, decontamination and congregate care of evacuees.

   k. Procedures for obtaining Federal assistance.

   l. Procedures for responding to transportation accidents involving radioactive material.

   m. Procedures for monitoring, decontamination and reentry.

   n. Training standards.

2. The facility plan should include:

   a. Procedures for prompt detection of potential hazards, incident assessment and prompt reporting to the local government, the State and the Federal government, in that order.

   b. Emergency communications and warning.

   c. Emergency procedures for damage control and containment.

   d. Procedures for protection of on-site personnel to include evacuation and emergency medical treatment if required.

   e. Procedures for obtaining Federal, State or local government assistance.

   f. Assistance to State and local government emergency response organizations in the areas of training, accident assessment and communications.

Reference paragraph 3:

Yes. However, the State should participate in the development of criteria used for plan approval. Where a State plan does not currently exist, a six month period should be provided for plan development.

Reference paragraph 4:

Yes. No new operating license should be issued until there are acceptable State and local government plans.

Reference paragraph 5:

A full-time radiological Emergency Response Planner is required on the State staff and on the staff of each local political subdivision that has a nuclear power plant within 10 miles of its borders to coordinate the development and maintenance of State and local government RERP's, to develop and conduct unit and individual training programs and annual training exercises. Both the State and local government radiological emergency positions should be 100% Federally funded. Additional Federal financial assistance is needed by State and local governments for developing and maintaining RERP, for staff training, conducting exercises, and for procurement of improved monitoring, communications and warning systems. It would appear that NRC license fees could be increased and constitute an appropriate source of funds for improving off-site emergency plans and preparedness. Federal funds could be distributed to State and local governments employing a contracting mechanism.

Reference paragraph 6:

Drills or training exercises based on State and local RERP's as well as licensee plans are essential. They can be conducted unilaterally to evaluate an individual plan or conducted jointly to evaluate coordination, interface and effectiveness of two or more plans. Drills can consist of Statewide or regional field exercises, communications and warning drills, table top exercises, etc. Providing funds are made available, it is recommended that at least one Statewide or regional field exercise under the authority of the State be conducted annually. Participants should include State and local government and the licensee. Federal agencies should be invited to observe and critique the exercise.

Reference paragraph 7:

The public should be kept fully informed about the potential of an accident which could occur at a nuclear power plant. This applies particularly to persons living within a 10 mile radius of the plant. The public should be aware of existing plans, essential elements of their contents, alerting and warning procedures, evacuation routes, location of evacuation assembly center(s), transportation means, security of their possessions and property after evacuation and plans for control of agricultural products, feed and livestock. Information should be disseminated through news media, public briefings and instruction in public schools which serve communities in the vicinity of nuclear power stations.

Reference paragraph 8:

After validating the report recommendations, incorporate this information into future NRC publications providing guidance to assist State and local governments in the development of their emergency preparedness and response plans. My letter, dated March 21, 1979 to Office of State Programs, NRC, provides comments on NUREG-0396 EPA/1-78-06 in response to Federal Document 73-34885 (copy attached).

Reference paragraph 9:

The licensee should notify local, State and Federal governments whenever an on-site incident causes or has potential for on-site injury or evacuation or a release of radiation beyond the site boundary. State and local government officials should be responsible for advising the public of incidents at nuclear facilities, to include instituting necessary protective actions.

Reference paragraph 10:

Nuclear power plants cannot be effectively regulated from Washington, D.C. NRC needs the full cooperation and assistance of the States in matters dealing with nuclear power plants, particularly where the health, safety and welfare of State citizens are involved. States must be afforded an opportunity of reviewing and commenting on any Federal radiological emergency response planning.

Reference paragraph 11:

Federal agencies should provide on the scene technical advisors to the Governor, State and local governments as required in an

emergency. Federal agencies should also provide on the scene technical assistance to the licensee and be prepared to assume on-site direction of damage control and containment at the facility if necessary.

Reference paragraph 12:

The licensee should provide radiological emergency response training to State and local government emergency response personnel. This should include familiarization with on-site facilities, emergency plans and procedures; licensee capabilities to assist in off-site accident assessment, information on protective actions and procedures to be followed when responding to licensee request for on-site assistance. The Federal government should provide technical training on the range of hazards associated with nuclear power plants, emergency plans development, off-site damage assessment and protective action guides.

Reference paragraph 13:

Initial assessment of a radiological accident must be made by the licensee and provided immediately to State and local governments. Depending on the seriousness of the incident, it may be necessary to initiate protective actions before the State or local governments can make an on the ground assessment. In a slower developing situation, a State and local government assessment would be made to incorporate available Federal assistance before protective actions are initiated.

Reference paragraph 14:

Do not believe public participation drills would be practical or particularly useful. Public information on the concept of operations for drills involving emergency response personnel should provide the necessary public awareness of State and local government plans.

Sincerely,

George L. Jones
State Coordinator

GLJ/HGA/cls

Enclosure

COMMONWEALTH of VIRGINIA

George L. Jones
State Coordinator

H. Kim Anderson
Deputy Coordinator

State Office of Emergency and Energy Services

310 Turner Road
Richmond, Virginia 23225
(804) 745-3305

March 21, 1979

Mr. Harold E. Collins
Assistant Director for Emergency Preparedness
Office of State Programs
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Collins:

The following comments are provided in response to Federal Register Document 78-34885 pertaining to NUREG-0396 EPA 520/1-78-016:

1. The statement on page I-2 of the Report, "Radiological emergency planning is not based upon probabilities, but on public perceptions of the problem and what could be done to protect health and safety," is not consistent with an objective analysis of the emergency planning requirement. This appears to be based on the finding of the Reactor Safety Study (WASH-1400) which has recently been publicly disclaimed by the Nuclear Regulatory Commission.

2. While we agree that the recommended emergency planning zones approach the practical limits for preplanned actions, the Report contains several statements which challenge the validity of the recommended ten-mile radius emergency planning zone for plume exposure pathway. Examples are:

a. The statement on page I-5: "over 70 percent of the plants would not require any consideration of emergency responses beyond 10 miles". The Report does not identify these plants or contain any recommendation for the remaining 30 percent which are not identified.

b. The statement on page I-9: "less than 30% of all core melt accidents would result in high exposure outside the recommended planning distances". This leads us to conclude that greater planning distances are required to provide an adequate response for 30% of these accidents.

c. The footnote at the bottom of page I-9: "This estimate is based upon the assumptions of the RSS. It should be noted that there is a large uncertainty on this number"

d. The statement on page I-41: "Based in part upon the above information the Task Force judged that a 10 mile plume EPZ would be appropriate to deal with core melt accidents". Footnotes at the bottom of pages I-36 and I-41 clearly indicate a lack of confidence in the information which was used as a basis for this judgment.

3. Our comments on the specific issues enumerated in FR DOC 78-34885 are presented below:

a. The states and the local governments need this type guidance to provide a basis for their radiological emergency planning and preparedness measures. However, based on the above discussion, the validity of the recommendations are open to question; and it appears that additional work is needed to improve the credibility of the Report.

b. The recommended emergency planning zones are currently being used as a basis for preplanned actions in the Virginia State and local plans. However, based on this new guidance, we feel more definitive planning is required for those jurisdictions located within the 10- to 50-mile zone. This will require some modification to the State Plan involving the printing and distribution of 1,000 copies and the development of monitoring capabilities and emergency plans or procedures for a considerable number of additional local governments. This is an unprogrammed and unfunded activity which we estimate would cost approximately $50,000.

c. In our opinion, the Report includes numerous statements which challenge the credibility of its conclusions. We agree with the concept of two emergency planning zones.

d. The guidance in this Report places more credence in the possibility of a Class 9 accident than that included in earlier Federal guidance documents.

e. See subparagraph b. above.

When finalized, this office will require approximately 75 copies of this document for distribution to interested State agencies and local governments.

Sincerely,

George L. Jones

GLJ/ESK/jgl

cc: George M. Walters
Stanford E. Parris
Albert E. Neale
Charles R. Price

(23)

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Aug. 5--79

Sec'y
US Nuclear Regulatory Commission
20555

To the NRC:

In reference to your invitation to public comment on Emergency Planning Around Nuclear Facilities:

1. The objective of such planning should be to prevent public radiation exposure; evacuation plans are necessary for each station.

2. Basic element now lacking is public awareness of need for such planning and of the possibility that nuclear emergencies may affect all living in proximity to nuclear stations.

3. No nuclear reactor should be allowed to continue operation without an NRC-approved emergency response plan, and such a requirement should become effective no later than the end of 1979.

4. No new licenses should be issued without such plans.

5. Financial assistance to state/local governments for emergency planning should be forthcoming from licensees.

6. Yearly radiological drills should be required for each facility, with intergovernmental authority. These drills should be financed by licensees.

7. The public should be informed immediately by pre-empted television and radio time, sirens, etc., of all potentially dangerous radiological incidents. All unscheduled events should be reported to the press within 2 hours of their occurance, with scheduled press conferences to follow, on a mandatory basis.

8. no comment

9. see #7 above. Similar mandatory reporting should be mandatory with regard to local authorities, and reporting to such authorities should be instantaneous, and on a mandatory basis.

10. no comment

11. no comment

12. State/local radiological emergency training should be ~~REQUIRED~~ provided at licensee expense.

13. Assessment of consequences should be a responsibility of NRC and local personnel, performing their assessments and deciding on actions co-equally but with the decision to rest finally with local authorities in case of disagreement. Such local authorities should include representatives of the most directly affected local communities who are without any connection to licensees by employment, employment within their immediate families, etc.

14. Despite the logistical nightmare, universal public participation, at least in terms of attendance at a meeting or visitation of each household, should be required yearly for all households within 50 miles of any nuclear ~~PLANT~~ facility.

Acknowledged by card 8/27

H. Lawrence Lack/Terrell J. Orlando Route 1, Box 74-1, Steuben, Me. 04680

LAW OFFICES OF
STANLEY R. TUPPER

TELEPHONE (207) 633-4000

DOCKET NUMBER (24)
PROPOSED RULE PR-50 (44FR 41483)

108 TOWNSEND AVE.
BOOTHBAY HARBOR, MAINE 04538

August 13, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

As counsel for Sensible Maine Power, a non-profit Maine corporation, I wish to respond to the request by the NRC (Federal Register July 17, 1979) for written comments on items that should be included in the adoption of additional regulations which will establish as conditions of power reactor operation increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both the licensee and local and state authorities.

At the outset we believe that U.S. Nuclear Regulatory Commission approval of State and local emergency response plans, including evacuation, should be an absolute condition to nuclear power plant operation.

Anything less represents a cruel and arrogant disregard for lives of citizens living within the plume area of nuclear plants.

1. We believe that the basic objective of emergency planning is to be able to expeditiously evacuate the public from the hazardous area in the event of a nuclear accident, whenever such action is deemed necessary by the NRC.

Upon evacuation medical treatment for radiation exposure must be promptly provided.
There can be no acceptable number of people that can be "written off" as expendable. For example the Town of Boothbay Harbor, a popular resort community, lies within the 10 mile radius of Maine Yankee Atomic Power Plant; it is located on a peninsula jutting out into the Atlantic Ocean with one access road leading toward the plant. Neither the winter population of towns in this area (about 6,000) nor the summer population (upwards to 100,000) is expendable.

I have served my community, state and country in a number of elective and appointive positions, including three terms in the U.S. Congress, and I have always felt that each life was precious and must be protected by government at all levels. I use the Boothbay Region as an

Acknowledged by card 8/21

3-31

example only, as other peninsulas and islands share a very similar situation in regard to Maine Yankee Atomic Power Plant.

It is our recommendation that the NRC reexamine its definition of Low Population Zone (LPZ) to take into consideration both seasonal and transient populations in tourist locations within the vicinity of nuclear plants. Quite different problems are involved in emergency planning.

2. The NRC must insist that State and local communities within six months of an NRC rulemaking have a tested plan whereby all those residing within the vicinity of a nuclear plant may be notified at the outset of an accident and evacuated by land, sea or air. An effective means to assure prompt notification of a nuclear accident is essential; NRC should require the installation of a small warning device in every home within the vicinity of nuclear power plants, installed and paid for by the licensee within six months of a rulemaking. Such a method in rural areas is the only warning system that would be worthwhile.

3. NRC concurrence in State and local emergency response plans should be a requirement for continued operation of a nuclear plant and six months is more than adequate for a plan to be devised and tested. If an approved plan can not be accomplised the plant should be closed.

4. NRC concurrence in State and local emergency response plans should be a requirement before any new nuclear power plant could commence operation.

5. Financial assistance should be provided to State and local governments for radiological emergency response planning and preparedness, financed by licensee with the stipulation that the cost not be passed on to the consumer.

6. Radiological emergency drills at certain specified times must be a requirement, with cooperation of State and local government and licensee. Authority for ordering such drills should rest with the Governor of the State.

7. The public should be kept fully informed from the outset of a nuclear accident and advised as to action which may become necessary. With such knowledge panic is less likely. It is rather basic that every person has a right to know so that he or she may make decisions vital to the family unit.

8. In reference to the NRC/EPA Task Force Report (NUREG 0396/EPA 520/1-78-016) we would make these observations:

The report contains a number of prudent recommendations; for example the need for "considerable advance warning" of nuclear contaminants

in the atmosphere; "Development & periodic testing of procedures for rapid notification"; "The establishment of Emergency Planning Zones of about 10 miles for the plume exposure pathway and about 50 miles for the ingestion pathway..." The Task Force evaluation that early evacuation provides the greatest benefit of any protective measure is again rather basic common sense. The suggestion that iodine prophylaxis be administered in sufficient time in order to reduce the dose to the thyroid is a good suggestion. However it would seem that this would have to be in each household for use in the event of a nuclear accident rather than to seek to get it into each home after such an accident.

The Task Force report inevitable raises as many questions as it answers. Dealing with many types of possible accident and many variables including wind and weather conditions, probably no group could have done better at the time the study was undertaken. A study today would have the benefit of hindsight and the "3 Mile Island accident". It would also have access to the Comptroller General Report to the U.S. Congress and the recent Congressional Committee Report dealing with nuclear plants and radiological emergencies.

A Task Force today would hardly term the chances of a signifigant release of radiological materials from a nuclear plant into the environment as "unlikely".

9. At any time that radiation is emitted from a nuclear plant in amounts greater than that which is normal for the day to day operation of the plant, the NRC and State and local governments should be promptly notified. In turn, the public should be promptly notified through radio and TV in a factual manner. In the event that the NRC believes that prompt evacuation is prudent, a warning through the device recommended herein should alert each household, and the radio and TV should also alert the public.

10. State and local governments generally look to the NRC for leadership. State and local concerns will be manifested in comments to this rulemaking to the extent they wish to be heard.

11. Because of the very nature of a nuclear accident the NRC and the Governors of the States must work in the closest cooperation. If the NRC believes evacuation is called for, it should have the authority to call for same. Once this decision is made the Governor should be in charge. There cannot be too many "Chiefs" or we will end up with very few "Indians".

12. Radiological emergency response training for State and local government personnel should be provided by the State with advice from the NRC.

13. Reliance should <u>not</u> be placed on licensees to assess actual or potential consequences of any nuclear accident. This decision must be made, after immediate notification of the circumstances, by the NRC.

14. Public participation in radiological emergency response drills, including evacuation, would serve a very useful purpose, in the same manner that lifeboat drills on shipboard are required. I would guess that this would be vigorously opposed by the nuclear industry as it would make every citizen aware that his life and the lives of his family and friends depended upon how well nuclear plant operators kept "the friendly atom" in check.

On behalf of our group I wish to thank the Commission for this opportunity to be heard on this vital issue.

Sincerely,

Stanley R. Tupper
Counsel, Sensible Maine Power

DOCKET NUMBER
PROPOSED RULE PR-50(44FR 41483) (25)

STATE OF INDIANA

INDIANAPOLIS

STATE BOARD OF HEALTH

AN EQUAL OPPORTUNITY EMPLOYER

Address Reply to:
Indiana State Board of Health
1330 West Michigan Street
P.O. Box [illegible]
Indianapolis, IN [illegible]

August 14, 1979

DOCKETED USNRC
AUG 20 1979
Office of the Secretary
Docketing & Service
Section

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Secretary Chilk:

We hereby submit some comments regarding NRC's proposed rulemaking on emergency planning.

The basic objective of emergency planning should be that the concerned agencies have the maximum practical response organized to mitigate the consequences of a nuclear facility accident with a practical minimum exposure to the public and losses of resources by the public and the utility. The prevention of possible public exposure precludes the operation of the nuclear power facility and all X-ray machines also.

Evacuation is only one of many possible steps to mitigate the consequences of an assumed accident. In all cases, the risks and costs attendant with an evacuation should be weighed against the radiation exposure and public relations problems that would result from not evacuating. The full scale evacuation plans need not be exercised. The location of sites with arrangements made for emergency access and access to food, water, sanitation, etc., and exercises that remind emergency personnel of the actions necessary to get peoples in all sectors to the shelters should be an adequate exercise. The EPA Protective Action Guides (PAG's) are the FDA's guides for foods and are sufficient quantification. Guides, not limits, are the only practical emergency criteria.

The licensee's emergency plan must be coordinated with county, state, and other concerned agencies both in and out of state. The guidelines and requirements of the U.S. NRC are comprehensive and no further guidelines are needed.

The requirement for NRC concurrence in emergency plans for all states with operating licensees or for new facilities is not reasonable. NRC should review the emergency plan and let each state develop the details to suit their political and organizational structure. An alternative procedure may be required where the appropriate agencies and utility have to work on a multistate basis.

State and local governments have long needed an emergency response plan adequate to cope with accidents that could occur in their jurisdictions. The nuclear power facilities are making the need into a

Acknowledged by card. 8/21

requirement. The state and local governments should make their own plans and not require federal or utility funding. Utility assistance, especially at the county level, in getting the plan written is an acceptable alternate to the above. This assistance should not be funding but necessary assistance in helping the county write and exercise the plan.

Radiological response drills are necessary for any effective emergency plan. The exercise should be planned by representatives of all involved and affected persons using available or/and decided guidelines. All involved and affected people should be involved to the maximum practical extent. If an absolute requirement for participation is promulgated, the peoples and the utility could suffer by one group not being willing to respond.

The affected public must be informed prior to any required or suggested emergency actions. The means of the notification must be a practical state-of-the-art and could include bull horns, helicopters with loud speakers, television, radio, telephone--any or all of these. The county plan should have means to assure that hard of hearing, non-TV or radio users with no telephone will be notified.

As important as the notification is that the information given be correct to the maximum possible extent and that only one officical source is releasing the information.

Planning to include evacuation should take place out to 10 miles from the reactor site and for 50 miles for the ingestion pathways.

Setting notification criteria that would satisfy all involved and affected agencies and people may be possible but would seem to require insight far beyond the present human capability. The utility wants to only release information when off-site consequences of an accident are reasonably possible. Some agencies want to be notified of every event on-site. If the off-site agencies were notified of all events on-site, the volume of reports would be greater than the value to fulfill their duties to the public.

Besides the established off-site dose notification criteria, the involved federal, state, and local agencies should be notified when an event occurs that might be reported by the news media. There may be a lot of nonessential reporting but it should result in a good credibility to the public of the affected agencies. Notification to the public by the involved agencies should be reserved for official releases, and these should be made after conferring with all involved agencies and the utility during drills and exercises. Correction of incorrect reports or rumors is a function of the Public Information Officer (PIO) after he has conferred with the state, county, NRC, and utility officials. Every effort should be made to have official releases come from this source.

The guidelines and checklists apply to both state and local governments and these are comprehensive. Federal response planning should not preempt state and local governments.

The NRC and I&E (Information and Enforcement) personnel should likely be in the control room helping the utility. A decision-making-level NRC person should be in the Emergency Operation Center (E.O.C.) with the Governor's PIO, State Disaster Organization, State Health Department and county official. All official news releases should come from the above group and all direction to the affected people should also come from this group as an official announcement. Only an accident in Bethesda, Maryland, should be managed from Bethesda, Maryland.

Training should be a cooperative effort of the State Radiological Health Agency, the utility, and the Disaster Control Agency with assistance as needed from federal agencies.

The licensees have the responsibility to initiate the necessary protective action response after assessment indicates potential off-site consequences. This process could perhaps be augmented by having a state and/or federal qualified inspector in or within the environs (15 miles) of the control room.

The public should participate in emergency drills. The extent of participation should be to the extent necessary to evaluate the communications. If all of the residents are told promptly of their situation and what they should do, they will probably do some. The evacuation portion of the exercise could be evaluated by checking if the people would have had access to the shelter and what facilities would be available. Actual evacuation drills would be extremely difficult considering disruptions in normal business, hospitals, etc., and attendant security problems.

Sincerely,

Ralph C. Pickard
Assistant Commissioner
for Environmental Health
AC 317/733-8404

STATE OF NORTH CAROLINA
OFFICE OF THE GOVERNOR
RALEIGH 27611

JAMES B. HUNT JR.
GOVERNOR

August 15, 1979

Dear Mr. Secretary:

I want to share with you North Carolina's comments on the Nuclear Regulatory Commission's proposed rules concerning the shipment of high-level radioactive wastes.

The State of North Carolina supports the intent of the U.S. Nuclear Regulatory Commission's proposed interim Rule 10 CFR 73.37, "Requirements for Physical Protection of Irradiated Reactor Fuel in Transit." Our understanding of the intent of the proposed interim rule is that it requires precautions and safeguards to be taken to ensure against potential sabotage which could be directed against irradiated reactor fuel shipments and which, if successful, could threaten the general population, particularly in urban areas, with radioactivity exposure.

The State of North Carolina believes that the purpose and intent of this proposed rule could be furthered by the NRC's specifying and requiring that only the shortest practical transportation routes be utilized. Requiring the shortest land distances for transportation should minimize sabotage potential and any resulting exposure risk to the general population. This is particularly true where irradiated reactor fuel shipments are being received from overseas and importation into ports nearest storage destination could minimize required land transportation distance. Entry of irradiated reactor fuel shipments into ports requiring excessive overland haulage should be prohibited, with the guidelines specifying that ports requiring the shortest practicable land transportation routes be utilized for receipt of overseas shipments.

We appreciate the opportunity to offer these comments on the Commission's proposed interim rule.

My warmest personal regards.

Sincerely,

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555
ATT: Docketing and Service Branch

DOCKET NUMBER (27)
PROPOSED RULE PR-50(44 FR 41483)

Thomas J. Halligan
P.O. Box 5
Scranton, Pa. 18501
August 14, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Attn: Docketing & Service Branch
Washington, D.C. 20555

Dear Mr. Secretary:

The following comments are submitted on behalf of the Citizens Against Nuclear Dangers, Berwick, Pa., interveners at NRC Docket Nos. 50-387/388; pertaining to the NRC Interim Final Rule--10 CFR Part 73--"Physical Protection of Irradiated Reactor Fuel in Transit."

1. A master plan should be prepared designating special rail routes for the shipment of all industrial radioactive spent-fuel cargoes sent to atomic fuel reprocessing plants, and atomic fuel wastes storage sites.

2. These rail routes should circumvent all cities, even where it would require building new tracks to bypass urban areas in order to reach the designated storage plant sites. (We would rule out, as inherently unsafe, motor truck transport as a substitute mode.)

3. All roadbeds along these routes should be rebuilt, and aligned wherever necessary to reduce curves and steep grades, etc.

4. All rail sections on these routes should be replaced with the new more reliable welded lengths, able to carry the heavier loads of the specially built tankers.

Acknowledged by card 8/21

5. The tankers should also be improved for greater safety, and each one periodically x-ray tested for leaks.

6. Radar equipment should be installed along this entire right-of-way, as well as, the most advanced switching and signaling equipment. Microwave communication networks should be installed also. to aid in overall traffic control.

7. Pipelines moving hazardous substances should not be allowed parallel to these special rail routes.

8. Continual monitoring of the trackage by mobilized electrostatic seismic plotters to detect structural weaknesses and warn against derailments should be a requirement.

9. All train crews should receive special training in the handling of atomic cargoes; and D.O.E. radiologists and para-medical personnel wearing protective gear should be on board all trains carrying radioactive waste materials, fully equipped and prepared to seal-off an area if a leak occurs and carry out decontamination procedures.

10. An armed security force traveling in an armored locomotive should precede each atomic waste cargo train--inspecting every viaduct, tunnel, overpass, grade crossing and bridge, etc., and fully prepared to protect the train against all contingencies. Helicopter surveilance should also be part of this security program.

11. When a train carrying a radioactive spent-fuel cargo is in transit over one of the designated routes, all other trains in the vicinity should come to a halt. No other freight should be aboard the atomic cargo trains. In addition, the air space along these routes should be cleared whenever a scheduled run is in progress. Reduced speeds and limited quantities of radioactive wastes should be the rule on these trains.

12. Installation costs, operating costs, and all other related expenditures of this rail service should be payed for on a pro rata basis by the shippers of industrial radioactive waste products. The chief users of this service are the electric companies who operate atomic power plants. Keep in mind that contracts to purchase irradiated fuels often exceed $100 million, and a few million more annually in the form of a fuel transportation charge levied by the rail carriers can be viewed as a reasonable and necessary operating expense by the ulilities.

In conclusion, we urge the requirement and implimentation of the plan generally outlined above as part of the Final Rule (10 CFR Part 73 etc.); to serve as an important safeguard to protect the public health and safety of the nation.

Yours truly

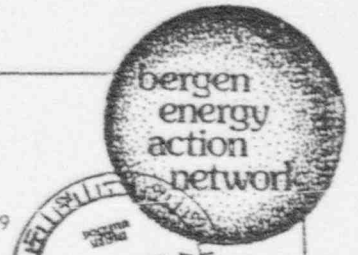
Thomas J. Halligan

Correspondent

cc: Mr. L.J. Evans Jr.
Regulatory Improvements Br.
Div. of Safeguards

DOCKET NUMBER (28)
PROPOSED RULE PR-50 (44 FR 41483)

8/20/79



Secretary of the Commission
Nuclear Regulatory Commission
Washington, D.C.
20555

Dear Secretary;

The Bergen Energy Action Network is a citizen's group looking into the implications of Nuclear Power for our county here in New Jersey. As a founder of the group, I am pleased to submit these comments on the proposed rule-making concerning Emergency Plans. Our group has made an extensive study of this area's preparedness for an emergency resulting from some aspect of the nuclear fuel cycle. Our comments are based on our direct observation.

Current N.R.C. requirements and guidelines do not make an Emergency plan a requirement for the licensed operation of a nuclear power plant. As our group has investigated the transportation of radioactive wastes on our county's roads, we have found that there is almost no planning for an accident involving these shipments. In New Jersey there is a document called Plan for Implementing Protection Action Guide. It is the county-by-county Emergency Plan for any nuclear accident. A copy of this plan does not exist within the borders of this county. Our county Civil Defense head has never heard of the report. Our one year effort has been unable to obtain a copy of this report. The New Jersey Bureau of Radiation Control says that it does not have enough copies of the report to distribute to it's own inspectors, let alone the public. Our county's proximity to the Indian Point reactor in nearby Buchanan, N.Y. warrants careful attention to our plan for an accident there, yet state and local officials in New Jersey can't seem to realize that the state border won't protect us from an accident there. The Commission must adopt far stricter guidelines in the development of Emergency Plans.

First and foremost- N.R.C. concurrence in a full state and local plan must become, immediately, a condition of all planned and operating reactors. After Three Mile Island, we cannot hold the people surrounding the reactors

box 275, montvale, new jersey 07645

bergen energy action network

at risk and helpless while and accident progresses. We can depend no longer on the hope that an accident will never happen.

The expense of the planning must be borne by the licensee. These costs must not be hidden by being forced onto local governments, or, more precisely, the tarpayers. In balancing the efficiency of nuclear generation against other means, it is essential that Emergency Plans that nuclear plants alone require be figured into the cost of generating nuclear electricity.

Radiological Emergency Response Drills are a sad neccessity. No reasonable person can believe that a totally unrehearsed evacuation could be performed by a panicked populace. In Bergen County, we have no plan for evacuating prisons. It is highly unlikely that these difficult situations could be dealt with unless there is practice beforehand. All levels of government should participate in the drills because all levels must be ready to perform well in an actual emergency.

The public must be told now, at once, of actions that it might have to take in an emergency situation. Again, this is the only way we can hope to get good cooperation when it counts. Interested citizens must be guaranteed access to full emergency plans, but all citizens who are at risk must be kept apprised of emergency plans. Utility bills, voter registration roles, and local police can help distribute basic emergency information to all citizens.

We believe that licensees must be stripped of the power they now have to withold information about "incidents" from the public. Just as Metropolitan Edison sought to minimize the danger at Three Mile Island in the first hours of that accident, other utilities will risk the public health and safety by playing down any dangerous situations that might arise at their plants. This must not be permitted. An open and uniform procedure for notifying the N.R.C. and the public must be instituted if we are to have the information needed to make any Emergency Plan work in time. We believe that qualified "anti-nuclear" scientists must be made part of each preliminary N.R.C. investigation into "incidents".

In deciding who should train response personnel, we must be sure that they are well trained, this is primary, and that the taxpayers are not required to pay for the

box 275, montvale, new jersey 07645

bergen energy action network

training. If the licensees choose to use the nuclear method of generating electricity, they must expect to have to pay, as part of their operating expenses, those expenses caused only by the unique dangers of nuclear power.

In conclusion, we believe that sound Emergency Plans are absolutely essential to the licensed operation of nuclear power plants. Public information and participation in drills is needed if we are to expect people to react well in an emergency. Costs of emergency preparedness must be paid by the licensee, being part of the legitimate cost of operating a safe plant. After Three Mile Island, we can no longer "go naked" in terms of public preparedness for nuclear accident. These accidents have happened and they will continue to happen. The public health and safety must be protected fully .

Sincerely:

Andrew Maier
for BEAN .

box 275, montvale, new jersey 07645

State of Alabama
Department of Public Health
State Office Building
Montgomery, Alabama 36130

PR - 50 (44 FR 41483)
(29)

August 10, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

In response to your advance notice of proposed rule making for 10 CFR 50, I would like to offer the following comments and responses to the issues you raised. The first 14 comments will be on the 14 issues stated in the notice and will numerically correspond.

1. The basic objective of any emergency plan should be to organize government to respond to the emergency. Without an effective organization that can follow the problem, nothing else can really be achieved. The plan does not reduce radiation exposure, the actions taken by the organizations may reduce projected radiation exposures. You should carefully reconsider your total emphasis on evacuation, as many of the more likely problems will not be appropriately resolved by evacuation. While the public may perceive this as the solution, it may be quite detrimental in some cases.

2. In my dealing with the commission staff for 15 years, we still have problems with this. What is essential varies with each site, and the staff should recognize that few items are generic, but for a given site many items are essential. This means that someone must study and think. Yet all present emphasis is to have a single list, zone, problem, for all sites. I would suggest a close look and reconsideration of trying to make each plan a carbon copy of others. While it may seem to be good to look at the general picture, it's the details that trip up the operation of plants and plans.

3.
4. In my opinion, concurrence may or may not say anything about how well a state and/or local government can respond. It has been recommended(1977) that concurrence be abandoned until it does have some meaning. Thus far, the only thing accepted has been to require an exercise. I cannot recommend to anyone to depend on concurrence as assurrance that an emergency plan will or could work.

5. The answer to this question depends to a large degree on factors which are determined by the commission. The writing of a plan does not excessively tax the local and state governments resource, in general. However, a better plan could be developed with assistance. Providing the resources to respond can be exceedingly expensive under certain circumstances. Most state and local governments can cope with chemical and other hazards which involve non contamination. Those same hazards which do contaminate are not covered in most plans because the risk of such contamination is inadequate to require the expenditure of large resources to provide for decontamination, clothing, testing, etc., of large numbers of people. Should the Commission determine that the risk of significant contamination of large numbers of the public is high enough to justify large expenditures of public funds, then all levels of government will need specific supplemental funding in very large quantities. If this risk is that real, it also raises a very basic question of using such technology. Currently, some minimum funding could be of great help in many localities.

6. Properly conducted exercises are a must. I would suggest at least one major exercise per state per year. For states with more than one site, a full communication exercise for each site not being used as the major exercise per year. The state is generally in a better position to conduct an exercise, but federal observation may be desirable. In all cases, everyone involved in a plan should be involved in the exercise.

7. The public should be made aware of the existence of emergency plans and their general provisions. Legal notices are the poorest way to accomplish this. I would suggest working with the local press to provide general emergency information which include these plans.

8. Changing the siting criteria is a major need developing from NUREG 396. Please note that while this document has much support, it has many "holes" in the information provided and it must be supplimented with clear interpretations, if at all possible. For example, the source term is not sufficiently defined in the document.

9. In general, the state/local governments should be made aware of any technical specification violations and abnormal releases of radioactive material. Failure to provide timely information regarding emergency or potential emergency conditions should be stated in the regulations and vigorous enforcement maintained. Most officials do not mind occasional false alarms if they are kept generally informed and understand the situation. Delays in notification engender public distrust. I recognize that those events right at or just above technical specification limits are difficult to assess; however, candidness will go a long way.

10. If you don't consider state and local concern, how do you expect any operable plans?

11. During the emergency phase aid is appreciated, overrunning counter productive. The

IRAP concept of providing technical aid, advice, and assistance to the state and local decisionmaker is the ideal approach. Unfortunately, no federal agency has taken the time to assure a coordinated federal response, much less how to interface with fellow responders on the state and local level. Simple commitments to coordinate activities through the state/local operations centers apparently have not been generally considered. In this one area alone, if NRC could provide lead input, most state/local governments would be greatly appreciative.

12. This is a very interesting question since your staff has repeatedly advised Alabama that under Appendix E the licensee must provide some training. I suspect we should ask the licensee for more training but some of the training must come from licensee independent sources. The present policy of having a catalogue of training courses is inadequate. There is a basic need to meld them into a curriculum. A little coordination to assure that one course the offsite projectad levels are X and in another the instructors are talking about the offsite projected doses of X, not Y.

13. In the initial emergency phase the licensee should be the one making the assessment. This assessment should be reviewed to a limited degree by non-licensee persons. The NRC has an obligation to assure that the licensee always has this capability. As the accident progresses in time, the state should become quite involved in developing independent off site radiation assessments based on plant-operating data, discharge data, and fixed monitoring. Mobile monitoring is also useful but has limits. One could wait 6-8 hours before needing mobile monitoring if adequate fixed monitoring is available. Even though the State and Federal agencies may be making independent assessments, they should frequently consult and try to resolve any differences. The state decisionmaker will have to select which assessment to use in the event of differences.

14. The public participation should be limited to voluntary actions and receiving TV, radio, press, and handout announcements about the exercises.

15. After reading your proposal it appears that although many people involved in radiation emergency planning have brought problems to the Commission staff's attention, for years little knowledge of off site emergency planning exists on the staff. Few, if any, have actually prepared such a plan. This places the staff in a difficult position to assess the abilities of state and local government for any reason, including concurrence.

16. From the state's point of view, the Commission staff appears to have a lot of committees but very few decisions.

Thank you for the opportunity to comment.

Sincerely,

Aubrey V. Godwin, Director
Division of Radiological Health

AVG:kg

3-39

Connecticut College
DEPARTMENT OF HISTORY
NEW LONDON, CONNECTICUT 06320
TELEPHONE: 203 - 442-5381

PROPOSED RULE PR - 50 (44 FR 41483) (30)

August 22, 1979

Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir or Madam:

I am responding to your request for public comment on the need for additional regulations on emergency plans.

I enclose an article I wrote on the subject recently and which makes the following key points:

1. The area to be planned for should NOT be the LPZ (which is a scant 3800 meters for Millstone Point, five miles from where I now sit) but the 10 mile radius suggested by the NRC/EPA task force report of last December.

2. Potassium iodide tablets should be distributed to everyone in the 10 mile area routinely, not just at the time of an emergency. I want to have that medication available the instant I hear of an accident at Millstone so that I and my children can protect our thyroid glands immediately.

3. The public should particiapte in annual drills to see how well evacuation plans will work in reality. The drills now given are inadequate; we must actually involved large numbers of the public in a serious evacuation drill each year.

4. The Federal Government should pay the costs of emergency planning, along with the utility companies who operate the power plants.

5. I endorse all the recommendations made by the House Committee on Government Operations in their recent report, "Emergency Planning Around U. S. Nuclear Powerplants."

Sincerely yours,

Michael Burlingame

By Michael A. Burlingame

Expand Millstone's evacuation plan

The Three Mile Island accident should be a wake-up call to all communities living under the shadow of nuclear power and inside the 10-mile emergency planning zone around a nuclear power plant.

Among those who "What do I and my family do if Millstone suffers a disastrous accident like the one that has just occurred at Three Mile Island?" and "Do we really believe the nuclear-utility spokesmen who tell us that a release of radioactivity would cause, at most, a few cancer fatalities?"

Unfortunately, they are not. We remain never where better way to deal with a radiation emergency. I read all the available literature in search of an answer. There I discovered that the state and local governments have no plans whatsoever to deal with a catastrophic nuclear accident.

The Nuclear Regulatory Commission (NRC) has elaborate procedures worked out for acting with a theoretically serious accident, but as...ERAB...the protective steps around the reactor [illegible]. Because this safety system would work, all predictions from the environmental impact statement of Millstone 3, no new plans were considered necessary beyond the two and a half mile "Low Population Zone" around Millstone.

Michael Arthur Burlingame teaches American history at Connecticut and is co-founder of the Eastern Connecticut Committee against Nuclear Expansion. A 33-year-old resident of Quaker Hill, he is married and has two children.

In contrast to the New London, Waterford and East Lyme officials who drafted this plan two years ago, it seemed to permit not their best-based their calculations on the Nuclear Regulatory Commission's "Reactor Safety Study" (the so-called Rasmussen report), which estimated that the chances of a truly disastrous nuclear accident were unfathomably low, were as likely to be struck by a meteorite [illegible] as you were to die from a nuclear accident.

Last January, however, the Nuclear Regulatory Commission repudiated the central findings of the Reactor Safety Study.

In light of that repudiation, and in light of events at Three Mile Island, I think that our emergency plans must be revised. George M. Kisley, president of the Altamonte East Citizen, said in early April that, in behalf of Three Mile Island, "I become aware that a much larger geographic area might have to be evacuated than I had taken into account before."

How large should that area be? The Atomic Physical Society suggested that the region within 50 kilometers (over 30 miles) of the reactor be evacuated.

Dr. Jan Beyea of the Center for Energy and Environmental Studies at Princeton University, describes to studies for the government of Sweden and for the state of New Jersey that, under adverse conditions, early deaths (within a few months of the accident) could occur up to 20 miles from the nuclear plant.

U.S. governments have conducted at Dunkard (Washington) Engineering that, Department Laboratory evaluated that early deaths were caused caused up to 20 miles downwind from the reactor.

Even conservatively, a plan that [illegible] the Nuclear Regulatory Commission and the Environmental Protection Agency recommended that Connecticut plan should be...to evacuate a ten-mile area around a nuclear power plant. The Governor's Advisory Office endorsed this recommendation in March.

At the very least, we should follow this advice and be prepared to evacuate New London, Waterford, East Lyme, Groton and Montville.

* * *

Such an evacuation must be carried out quickly. Whereas other notifications of a Millstone malfunction, necessary to be shown [illegible] pre-evacuation evacuation decision. This must [illegible] will go smoothly and swiftly only if we are well-informed ahead of time about emergency procedures.

A possible way to restore the public trust before Northeast Utilities resumes operation of its plants, would be by state and local governmental committees, open a year to our eastern hills.

I think it would also be advisable to have full-scale drills to make sure that special provisions are identified and corrected before an emergency actually arises. Even though drills may present some risks themselves, it seems to me that an unannounced evacuation would probably look no worse than one that was announced.

In a similar scenario-something a nuclear catastrophe, John J. Berger wrote in "Nuclear Power: The Unviable Option," that, "As a result of the explosion, thousands of people would receive fatal radiation doses, many during the evacuation and resulting traffic jams."

Let's avoid unnecessary deaths from traffic jams, [illegible] fatality and disaster, and I [illegible] evacuation.

Evacuation is not the only step to be taken. The task force of the Nuclear Regulatory Commission and the Environmental Protection Agency recommends several methods to protect the thyroid gland from radioactive iodine.

There are two ways to do that. The potassium iodide, which the U.S. Food and Drug Administration has [illegible] approved, as an effective thyroid-shielding precaution in a nuclear emergency. Since the medication should be taken immediately to be most effective, it would be wise to have all persons living within 10 miles of Millstone supplied with a supply of potassium iodide to be taken in the event of a nuclear accident.

The second measure, recommended by the Environmental Protection Agency, is the use of restrictions to protect the consumption of radioactive material, especially [illegible].

Who should pay for the added costs of expanded evacuation planning and the stockpiling of emergency stocks, including iodine and respirators?

I believe the Northeast Utilities, which placed nuclear plants in our midst, should provide the funds to help save us in case one of them suffers a core meltdown.

League of Women Voters of California

942 Market St., Suite 505, San Francisco, CA 94102 (415) 986-1532

Susan F. Rice, President

(31)

[illegible] - 50 (44FR41483)

STATEMENT TO THE UNITED STATES
NUCLEAR REGULATORY COMMISSION

on

EMERGENCY PREPAREDNESS AS A CONDITION OF
NUCLEAR POWER PLANT OPERATION

August 1979

[illegible] 8/29/79

LEAGUE OF WOMEN VOTERS OF CALIFORNIA

STATEMENT TO THE UNITED STATES NUCLEAR REGULATORY COMMISSION

on

EMERGENCY PREPAREDNESS AS A CONDITION OF NUCLEAR POWER PLANT OPERATION

August 7, 1979

The League of Women Voters of California has been conducting a four year study of power plant monitoring procedures and evacuation planning. We are pleased with the responsiveness in which the NRC is dealing with the serious matter of nuclear power plant emergency preparedness. Nuclear proliferation has made nuclear emergencies a world wide possibility. The United States can well be a model for other countries in recognizing the unique problems associated with radiation protection.

3-41

In 1978 members of the California League of Women Voters, as part of a two year study of energy, voted with overwhelming response that all power plant siting must insure the health and safety of the public. In keeping with this position the League strongly encourages the NRC to re-think their former position that emergency planning be separated from siting considerations in the licensing process.[a] This separation of evacuation planning and licensing is a large part of our present problem-emergency unpreparedness. The States were given an unfamiliar, toxic, high-level technology, accompanied only by Federal Regulatory Guides and Plans, not laws; thus no one is accountable for protecting the public from abnormal releases. We support the adoption of compliance timetables as a condition of continued operation, or licensing, to insure utilization of atomic power in the public interest.

The foremost concept the League would offer in evacuation planning is that people can aid in their own protection if they are educated as to what to expect. Not only are people entitled to information as to the nature of radiation and how it is measured, but an added benefit is derived by the state in the speed in which emergency procedures will be understood and implemented by the public. Education will also decrease the probability for citizens to overestimate or underestimate the dangers of radiation - such as the newsreel of the mother in Harrisburg venturing outside with a paper over her baby's head.

A systematic distribution of information through the media, schools, and possibly utility inserts should begin at once as to the terminology of radiation, types of radiation, effects of radiation and counter-measures when appropriate. Many good procedures for development of state and local government radiological emergency response have been set forth in the NRC's Support Plans; however, even the best plan would be chaos if people panic because they do not understand the reason for precautions, including decontamination or the danger from inhaled particles.

Given an informed public we must assure them they will be notified promptly in case of emergency. All the NRC planning guides stress the importance of early warning. We are aware that the NRC has undertaken to place resident inspectors in nuclear power plant sites. We would suggest also, to echo Governor Thornburgh of Pennsylvania, that states

[a] Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants, a report prepared by the NRC and U.S. Environmental Protection Agency Task Force on Emergency Planning, December 1978 NUREG-0396, EPA 520/1-78-016

have the right to conduct unannounced inspections at nuclear plants with their own experts. Without this early warning assurance it may one day be necessary to implement the suggestion of Dr. Alvin Weinberg, that monitoring equipment might be placed in dwellings in a radius surrounding these plants.

The NRC's Planning Basis of Emergency Response Plans, Dec. 1978, page I-7, indicates air born releases with significant contamination to about 50 miles from a power plant. It becomes doubtful whether areas of this size could be evacuated . If the state determines that it cannot realistically expect to protect an area which the NRC states would receive significant contamination, then the public should be so informed.

Our last comment is regarding the need for improvement in monitoring systems. At present, according to the NRC Regulatory Guide 4.15, it is required that the licencees establish an "appropriate surveillance monitoring program". We would like to see the NRC establish a standardized program nation wide, not the licensee, and in the form of regulations, not suggested guides. Regulations that the user must comply with and that must be verified on a regular basis by outside government agencies, both federal and state, in order to maintain operation.

Alarmingly, at the heart of the problem for this vital monitoring program is the lack of valid comparable radionuclide standards, known as cross-check programs. Section 6.3.2 of the NRC Monitoring Guide mentioned previously suggests the laboratories of licensees or their contractors that perform environmental measurements participate in the Environmental Protection Agency's program on inter-comparison studies as a objective measure of the accuracy of their analysis. Again this is not required. Yet a report to the U.S. Congress from the Office of the Comptroller General, January 20,1978, states after six years of operation the EPA radiation program has not issured a single standard which is being enforced, and, as of 1977, the EPA had performed complete field studies at only 4 of the 63 nuclear power facilities. The League is concerned that there seems to be no valid basis for monitoring cross-checks and therefore the whole monitoring program is suspect.

In summary the League feels the public is entitled to:

1. Education as to the nature of radiation;
2. Immediate notification in an emergency;
3. Feasible evacuation plans and accurate monitoring procedures as a condition of operation.

Thank you for your consideration.

cc: Sen. Jennings Randolph, Committee Chairman, Senate Environment and Public Works Committee.
Sen. Alan Cranston, Washington, D.C.
Sen. S.I. Hayakawa, Washington, D.C.
Mitchell Rogovin, Attorney, Washington, D.C.

WASHINGTON OFFICE
1218 CANNON HOUSE
OFFICE BUILDING
WASHINGTON, D.C. 20515
(202) 225-3777

COMMITTEES
AGRICULTURE
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GOVERNMENT OPERATIONS

TOLL FREE ACTION LINE
(800) 382-7917

Congress of the United States

House of Representatives

Washington, D.C. 20515

FLOYD J. FITHIAN
2ND DISTRICT, INDIANA

DISTRICT OFFICES
913 Main Street
Lafayette, Indiana 47901
(317) 742-0211

918 South Buffalo Street
Wabash, Indiana 46992
(219) 563-1613

Post Office Box 338
Chesterton, Indiana 46304

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DOCKET NUMBER
PROPOSED RULE PR-50 (44FR 41483)

August 17, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Secretary:

This is in response to the Nuclear Regulatory Commission's (NRC) Advance Notice of Proposed Rulemaking regarding the adequacy of emergency planning around nuclear facilities published in the Federal Register of 17 July, 1979.

In its Advance Notice of Proposed Rulemaking the NRC stated that it is interested in receiving public comment on objectives for efficient plans, acceptance criteria for State and local emergency plans, NRC concurrence in State and local plans as a requirement for issuance of an operating license or for continued operation of a nuclear facility, and coordination between the licensee plan and State and local plans.

Serious consideration of these issues by the Commission is long overdue.

The policies of the Atomic Energy Commission and subsequently the Nuclear Regulatory Commission over the past

Acknowledged by card. dlh-9/4/79

two decades with regard to the siting of commercial nuclear powerplants in the United States have produced a situation where currently 10 million Americans live within 20 miles of a nuclear reactor. At one time during the Three Mile Island (TMI) accident, the Chairman of the NRC told the Governor of Pennsylvania that it might become necessary to evacuate people who lived as far as 20 miles from the reactor site. Such an evacuation was later found unnecessary in that particular accident. But the NRC Chairman's counsel to the Governor demonstrates that major protective actions could be necessary during a severe nuclear accident at substantial distances from the powerplant and for very large numbers of people. Effective emergency planning to ensure the protection of public health and safety thus by any measure should be the sine qua non of nuclear power.

Unfortunately the experience of TMI was not the first warning to the Commission concerning the inadequacy of its emergency planning and plant siting requirements.

In August 1976, a task force of officials of the NRC and the Environmental Protection Agency was created at the urging of the Conference of Radiation Control Program Directors, a national organization of state radiological health officers.

The task force was directed to determine the most severe effects of a nuclear powerplant accident for which radiological emergency response plans should be developed. It issued its report in December, 1978. The report recommended replacement of the Low Population Zone (LPZ) as the basis for emergency planning with what it called "Emergency Planning Zones." These Emergency Planning Zones would be of uniform size for all nuclear powerplants regardless of plant size, location, or design. There should be, said the task force, one zone of 10 mile radius in which plans are developed for coping with exposure from the "plume", or radioactive cloud, and another zone of 50 mile radius where preparation is made for prevention of exposure from ingestion of radioactively contaminated foods, such as milk. The task force took account in its analysis of the possibility of class 9 accidents and concluded that the zones it recommended were of sufficient size to ensure planning would be adequate to protect the public in the event of such accidents. It was sharply critical of the use of the LPZ as a planning basis.

In a report which was submitted to the NRC for agency

comment in December, 1978 entitled Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies, the Comptroller General of the United States concluded:

> Presently, there is only limited assurance that the people near most fixed nuclear facilities will be adequately protected from the radiological consequences of a serious nuclear accident.

The Comptroller General therefore recommended that the NRC:

> (R)equire that the people living near nuclear (power plants) be provided with information about the potential hazard, the emergency actions planned, and what to do in the event of an accidental radiological release.
>
> Allow nuclear powerplants to begin operation only where State and local emergency-response plans meet all of the NRC's essential planning elements. In addition, NRC should require license applicants to make agreements with State and local agencies assuring their full participation in annual emergency drills over the life of the facility.
>
> Establish an emergency-planning zone of about 10 miles around all nuclear powerplants as recommended by the Environmental Protection Agency Nuclear Regulatory Commission task force, and require licensees to modify their emergency plans accordingly.

In the face of these two detailed, highly professional reviews of NRC regulatory policy regarding nuclear plant siting and emergency planning and the near tragedy at TMI, it is shocking that the Commission seeks now to study the situation further rather than act.

I can state for the record that continued failure by

NRC to address these well documented problems may result in punative legislation which would place undue restrictions on the nuclear power industry and risk serious energy shortages in the immediate future. I note that the U. S. Senate has already passed legislation which would -- if it becomes law -- close down by June 1, 1980 any nuclear power plant located in a state which does not have an NRC approved emergency plan. Responsible action by the Commission can forestall this type of hasty legislation in Congress.

As a member of the House Government Operations Committee, Subcommittee on Environment, Energy, and Natural Resources, which has legislative oversight jurisdiction over the NRC, I participated in that subcommittee's investigation of emergency planning around U. S. nuclear power plants.

The objectives of our investigation were far-reaching and included:

1) The adequacy of utilities' emergency plans and of the NRC requirements pursuant to which they are prepared;

2) The adequacy of planning by State and local governments;

3) The relationship of the NRC to the State and local planning process, including the validity of NRC guidelines for State planning and the question of whether the NRC should require that there be State and local emergency plans;

4) The basis for emergency planning, including the question of whether the LPZ should continue as the basis or be replaced; and

5) The relationship between reactor siting and emergency planning.

In the course of our investigation, the Subcommittee held hearings on May 7 and 14 in Washington, D. C. and on May 10, in White Plains, New York. Witnesses at these hearings included utility company officials, local government officials, citizens group representatives, and the Subcommittee staff interviewed numerous Federal and other government officials and utility company officials, and it reviewed a substantial amount of documentary material.

The Subcommittee conducted case studies of emergency planning at two nuclear powerplant sites, Oconee and Indian Point, and the states and localities in which they are located. The Oconee site has three pressurized water reactors rated at 887 megawatts electric each. It is operated by Duke Power Co., which generates approximately 30 percent of its electricity from nuclear power and is the country's second largest producer of electricity from nuclear power. The three plants are relatively new, having received their operating licenses in 1973 and 1974. They are located in a rural area of South Carolina, which has a State emergency plan concurred in by the NRC. At Indian Point, there are now two pressurized water reactors in operation: Indian Point 2, a reactor of 873 megawatts electric owned and operated by Consolidated Edison, and Indian Point 3, rated at 965 megawatts electric and owned and operated by the Power

Authority of the State of New York. Indian Point 2 received an operating license in 1973, Indian Point 3 in 1976. The site at which they are located is quite old, however, as Indian Point 1 was licensed in 1962. The Indian Point plants are located in a heavily populated area of New York, less than 40 miles from New York City. The State of New York has an emergency plan concurred in by the NRC.

Based on the investigation of our Subcommittee, the House Government Operations Committee concluded in its report, "Emergency Planning Around U. S. Nuclear Power Plants: Nuclear Regulatory Commission Oversight," (H. Rept. No. 96-413):

1. State of readiness

(a) Emergency preparedness at every level of responsibility—Federal, State, and local governments, and utility companies—is inadequate to protect the public health and safety in the event of a severe nuclear powerplant accident.

(b) Even with better emergency planning, evacuation of a sufficient area around a number of U.S. nuclear powerplants is not feasible.

2. NRC leadership

(a) The Commission has failed to demonstrate strong, constructive leadership in the field of emergency planning.

(b) The Commission has not fully advised the public of the risk associated with nuclear power, especially the severity of accidents possible, and it has failed to inform the public of the need for emergency planning.

(c) The Commission has failed to exercise its full authority in the field of emergency planning and to give sufficient priority to emergency planning.

(d) The Commission's failures, both with respect to setting priorities and informing the public about the need for emergency planning, are in part responsible for the lethargic attitude of many utilities and state and local governments toward emergency planning.

3. Utility plans

(a) The Commission has failed to involve itself substantially in emergency planning, leaving both the setting and the application of standards to the discretion of the staff. Delegation of authority to act in an area so directly affecting public health and safety is an unsound regulatory practice.

(b) The regulatory framework the Commission has allowed to evolve is an entirely unsatisfactory combination of mandatory regulations and voluntary guidelines and constitutes an unsound regulatory practice.

(c) The Commission has allowed nuclear powerplants to be sited and built with only the barest outline of what the emergency response capability is.

(d) The Commission has allowed U.S. nuclear facilities to operate under old emergency planning standards (as set out in Appendix E) less stringent than the standards it currently uses (Regulatory Guide 1.101), resulting in a level of emergency preparedness which nationwide is neither uniform nor adequate. Only four of 48 U.S. nuclear powerplant sites have emergency plans which comply with the current, more stringent standards. The Commission has no plan to bring these 44 noncomplying facilities into compliance with the current standards. The Commission's decision to "grandfather" nuclear facilities whose plans were approved under the old rule is an unsound regulatory practice.

(e) The requirements of both Appendix E and Regulatory Guide 1.101 are defective in a number of fundamental areas, including:

(1) accident assessment, including both onsite and offsite radiological monitoring;

(2) notification, particularly insofar as they fail to ensure prompt warning to both State and local officials;

(3) drills, in that they fail both to require annual drills and to require that State and local emergency plans be exercised along with the utility plan during the annual drills;

(4) NRC review of emergency procedures, which are not required to be approved in the licensing process, and of the emergency plans themselves, which are not required to be periodically updated and resubmitted for Commission approval, creating serious potential for both abuse and good faith error by utility companies;

(5) public information, in that they fail to ensure that the public is fully and accurately informed about the hazards, particularly the hazards to human health during an accident, of nuclear power and the emergency response actions planned in the event of an accident.

4. State plans

(a) The Commission unquestionably has the legal authority to condition construction permits and operating licenses on the existence of approved State and local emergency plans.

(b) The Commission has been remiss in failing to exercise that authority and thereby allowing nuclear powerplants to be built in States and localities which have unapproved emergency plans.

(c) The Commission's review and approval process for State plans has not yielded effective plans.

(d) The Commission's review and approval process for State plans is defective for failing to examine emergency response capabilities of local governments.

5. Planning basis

(a) The Commission has failed to set an explicit, legal requirement for the area within which utilities are required to carry out emergency planning, relying instead on a requirement which has evolved out of precedent and longstanding practice. Such regulation by "common law" is an unsound regulatory process.

(b) The current basis used by the NRC for emergency planning, the Low Population Zone, is irrational.

(c) In neglecting to analyze the most severe class of nuclear accident, the class 9 accident, the NRC has acted imprudently.

(d) In relying on the Low Population Zone as the basis for planning, the NRC has caused to be formulated emergency plans which do not adequately protect the public health and safety.

I strongly support the recommendations of the Committee, based on the abovementioned findings. The actions that need to be taken to cure these deficiencies are not extremely costly nor do they require any large degree of the political balancing which is part of the legislative process. The Nuclear Regulatory Commission already has statutory authority fully adequate to ensure that emergency planning is done effectively.

It should be noted, moreover, that emergency planning can be dramatically improved without shutting down nuclear powerplants. None of the Committee's recommendations would, if effectively implemented, force plants to close or deprive Americans of the electricity they have come to rely upon, although serious questions beyond the scope of the Committee's report were raised about the effectiveness of evacuation planning for a few plants

now located in heavily populated areas. But the adoption of the Committee's recommendations would significantly enhance public protection from the hazards of nuclear power at existing and future powerplants.

The Committee made the following recommendations, all of which can be implemented by the NRC with its current statutory authority:

1. With regard to its responsibility of leadership in the field of emergency planning, the NRC should:

(a) make clear in its rules, policy statements, regulatory guides and other official documents, that it considers severe nuclear accidents possible, not hypothetical, occurrences for which emergency planning is appropriate;

(b) involve itself more directly in this critical area rather than delegate virtually all work to its staff;

(c) review the Commission's resource commitments to both utility and State planning to determine if they are sufficient.

2. With regard to the plans required of utility companies operating nuclear powerplants, the NRC should:

(a) upgrade the existing NRC standards for emergency planning, as expressed by Appendix E and Regulatory Guide 1.101, to ensure that compliance with them will, in fact, produce an effective emergency plan. At a minimum, the Commission should require:

(i) improved accident assessment, including better onsite and offsite radiological monitoring, the costs of which should be borne by the utility companies,

(ii) a notification system the hardware for which should include but not be limited to dedicated direct telephone lines and radio links to each State and local agency required by the utility's emergency plan to be notified in the event of an emergency,

(iii) annual drills of utility emergency plans with a condition that they be held jointly with drills of State and local emergency plans,

(iv) submission for approval during the licensing process of emergency procedures,

(v) periodic updating, subject to Commission approval, of emergency plans,

(vi) regular inclusion in customers' electric bills of accurate and specific information about the possibility and nature of nuclear accidents, the potential human health effects of such accidents and their causes, and the protective actions planned if an accident occurs,

(vii) improved public information procedures and facilities;

(b) incorporate these upgraded requirements in a Commission rule;

(c) apply this new rule retrospectively so as to cover all operating powerplants, not simply new applicants.

3. With regard to state and local planning for nuclear emergencies, the NRC should:

(a) thoroughly review and upgrade its own requirements for State and local plans, particularly with regard to the adequacy of planning by local governments and the demonstrated capability for evacuation;

(b) incorporate these upgraded requirements in a Commission rule;

(c) review state plans in which it has concurred to determine if they in fact are capable of producing an effective emergency response, including evacuation;

(d) require, by rule, as a condition for the issuance of a construction permit for a nuclear powerplant, the existence of both a state emergency plan for the state in which the plant is sited and, for that site and each additional nuclear plant site in that state, a local plan that comply with the NRC standards contained in the rule described in 3(b);

(e) require, by rule, as a condition for the issuance of an operating license for a nuclear powerplant, in the case of all plants for which construction permits have already been issued, the existence of both a state emergency plan for the state in which the plant is sited and, for that site and each additional nuclear plant site in that state, a local plan that comply with the NRC standards contained in the rule described in 3(b);

(f) issue an order to each operating nuclear plant that, absent a showing that the State and locality in which it is located have approved emergency plans, its operating license will be suspended. While the Commission should determine how much time a utility will have to comply with this order, the Committee considers that in no case should more than 2 years be necessary and that in many cases, 1 year will be sufficient.

4. With regard to the planning basis for both State and utility plans, the NRC should:

(a) abandon the Low Population Zone and replace it with the concept of Emergency Planning Zones" as developed by the Joint Task Force of the NRC and the EPA for both plume and ingestion pathways, making these the areas within which, by rule, the utility is required to carry out those emergency planning tasks for which it is responsible;

(b) incorporate, by rule, in its standard for State and local plans a requirement that State and local authorities have a fully developed plan for the plume and ingestion pathway Emergency Planning Zones around each nuclear powerplant within the State.

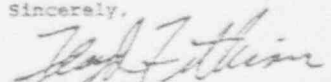
5. With regard to nuclear powerplant siting, the NRC should:

(a) review, on a site-by-site basis, existing emergency response capability and determine the maximum sized zone around each plant for which evacuation is feasible within several different times corresponding to representative warning times for various types of accidents and advise the Committee of its findings within 180 days;

(b) require, by rule, that effective emergency response capability, including evacuation, be established in the licensing process by both utilities and state and local governments. While the Commission should determine the appropriate level of detail of planning that should be required as a prerequisite to issuance of a construction permit, the Committee considers that there should be considerably more planning at this stage than is presently required. The rule should require fully developed planning for issuance of an operating license.

In closing, I wish to thank the Nuclear Regulatory Commission for this opportunity to present the recommendations and findings of our Committee and my views on the adequacy of emergency planning around nuclear facilities.

Sincerely,



FLOYD J. FITHIAN
Member of Congress

UNIVERSITY OF NEW HAMPSHIRE
DURHAM, NEW HAMPSHIRE

(33)

8/16/79

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

J. Sam Miller, CCE
Northwood
NH

Secretary of the Commn.
NRC
Washington, DC 20555

DOCKETED
AUG 30 1979
Office of the Secretary

Dear Secretary,

Please accept the following hand written comments in response to the attached release.

Thank you.

Cordially

J. Sam Miller

Acknowledged by card 8/30/79

3-49

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF PUBLIC AFFAIRS, REGION I
631 Park Avenue, King of Prussia, Pa. 19406

NO.: I-79-101
Contact: Karl Abraham
Tel.: 215-337-5330
5000

FOR IMMEDIATE RELEASE
July 20, 1979

NRC CONSIDERING ADDITIONAL REGULATIONS ON EMERGENCY PLANS

The Nuclear Regulatory Commission is considering the adoption of additional regulations which would establish, as a condition of power reactor operation, increased emergency readiness for public protection in the vicinity of these facilities; such regulations would involve utility licensees as well as State and Local authorities and the NRC.

The action is one of many being taken by the Commission in response to the March 28 accident at the Three Mile Island Nuclear Power Station and also is responsive to recommendations from the General Accounting Office and requests from a number of organizations including renewed and supplemental petitions for rulemaking from Critical Mass and Public Interest Research Groups.

The Commission is seeking public comment on the following subjects:

1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposures? Capability to evacuate the public? To what extent should these objectives be quantified?

2. What constitutes an effective emergency response plan for State and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements?

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

(MORE)

5. Should financial assistance be provided to State and local governments for radiological emergency response, planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The comments received will be collected and evaluated by the NRC staff, which will, in turn, submit recommendations on proposed rules to the Commission. Based on the comments it receives from the public and the analysis of the problem presented by the NRC staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rules immediately effective. The Commission anticipates completion of this expedited rulemaking in approximately six months.

The NRC staff is presently conducting a comprehensive review of all aspects of the NRC emergency planning and preparedness program. Therefore, the Commission is also interested in receiving comments on all other aspects of emergency planning, including issues raised in the Critical Mass/PIRG petition for rulemaking and questions such as the following:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

(MORE)

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Comments should be addressed to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch within 45 days of publication in the Federal Register on July 17.

(45 days)

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DOCKET NUMBER (34)
PROPOSED RULE PR-50 (44 FR 41483)

R.D. #1
3 Pine County Drive
Saco, Maine 04072

Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

In response to your newspaper request (Evening Express", Portland, Me.) I wish to submit the following:

#1 Safety for humans, animals, environment. In the event of a "problem" as shown in Three Mile Island, there should be an immediate evacuation plan for everyone. Need perhaps for "wardens" as during World War II - blackouts.

#2 I would think so -

#3 Yes -

#4 Definitely!

#5 Immediately - let the individual decide what he wants to do - get out or stay as soon as "news" is out - need for awareness of "survival kit - food, water, blankets - items for pets, etc.

#6 Any emergency that effects health - like radiation or poisonous gases - stay in home - a "Civil Defense" type communication with wardens posted in each area - could also be special alert radio stations - special alerts flashed across t.v. screen), newspapers etc. -

#7 Yes - definitely as well as previous suggestions for each area - could be civilian-police

#8 Should also be a "police type check. Regulations should be extremely rigid

#9 Yes - need for wardens + evacuation plan for area - perhaps could be signs along roadways in order for visitors to know what to do - for those citizens to return "home" as soon as possible & evacuate "loved ones" from home. I could not leave my area without going "home" first. This would be a must!

If there was enough warning - you would not leave home - but would be ready to evacuate!

Ruth A. Taylor

S-51

Evening Express, Friday, August 17, 1979

Some planning questions

By JOHN LOVELL
Staff Writer

The Nuclear Regulatory Commission has some specific questions for citizens who are concerned about improving evacuation plans for towns around nuclear power plants and are willing to make comments in writing.

Among them are:

• "What are the essential elements that must be included in an effective plan?

• "Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license?

• "Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness?

• "Should radiological emergency response drills be a requirement?

• "How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

• "Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

• "Should the licensees be required to provide radiological emergency response training for state and local government personnel?

• "To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action?

• "Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?"

The NRC asks that written responses be addressed to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington D.C. 20555.

August 15, 1979

Secretary
U.S. Nuclear Regulatory Comm.
Washington, D.C.

(35)
DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483)

Dear Sirs:

I have just read where your Commission is accepting written comments relative to adequacy of emergency planning around nuclear facilities. Therefore, I wish to briefly address you on this subject.

I am particularly concerned about this because I am between 2 facilities: the soon-to-be-built Seabrook one and Maine Yankee in Wiscasset.

We in coastal Maine rely so much on tourism and other industries associated with our natural resources that to cause any short- or long-term harm (even if only alleged harm) is to create great economic difficulties. (Witness this summer's gas panic, when tourism decreased 30% when it wasn't even justified.)

The Wiscasset plant has particular problems which I am more than aware: the problems of evacuation of persons on many peninsulas which abound in the area. To compound the problem of many areas with only one egress/ingress mode, there are also large numbers of persons totally unfamiliar with the area (tourists) who would need immediate information available during an evacuation.

I personally would like to see no further nuclear facilities built until mankind is more capable of dealing with the problems they create (the wastes; the health hazard unknowns) - which I do not foresee within my lifetime (not before the year 2000).

I hope everything humanly possible will be done to make the facilities existing safer and to deal more rationally/intelligently when emergencies arise. Thank you.

Sincerely,

Patricia I. Felton

Patricia I. Felton
450 Cumberland Ave.
Portland, ME. 04101

cc: Gov. Joseph Brennan

Acknowledged by card dtn 9/4/79

NETWORK
P.O. Box 1346, Santa Barbara, CA 93102 (805) 966-2503

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41483) (36)

Secretary of the Commission
Nuclear Regulation Commission
Washington, D.C. 20555

August 30, 1979

Dear Commissioners,

Network is a Santa Barbara based community group with over 350 members. We are concerned with environmental and social issues on a local level. Recently we have learned the NRC is soliciting public input on emergency planning and preparedness programs in case there are nuclear accidents. Santa Barbara is close to the Diablo Canyon nuclear power plant which presents a tremendous safety threat to our community. Therefore we think it is essential to have a working emergency preparedness plan for this area before the Diablo plant is licensed.

The basic objective of emergency planning should be to prevent public radiation exposure. The entire nuclear power industry should be required to prove nuclear power is safe in order to continue operating plants and before any more nuclear power plants are licensed. If plants continue operating, stringent safety precautions should be enforced and emergency plans could be prepared for nuclear power plant accidents, accidents which may occur while transporting radioactive material, and accidents which may occur at nuclear waste storage sites. Private industry and government departments, such as the Defense Department, which use radioactive material should be accountable to the public.

We believe nuclear power plants run by utility companies present a great safety and financial risk to a community. Therefore, as with any business, the companies should be prepared to pay all costs, including: preparing emergency evacuation plans and periodic updates of the plan, insurance, providing emergency evacuation plans to the public, compensation to area residents if they are adversely affected by an emergency, training and hiring special emergency staff, training local police and fire departments, as well as doctors and other community members who would be needed in case of an emergency and any other expenses which would be incurred in case an emergency situation arises.

As the nation learned from the Three Mile Island accident, the NRC did not have an adequate emergency program. We believe it is essential to have such programs throughout the country for each nuclear power plant site. Because economics often dictate in the government's energy policies, nuclear power plants are on line today with inadequate emergency plans. It is important to develop new regulations as soon as possible.

Sincerely,
Ann Schwartz
Network Staff

Acknowledged by card. dlh 9/4/79

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41483) (37)

Dear Sirs:

We are responding to your call for input, as to the safety regulations regarding evacuation plans for the Maine Yankee Power Plant. We are contributing our input feeling somewhat uncomfortable as to whether it will be heard, due to the fact that we haven't seen a wide effort of publicity. We would request that in the future you publicize your requests more broadly.

We are concerned, and we want to respond, but when information is withheld from the public, the truth is unheard and unknown. We feel there is an essential crookedness in your request for help, and your actions of not publicizing your request. Please keep us informed on your policies, we have the right to know.

Sincerely,

Pat Jones

Acknowledged by card. dlh 9/4/79

August 7,1979.

We the undersigned,of the Mother's Day Commitment and Concerned Citizens of York County in response to the request by the Nuclear Regulatory Commission for help in rule making regarding radiological emergency procedures for Maine Yankee,demand that emergency programs be financed by the utility companies,that the State be held responsible for training emergency teams, and setting up emergency equipment.They should finance double access roads on the penninsulas surrounding Maine Yankee,station evacuation craft at the end of each penninsula,and provide breathing apparatus,radiation medicines, and raciation detectors for each household.

Peter C Talmage	Kennebunkport Maine
[illegible]	Kennebunkport Maine
[illegible]	KENNEBUNKPORT, ME.
[illegible]	[illegible]
[illegible]	[illegible]
Albert Hay	Kennebunk, Me.
Tom Doggett	Kennebunkport Me.
Michael Newburg	Kennebunkport ME.
Lois Gallant	Kennebunk, Me
Wendy Johnson	Kennebunkport, Me
John Leeds	" " "
Alexander S. Clark	Kennebunkport, Me.
[illegible]	[illegible]
[illegible]	[illegible]

August 7,1979.

We the undersigned,of the Mother's Day Commitment and Concerned Citizens of York County in response to the request by the Nuclear Regulatory Commission for help in rule making regarding radiological emergency procedures for Maine Yankee, demand that emergency programs be financed by the utility companies,that the State be held responsible for training emergency teams, and setting up emergency equipment.They should finance double access roads, on the penninsulas surrounding Maine Yankee,station evacuation craft at the end of each penninsula,and provide breathing apparatus,radiation medicines,and radiation detectors for each household.

Mary G. McCrea	Cornfields, Saco, Maine
Rae Ingwersen	Kennebunkport, Maine
Pat Jones	Box 126 Kennebunkport
Barbara O'Rourke	Cape Porpoise, Me.
Barbara Dunn	Kennebunkport, Me
Joyce Keaton	
PO 98 Cape Porpoise Me.	
Alexander B. Brooks	Cape Porpoise, Me.
Patty B. Brooks	
Bet Mahler	Kennebunkport Me.
Peggy Parker	Kennebunkport Me.
[illegible]	[illegible]
Scott A Carlson	Kennebunkport, M.E
Marcia Carlson	Kport, Me

August 7,1979.

We the undersigned,of the Mother's Day Convinent and Concerned Citizens of York County in response to the request by the Nuclear Regulatory Commission for help in rule making regarding radiological emergency procedures for Maine Yankee,demand that emergency programs be financed by the utility companies,that the State be held responsible for training emergency teams, and setting up emergency equipment.They should finance double access roads on the penninsulas surrounding Maine Yankee,station evacuation craft at the end of each penninsula,and provide breathing apparatus,radiation medicines, and radiation detectors for each household.

[illegible]

3-55

John K. Fales
273 Brackett St.
Portland, Maine 04102

FTC CUE 5

AUG 30 1979

38

August 17, 1979

DOCKET NUMBER PR - 50 44 FR 41976

Dear Sirs:

Regarding your request for suggestions about possible evacuation procedures for ~~Pollution~~ Maine Yankee Nuclear Power Station in case of a release of radiation as the result of a class 8 ~~accident~~ accident or worse:

(1) All people within a 25 mile radius of the plant should be provided with radiation monitoring devices and complete information about what to do in an emergency.

(2) Boats and/or PLANES should be made AVAILABLE IMMEDIATELY FOR STAND-BY and READY use in areas of PENINSULAS NEAR MAINE-YANKEE, FOR PURPOSES OF EVACUATION IN EMERGENCIES.

(3) AS of TODAY MONITORING STATIONS SHOULD BE ~~SET~~ SET UP TO RECORD RADIATION BEING EMITTED FROM MAINE YANKEE AND IT SHOULD NOT BE PART OF MAINE YANKEE'S JOB - IT SHOULD BE

MONITORED BY AN INDEPENDENT GROUP WITH NO INTERLOCKING DIRECTORATES OR POSSIBLE CONFLICTS OF INTEREST.

(4) Civil Defense preparedness should be increased to provide GUIDANCE AND COHESIVENESS - NOT PANIC and CONFUSION - IN CASE OF AN EMERGENCY.

(5) The NRC should close down any plant that does not have an approved evacuation procedure. Besides NRC Approval, the plan should be submitted to a concerned Citizens Group of some sort for study and further approval.

(6) ANY PLAN MUST AND SHOULD INCLUDE ALL RESIDENTS WITHIN 25 miles AND Provide them with free food, clothes and Shelter, and Relocation of jobs and houses if a melt-down occurs. Any additional help individuals felt they would need should also be provided. After All, they did not ask for these nuclear power plants!

(7.) ALL POWER PLANT TECHNICIANS SHOULD BE FULLY TRAINED BEFORE THEY START WORKING AND BE INSTRUCTED TO INFORM THE PEOPLE IF AN EMERGENCY IS IMMINENT. NO NOT COVER UP OR HIDE THING AS MAINE YANKEE HAS BEEN FAMOUS FOR IN THE PAST. (with Releases of RADIATION INTO the BIOSPHERE)

(8.) The Public should be informed IMMEDIATELY OF ANY-RADIATION RELEASES BY RADIO, TV, AND NEWSPAPER SPECIAL ANNOUNCEMENTS. LET THEM KNOW THE ACCURATE DOSES AND LET THEM DECIDE IF THEY WANT TO EVACUATE.

(9) MAINE YANKEE SHOULD HAVE NO AUTHORITY TO TO TELL People ACTUAL OR POSSIBLE CONSEQUENCES OF RADIATION RELEASES. HAVING NEVER BEEN HONEST WITH THE PUBLIC IN THE PAST THEY CAN NOT AND WILL NOT BE TRUSTED IN THE FUTURE. SOME TYPE OF CONSUMER ACTION GROUP SHOULD

(9) CONT.

(10) HAVE FULL ACCESS TO MAINE YANKEE INFORMATION AND DAILY OPERATIONS AS A "WATCHDOG" OF WHAT I CONSIDER IRRESPONSIBLE PEOPLE IN RESPONSIBLE POSITIONS.

(10.) FINALLY ALL COST, AS MUCH AS ARE POSSIBLE SHOUD BE BORNE BY THE UTILITY COMPANIES (CMP, etc.) These costs should not come out of rate hikes but rater profits presently being used to plan future useless plans to increase thier stranglehold on our pocket books, by using high-technology and inefficient methods of producing energy

The Best Solution to this problem, though, would be to Shut every last one DOWN.

I am willing to Pay Short-Term financial costs of Shutting them down, but not long-term health costs of keeping them open.

We hope you take these Suggestions into serious consideration to prove that this IS A DEMOCRATIC COUNTRY where every person has an equal voice, no matter how unprofessional they may be in submitting suggestion to large Governmental Commissions.

Sincerely,

John Fales
Judy August

John Fales
Judy August
273 Bracket St
Portland, ME 04102

August 26, 1979
East Boothbay, Maine

Honorable Peter Bradford
Commissioner
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Commissioner Bradford,

In the areas surrounding Maine Yankee, we use the word "non-evacuation" to describe the existing, pre-Three Mile Island evacuation plan which we have in case of "nuclear incidents." It is very clear that we have NO PLAN, since the existing one is designed for just a six mile radius, and relies heavily upon chance in order to work. Our Paul Revere Alarm System, with church bells and fire sirens, depending on local officials and/or the State Police is eighteenth century at most, and has never been tested with people. Too many factors make the plan a failure, including weather conditions, increased summer populations, human error, etc. This does not include the fact that Maine Yankee blocks off several peninsulas and islands to the south, making evacuation by land impossible.

In the Maine Sunday Telegram, April 22nd, 1979, the Maine Public Interest Research Group concluded after studying the plan that:

1. "There are no specific methods for accounting for all the evacuees."
2. "The public in each of these towns is, for the most part, completely unaware of the emergency evacuation plan, let alone any specific emergency signal. In none of the five towns has the plan ever been brought before the public."
3. "There is no mention of available radiation monitoring equipment in the plan, and where it is located."
4. "There is no plan to monitor evacuees for radiation exposure."
5. "There are no accident assessment times predictions."
6. "There are no predictions on the time it will take to notify the public of an emergency."
7. "There are no predicted evacuation times."

With the above lacking, we haven't much of a plan, and the updating of the evacuation plan will, in many cases, try to just expand on the inadequate Paul Revere Plan we already have, covering 10 miles instead of 5. This is crazy, I'm sure you'll agree.

With NO evacuation plan, and Maine Yankee's violations and reportables in safety; with NO evacuation plan, and the Robinhood fault & potential danger of earthquakes increase here in Maine, it seems only prudent to shut Maine Yankee permanently.

Very sincerely,

Ann Feigenbaum

P.S. The Aug. 26 Maine Sunday Telegram contained an article about your views on the regulatory process of the NRC in particular and nuclear power. We support you and feel very fortunate to have you on the NRC. Be thankful the press (usually) misreports it's public statements.

dlh 9/4/79

433 Russel' Street
Florence, AL 35630
August 25, 1979

Mr. Samuel J. Chilk
Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

ADEQUACY AND ACCEPTANCE OF EMERGENCY PLANNING AROUND NUCLEAR FACILITIES

I am writing this letter as a private citizen in response to the Nuclear Regulatory Commission's advance notice of proposed rulemaking in the July 17, 1979, Federal Register, page 41483. My comments are based on personal concerns; experience in military contingency and emergency preparedness planning; recent experience in the development of a conceptual system design for meteorological and atmospheric dispersion support during nuclear emergencies; and participation in radiological emergency drills of the Tennessee Valley Authority.

I am no longer employed by the Tennessee Valley Authority. Responses to my comments and requests for clarification may be sent to me at RADIAN Corporation, 8500 Shoal Creek Blvd., Austin, Texas, 78766. However, I must emphasize that this correspondence is submitted by me as a private citizen, and does not necessarily represent the views of any organization.

My comments are numbered in correspondence to the issues listed in the Federal Register notice.

1. The basic objective of emergency planning must be to protect the public from radiation exposure to the maximum extent feasible and appropriate to the specific situation.

   The situation can be defined in terms of:

   - The nature and severity of the accident
   - The characteristics of any release of radioactive materials to the environment.
   - The capability to assess and project the accident's consequences.
   - Public notification capabilities.
   - Population density and distribution.
   - Residential and public structures prevalent in the area.
   - Transportation arteries.
   - Transportation control capabilities.
   - Meteorological conditions.
   - Other site-specific factors.

dlh 9/4/...

All of these factors must be considered in making rapid and effective decisions regarding what public protection actions are appropriate and feasible, and where these actions must be implemented first.

The objectives of the emergency plan should be quantified in terms of how much radiation exposure will be acceptable, but decision-makers must be permitted considerable flexibility to deal with the situation effectively as it develops.

For example, evacuation of a panic-stricken populace when transportation arteries toward "safe" areas are constrained, due to major construction or flooding, may cause more injuries, property damage, and deaths than the radioactive material will cause. Decision-makers must have the authority to consider all aspects of the situation and to make decisions that will protect the public from whatever potential dangers exist.

2. An effective emergency response plan must include at least the following elements:

- Capability to recognize an emergency situation as soon as it occurs, or in advance of its occurrence.
- Rapid and effective communications capabilities, to alert decision-makers, technical staff, and emergency response personnel within the licensee organization, state and local civil defense and public safety organizations, and the general public.
- Capability to rapidly assess the magnitude of the accident and its potential consequences, to continuously update and project that assessment, and to communicate the assessment to decisionmakers. This requires measurements of release magnitudes and characteristics, such as specific effluent release point description (vent diameter and location); efflux velocity and temperature; representative meteorological conditions (wind direction, wind speed, stability class, precipitation); representative meteorological forecasts; automated real-time dispersion and dose analysis capability, utilizing models appropriate to the release conditions, terrain, and observed and forecast meteorology; an adequate number of fixed and mobile radiation monitors, including the capability to rapidly deploy and redeploy the mobile monitors; and an uninterruptible communications network to ensure that all of this information can be effectively assimilated in the assessment and by the decision makers.
- Capability to rapidly and effectively assimilate the assessments and other information, such as population density and distribution, availability of protective structures, transportation conditions and control capabilities into an effective public protection decision. This requires clear identification of the decision making authority, and assurance that all necessary information will be immediately available to that authority.
- Capability to rapidly and effectively execute the public protection decisions, as soon as they are made.

There should not be separate emergency response plans for separate involved agencies and organizations. A single radiological emergency plan, which concisely and clearly delineates responsibility and authority

among individuals and organizational entities is mandatory. This does not preclude separate procedural documents for those procedures which are entirely internal to a single organization.

Existing NRC requirements and guidelines include most of the necessary elements of an effective emergency response plan, but in many cases the NRC requirements are vague and suggestive rather than directive.

3. NRC concurrence with the single integrated emergency response plan should be a requirement for the continued operation of existing operating nuclear power plants. This requirement should be made immediately effective, with an allowance of six months for the completion of a capabilities development plan, and one year for complete development of those necessary capabilities which do not presently exist.

4. NRC concurrence with the single integrated emergency response plan should be an immediately effective requirement for the issuance of new operating licenses. No further operating licenses should be granted until fully effective emergency response plans and capabilities are complete, tested, and approved.

5. I strongly recommend that the necessary capabilities for immediate and continuing assessment of accident consequences and the hub of the emergency communications network be developed in regional centers. Each such center could be responsible for up to twenty nuclear plants. The centers could be funded jointly by the NRC, state and local governments, and nuclear power plant licensees. Supervision and control of the centers could be provided by the NRC or by another Federal agency, perhaps the Federal Emergency Management Agency. Center responsibilities would not necessarily be restricted to nuclear emergencies, but could also be expanded to include other manmade potential disasters, such as explosions, major fires, and transportation accidents involving toxic materials, and major floods and other potential natural disasters. Capabilities of each center would include:

- Real-time data links with the nuclear power plants for which the center is responsible - to provide effluent release data, environmental radiation data, and meteorological data.
- Complete National Weather Service data and information service.
- A meteorological forecast center, with capabilities to forecast atmospheric dispersion parameters on a site-specific basis for each nuclear plant. This would require intimate knowledge of unique localized influences on meteorology, through meteorological forecast studies.
- An uninterruptible real-time atmospheric dispersion and dose assessment capability with a set of automated models appropriate to various release configurations, meteorological conditions, and unique site-specific constraints on dispersion.
- Immediately accessible current information on population density and distribution, transportation arteries, and temporary and permanent constraints on transportation capabilities.
- A communications network permitting immediate, uninterruptible voice communications to each nuclear plant, each licensee emergency control

center, the NRC, State governors, state and local civil defense and other emergency response centers.

6. Radiological emergency response drills should be at least a semiannual requirement for each nuclear plant. These should be realistic drills, not square-filling exercises. They should be initiated without notice by a Federal authority, probably either the NRC or the Federal Emergency Management Agency. All participants in the emergency response plan should be required to participate fully in each drill. The initiating authority should grade all aspects of the drill, and additional drills should be conducted if the evaluation is not fully satisfactory.

7. The public should be informed periodically about the emergency plan, how it works, where responsibilities and authority are assigned, and how they will receive information regarding what they are to do during an emergency situation. This public awareness program could be conducted primarily through the various news media, though the initial program probably should include public information meetings, distribution of brochures, heavily publicized public and commercial television presentations. Limited public participation in emergency drills may also be a consideration.

8. My responses to item 1 through 7, and recommendations in those responses are partially based on NUREG 0396. I believe that the basic philosophy of NUREG 0396 is summarized in the following excerpts from that document.

Appendix II, page II-1:

". . . The industry to date has had an excellent safety record. The Federal government recognizes this excellent safety record and the efforts by the nuclear industry to continue to reduce even further the likelihood of accidents. It also recognizes, however, that the probability of an accident involving a significant release of radioactive material, although small, is not zero. It has been and continues to be Federal policy to adopt a cautious attitude with respect to the potential of these facilities for the release of radioactive materials in hazardous quantities. . ."

Appendix III, pages III-1, III-2, III-4:

". . . The Task Force believes that States should be encouraged to develop a breadth, versatility, and flexibility in emergency response preparations and capabilities - and that some consideration of Class 9 events in emergency planning is consistent with this view. . . We do not suggest that these specialized planning considerations are or ought to be excessively burdensome. Rather, we recommend that they be considered and developed as a matter of prudence... NRC and other Federal agency emergency planning guidance has perhaps been misinterpreted as reflecting a position that no consideration should be given to so-called Class 9 accidents for emergency planning purposes."

Appendix I, pages I-1, I-2, I-22:

". . . Risk is not generally thought of in terms of probabilities and consequences, rather it is an intuitive feeling of the threat posed to the public. Reactors are unique in this regard: radiation tends to be perceived as more dangerous than other hazards because the nature of radiation effects are less commonly understood and the public generally associates radiation effects with the fear of nuclear weapons effects. In addition, a risk-related rationale might imply the determination of an acceptable level of risk which is outside the scope of the Task Force effort. . . . Radiological emergency planning is not based on probabilities, but on public perceptions of the problem and what could be done to protect health and safety. In essence, it is a matter of prudence rather than necessity. . . . The Reactor Safety Study (RSS) estimated the probabilities* of various severe accidents occuring at nuclear power plants. The probability of a loss-of-coolant accident (LOCA) from a large pipe break was estimated to be approximately one chance in 10,000 (1×10^{-4}) of occurring per reactor year. . . . Core-melt type accidents were calculated to have a probability of about one chance in 20,000 of occurring per reactor-year. . . . NOAA has analyzed National Weather Station meteorological data across the United States. . . . The study concludes that there is an even chance of a significant wind shift occurring in the next two to four hours at any given location in the United States."

If its recommendations are implemented, the impact of this document will be to require each state to develop emergency response capabilities which include detailed public protection actions for accidents through Class 8, and which are flexible enough to provide adequate protective responses for Class 9 accidents. The capability to predict effluent trajectories and assess the projected release consequences sufficiently to delimit areas requiring protective action will be of vital import in reducing the effects both from the radioactive release and from unnecessary public protection actions.

The need for such a capability can be judged on the basis of the probability determined by the RSS for a core-melt accident (with the understanding that the RSS numbers are imprecise.) For a single reactor-year, the RSS calculated a probability of one chance in 20,000 of a core-melt accident. If a reactor life of 40 years is assumed, the probability of a core-melt accident during a reactor lifetime is one chance in 500. For 100 operating reactors, the probability of a core-melt accident occurring during the lifetime of all combined is about

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* Use of the RSS probability estimates, in the content of emergency planning, has been thoroughly examined. It is recognized that there is a large range of uncertainties in these numbers. . ., but the perspective gained when considering the probabilities is important in making a rational decision concerning a basis for emergency planning.

one chance in 5. An uncertainty of plus or minus one order of magnitude in the RSS results yields a range of probability from one chance in 50 to one chance in 0.5 that a core-melt accident will happen to a reactor at some future data. Larger uncertainties in the RSS results would similarly increase or decrease the probabilities.

NUREG 0396 presents a strong argument for the development of a radiological emergency assessment system which will be sufficiently flexible for Class 9 accidents, at a reasonable cost. An estimate of what might constitute a reasonable cost may be derived from the figures presented on page I-48 of NUREG 0396.

As a basis for this estimate, let it be assumed that present radiological emergency assessment systems will provide reasonable assurance that scenario 5 can be achieved, and that an improvement will provide similar assurance that scenario 7 can be achieved. Such an improvement would provide the potential for averting six early fatalities and about thirty early injuries, as well as undefined numbers of delayed fatalities and illnesses, within twenty-five miles of the reactor.

Recent judicial decisions related to nonnuclear accidents indicate that, if a life must be awarded a value, that value is at least $250,000. If the cost of the early injuries can be estimated at $50,000 each, the total savings potential from averting direct early health effects to people from a single accident may be estimated to be as high as $3,000,000. Additional savings from avoidance of delayed effects on health from direct exposure as well as from ingestion of contaminated food and/or water, and from avoidance of unnecessary protective actions, such as evacuation, would undoubtedly be even higher, perhaps twice as high, or an additional $6,000,000.

Potential savings in property damages have not been considered in these estimates. Insurance claims that resulted from the TMI accident are indicative of significant potential savings.

It is apparent that the intangible benefits of an effective radiological emergency assessment system, such as improved public confidence in the nuclear industry and its regulators, would be sufficient that any system cost, less than its potential direct savings, would be a reasonable investment.

9. I believe that present NRC and EPA guidance on notification criteria is adequate, provided that the NRC maintains its policy of assigning qualified NRC personnel in reactor control rooms, and expands this to include every operating nuclear power plant.

10. I have no comment on this question, except to the extent that the concerns of all interested agencies must be incorporated in a single integral emergency response plan for each nuclear plant.

11. The involved Federal agencies, State and local governments, and the licensee organizations should each be represented on an emergency assessment team, preferably in the proposed regional center. Communications with each of these organizations should be maintained by the assessment team.

12. The licensee should be required to provide detailed radiological emergency training, either through its own NRC-approved training program or by funding training by the NRC, for State and local government personnel. People who are responsible for radiological emergency decisions and actions should be required to take such training as a specification for plant operation. This could be another function of the regional center.

13. Official assessment of accident consequences could be accomplished by the proposed regional center. In any event, there should be a single decision team with an adequate checking capability in the assessment teams, but not independent assessments by different teams. Assessment procedures should have prior NRC approval. This plan should logically require licensee personnel to be on the assessment team.

14. Public participation in radiological emergency response drills could over-emphasize the likelihood of a dangerous accident. To be effective, this would have to be nationwide and repeated. It would cause too much interruption of regular activities and would be very expensive.

I appreciate the opportunity to present my position on these most important issues, and can be available for further communication on these matters at your convenience.

Dale E Wolfe

Dale E. Wolfe

KMC

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483)

(41)

August 29, 1979

DR. DONALD F. KNUTH
President

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

On July 17, 1979, the NRC published in the Federal Register an Advance Notice of Proposed Rulemaking on "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities." The Commission seeks comments on a number of listed issues preparatory to further consideration of proposed rulemaking that would adopt additional regulations relating to increased emergency readiness, on the part of local and State authorities, and licensees, for public protection in the vicinity of nuclear power reactors.

KMC, Inc., in cooperation with the following 16 utilities, has reviewed the elements of the Advance Notice and the references thereto, and is pleased to provide detailed comments in support of the proposed rulemaking:

Arizona Public Service Company
Arkansas Power & Light Company
Cincinnati Gas & Electric Company
Consolidated Edison Company of New York, Inc.
Consumers Power Company
Detroit Edison Company
Duquesne Light Company
Florida Power Corporation
Florida Power & Light Company
Nebraska Public Power District
Northern States Power Company
Omaha Public Power District
Pacific Gas & Electric Company
Public Service Electric & Gas Company
Southern California Edison Company
Toledo Edison Company

dlh 9/4/79

These above mentioned utilities represent a broad spectrum having 22 nuclear facility sites in all parts of the country, with 39 individual units: 18 in operation, 17 under construction, and four presently undergoing CP review by the NRC.

KMC, Inc. 1747 PENNSYLVANIA AVENUE, N.W. WASHINGTON, D.C. 20006 202/223-3163

The main thrust of the enclosed detailed comments is that the utilities, State government, local government, and the Federal government, particularly the NRC, are all involved collectively in the necessary emergency planning effort for individual facility sites. We believe participation in emergency planning activities must involve all of the organizations working together. Two particular points should be emphasized. First, to be effective, emergency planning requirements must be simple and straightforward, not complex or exotic. Secondly, the traditional concepts of regulator and regulated do not serve the needs of emergency planning considering that Federal, State and local organizations, as well as licensees, are so intimately involved with the activity. All of these groups need to establish a special working relationship, with all organizations involved participating fully.

The Federal Register notice indicates that, based on the comments it receives from the public and the analyses of the problems presented by the NRC staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rule immediately effective. The need to have effective emergency response capability, based upon acceptable emergency planning programs is clearly one of the most far-reaching lessons learned from the Three Mile Island experience. The scope and depth of an Appendix E rule change, and its implementation, deserve the most careful considerations. The concept of an Advance Notice of Proposed Rulemaking to provide extensive discussion of the issues, prior to the drafting of a specific proposed rule, is an excellent initial vehicle for attacking this particular matter. We believe it essential and strongly urge that the Commission adopt a program that would permit further public comment on a specific proposed rule change before making such revised rule effective.

In addition to developing the enclosed detailed comments, we have met with representatives of the Edison Electric Institute to discuss our and their comments on the Advance Notice. We believe there are no inconsistencies between the two sets of comments.

We and representatives from any of the utilities sponsoring the enclosed comments on the proposed rulemaking would be pleased to meet with the Commission or the staff to discuss this material or to answer any questions you may have.

Sincerely,

Donald F. Knuth

Donald F. Knuth

encl.

COMMENTS ON ADVANCE NOTICE OF PROPOSED RULEMAKING

ADEQUACY AND ACCEPTANCE OF EMERGENCY
PLANNING AROUND NUCLEAR FACILITIES

Introduction

The Nuclear Regulatory Commission, in its Advance Notice of Proposed Rulemaking, 44 FR 41483 (July 17, 1979), requested comments on certain specified issues relating to emergency response planning. The Advance Notice lists nine direct issues, five indirect issues, and further requests comments on other aspects of emergency planning, including the issues raised in the Critical Mass/PIRG petition for rulemaking, 44 FR 32486 (June 6, 1979).

KMC, Inc., in cooperation with the following 16 utilities, has developed detailed comments on each of the listed issues, two supplemental considerations arising from our review of Report No. 96-413 from the House Committee on Government Operations, and the Critical Mass/PIRG petition.

Arizona Public Service Company
Arkansas Power & Light Company
Cincinnati Gas & Electric Company
Consolidated Edison Company of New York, Inc.
Consumers Power Company
Detroit Edison Company
Duquesne Light Company
Florida Power Corporation
Florida Power & Light Company
Nebraska Public Power District
Northern States Power Company
Omaha Public Power District
Pacific Gas & Electric Company
Public Service Electric & Gas Company
Southern California Edison Company
Toledo Edison Company

Issue 1

What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?
b. To prevent public radiation exposure?
c. To be able to evacuate the public?

To what extent should these objectives be quantified?

The basic objective of acceptable emergency planning is to help provide reasonable assurance that, in the event of an accident situation, there will be no undue risk to the health and safety of the public. This, of course, is the overall objective of nuclear safety assessment of a facility to be licensed by the NRC. Such a consideration can not be quantified simply, but is in fact quantified through the many elements of the facility design, construction, safety analysis and the NRC's licensing review process.

Effective emergency planning will identify workable onsite and offsite response measures or protective actions that could be taken in radiological emergencies should they be required. Implementation of the planning would serve to limit public radiation exposure, and would include the possibility of evacuation as well as other considerations. The purpose to be served by emergency response planning is to provide persons responsible for taking necessary actions in the event of a radiological emergency with the framework for making reasoned decisions regarding protection of the public. The above considerations are generally reflected in Revision 1 of Regulatory Guide 1.101.

Specific to emergency planning, there can be stated certain goal-oriented objectives that could be described as operational, technical and policy. The operational objective is to achieve integrated planning among all the participant organizations, namely the utility licensee, the State, the local government, and the Federal government. All appropriate emergency response functions within these jurisdictions must be coordinated effectively. Where more than one governing body at any level is directly involved, they should also be participants in the planning activities.

The technical objective is to develop an effective plan, based on simple, straightforward principles, so that the participant organizations can respond to emergency situations in a timely fashion through established and well-understood and tested procedures with a minimum of uncertainty.

The policy objective is to assure that all of the participant organizations' emergency planning and response groups develop close-knit working relationships among themselves. In the event emergency response activities are required, people who know each other and have worked together should be involved.

It is recognized that each emergency planning situation will involve different licensee and government jurisdictions, and that emergency planning activities should be improved. Therefore, goals should be established for each facility/site to meet the above objectives that could include the following:

1. Each participant organization provides the others with information relating to its role in emergency planning vis-a-vis radiological emergencies, and an indication of what it perceives the other participants' roles to be.
2. Meetings among all the participants are scheduled to work on the interfaces of the component plans so a composite plan can be developed.
3. The essential elements of the component plans are identified and analyzed for consistency.
4. The composite plan is evaluated by all groups and simplified to the extent practical. Limitations in organizational capabilities are identified and the plan is further modified, as necessary, to compensate for any such limitations.

5. The composite plan is tested, especially with regard to communications, but also with regard to activation of response centers. Levels of readiness are tested short of that required for an actual emergency. Mobility requirements are checked.
6. Each test is critiqued by the participant organizations. Changes are made based on the experience gained.
7. Periodic meetings (perhaps semi-annually) are scheduled among the participant organizations to review and update the composite planning and response capability.

Target dates should be established for completing the above goals such that, if possible, an improved emergency response capability for any particular nuclear plant site can be functioning within a two year period. Setting of such target dates, with implementation schedules, will transform the goals to achievable milestones.

Issue 2

What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) track any of these essential elements?

For any particular emergency response plan to be effective it must fit together properly with all other participant organizations' response plans, including that of the NRC. This thought,

and the consequent view that it is a composite plan, involving the NRC, the State government, the local government, and the licensee that is needed, is generally discussed in Issue 1 above, and emphasized throughout these comments.

The critical elements that must be included in an effective plan presently are outlined in NUREG-75/111 (as amended by Supplement No. 1) for State and local governments, and in Appendix E to 10 CFR Part 50 and Regulatory Guide 1.101 (Rev. 1) for utilities. In rereviewing these documents, we have identified no missing critical elements.

It is proper that the level of detail beyond that given in Appendix E be presented in guidance documents, rather than in Commission regulations. Rulemaking should provide overview requirements, with implementation left to Regulatory Guides or NUREG reports. Then, when improvements are developed through experience they easily can be incorporated into then-existing emergency planning activities in the most efficient and expeditious manner, without the need for rule change. No amount of rulemaking will make either good or bad emergency plans workable.

Issue 3

Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

NRC agreement with State and local emergency response plans is an important aspect of effective emergency planning, especially considering that the NRC necessarily should be involved in individual emergency response planning activities. It is also important that the other participant organizations agree with, or at least overtly accept, each other's emergency response plans. In light of NRC's necessary direct involvement in composite planning, it is not necessary to establish a formal requirement, through rulemaking, for official concurrence on a fixed time schedule as a condition for continued operation. What is important is that all participant organizations are working to develop a composite planning program that all can accept, at the earliest possible time.

It is the determination of just when the earliest possible time is that can not be standardized effectively by rulemaking. For example, one should be satisfied with the situation wherein the State and local plans were not yet sufficiently complete for NRC concurrence, but all participant organizations were working diligently toward perfecting a workable, easily-testable composite plan. Emergency planning response, to be and remain effective, must be a dynamic thing, not just another regulatory requirement to be met.

Another important consideration that bears on this issue is the wide variation in present capability for developing State and local plans that presently exists around nuclear plants in this country. There are States and local governments with modest planning programs that are complete or nearly complete. There are also States and local governments with ambitious plans and recently-committed resources that are just getting started in developing plans suitable for NRC concurrence. The timing for completing this activity should not be a license condition, and could not be applied uniformly to all licensees.

Finally, a recognized lesson learned from the Three Mile Island experience is the general need for improved emergency response capability. Such effort is now underway by utility licensees, State governments, local governments, and the NRC. It would be far more beneficial to factor the experience gained into all levels of emergency planning in a deliberate manner, rather than try to do it on a time base calibrated as a requirement for continued plant operation.

Notwithstanding the above arguments in favor of not requiring concurrence prior to license issuance, it is clear that some standard should be established. A reasonable position might be that a fixed time, perhaps on the order of two years, should be established for improvement of plans and obtaining NRC agreement.

If, at the end of that time, agreement is not possible the NRC could take whatever action it deemed appropriate for a particular State/local/licensee situation. It is reasonable for the NRC to provide itself this flexibility as there can be expected to be quite different situations in every case. Thus, the case-by-case approach would be appropriate.

The two year period suggested above appears to coincide with the targeted implementation schedule for recommendations developed by the EDO Task Force on Emergency Planning, the activities presently underway by the Office of Nuclear Reactor Regulation to review emergency planning implementation, and the time period suggested by the House Committee on Government Operations in House Report No. 96-413. In any event, the time period selected should correlate with the final implementation schedule for such emergency planning improvements.

There are several auxiliary matters that bear on this subject. One approach to the question of the usefulness of Federal coordination of emergency planning activities might be to consider the establishment of regional councils involving NRC, State governments, local governments, and licensees, and coordinated by regional FEMA groups. It might be advantageous for the NRC and FEMA to explore this idea further with representatives of the other involved organizations.

Noting that the NRC is already working very closely with the States on each individual State program, it should be possible to provide motivation to the States to develop acceptable plans. Direct funding, as discussed under Issue No. 5, and providing training opportunities, discussed under Issue No. 12, are examples of possible elements of such motivation.

Finally, it is reasonable in setting requirements relating to State and local government emergency response programs to specify that utility applicants and licensees are required to cooperate with the State and local governments. As indicated in response to Issue No. 12, utilities should also offer to provide appropriate training opportunities to these organizations.

Issue 4

Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

The reasoning put forth under Issue 3 above applies also to Issue 4. Prior NRC concurrence in State and local response plans should not be a requirement for issuance of an operating license. The goals for effective emergency planning are the same for both situations, and the time required to develop satisfactory plans are the same. Furthermore, testing of the plans

will be far more meaningful, and will provide a much better basis for judging acceptability once the plants are completed and in operation. On balance, the needs of emergency planning are better served if concurrence in State and local plans is not a pre-licensing condition.

Issue 5

Should financial assistance be available to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Consideration of the question of financial assistance to State and local governments must be consistent with the objectives of developing acceptable, composite planning capability among the participants -- the utility licensee, the State, the local government, and the NRC. The solution to this complex problem can not be and should not be attempted to be solved through NRC rulemaking that relates to "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities." Federal financial assistance should be provided to State and local governments to help motivate and ensure effective planning.

The approach to the financial assistance question can be different for State and local programs. For the State, it might be sufficient for the Federal government to offer matching funds, up to a specified dollar limit. Obviously States with more than

one reactor site involved will need more complex planning, and this should be taken into account in determining fund limits. Additionally, annual maintenance funding should be provided to States with acceptable planning programs as an incentive for maintaining good programs.

Local planning and response capability is extremely important in composite planning. Capability, site-to-site, will vary considerably. The local governments directly involved nearest the sites, perhaps at the county level for standardized treatment of this issue, may also need to be subsidized.

Issue 6

Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Presently, licensees are required to conduct periodic emergency response drills. The points of consideration in Issue 6 are whether they should be joint drills, and whether they should be required.

A program for periodic joint drills, including participation by the NRC, particularly using the Office of Inspection and Enforcement's Incident Response Center, should be developed, and such drills and follow-up critiques should be conducted.

This is an important part of any composite emergency planning and response activity. It does not follow, however, that having such a program in place needs to be a requirement, at least for initial NRC concurrence in emergency response plans. Further, a Federal requirement for joint drills may be subject to legal challenge on behalf of the State and/or local governments. What is important is that all of the participant organizations, including the NRC, are working toward the establishment of an effective program for conducting drills or exercises. Merely establishing a requirement will not accomplish this, and could be counterproductive to the working relationships needed for effective joint planning activities of the individual organizations involved.

Effective joint drills can not be conducted unless they are planned by a coordinating group that would involve representatives of the licensee, the State government, the local government, and the NRC. All of these persons should be encouraged to plan such drills and to provide useful critiques subsequently.

Issues 8 and 14 also focus on the question of conducting drills. The comments provided on these issues outline additional considerations that are consistent with the views stated above.

Issue 7

How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Public information, concerning emergency actions it might be called upon to take, should be disseminated by local officials; however, accidents relating to radiological emergencies should not be emphasized over other emergencies having similar consequences. The State or local government has a responsibility to advise its citizens about emergency preparedness, be it radiological or other industrial or transportation accidents, fires, floods, storms, earthquakes, etc. All can be viewed in the same context, whether the action involved is evacuation, sheltering, or other protective measures.

As an adjunct to the composite planning activity of the NRC, the State, the local government, and licensee, it does seem appropriate for the NRC and the licensee to provide the State and local government with information concerning radiological emergency response that would be useful in informing the public regarding possible actions that might be required in an emergency.

Issue 8

What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

The summary conclusions and recommendations of the Joint Task Force report can be characterized as follows:

- A spectrum of radiological accidents (perhaps even including Class 9 events) should be considered in emergency planning.
- Emergency Planning Zones, ranging out to about ten miles from the plant for the plume exposure pathway, and out to about 50 miles for the ingestion pathway should be established for which emergency response planning is warranted.
- Time frames and radiological characteristics of releases should be established for the spectrum of accidents identified in item 1.

Consideration of what actions to take regarding the NRC/EPA recommendations must strongly be influenced by the State role in effective emergency planning, and the necessity of the four-group team of NRC, State, local official, and licensee to make the necessary emergency planning decisions for the individual sites and environs. Such considerations, as suggested also by the response to Issue No. 5, may not and in some cases can not be handled adequately by imposition of requirements by rule. As discussed below, the recommendations of NUREG-0396 can be accommodated in a far more effective manner.

In developing a composite emergency planning program involving the utility licensee, the State government, the local government, and the NRC, some representative radiological emergencies should be postulated for developing plans and for subsequent testing exercises. A minimum of three levels should be considered: (1) a low level release with no offsite exposures which would nonetheless test the communications network; (2) a moderate level release with no significant exposures anticipated which would test communications and ability to bring emergency response groups to a standby state of readiness; and (3) a higher level release that would also test the mobilization of the response groups (short of any actual evacuation, but including offsite monitoring). The low level test would be the most frequent, with the moderate and higher level tests scheduled at much longer intervals.

The important consideration, during the next two years, is to get a composite emergency response plan to an effective state of readiness. In many cases, a two year schedule to accomplish this will be a very tight time frame. Such activities should not be burdened by additional considerations of whether or not Class 9 accident situations can or should play a role in emergency planning. It is much more important to base emergency

planning activities on truly realistic accident situations, rather than on hypothetical situations that go far beyond present bases for the safety assessment itself. Such studies could, however, be considered by the composite group after a perfected plan is in place and operationally verified.

Consideration of Emergency Planning Zones, as defined in NUREG-0396, will be a useful tool in polishing and further perfecting existing composite response plans. The most important initial activity, however, is to perfect emergency response planning for the far more important Low Population Zone (the present standard), before expanding such planning to greater distances. Work on integrating EPZ's, including determining the extent to which planning is required for such zones should be undertaken by the various composite groups only after acceptable integrated response plans have been developed and tested. Each site situation will be quite different, and will involve highly specialized implementation considerations. Further consideration of EPZ planning, however, will serve to test the productivity and usefulness of the periodic meetings described in item 7 of the response to Issue 1.

A very crucial question relating to the use of EPZ's is the extent to which emergency planning activities are applied to the EPZ. Recognizing that the extent of planning necessary and

possible diminishes with distance from a plant site, it is reasonable to conclude that requirements beyond the Low Population Zone, out to the boundary of the 10 mile EPZ, should be less than those for the area of the LPZ. Merely extending the requirements out to a limit of 10 miles is an unreasonable simplification of the problem. Recognizing, as the NRC/EPA Task Force does, that "judgment should be used in adopting this distance [the EPZ boundary] based upon considerations of local conditions such as demography, topography, land characteristics, access routes, and local jurisdictional boundaries" it is logical to leave the size of the boundary and the extent of emergency planning required to the individual planning groups for each group to determine. 1/ Furthermore, the extent of engineered safety features provided for each plant should be a factor in each individual determination.

Additional comments relating to the use of the presently required LPZ as a basis for emergency planning, rather than amending the present Appendix E to require the EPZ concept, were provided to the NRC's Office of Standards Development in a May 15, 1979 letter from KMC, Inc. This letter was in response to the then-proposed amendment to Appendix E, 43 FR 37473 (August 23, 1978). In that letter, KMC, and the Utility Group on Emergency Planning recommended an alternative to the proposed amendment as follows:

1/ Other local conditions such as meteorology and wind persistence also should be considered in setting the EPZ boundary.

> "For nuclear power reactors the licensee is responsible for emergency planning provisions to reduce exposures from an accidental release of radioactivity up to and including those amounts postulated to occur in accordance with the recommendations of 10 CFR 100 for design basis accidents. This planning shall include areas encompassed by the low population zone (LPZ) as specified by 10 CFR 100 of the NRC regulations. The licensee shall be prepared to provide designated governmental emergency planning authorities with information regarding actual or potential radiological releases from the plant as may effect people or property in the event of an accident. If the emergency planning of the designated governmental authority considers emergency actions at specified radiation levels or encompasses an area larger than the LPZ the licensee's plan should provide predictive values and provision for notification of the designated governmental authority consistent with those objectives."

This recommendation is consistent with the discussion of this issue presented herein, and underscores the point that consideration of the use of Emergency Planning Zones is meaningful only on a case-by-case basis.

Time frames and radiological characteristics of releases are an integral part of the spectrum of accidents and should be established. More than one set of times and characteristics should be developed for each postulated radiological emergency situation.

The real usefulness of spectrum of accident, time frame, and radiological characteristics variations is that it affords a wide selection of postulated situations for response testing

purposes. This, in turn, will make the tests themselves more useful, and will provide better information to use in improving emergency response capability.

Issue 9

Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Licensee notification of incidents, to be reported to the NRC, is specified in 10 CFR 20.403. Apendix E to 10 CFR Part 50 requires licensee emergency plans to contain arrangements for notification of appropriate State and local agencies in case of emergency. Regulatory Guide 1.16 outlines the reporting of operating information for the reporting requirements section of individual licensee Technical Specifications.

Consistent with Regulatory Guide 1.101, licensees should notify State and local agencies of emergencies having radiological consequences offsite and non-radiological situations such as fires and explosions at the site. Beyond that, notification ought to be limited to those things upon which the licensee, the State, and the local government agree as a consequence of their composite development of their emergency plans.

There is not a single answer to determining when, how, to what extent, and by whom the public should be notified of

such incidents. In general, notification relating to matters that are confined to the site should be handled by the licensee, perhaps with confirmation by the State and/or local government. In the event of an offsite emergency, public notification in accordance with the requirements of the composite emergency planning agreements should probably be handled by the State and/or local government, with essentially simultaneous announcements by the other groups. This implies that some amount of evaluation and coordination is necessary prior to notification. It is important for these situations that all groups are heard from, as well as for one group to be officially responsible for the public notification.

Auxiliary Issues

The Advance Notice of Proposed Rulemaking indicates the Commission is interested in receiving comments on five auxiliary issues, the Critical Mass/PIRG petition, and other related issues. Comments on these matters follow.

Issue 10

How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Consideration of State and local government concerns should be a part of the development of Federal radiological emergency response planning, especially in the future when more experience has been gained through increased emphasis on the need for composite

planning. Identification of such concerns can best be handled by the NRC, as a participant in the development of individual composite plans. Following evaluation and analysis by the NRC, those practical matters within the purview of the NRC could be incorporated into its planning activities.

Issue 11

How should Federal agencies interface with State and local governments and the licensee during emergencies?

These groups should interface with each other through the mechanism of the composite plan. All of the component plans, including the NRC's response capability have to blend together into a logical, workable, testable composite program. If the component plans meet these composite criteria, the interfaces will connect properly, and the coordination will be assured through continued meetings and test exercises suggested in response to Issue 1 and Issue 6. With these interfaces worked out in advance, every group should know what to expect of the other groups.

Specifically, the role of Federal agencies should be advisory in nature, with a back-up capability to provide additional assistance should it be requested in specific situations. What is further required, somewhat beyond the scope of this issue, is established coordination among the various Federal agencies. The individual planning groups should have up-to-date information on this coordination to assist them in their planning activities.

Issue 12

Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Licensees should not be required to provide radiological emergency response training. However, they should offer to provide such training that would be related to the specific site or sites in the particular State and local jurisdictions. This training would be similar to that provided for general plant personnel. Training needs will vary from case to case, but can be identified and reassessed as part of the critiques following response drills.

The Federal government is in a position to provide some level of academic training, particularly in areas of health physics and other technical specialties. This type of training could be offered perhaps as a form of financial assistance discussed in Issue 5.

Issue 13

To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Presently, licensee emergency plans are required (Appendix E) to include means for determining the magnitude of any release of radioactivity from the facility, as well as criteria

for determining the time when protective measures should be considered both onsite and offsite to protect public health and safety. Recognizing that, in the event of an offsite emergency, the timeliness of a response may be short, the initial reliance for consequence assessment should be placed on the licensee. The adequacy of the licensee's capability in this regard can be verified through the NRC's inspection program.

In accident situations of more than a few hours duration, the capability of the State and Federal Government can and should be brought into play. It is always useful to have independent verification of an assessment of accident consequences, both from measurements and by calculations to aid in making any necessary emergency response decisions.

An important consideration, within the bounds of this issue, in improving emergency response capability is the question of the extent and type of offsite measurements needed during an emergency. Before specific requirements are set down, it should be assured that the equipment necessary is readily available, and can be used easily in an accident situation. The eventual final report of the "Interagency Task Force on Offsite Instrumentation to Follow the Course of an Accident" will be useful in helping to make these determinations. Following the publication of the final report, it might be helpful for the NRC to

conduct a Workshop, with participation by instrument manufacturers, reactor vendors, A/E firms, and utility licensees to discuss how best to provide augmented monitoring capability.

Issue 14

Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

In looking at pros and cons of evacuation drills it is easy to identify the cons; i.e., physically dangerous, lack of public acceptance, possibility of developing the "cry wolf" syndrome, and excessive cost vs. uncertain benefit.

Beyond the imbalance of considerations listed above, is a special problem particularly significant in considering many, but not all, emergency response situations. In many cases, sheltering will be preferable to evacuation. Public participation in evacuation drills might tend to develop a negative reaction in that people might be more prone to evacuate in situations where sheltering is a better alternative.

The specific matter of evacuation exercises as part of any emergency planning drills was extensively considered in the responses to the previous PIRG petition (Docket PRM 50-14). The report by the Stanford Research Institute entitled "Importance of Preparatory Measures in Disaster Evacuations" (docketed

August 25, 1976) provides well-reasoned discussion why "public participation in practice drills would produce no benefit, may tend to degrade effectiveness, and should be deemphasized."

On balance, public participation would not be useful to the public. The response to Issue 7 speaks to the extent the public should be involved through public information programs.

Supplemental Considerations

The Commission has asked for comments on emergency planning issues other than those outlined in the Advance Notice of Proposed Rulemaking. Of the several conclusions and recommendations in the House Committee on Government Operations, Report No. 96-413, most issues fall within the considerations of the Advance Notice and have been addressed, as appropriate, in the text of these Utility Group comments. There are two issues, however, that deserve supplemental comment. These relate to emergency planning at the Construction Permit stage of review, and NRC review of emergency procedures as part of the Operating License review. A statement of these issues and the responses follow:

Committee Recommendation 3(d)

With regard to state and local planning for nuclear emergencies, the NRC should require, by rule, as a condition for the issuance of a construction permit for a nuclear powerplant, the existence of both a state emergency plan for the state in which the plant is sited and, for that site and each additional nuclear plant site in that state, a local plan that comply with the NRC standards contained in the rule incorporating upgraded Commission requirements for State and local plants, particularly with regard to the adequacy of planning by local governments and the demonstrated capability for evacuation.

The requirement for completed and acceptable State and local plans at the CP stage is unwarranted and impractical. Some assurance level of review is reasonable at the CP stage,

but none of the four parties involved -- the NRC, the State, the local government, or the applicant -- will be in a position to provide the response planning capability envisioned that early in the licensing process. It is during the period of construction, between the CP and the OL, that the State and local governments can work to develop acceptable plans with the licensee and the NRC with a specific "as-built" plant to use as a frame of reference for the necessary planning.

State and local planning, at best, is a difficult task. To burden these jurisdictions with this activity before the plant is completely designed, and at least partially built will do nothing to encourage effective emergency planning. Further, such a requirement must have a basis in law. It is not evident that the Atomic Energy Act provides that basis, and it might in fact provide a basis to the contrary.

The concept of "demonstrated capability for evacuation" is dangerously oversimplified. There is no such generic thing. It is possible to demonstrate such capability in specialized instances, but not in the context of written requirements by rule, and certainly not in such early planning stage as would exist necessarily prior to the granting of a construction permit.

Committee Recommendation 7[a][IV]

With regard to the plans required of utility companies operating nuclear powerplants, the NRC should require the submission for approval during the licensing process of emergency procedures.

Emergency procedures represent the implementation details of an already-approved utility emergency plan. The judgment of adequacy of implementation is made presently by onsite review conducted by the Office of Inspection and Enforcement, as are all other plant implementation procedures. To bring this more directly into the licensing process would limit the flexibility to improve such procedures as changing circumstances might dictate. There is no corresponding benefit to be gained to balance the loss of this capability.

A more appropriate alternative to this perceived problem would be to increase the I&E inspection effort in this area. To a further point, such review is not a design or paper review, it is at least to some extent a hardware review. This also suggests that onsite assessment by I&E inspectors is the proper vehicle for accomplishing this function.

Critical Mass/PIRG Petition

The issues outlined in the Commission's Advance Notice of Proposed Rulemaking, 44 FR 41483 (July 17, 1979), very effectively cover the considerations that should be involved in any future emergency planning rulemaking. It would seem to be quite appropriate for the Commission now to consider the CM/PIRG petition, 44 FR 32486 (June 6, 1979), as comments from the petitioning groups in response to the Advance Notice of Proposed Rulemaking. To that extent, there is no need for the Commission to process further the CM/PIRG petition as a vehicle for separate rulemaking.

The CM/PIRG petition lists six specific provisions. In response to the Commission's request, the following summary comments are provided.

1. Coordinated Offsite Emergency Response Plan -- The issue, focusing only on evacuation and a vague 50 mile planning zone, is much too narrow for effective consideration. Issues 1, 2, and 8, and the comments on those issues come more clearly to the points at hand.

   The matter of incurred costs and/or financial assistance is treated in a shallow manner. The question, more sharply focused in Issue 5 of the Advance Notice,

can not be disposed of by simply stating that the licensee will be responsible for all costs. As indicated in the comments on Issue 5, resolution of this issue is not appropriate for this rulemaking activity.

2. Tests of the Plan -- As noted in response to Issue 14, evacuation drills should not be a part, and do not need to be a part, of emergency plan testing. The testing scheme outlined in response to Issue 6 provides a more balanced consideration of the problem.

   The proposal for drills at the construction permit stage is without merit. At that time, the licensee facilities for such testing are not available, and can not be until the facility has been constructed. These facilities will be an integral part of the Federal/State/local/licensee network for emergency response capability. Meaningful testing at the CP stage is not possible, and no requirement for such testing has been identified.

   Specification of the areas over which a response plan should be tested will be different for each facility, and should be subject to consideration of the NRC/State/local/licensee planning group on a case-by-case basis. Useful guidance in that regard is provided in NUREG-0396. (See response to Issues 8 of the Advance Notice.)

3. Offsite Radiological Monitoring -- As indicated in response to Issue 13, a detailed consideration of any upgraded requirements for offsite monitoring should take into account the findings and recommendations of the Interagency Task Force on Offsite Instrumentation to Follow the Course of an Accident. Arbitrary criteria, as set down in this provision of the CM/PIRG petition may not be meaningful.
4. Public Notice and Hearings -- Information to the public is covered in response to Issue 7 of the Advance Notice. The responsibility for this activity is shared among the State government, the local government, and the licensee. It would not be appropriate for the licensees to presume to do this unilaterally. Therefore, the elaborate information program envisaged by the CM/PIRG petition would be inappropriate, and as a practical matter, not too productive.

   The matter of a separate public hearing on emergency response planning is an unnecessary step. Emergency planning can be and is an issue for consideration in NRC public hearings at the CP and OL stages of review

of a license application, and can be considered, as appropriate, at those times. If, on the other hand, the CM/PIRG petition is suggesting periodic public meetings, involving representatives of the NRC, the State, the local government, and the licensee to discuss emergency planning at a particular site, that would be appropriate.

5. Consideration of Emergency Protection in Licensing and Siting -- Although emergency response planning capability is somewhat site-related, it does not follow that consideration of this matter should be a part of the siting criteria. Site suitability, and for that matter, site safety can be determined by the NRC without the necessity to review and improve a completed emergency plan. Further, as noted in the above comments to Provision 2 of the CM/PIRG petition, such detailed consideration of emergency planning is neither necessary nor appropriate at the construction permit stage of review.

6. Emergency Response Plans for Existing Reactors and Interim NRC Safety Action -- All operating plants have emergency plans that have been approved by the NRC. The issue, as noted in the Advance Notice, really relates to composite planning involving especially the

State and local governments. Responses to most of the issues specified in the Advance Notice speak to this point. The licensing question raised by the CM/PIRG petition, if it has any merit at all, does not appear to really focus on something that can be remedied by enhanced emergency response capability.

In summary, the general matters raised by the CM/PIRG petition are being considered effectively by the Commission's Advance Notice of Proposed Rulemaking. There is no need for additional consideration of the CM/PIRG petition, except as comments in response to the Advance Notice.

Drinkwater Road
Hampton Falls, N. H.
03844

August 27, 1979

Secretary, Nuclear Regulatory Commission
Washington, D.C. - 20555

Attention: Docketing and Service Branch

Sir:

It has been, and still is, my contention that should a serious accident at a nuclear power plant become a reality, it would be impossible to evacuate those people residing in the area surrounding the plant "in a timely" fashion.

This is particularly true of the proposed Seabrook nuclear plant. I enclose copy of an excerpt from House Report No. 96-413 entitled "Emergency Planning Around U.S. Nuclear Powerplants: Nuclear Regulatory Commission Oversight". This report calls attention to the fact that the NRC ignored its own criteria for the placement of the plant in a populated area. This, in the opinion of those who live in the area, is gross and complete misuse of the powers given to the NRC by the elected officials and representatives charged with the representation and protection of these same people!

As a resident of Hampton Falls, residing two miles from this proposed plant, I have been classified as "expendable", as have my constituents in Hampton Falls and Hampton. We protest being robbed of our basic human rights as American citizens and demand a halt to the proposed Seabrook Nuclear Plant.

Sincerely yours,

cc: President Carter
Governor Gallen; Council
All Federal Reps. N.H.
Chairman Hendrie, NRC
Z. Foley, N.H. Civil Def.
Douglas Castle, EPA

Roberta C. Pevear, Rep.
Rockingham District #12
Civil Def. Dir., Hampton
Falls, N. H.

LEAGUE OF WOMEN VOTERS
OF SAN LUIS OBISPO, CALIFORNIA

August 27, 1979

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Docketing and Service Branch

Dear Sir:

A committee of the League of Women Voters of San Luis Obispo has been reviewing emergency evacuation planning for the Diablo Canyon Nuclear Power Plant in San Luis Obispo County. Based on information gathered during this review and on League positions, we have the following comments on the topics published in the Federal Register, on July 17, 1979, concerning additional regulations to be adopted by your agency for emergency plans.

Thank you for this opportunity to comment.

Sincerely yours,

Louise Radcliffe, President
LWV of San Luis Obispo
2570 Bay Vista Lane
Los Osos, CA 93402

LEAGUE OF WOMEN VOTERS

OF SAN LUIS OBISPO, CALIFORNIA

August 27, 1979

RESPONSE TO TOPICS PUBLISHED IN THE FEDERAL REGISTER, JULY 17, 1979, CONCERNING NRC REGULATIONS TO BE ADOPTED FOR NUCLEAR EMERGENCY PLANS.

1. What should be the basic objectives of emergency planning ? Reduce public radiation exposure ? Prevent public radiation exposure ? Capability to evacuate the public ? To what extent should these objectives by quantified ?

The League of Women Voters advocates that all energy facilities, including nuclear plants, be operated in a manner that protects the public's health and safety. Based on this position, the League urges that nuclear emergency planning emphasize the prevention of public radiation exposure. Should the public be exposed, such exposure should be as minimal as possible.

Thus, emergency planning should provide for evacuating the public since evacuation may be the only way to protect the public during a serious nuclear event. Evacuation plans should be prepared based on several realistic scenarios.

2. What constitutes an effective emergency response plan for state and local agencies and for NRC licenses ? What are the essential elements that must be included in an effective plan ? Do existing NRC requirements and guidance lack any of these essential elements ?

An effective emergency plan should be proven capable of evacuating the public and should be demonstrated to be "operational".
The San Luis Obispo County Administrative Office has stated that "It must be recognized that these documents (the county emergency plans) in themselves do not represent a comprehensive emergency response system".(1) The statement lists necessary implementation procedures as follows:

a) Coordination of emergency procedures with other governmental levels and agencies,

b) Training of personnel,

c) Instruction and education of the public,

d) The availability of special equipment, and

e) Conducting effective exercises to test the plans.

We feel these are reasonable requirements.

Footnote(1). Ltr., May 1979, County Admin., San Luis Obispo to the Cal. State Energy Commission.

In addition, emergency planning should give special consideration to the following elements:

a) Emergency operations centers should meet NRC safety guidelines and be included in plans;

b) Local decontamination facilities for the general public and emergency personnel should be provided. Protective clothing for emergency rescue workers (firemen, policemen, etc.) should be readily available;

c) (1) Reassessment of the concept of the Low Population Zone (LPZ) in evacuation and monitoring programs is needed. Several recent reports have suggested that the existing 3 to 6 mile area should be increased upwards to 50 miles for evacuation planning in a serious event (core melt).(2)

(2) Special attention should be given to possible future growth and siting of hazardous facilities in the Low Population Zone since development controls lie with local and state agencies, not with the NRC. Currently, extensive residential, commercial and recreational plans have been proposed in the Avila and Pismo Beach areas within 8 miles of the Diablo Canyon Nuclear plant site.

d) Evacuation and protection of large seasonal populations, such as those at Avila Beach near Diablo Canyon, should be included;

e) Fully operational communication systems which do not depend on public telephones should be established;

f) There should be training for all local agency personnel who will be used in an emergency. These people may be the only officials available during the initial hours of an emergency, particularly in relatively isolated areas, such as San Luis Obispo.

g) A radiation monitoring system independent of the licensee should be established to gather background data and monitor radiation releases.

Furthermore, creative thought must be given to public participation in drills. Actual evacuations of public may be unnecessary and counter-productive. On the other hand, limited run-throughs by government officials may be so far from reality as to be misleading in a real situation.

Drills should be performed that simulate reality as closely as possible. For instance:

a) School buses could be sent from the schools to evacuation centers, testing equipment, capacities, travel times, etc., without actually moving students;

Footnote (2) "Radioactive Materials in California", Report of the Secretary for Resources, State Task Force on Nuclear Emergency and Radioactive Materials, April, 1979.

b) Hospital personnel could perform realistic exercises moving gurneys to exits, etc., without moving patients. Other institutions such as nursing homes and jails could work out similarly realistic drills;

c) Residential populations could be informed of the test drill and given instructions on actions to take in a real emergency;

d) Rural populations must be included.

At least one successful exercise should be conducted and should precede licensing of any nuclear power plant.

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant ? If so, when should this general requirement become effective ?

Based on our League's position that the protection of the public's health and safety is paramount in operating energy facilities and that efficient government requires clear assignment of responsibility and coordination among different agencies of government, we support prior NRC concurrence in response plans as a requirement for issuance of a new license.

Such NRC concurrence would help to provide coordination of all public action at all levels, and to recognize that NRC guidelines are in fact often used as standards in emergency planning by other public agencies. For instance, during the investigation of emergency planning for the Diablo Canyon plant by the committee of the League of Voters, we were told by local officials that the state is responsible for population decontamination facilities. However, French Hospital, the only decontamination center in San Luis Obispo, has facilities for only six patients, and a contract to care for Diablo Canyon employees as required by NRC guidelines. We are left with the impression that many agencies feel that their responsibilities in terms of public decontamination have been met because the NRC requirement has been met, although there are no decontamination facilities for the general public.

Further, we are concerned about the need for sophisticated technical knowledge about nuclear facilities and radiation exposure which may not be affordable by lower levels of government during the planning process but which is available to the NRC.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness ? If so, to what extent and by what means ? What should be the source of the funds ?

The League of Women Voters of San Luis Obispo believes that efficient government requires adequate financing and coordination among the different agencies and levels of government. Since the benefits of nuclear power plants will be felt primarily outside the local area, the costs should not fall solely on local governments. Funds must be sought from every available source.

3-83

6. Should radiological emergency response drills be a requirement ? If so, under whose authority: Federal, State or local government ? To what extent should Federal, State and local governments and licensees be required to participate ?

The League of Women Voters of San Luis Obispo supports realistic evacuation exercises involving the network of emergency services and testing all necessary equipment for proper functioning (i.e.: buses, radios, etc.)

Our League has no position concerning who should have ultimate authority for holding such a drill. In an actual event, all levels of government would respond, therefore they should all be involved in the drill. Also, Federal and State agencies and the licensee should assist the local governments by providing expert guidance during and after the exercises.

Based on our local investigation of Diablo Canyon emergency planning, we recommend that an emergency response drill should:

a) Involve the public as much as possible and be subject to public review and input;

b) The exercises should be conducted periodically and be based on different scenarios using varying time of day, weather conditions and type of accident;

c) Give special attention to a simultaneous earthquake and nuclear emergency;

d) Cover the full range of possible number of people hurt and contaminated;

e) Include a final report on evacuation/emergency exercises, which should be subject to public review and comment at an open hearing.

7. How and to what extent should the public be informed prior to any emergency concerning emergency actions it might be called upon to take ?

The public must be informed of measures to prevent or cope with emergencies, and plans and procedures should be subject to citizen review and comment. The public needs to be given full information concerning its responsibilities in such an emergency. The public should be involved as actively as possible in all evacuation planning, drills, and plan evaluations.

The public also needs to be educated and instructed about personal and public health measures, such as "do you drink the water?". Perhaps such information could be included with property tax statements, city notices, newsletters, utility bills, etc.

9. Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies ?

We recognize that timely notification is essential as well as the fact that there may well be technical and political differences of opinion as to the meaning of "timely". From the experience of Three Mile Island and the resulting confusion between levels of government, it appears that specific levels of command must be established as well as specific criteria defining degrees of emergency and corresponding population protection procedures. Without such procedures an unnecessary burden may be placed on "lay" decision-makers.

Consideration should be given to mechanical means of notification as an adjunct system. Consideration should also be given to a hot line in addition to radio control between the licensee and the responsible public agencies in case the public telephone system is over-loaded or damaged in a serious event.

12. Should the licensee be required to provide radiological emergency response training for State and local government personnel ? If so, to what extent ? Should the Federal government provide such training ? If so, to what extent ?

See Question 2, part f in answer on page 2.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose ? If so, what should be the extent of the public participation ?

See Question 2 for response.

Respectfully submitted,

Louise Radcliffe, President
League of Women Voters of
San Luis Obispo
2570 Bay Vista Lane
Los Osos, CA 93402

Southern States Energy Board

(44)

DOCKET NUMBER
PROPOSED RULE PR - 50 (44 FR 41483)

Members:

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Arkansas
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August 27, 1979

DOCKETED USNRC
AUG 30 1973
Office of the Secretary
Docketing & Service
Branch

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Secretary,

Re: Advance Notice of Proposed Rulemaking on:
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities

On August 23 and 24, 1979, the Southern States Energy Board met in Nashville, Tennessee, to discuss energy issues of concern to member states. The Board considered the Advanced Notice of Proposed Rulemaking (F.R. 41463, July 17, 1979) regarding state and local emergency planning. As a result of the discussion, I am forwarding the comments of the Board. The following statement was passed unanimously by the Board at their August 23-24 meeting. We request that our comments be given due consideration in the rulemaking process. As you know, the Southern States Energy Board is composed of Governors' energy policy advisors from 17 states.

The Southern Governors have the following three major concerns over NRC's proposed rulemaking regarding the adequacy and acceptance of emergency planning around nuclear facilities.

First, there must be 100% federal funding of the state and local planning and implementation efforts. The funding should be at a sufficient level to provide full-time professional personnel and the necessary equipment to meet program needs.

Second, there should be state and local control of any and all response actions to emergencies around nuclear facilities with the NRC providing guidance and technical support.

Third, in the event that a contiguous state fails to adopt an adequate plan, the Nuclear Regulatory Commission will draft an interim plan. Failure of a contiguous state to adopt an approved plan should not jeopardize the continued operation of a nuclear power plant.

Acknowledged by card. dlh 9/4

One Exchange Place ■ 2300 Peachford Road ■ Suite 1230 ■ Atlanta, Georgia 30338 ■ (404) 455-8841

The Southern States Energy Board appreciated the opportunity to comment on the Nuclear Regulatory Commission's advance notice of rulemaking. We consider this rulemaking timely and important and look forward to the opportunity to provide additional comments on a proposed rule.

Very truly yours,

Lamar E Priester/tcs

Lamar E. Priester, Ph.D.
Chairman of the Board

LEP:dw
cc: Ms. Patricia A. Comella,
NRC

3-85

Washington Public Power Supply System
A JOINT OPERATING AGENCY

P. O. Box 968 3000 Geo. Washington Way Richland, Washington 99352 Phone (509) 372-5000

August 24, 1979

(45)

DOCKET NUMBER
PROPOSED RULE PR - 50 (44 FR 41483)

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington D. C. 20555

Dear Sir:

Subject: ADEQUACY AND ACCEPTANCE OF EMERGENCY PLANNING AROUND NUCLEAR FACILITIES

The attached comments are submitted in response to the advanced notice of proposed rule making concerning the adequacy and acceptance of emergency planning around nuclear facilities in the Federal Register, Volume 44, No. 138, Tuesday, July 17, 1979.

Very truly yours,

DL Renberger

D. L. RENBERGER
Assistant Director, Technology

mg
Attachment

dlh 9/4

SPECIFIC COMMENTS ON ISSUES IN 44 FR 41483 and 41484

1. What should be the basic objectives of emergency planning?

The basic objective of emergency planning is to protect the health and safety of the public. This includes bringing under control the events which led to the accident, minimizing the overall effects, taking appropriate measures to prevent damage to property, as well as, protecting the health and safety of the workers and the public.

To what extent should these objectives be quantified?

The EPA Protective Action Guides (EPA-520/1-75-001) should be used as the basis for decision making. These guides, though not yet complete, provide reasonable criteria for initiating protective action for both the public and the emergency worker. Additionally, HEW proposals on contaminated food crops which provides protection levels for radioactive contamination of foods for animal or human consumption should be adopted to further complete the necessary guidance.

2. What constitutes an effective emergency response plan for state and local agencies?

An effective emergency response plan for state and local agencies should address the objectives listed in NUREG 75/111. However, much of the guidance given in this document results in an emergency plan which is politically oriented and difficult to implement due to the limited manpower and resources of state and local agencies. The state plan should be written by qualified persons knowledgeable in radiation safety and emergency planning, and developed as a workable response plan based upon the capabilities of the state and local agencies. If their capability is not sufficient, the licensee should develop the additional needed capability.

For licensees?

The requirements of 10CFR50 Appendix E and Regulatory Guide 1.101 provide an effective basis for the emergency planning. Improvements to Regulatory Guide 1.101 could include guidelines for adequate communications between the plant, NRC, and press, more emphasis on headquarter plans, and evacuation and sheltering criteria.

What are the essential elements that must be included in an effective plan?

An effective plan will encompass the following:

1. Detection of the emergency
2. Activation of the responding organization
3. Assessment of the situation
4. Initiation of protective actions
5. Assistance to affected persons
6. Initiation of corrective actions
7. Recovery actions

Do existing NRC requirements for licensees and guidance for states lack any of these essential elements?

Existing requirements are weak in the area of interrelationships between federal, state and local agencies. The weakest link at the present time is lack of an emergency plan at the federal level, namely NRC. The state, local and licensee's emergency plans should include the actions to be taken by the NRC and other federal organizations, i.e, EPA, IRAP and HEW which will arrive to assist, and how they fit into the overall emergency response. Additionally, procedures for handling press releases and public relations should be addressed in the present requirements.

3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license?

No. The federal government cannot provide assurance the state and local governments will develop and maintain emergency plans for nuclear power plants. State or local governments who decide it is politically advantageous to close down nuclear plants or not have them in their state, have the power to do so by not developing or maintaining an emergency plan.

If a state or local government is not interested in developing or maintaining emergency plans, then NRC should require the licensee to make provisions for handling the emergency without the commitment or leadership from these agencies.

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should their general requirement become effective?

Requiring concurrence of state and local emergency plans prior to issuance of an operating license will add a substantial roadblock to the licensing process. The plant and the federal government have no authority to require a state or local government to develop a plan much less one which meets the concurrence requirements. This issue focuses on the constitutional rights between states and the federal government and could be a major roadblock in developing new generating facilities.

The issue of requiring concurrence is presently being considered by Congress. Any decision by the Commission would be premature until Congress acts.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness?

Financial assistance should be provided to state and local governments for radiological emergency response planning and preparedness. The difficulty comes in how this can best be accomplished. At this time, utilities, whether private and public, are not in a position to make payments directly to those responsible for emergency planning within local and state governments. A utility's only method of providing financial assistance is through taxes, and there is no means by which a utility can earmark a portion of these taxes to be used for emergency planning. This is a decision of the local and state government. The other method that is available for providing financial assistance for state and local governments is through federal grants. In this manner financial assistance can be earmarked for needs in radiological emergency planning. This appears to be the only practical solution in providing financial assistance to state and local governments in emergency response planning.

6. Should radiological emergency response drills be a requirement?

Radiological emergency response drills are already a requirement as specified in 10CFR50 Appendix E, part IV-I.

If so, under whose authority?

Plant drills should be under the authority of the licensee. Drills beyond the exclusion area boundary should be under the authority of the local government with the cooperation of the plant and other agencies.

To what extent should federal, state, and local governments, and licensees be required to participate?

Obviously, a full scale major participation by all agencies annually is unreasonable due to the time and expense involved. A major full scale drill should be conducted periodically, such as once every five years, with the frequency decided on by those involved and incorporated into the state or local plan. Less extensive annual plant drills involving a site or general emergency and at least a communication check with outside agencies should be a minimum requirement, with more extensive participation based upon the agencies confidence in its ability to respond to a real emergency.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it may be called upon to take?

The public should be instructed on emergency actions when it becomes necessary that they act. When evacuation or sheltering becomes necessary, instructions should be provided at that time. Past experiences with evacuations for industrial accidents, forest fires, and other disasters have shown that advanced notification is not necessary (EPA-520/6-74-002). The general public is responsible enough to follow instructions when given as demonstrated every year in actual evacuations throughout the U. S.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA task force report?

There are two outstanding actions concerning emergency planning that must be completed by the NRC/EPA before it is reasonable to respond to the NRC/EPA Task Force Report NUREG-0396/EPA 520/1-78-016. First, the EPA issued the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents in 1975. This document was issued in incomplete form at the time, and Chapters 3 and 4 have never been completed by the EPA. The document lacks the necessary guidance for protective actions for the important ingestion exposure pathway (food pathway). This information or guidance is necessary if governmental agencies are to respond to the recommendations of NUREG-0396.

Second, the NRC in December of 1978 requested comments from the public concerning NUREG-0396/EPA 520/1-78-016 prior to final Commission action. These comments have now been in the possession of the NRC for five months. It would seem appropriate and necessary that these comments be reviewed and, where appropriate, incorporated into the draft NUREG-0396. Once the two items described above have been completed, then the NRC should respond to the recommendations of the final version of NUREG-0396.

9. Under what circumstances and using what criteria should a licensee notify state, local, and federal agencies?

For proper response to this question, the terms "emergency" and "incident" need to be defined. An emergency is a situation requiring activation of part or all the plant's emergency organization. The emergency would be declared as such according to the criteria of Regulatory Guide 1.101 (i.e., Personnel, Alert, Plant, Site or General). An incident would be any other unusual event causing damage or exposure to radiation to the extent specified in 10CFR20.403.

The criteria for informing the state and local authorities should be defined in the state and local response plans. Basically, this should include immediate response for potential site and general emergencies and delayed response, i.e., 24-hour notification, for other emergencies.

Criteria for informing federal agencies should be the same as for state and local agencies with the additional notification requirements for incidents as specified in 10CFR20.403.

10. How and to what extent should the concerns of state and local governments be incorporated into federal radiological emergency response planning?

Federal planning should concern the federal response to an emergency and the federal interaction with state, local, and utility organizations. The concerns of state and local governments should be incorporated into the federal plan if appropriate and to the extent necessary to provide a workable plan that supports the plant, state, and local plans.

11. How should federal agencies interface with state and local governments and the licensee during emergencies?

Each area of responsibility should be well defined within the respective emergency plans with consideration given to the legal authority of the various organizations. The Federal government should coordinate federal efforts such as IRAP, EPA, NRC technical support, and other consulting organizations in support of the plant and under the direction of the state and local government. During the emergency, these federal agencies should report to and take instructions from the NRC which would act as the lead federal agency. Likewise, state and local governments will have response teams. The coordination of all the teams should be through the guidance of the licensee.

12. Should the licensee be required to provide radiological emergency response training for state and local government personnel? If so, to what extent?

Training should be provided to offsite agencies to the extent necessary to provide effective support to the plant during an emergency. This training should cover the plant's emergency plans and include a familiarization of the plant layout, the emergency organization, emergency procedures, and the role of outside agencies.

Should the federal government provide such training? If so, to what extent?

The federal government's present training course in Nevada provides a very effective learning experience for outside agency personnel. This course, however, should also be made available to selected utility personnel. An extension of training beyond this level does not appear to be warranted. However, expanding this course to include more emphasis toward reactor accidents may be appropriate.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequence of an accident with regard to initiation of protective action?

The licensee maintains the ability and expertise to provide assessment of the consequences of the accident. Through in-plant monitoring systems, an initial assessment of the release can quickly be made and protective actions recommended. Ongoing assessment of the plant's status and reassessment of protective actions are only possible by the licensee. Reliance must be placed on the licensee for assessing the accident with regard to initiating protective actions. The responsibility for providing recommendations to offsite agencies based on these assessments is a key factor in emergency planning.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of public participation?

Public evacuation during a drill should not be conducted. Conducting this level of emergency preparedness is not warranted based upon the safety record of nuclear power plants, in comparison with other industries. Accidents and disasters in the past which involved evacuation have shown that public response to evacuation instructions given at the time of implementation have been adequate. Participation by the public in evacuation drills would have to be voluntary and could not be forced upon locals which refused to participate. The benefit of these evacuation drills is questionable.

Summary

The questions asked in this Notice to Proposed Rulemaking are very pertinent to the concerns expressed since the TMI accident. However, one must be careful to avoid actions which could carry emergency planning from practical solutions to political solutions. Necessary improvements to emergency plans should be made, but consideration must also be given to future attitudes toward the decisions made now. If annual evacuation by the public was required around nuclear power plants, what will be the attitude of these residents after 10 or 20 years of preparing for an event which has little likelihood of occurring. At present, over 90% of the necessary emergency planning requirements are addressed in 10CFR50 Appendix E and Regulatory Guide 1.101. These documents may need updating to include more emphasis on headquarter plans, public information releases, evacuation and sheltering, and plant emergency organizations and their interface with outside agencies. An important part to successful emergency planning is that all responsible organizations must have a good working relationship. Through cooperation, workable emergency plans can be developed which are flexible enough to include the unique characteristcs of each facility and its surrounding area, yet protect the health and safety of the public.

Hartsville Project Coordination Committee, Inc.

P. O. BOX 288
HARTSVILLE, TENNESSEE 37074

PHONE 374-3487
374-3118

August 29, 1979

(46)
DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41483)

Mr. Samuel J. Chilk, Secretary
NUCLEAR REGULATORY COMMISSION
1717 "H" Street - N.W.
Washington, D. C. 20555

Dear Mr. Chilk:

This Committee is comprised of the County Executives and Mayors in five Tennessee Counties. It was organized in an effort to help minimize adverse impacts resulting from TVA's construction of the Hartsville Nuclear Plants, the world's largest such facility.

It is our understanding that the Nuclear Regulatory Commission is seeking written comments about what should be included in the rules concerning increased emergency readiness by the licensee and State and Local Governments.

It is our suggestion that:

A. Local governments be throughly involved in the emergency response planning process.

B. The licensee should be required to pay for emergency response planning and provide the necessary on-going operational costs to assure adequate and continuous response.

C. For this five-county area, the cost of an initial plan would be about $100,000.00. An annual review and up-date of the plan should be required.

D. The emergency response plans should be realistic and capable of implementation, not merely a paper document to fulfill the licensing requirement.

It should be emphesized that the Tennessee Valley Authority (TVA) is a Federal Agency which raises the question of federal pre-emption of State and local regulations.

Thank you for this opportunity to comment.

Sincerely,

HARTSVILLE PROJECT COORDINATION COMMITTEE

Frank McKee
Executive Director

FDMc/rac

d1n 9/14

3-89

(47)
DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41483)

Marvin I. Lewis
6504 Bradford Terrace
Phila, PA 19149
8-22-79.

Secretary of the Commission
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Subject : Requested Comments on EMERGENCY PLANS.

According to an Office of Public Affairs Release dated July 20 ,1979, and a FR notice dated July 17, the public has an invitation from the NRC to comment on Emergency Planning. This comment period ends 45 days from the FR notice according to the Press Release. I have already sent in a list of people who said that they were interested in commenting . I have reason to beleive that of this date the people on this list were not yet supplied the notification of invitation for comments. (My letter of 7-23-79 to NRC.)

I think that this lack of alacrity in supplying needed notification to the interested public demonstrates the NRC's attitude toward involving the public. Commissioner Hendrie statements on tape concerning First Amendment rights also demonstrates and leads the Staff toward minimizing the role of the public in emergency plans and all matters nuclear.

When I first received the news release on emergency plan comments wanted, I sent of a letter. (7-23-79.) I protested the short comment period. A sure way to eliminate public comments is a short comment period.

I then reviewed my comments in the past on Regulatory Guides and other subjects which related to emergency plans. As far back as July 1977 in a Part 21 Workshop in King of Prussia , I asked whether an utility could be prosecuted under Part 21 for an Emergency Plan which did not meet the criteria of protecting the health and safety of the public.

I did not get an answer then and I still have not gotten an answer.

On August 20, 1979, I attended a meeting in King of Prussia. This was an NRC Staff meeting with Nuclear Plant Licensees on Emergency Plans.

I got up and asked the Staff,"How do you think the public likesthe idea that at 4 AM in the morning that there health and safety in a nuclear power plant control room is in the hands of a high school graduate or equivalent?"

I was answered ,"Well, we are working on it."

I do not believe that this is an adequate answer.

Then Bob Seares of the NRC got up and threw a real fear into me. He stated that at 3 AM in the morning,if anemergency arose, the plant operator would telephone the management.

Well , considering the errors and omissions of the Metropolitan Management, the very last thing that I want an operator to do is call the management.

Several Utility people raised questions about the funding of emergency plans. These questions were neatly sidestepped by the Staff. Finally, one staffer admitted that the utilities may be asked to pay for funding the emergency plans.

I want it iron bound that the utilities must pay for emergency plans. I have NUREG 0553 , 3/30/79, which pretty much shows that solid funding is necessary for adequate emergency planning. Without iron bound assurances, there cannot be adequate planning.

Finally , local planning is the backbone of Civil Defense. Again and again, wars anddisasters have shown tht without complete local participation , emergency planning is a farce.

With strong local plans and participation, lives are saved.

Only when the NRC stops treating the public like a necessary nuisance can emergency planning hope to become effective.

Only when the NRC starts treating the public as a full partner in all decision making can emergency planning become effective.

M.I. Lewis
6504 Bradford Terrace
Philadelphia, PA 19115

dlh 9/4/79

3-90

DOCKET NUMBER (48)
PROPOSED RULE PR-50 (44FR41483)

August 25, 1979
Wiscasset, Maine 04578

Dear Secretary Chilk,

My response to the document released and recorded by the NRC entitled Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities is that of a concerned citizen. As such I am frightened and dismayed by the activities of a newly formed committee in our town whose purpose is to up-date our Evacuation Plan. The following are reasons for my distress:

The Chairman is a Maine Yankee Employee, and I believe there is a conflict of interest

There have been efforts to close the meetings to the public

The Committee keeps no minutes to my knowledge

The general attitude is one of negligence in that a number of questions and concerns have been be-littled, suggestions have been ridiculed, and it seems that the Chairman is going through the minimum motions in an effort to appease the public

Because of the nature of these meetings, I strongly hope for and support NRC approval of evacuation plans as a prerequisite and condition of the operation of nuclear plants.

In addressing the issues you have set forth:
1. I believe the basic objectives of emergency planning should reduce public radiation exposure and should be able to evacuate the public. ie. lesser emergencies should be made public immediately so that we can choose to stay indoors on that particular day or carry our lead umbrellas.

2. A plan which takes into consideration the factors involved:
the amount of radiation released or the potential hazzard
the natural forces - wind and weather
the time - day or night
the panic element
I think our plan lacks all of these factors together with any serious consideration of the possibility of a failure or accident.

3. Yes, immediately. The possible added cost would be a small insurance policy for the time being.

4. Yes, immediately.

dlh 9/4

5. Yes, if possible - Government tax monies presently allotted to nuclear energy research

6. Drills should be a requirement with Town or local authority and all three bodies, Town, State and Federal, observing and participating

7. Town Meeting and media (Town paper, Coastal and Times Record as well as radio stations)

8. Their recommendations should be implemented.

9. A licencee should notify State, Federal and local agencies of any incident in which radiation releases exceed the accepted number of milrems. Notification should be immediate. The public might even be supplied with mechanisms in the home to measure the radiation level at any given time - just as we have thermometers. But lacking these, radio and new media might be used. In an emergency, local authorities - Town official, including Fire Chief, in charge of sounding sirens around Town, should be notified first.

10. This is hard for me to answer, but in our own case, lacking any very serious responsibility in this Town because of the huge tax base supplied by Maine Yankee, I would like to see heavy Federal direction.

11. There should certainly be an effort at coordination - brought about, perhaps by a member of the NRC attending some of the meetings of the Committee which is up-dating our plan.

12. Perhaps both the licencee and the Federal Government ought to provide training - since the more informed we can become, the less chance of panic in the terrible event of an accident.

13. No reliance should be placed on the licensee. An NRC authorized person or team should be part and parcel of licenses and operation of plants - independent of the licensee.

14. Yes, definitely. Just as schools have fire drills, we ought to have periodic drills with participation by the public on a volunteer basis perhaps at first.

Sincerely,

Katharine V. Thompson

NORTHEAST UTILITIES

P.O. BOX 270
HARTFORD, CONNECTICUT 06101
(203) 666-6911

(49)

DOCKETED
PROPOSED RULE PR-50 (44 FR 41463) CC-79-C-412

August 24, 1979

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

Re: Comments on Federal Register, Advanced Notice on Proposed Rulemaking: Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities, (10 CFR 50), July 17, 1979

Northeast Utilities Service Company (NUSCO) is pleased to be given the opportunity to submit comments on this notice of proposed rulemaking. NUSCO is responsible for the corporate management and operation of two nuclear power stations in the State of Connecticut (comprising three operating units and one under construction). We have been involved in all levels of emergency planning for a number of years and have assisted the local communities and the state agencies in developing their emergency plans to respond to nuclear power plant accidents. The Federal CADRE (including NRC) concurrence in the State plan was obtained. Since then valuable experience has been gained through implementation, training and drills.

NUSCO is interested and fully supportive of the preparation and continued maintenance of adequate and effective emergency plans by local communities, state and federal agencies to protect the public from nuclear power plant accidents. It is for this reason the following comments are being submitted for your consideration.

After reviewing the fourteen issues for public comment it was determined that they could be grouped into three major classes as follows:

A. Issues 1, 2, 3, 4, 5, 10 - State/Local/Licensee Plans; Objectives, scope, content, finances.

B. Issues 8, 9 - Planning Bases, Action Levels (NUREG-0396).

C. Issues 6, 7, 11, 12, 13, 14 - Drills, Training and Interfaces.

We have provided detailed comments to each issue separately, but grouped together as indicated above to provide a cohesive set of comments.

Group A - State/Local/Licensee Plans: Objectives, Scope, Content, Finances

Issue #1

What should be the basic objectives of emergency planning?

dlh 9/4

a. To reduce public radiation exposure?

b. To prevent public radiation exposure?

c. To be able to evacuate the public?

To what extent should these objectives be quantified?

Comment

The basic objective of emergency planning should be the minimization of public exposure to radiation taking whatever protective actions (including evacuation) that might be most effective under the prevailing circumstances. The risk to public health and safety of the radiation exposure and the risk from the protective action should be compared, e.g., the risks of evacuation should be weighed against the risks of projected radiation exposure. In this respect, the EPA's and FDA's Protective Action Guides are reasonable criteria to be used as quantitative guidance for taking various protective actions such as access control, take shelter, evacuation, food, water and milk control; all of which by themselves can have a social, economic and public health and safety impact. Thus these actions should be taken only when their impacts are outweighed by the radiation exposure impact.

Issue #2

What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Comment

An effective emergency plan should be developed jointly by state and local officials and the licensee. It should be broad enough in scope to account for all reasonably credible accident scenarios and flexible enough to cope with a variety of environmental conditions which may be present at the time of the event. It should be detailed enough to answer the four questions who, what, when and how, as they are applied to each level of planning. This is necessary to make the plan more easily implementable with a minimum of confusion.

The existing NRC guidance (NUREG-75/111) to the state and local communities is sufficiently detailed. Adequate and effective plans can be developed if the checklist items are fulfilled. Individual state and local communities can develop more detailed plans as desired to fit their needs. The more detail in the plan, the more easily implementable it becomes. This also facilitates its use as a training document.

The licensee's plans prepared in accordance with 10 CFR 50, Appendix E and Regulatory Guide 1.101 should interface with the state and local community's plans. The guidance in Regulatory Guide 1.101 is reasonably

detailed. The classification scheme of Emergency Conditions (Section 4) does present an interface problem with the EPA and FDA's protective action guides (which should be adopted by all state plans). This classification scheme should be revised to make it more concise and to resolve the indicated interface problem. Any further detail in Regulatory Guide 1.101 is unnecessary and could impact the flexibility of interface between the licensee and the state's criteria for planning and notification.

As a minimum, the criteria for protective action levels should be made uniform. The quantitative guidance of the EPA and the FDA on protective actions should be incorporated in the planning guidance documents. All state plans should follow these quantitative guides.

Issue #3

Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

and Issue #4

Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Comment

The preparation and continued maintenance of an effective emergency plan is the responsibility of the federal, state and local officials. The licensee has no authority in this matter. If federal, local or state officials choose to delay or ignore this responsibility because of financial, technical, political or other reasons, continued operation of nuclear power plants would be unfairly jeopardized. Significant financial loss will occur to the utility and a vital, domestic source of reliable and economic electric power will be denied to the public. For these reasons it is recommended that continued operation or startup of nuclear power plants should not be contingent upon the preparation of emergency plans.

However, it is felt that other means (regulatory, financial, etc.) be sought to encourage federal, state and local officials to fulfill their responsibilities and to ensure that emergency plans be developed and maintained. Financial and technical assistance should be provided to the state and local governments for the preparation and continued maintenance of emergency plans. The situation should be viewed as being no different than the presence of large dams and other man-made or natural phenomena that present a hazard to a large segment of the public.

Based on our experience in Connecticut it takes at least one year to write a plan and another year to implement it through procedure writing and training. Thus a reasonable period of two years would be sufficient for states without present NRC concurrence. For state plans with NRC

concurrence, but not with planning out to the proposed distances 10 and 50 miles, the priority should be much lower as the basic organization and mechanism exist. In cases where the 10 miles encompasses large population centers, two years may not be a reasonable time. (See comment on Issue #8.)

There is a definite need for a third party concurrence in the adequacy of the planning efforts. However NUSCO has difficulty in singling out the NRC as having the necessary overall expertise in emergency planning. In actuality the NRC's expertise is mostly with regard to characterizing nuclear accidents and identifying the necessary resources to monitor releases. There are several other federal agencies with expertise in the various aspects of emergency and disaster planning including DOE, EPA, FDA, DCPA (DOD), FDAA (HUD), FPA (GSA); which are presently members of the federal cadre that review the state's emergency plans. The NRC has been the lead agency in coordinating the concurrence in the state's plans. This role should be more appropriately assumed by the new federal agency, Federal Emergency Management Agency (FEMA) which would consolidate the old DCPA, FDAA and FPA. Thus FEMA because of its overall responsibility and resources in disaster and emergency planning would be the most prudent choice for the agency to determine the adequacy of planning and the exercise of regulatory authority as necessary. This would also put nuclear power plant accidents in proper perspective with other natural and man-made events that require emergency or disaster planning.

Issue #5

Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Comments

Financial assistance to state and local communities is essential if adequate planning is to be done and maintained for a number of years. The extent of financial aid should be determined on a case by case basis. No simple formula exists as community organization and resources are vastly different. The recent NRC draft report, NUREG-0553, Beyond Defense-in-Depth: Cost and Funding of State and Local Government Radiological Emergency Response Plans and Preparedness in Support of Commercial Nuclear Power Stations, was a first attempt at determining cost. NUSCO recommends that a more detailed study is necessary as the estimated costs in this report are significantly low.

A centralization of new financial assistance is essential along with that already being provided for other disaster and civil defense planning. The new agency FEMA should be the appropriate choice. The proper perspective for nuclear power plant accident planning should be provided along with that of other natural and man-made disasters. The present funding and resources for radiological planning for civil defense can be utilized quite efficiently in the planning for nuclear power plant accidents. Significant additional funding will also be necessary. This, if it comes from a single federal source, will expedite the equitable distribution to state and local communities.

Prior to increasing the extent of emergency planning required for nuclear power plant accidents, i.e., expanding from the LPZ to the proposed 10 and 50 miles, the additional resources and cost for plan development and continued maintenance for 30 years should be accurately determined. This will set the basis and perspective for decision making.

The utility should not be the source of additional funding for emergency planning. Such an action is without precedence. It also raises the question as to why other man-made sources of hazards such as dams, gas tanks, etc. have not been singled out for financing emergency plans?

Issue #10

How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Comment

Federal radiological emergency response planning should be actively influenced by state and local governments and the licensee. A balanced perspective must be maintained giving consideration to all natural and man-made events that require emergency and disaster planning. State and local officials deal realistically with all emergencies and disasters. Planning is done on the basis of need; priorities for resources being given to more probable events. Value-impact and cost-benefit assessments are thus essential for any federal agency guidance in the emergency planning area. This for example was not done for NUREG-0396. This makes it difficult for state and local planning agencies to set priorities or even determine if the document is reasonable guidance. All guidance such as this should contain perspective, practicality and a plan for implementation addressing cost, training, etc. Only then can the guidance be judged as being credible or reasonable.

Group B - Planning Bases, Action Levels (NUREC-0396)

Issue #8

What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Comment

NUSCO provided extensive comments on NUREG-0396 in response to the Federal Register notice of December 15, 1978. In summary the comments addressed the lack of a suitable historical perspective, the lack of a value-impact assessment or cost-benefit evaluation, the lack of a determination of feasibility and the lack of a logical technical basis that would be consistent with the NRC's siting criteria in 10CFR100. In addition NUSCO's comments to Issues 3, 4, 5 and 10 above, provide additional reasons for the recommendation that prior to any further action on NUREG-0396, the NRC (or FEMA) thoroughly evaluate the cost to states and local communities of this additional guidance and its feasibility in areas where the 10 mile zone encompasses sizeable population centers. The NRC and other federal agencies such as FEMA should work out a plan

of action to include financial aid, resources, training and technical assistance to states and local communities to effectively plan as a first priority out to the LPZ. Then, and only if the cost-benefits, value-impacts and feasibility so indicate should further extensive planning be required. The complete perspective of all man-made and natural event disaster and emergency planning must be considered when significant resources and financial aid is necessary as in the case of the implementation of NUREG-0396.

Issue #9

Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Comment

The criteria for notification of the local, state and federal agencies by the licensee should be defined in the state's emergency plan. As a minimum events involving significant radiation releases such that any of the EPA's and FDA's protective action guides would be exceeded should require notification. This would also include the immediate and 24-hour notification requirements in 10CFR20.403(a)(2) and (b)(2) respectively. The extent of notification of events of lesser significance than this, in terms of public health and safety, would be determined by the state and local officials in the State plan. The criteria used generally depend on the local media and public interest, rather than the significance of an impact on public health and safety.

The public should be notified at all times only by the duly elected local and state officials whom they are familiar with, such as town or state chief executives. The local news media (TV and radio) should be a part of the emergency plan and should be utilized by the chief executives for accurate and timely communications to the public. There should be a plan for the coordination of media releases by the state, local, utility and federal officials. Joint media releases from a predetermined Media Center would be most beneficial with each group speaking to their area of involvement only. Such an approach would help develop public confidence and responsiveness to any required action. Because of the time constraints, the local community, state and licensee officials should be prepared to make such joint media releases as soon as possible. Federal agency involvement can occur at a later time and assist in supplementing the efforts of the local, state and licensee officials.

Group C - Drills, Training, Interfaces

Issue #6

Should radiological emergency response drills be a requirement? If so, under whose authority; Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

and Issue #14

Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Comment

Drills should be an automatic necessity of the emergency plan. They assist in training and provide realistic time frames for the different actions. The scope and extent of the drills because of their cost, should be carefully considered. A coordinated drill plan for the year should be drawn up by the local, state and licensee officials. The state should be ultimately responsible to ensure that reasonable drills are held annually to adequately determine training and preparedness. The federal agency giving concurrence and financial aid (e.g., FEMA) should review the state's drill plans and critiques thereof. Each town or even each agency can have as many of their own drills as necessary to train personnel in their procedures. A drill involving all local, state, federal, private and licensee agencies should be held annually to test the complete notification network. More extensive combined agency drills, e.g., evacuation and/or access control can be held once every 3 to 5 years. The actual frequency can be determined by local and state officials.

Public participation should be on a selective basis only as determined by the state and local officials. The use of school children, boy scouts, elderly adult organizations, etc. to simulate public evacuation on a selective basis has been quite successful. This is prudent. Further involvement of the public at large would be time consuming, costly provide no additional useful information and place an unnecessary risk on individuals.

Issue #7

How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Comment

Public-at-large participation should be limited to extensive preparedness information dissemination and some drill observation. A movie or slide show of a recent drill could be shown at a convenient public location, a number of times during the year.

One to two pages of essential, pertinent information can be printed in the local newspaper or the telephone book or as a handout to be placed in every home. This needs annual updating. This has been done quite successfully in a few areas and covers all natural or man-made disasters.

Issue #11

How should Federal agencies interface with State and local governments and the licensee during emergencies?

Comment

Federal agencies such as NRC, EPA, DOE, FDA, FEMA should work with state, local and licensee officials to identify in the state emergency plan their role during an emergency. They should adhere to the conditions and criteria in the state plan.

The federal agencies role should be to:

a. Provide technical advisory assistance to state and local governments as necessary if requested. (See response to Issue #13.)

b. Monitor licensee actions as reported (NRC).

c. Assist in environmental surveillance only if requested by the state government (DOE).

d. Clear all media releases through the state governor's or local chief executive's office as applicable. It would be preferable to be present at the local media center for joint-media releases. (See comment on Issue #9.)

e. Expedite licensing actions for the licensee that may be necessary to mitigate accident consequences (NRC).

The Federal agencies (NRC) should assume authority for plant operations only if the U.S. Government is willing to accept full responsibility for the resulting consequences of their actions in terms of public and utility liability such as public health impacts, physical damage to plant equipment and replacement power costs. NRC take over of plant operations is not recommended because it would not be practical in terms of the training of staff to respond to the take over of detailed functions within the plant. The NRC can assume an advisory role to the licensee and exercise regulatory control as necessary.

Issue #12

Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Comment

The licensee should not be responsible for providing radiological emergency response training for State and local government personnel. There is no legal requirement for this. This function can best be done by Federal agencies through suitable training programs. Licensee staff have done this in the past only because these programs are not adequately filling the needs. (See comments on Issues 5, 8 and 10.) The NRC and FEMA should thoroughly evaluate the training needs and set up appropriate programs.

Different levels of radiological training from decision maker training to field measurements training are necessary. A significant number of local and state officials need to be trained in radiological matters. The Civil Defense training programs have to be extended to encompass low radiation levels. Through FEMA (the single federal agency) the coordination, organization and implementation of these training programs can be accomplished.

Issue #13

To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Comment

The resources (radiological expertise) in a particular state will determine the degree of involvement of the licensee in the assessment of potential or actual consequences. In many instances however, owing to time constraints and detailed technical knowledge of plant conditions, the licensee should make the initial assessment (calculated and/or field measurement) of projected doses and thus trigger protective action decisions by the local and state officials (in accordance with the state's emergency plan). As time permits, the proper expertise from the local, state, federal agencies and the licensee should be involved, as a team effort only, to make continuing assessments. This team effort and its logistics should be identified in the state's plan in detail. Verification of the licensee's assessment if it is the only one (and if time permits) is essential.

NUSCO is willing to further discuss these comments if necessary. We hope that they will be useful to you.

Very truly yours,

W. G. Counsil

W. G. Counsil, Vice President
Nuclear Engineering and Operations

RR/cdf

EDISON ELECTRIC INSTITUTE
The association of electric companies
1111 19th Street, N.W.
Washington, D.C. 20036
Tel: (202) 828-7400

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483)

August 31, 1979

United States Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, DC 20555

Attention: Mr. Samuel Chilk, Secretary

Gentlemen:

Subject: Federal Register Notice of July 17, 1979,
44 Federal Register 41483

The enclosed comments are provided by the Edison Electric Institute on the Advance Notice of Proposed Rulemaking--Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities--10 CFR Part 50.

Sincerely,

John J. Kearney
Senior Vice President

tbl
Enclosure

dlh 9/4/79

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EDISON ELECTRIC INSTITUTE
The association of electric companies
1111 19th Street, N.W.
Washington, D.C. 20036
Tel: (202) 828-7400

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PR. 50 (44FR41483) August 31, 1979

The Honorable Joseph M Hendrie, Chairman
John F Ahearne, Commissioner
Peter A Bradford, Commissioner
Victor Gilinsky, Commissioner
Richard T Kennedy, Commissioner

Gentlemen:

Re: Nuclear Regulatory Commission's Advance Notice of Proposed Rulemaking concerning Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

There is enclosed a copy of the Edison Electric Institute's comments, dated August 31, 1979, on the above referenced Notice.

As indicated on page 2 of the enclosure, the members of the Institute are concerned that the Commission act both promptly and deliberately in this proceeding. In particular, we believe that the Commission should publish any proposed revisions of its regulations for public comment rather than making such revisions immediately effective.

The Institute and its members desire to work closely and expeditiously with the NRC and all responsible Federal, State and local agencies to improve emergency planning in light of the experience of Three Mile Island. We fully recognize this is a subject of intense public and Congressional interest. We support the efforts of the NRC Staff to provide additional guidance to licensees and to State and local agencies in these matters, including the recent NRC regional briefings. However, we would oppose any attempts by the Staff to impose significant new requirements on licensees which are not based on applicable law and regulations and subjected to a deliberate rulemaking process.

Sincerely yours,

dlh 9/4/79 William McCollam, Jr.

William McCollam, Jr.
President

jkj
Enclosure

PR-50(44FR41483)

August 31, 1979

Comments of the Edison Electric Institute
on Nuclear Regulatory Commission
Advance Notice of Proposed Rulemaking--
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities--10 CFR Part 50

I. Introduction

Edison Electric Institute submits these comments in regard to the Advance Notice of Proposed Rulemaking concerning Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities published by the Nuclear Regulatory Commission ("NRC") in the Federal Register of July 17, 1979, 44 Fed. Reg. 41483. These comments on emergency planning also apply to the issues raised in the Petition for Rulemaking recently filed by a number of organizations, including Critical Mass and Public Interest Research Groups. See 44 Fed. Reg. 32486 (June 6, 1979).

Edison Electric Institute is the association of the nation's investor-owned electric utilities. Its members serve 99.6 percent of all ultimate customers served by the investor-owned segment of the industry, generate more than 77 percent of all of the electricity in the country and service more than 77 percent of all ultimate electricity customers. A number of Edison Electric Institute's members are the operators of nuclear power reactors and/or are responsible for the planning, design or construction of additional reactors. Its members therefore would be affected directly by the adoption by the NRC of additional regulations concerning the adequacy and acceptance of emergency planning around nuclear facilities.

Edison Electric Institute agrees that the Commission should complete this important proceeding promptly. Among other things, this will serve to provide the NRC staff and NRC licensees with necessary guidance. However, because of the complex and interrelated issues which this rulemaking addresses--including the legal and practical responsibilities of Federal, State and local governmental entities and NRC licensees--the Institute strongly urges the NRC to publish a proposed rule for notice and comment rather than making any rule immediately effective. There is no justification here for circumventing the normal requirements of Section 4 of the Administrative Procedure Act for obtaining comments from the public and deliberate consideration of these comments by the Commission prior to rulemaking. The requirements of the National Environmental Policy Act might also be violated by making any such rule immediately effective. Finally, the Commission would be violating the request by President Carter voluntarily to apply the policies and procedures of Executive Order 12044, 43 Fed. Reg. 12661 (March 24, 1978) if it acted precipitously in this important matter and without preparation of a Regulatory Analysis.

The precise applicability of any revised emergency planning requirements to the siting and licensing of nuclear power plants for which applications have not yet been filed requires further evaluation in the light of this rulemaking proceeding. The Commission should continue to consider emergency planning requirements at the construction permit stage. However, detailed planning requirements appropriate to the operating license stage are unnecessary and infeasible at the construction permit stage.

Edison Electric Institute's comments on the issues raised by the NRC in the Advance Notice of Proposed Rulemaking follow.

II. Comments on Issues Raised in Advance Notice of Proposed Rulemaking

1. What should be the basic objectives of emergency planning?
   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?
   To what extent should these objectives be quantified?

Response:

For nuclear facilities, the basic objectives of emergency planning should be:

(1) To provide reasonable assurance that appropriate measures can and will be taken to protect public health and safety in the event of an emergency.

(2) To limit public radiation exposure in the event of an emergency.

(3) To provide timely dissemination of accurate information to local, State and Federal authorities and to the public.

The objectives or purposes of emergency planning should not be confused with the various measures which may be employed to accomplish these fundamental objectives. To accomplish these objectives, any emergency plan must allow flexibility and provide for early communication to designated governmental officials who will determine the appropriate action to be taken. Experience has shown that emergency plans cannot account for all possibilities in any practical manner. The NRC should not require that emergency plans for nuclear facilities attempt to encompass every conceivable type of emergency situation or prescribe in advance specific protective measures (such as evacuation).

Evacuation is but one action which may be appropriate in the event of an accident. Evacuation should not be the objective of emergency planning. Other actions are sheltering, administering radioprotective drugs, using special breathing apparatus, and curtailing access to contaminated areas. Officials responsible for implementing the protective

actions must be able to take into account existing and projected constraints and use professional judgment to determine which actions are most appropriate to protect the public at a particular site. Each protective action carries its own risks and those risks must be balanced against both the risks from the projected radiation exposure in the event of an accident and the risks of alternative protective measures.

Preventing all exposure under all accident conditions is not a feasible objective. Each emergency plan should have as an objective taking the preventive measures most effective to limit public radiation exposure. Quantified criteria, such as the Environmental Protection Agency's Protective Action Guides, should be applied only to define an accident situation and to initiate various phases of the emergency plan taking into account the risks of alternative actions. Therefore, the Commission should not attempt to quantify an acceptable level of public exposure as a basis for emergency planning.

The objective of timely dissemination of accurate information to the public encompasses both prior notification (see Issue 7) and ongoing information during an emergency (see Issue 2). This objective includes not only providing accurate information but also eliminating or

refuting inaccurate information which is reported or rumored.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

Most of the elements of an effective radiological emergency plan are in common with those of an effective plan for other types of public emergencies such as floods, tornadoes, train derailments and chemical tank ruptures. Thus, the best assurance of an effective radiological emergency plan is for it to be incorporated in an overall plan for all other types of emergencies, which are dealt with much more frequently than are radiological emergencies. This also provides a greater opportunity for testing the plan's workability. Organizational responsibilities and emergency functions which are common to all types of disasters should be included in general emergency planning, so they need not be duplicated for radiological emergency planning. The latter should address only those matters which have particular significance or are unique in responding to a radiological emergency. The role of local officials

in communications, traffic control, evacuation, public notification and other emergency responses tends to be the same regardless of the cause of the emergency.

An effective emergency response plan must integrate the plans of the State and local agencies and the licensees. An effective emergency plan should ensure that actions to control an accident, assess the extent of a hazard, initiate notification and protective measures and terminate protective measures will be carried out promptly and expertly.

The essential elements of an effective emergency response plan are all defined within the following five functions:

1) define the organizational and operational roles of all of the parties involved;

2) state limitations which, when exceeded, actions will be taken;

3) establish communication channels;

4) outline plans which provide flexibility for dealing with the emergency; and

5) establish means to test the plan and monitor its effectiveness.

The first function is the most crucial; without identifying who is to do what, and when, the other elements in a plan exist in a vacuum. The question, 'Who is in charge?' should be answered before it must be asked. Fragmented authority can contribute to the problem, making

it more serious than it might have been.

State and local officials. State and local officials have the responsibility to determine and carry out appropriate measures to protect public health and safety in the event of an emergency. Responsibility for the initial response to limit public radiation exposure rests with local governmental officials who have the knowledge of existing local conditions and the authority necessary to implement protective measures for the public in their jurisdictions.

Licensee. The NRC licensee's role is necessarily limited to: (1) notifying offsite authorities of the potential hazard, (2) providing ongoing assessments of the hazards, (3) providing radiological assistance if requested, and (4) recommending to offsite State and local authorities public protective measures that might be effective.

Federal Government. The role of Federal agencies should be regarded primarily as supportive of, and not as a substitute for, responsible action by NRC licensees and State and local government. The nature of the support to be provided to State and local governments by Federal agencies, including the NRC, should be clearly defined in the emergency plan.

The second essential element in an emergency plan is a set of procedures to define what an accident is; that

is, to determine when emergency activities of any sort should be initiated and terminated. Assessment is a subelement of this function: determining current and projected magnitude and possible impacts.

Once the initial emergency determination and assessment has been made, the next essential element of the plan--communications channels--becomes crucial. Communication among all of the parties to the plan is essential to provide assurance that appropriate measures will be taken. The consequences of an accident can be effectively limited only if the actions of Federal, State, and local government and licensees are well-coordinated and lines of communication are clear. The NRC and other Federal agencies must identify their chain-of-command for communications. Early communication by the licensee of potential hazards and consequences to responsible governmental officials is important to allow them the time to decide promptly among the measures available. The time available for action is strongly related to the time consumed in notification. All of the parties involved--NRC licensees, State and local authorities, and Federal agencies--must know <u>how</u> to communicate with the others, with <u>whom</u> to communicate, and <u>what</u> information should be communicated in what form. Some of the necessary subelements are the bases for notification,

methods of communication, call lists of specific authorities, notification networks, 24-hour-day coverage, and listings of specific information needed from the facility for decision-making. The concept of an offsite emergency response center has been offered as part of the solution to the communications problem and it should be adopted. Physical as well as organizational communications channels must be adequate for emergencies. Direct links through dedicated circuitry, or their equivalent, between facilities and State and local officials and between facilities and NRC regional or Washington offices should be required. Communication links between State and Federal officials should be established where required to support the emergency plan.

State and local government plans must provide for the fourth element, flexibility. The responsible government officials must be not only aware of, but prepared to implement, a variety of protective measures. Each accident may have different consequences, both in nature and degree. Different types of releases may cover different time periods; wind and weather conditions also affect release characteristics. Planners must consider the time required to implement particular protective measures (such as evacuation) in terms of the specific release characteristics for each site.

The final element, testing, is essential in order to ensure that the other elements are all in place and that the plan will work as designed. The means to implement this element must provide for regular review, drills and tests, and cooperation among all parties. See the discussion for Issues 6, 10, and 14.

The existing NRC requirements and guidance are adequate on a generic basis, but they should be viewed as guidelines to be adapted for individual facilities. The emphasis should be on two areas: site-specific variations, and radiological-specific variations. A large number of specific emergency plan elements will vary from site-to-site, because of facility characteristics such as size and safety features, local geographic, climatic, and demographic features, and technical resources of the responsible State and local governments. Similarly, the assistance and guidance required to be offered to State and local governments by the NRC and the NRC licensee should be aimed at those aspects of emergency planning which are significant or unique to radiological accidents and the particular plant, respectively. Review in connection with licensing actions by NRC should be functional and site-specific: plans should not be required to contain elements which are unnecessary or inappropriate for the particular facility under review.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continuing operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response:

The NRC already evaluates State and local emergency response plans on a site-specific basis in the licensing process, and it should continue to do so. However, prior NRC "concurrence" in State and local emergency plans should not be a requirement for either new or continuing licensing. If there is to be a significant modification in either the level of review or the result of a review, three key issues must be addressed:

1) How should concurrence or non-concurrence be defined?

2) What time frame should be allowed for bringing plans into compliance?

3) What are the legal and practical problems involved and how can they be resolved?

Concurrence should be defined on a functional and site-specific basis. Emergency plans should be reviewed only in terms of whether they satisfy the objectives

outlined in the response to Issue 1. The NRC should not dictate or require specific procedures for implementation, but should consider whether essential functions for public protection are included. Licensing decisions should not be based on whether or not every item on a detailed list is checked off. The NRC may define key elements which must be covered in some manner but should not define subelements in such detail as to preclude flexibility of response or ability to adapt to differing State and local government organizational concepts. The plans should be reviewed from an overall perspective rather than in a piecemeal fashion. The NRC should consider whether some elements of the plan are defined or implemented in such a way as to offset or mitigate an apparent deficiency in other elements. Similarly, the NRC should review State plans only in conjunction with and with reference to the plans of the licensee and the localities in the vicinity of the nuclear facility. If the public in the planning zone is provided adequate protection in any manner, further NRC concurrence in the State's overall plan should not be necessary. Functional review should also be directed to site-specific characteristics rather than to technical compliance. Neither the State and local governments nor the licensee should be required to include elements which are clearly inappropriate or unnecessary for a particular site.

The time frame afforded for plans to be brought into compliance should be realistic and should also be site-specific. In setting deadlines, the NRC must recognize that licensees cannot take unilateral action to improve State and local plans. Furthermore, any deadlines should recognize that actions cannot be taken until further guidance is given by the NRC in coordination with other responsible Federal agencies. The time limit should also allow for normal scheduling problems and for site-specific adjustments. For example, States and local governments which have done little emergency planning in this area will need more time to "start from scratch" than governments which already have plans which merely need minor adjustments or improvements to be brought into compliance. Areas made up of a number of small, independent local governments will need more time for coordination than an area with one large, active county government. Such small governments will also have fewer resources to devote to the emergency planning problem and may often be distracted by more immediate local problems.

There are also several legal and practical issues which should be considered. These involve problems of the role of the new Federal Emergency Management Agency (FEMA) and Federal/State and State/local relationships. First, the NRC has no authority to require States or

localities to develop emergency plans. The NRC should not link emergency planning and nuclear powerplant licensing in a way which would penalize consumers for the failure or unwillingness of States or localities to develop emergency plans. This is a particularly sensitive issue where a single site may encompass a multi-State emergency planning zone. Secondly, the level of emergency planning which is acceptable to the affected public is essentially a State and local political issue. If the public to be protected wants a more effective plan, it will make this known to the State and local government planners through the political process. The Federal Government could provide additional financial and technical assistance to encourage emergency planning if financial constraints are the problem. Finally, NRC concurrence procedures cannot impose any specific division of labor or relationship between States and their local governments. State laws and State participation in and contributions to local emergency planning will vary. The NRC cannot require any particular type of decision to be made or action to be taken at any particular level. This problem may be overcome, however, by reviewing emergency plans on a functional basis rather than on a detailed procedural basis.

3. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

Federal funds should be provided as needed for general plans to meet all types of emergencies. This should be administered by the new Federal Emergency Management Agency. If States and localities have adequate general emergency plans, there should be little need for additional planning, or funds, for radiological emergencies at specific sites. Federal assistance for generic radiological emergency needs, however, should be provided. This could be done either through FEMA, or through the NRC, which has more expertise in assessing and defining such needs. The NRC has a responsibility to encourage and assist State and local authorities to develop nuclear emergency plans.

"Generic" needs which could be Federally funded include training for State and local personnel who might be expected to respond to a nuclear emergency (e.g., police, firefighters, medical workers), communications links, and equipment necessary for offsite monitoring and assessment. The amount of assistance provided should be site-specific and geared to the realities of the problems encountered by

State and local governments in developing their own emergency plans. Federal oversight should be provided to ensure that the assistance is used appropriately.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response:

Drills by licensees are now required by 10 C.F.R. 50, Appendix E, are described in Regulatory Guide 1.101, and are recommended in NUREG 75/111. Although a decision to require state or local government participation on a regular basis could provoke legal challenges concerning Federal authority over state and local governments, cooperation in such tests should be strongly encouraged to ensure that the emergency plans will work as expected. Drills should be conducted under combined Federal, State and local authority. Drills should be as realistic as possible and should, at a minimum, test the communications links for ability to make contact, and for notification speed and message content.

Although it may not be possible for the NRC to require State and local participation, it may be possible to encourage it in a number of ways. For example, State and local authorities can be educated about the types of

problems which have been identified in previous drills and which could have been serious in a genuine emergency, pointing up the need for identifying such problems in advance. If financial constraints inhibit State and local cooperation, Federal funding should be provided. The public should not be asked or required to participate (see Issue 14).

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

It is both impractical and undesirable to provide detailed information about the actions which might be taken for all possible emergencies. As emphasized above, one of the essential objectives of an emergency plan is to maintain flexibility of response. Providing detailed information to the public in advance of an emergency situation might even limit the ability of responsible officials to choose among major alternative protective actions. Yet, without some prior knowledge of what to expect and what to do, the public may not react as quickly or as cooperatively as the situation demands. If information is supplied in advance to the public, it must include (1) the potential hazards involved, (2) the range of

protective responses expected, and (3) how emergency instructions will be communicated. The communications aspect of prior information is most important. The information need not explain the specific protective measures to take, but it is important for the public to know the nature of the possible emergency, that an emergency plan exists and how the public will be informed about it if it is ever put into operation. As with many other aspects of radiological emergency planning, providing prior public information should be part of the State and local general emergency planning. If the public knows how it will be instructed about hurricanes, tornadoes, floods, or industrial accidents they need only know that the same source will also be used for nuclear emergencies.

The general level of information recommended could be disseminated in a number of ways. It is a State or local responsibility to provide this information, as it is for any other emergency planning information, and the NRC should not shift this responsibility to its licensees. If necessary, FEMA may provide funds for publication in local newspapers, announcements on local radio or television stations, or similar methods. The detailed emergency plans could be maintained for public inspection and comment at announced locations and a copy could be made available to a

member of the public on request. As noted above the plan, should not be generally published or distributed.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response:

There should be emergency planning efforts based on a plume exposure pathway. Detailed emergency planning should continue to be performed for the Low Population Zone, established for each plant on the basis of specific plant and site features. It would also be reasonable to establish an emergency planning zone around each plant ranging out to about 10 miles for the plume exposure pathway. However, the detail of planning should be greater within the smaller radius of the Low Population Zone than beyond the boundary of this zone and out to the 10-mile radius. Recognizing, for example, the fact that there is more time to take protective action the farther one is from the plant in the event of an accident, it is reasonable to conclude that the type and level of emergency planning should not be the same for the entire 10-mile radius. Requiring the same level of planning for the entire 10-mile radius would divert scarce resources from the real task at hand.

State and local planning should address controls over an ingestion pathway. It is important in this connection to consider what constitutes a real "emergency" situation, and to recognize that some types of protective measures cover situations that are not "emergencies" in the most immediate sense. For example, while potential ingestion exposure zones may be large, the time period available for taking protective measures is much longer. Wind speed and dispersion effects tend to be correlated in such a way that the faster the release is spread, the more it is dispersed, thus reducing the potential exposure. Because the danger arises from ingestion, there are more points at which protective measures may be taken. Sources of exposure may be identified and dealt with on the ground and before processing, or after processing and before distribution. Again, there is considerably more time for projection, assessment, and implementation of protective measures than there is for the plume exposure pathway.

The emergency plans made for other accidents contain elements which are also applicable to so-called Class 9 accidents, such as a definition of the organizational and operational roles of the parties; communications channels; a chain of command; and protective action guidelines. However, detailed planning should not be required

for Class 9 accidents. There is no other type of emergency planning which is required or performed for disasters of such a level and of such low probability. The Three Mile Island accident and the response to it by Federal, State and local governmental agencies indicate that improvements are needed in emergency planning but also tend to confirm that Class 9 accidents should not form an explicit emergency planning basis. It is true that public perception of danger plays a much larger part than probability of occurrence in nuclear emergency planning. However, public perception should not be the NRC's final arbiter in this instance, where the magnitude of planning and the probability of occurrence are at such odds. Such planning, if required in similar detail as for other radiological emergencies, would constitute a considerable burden on State and local governments which, as noted above, do not perform emergency planning for analogous types of disasters.

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, and to what extent, and by whom should the public be notified of these incidents?

Response:

The licensee should be required to notify State, local, and Federal agencies where there is a serious

potential of radiological consequences in excess of a clearly defined limit, and when that excess has been indicated by plant conditions. As discussed in the Response to Issue 2, an essential element of an effective plan is a definition of action levels. A set of action levels in each emergency plan should define when notification will take place. The action levels should be established in such a way as to be non-discretionary for the licensee: when the level is met, the action is taken.

Notification levels should be set low enough for each nuclear facility to ensure that the public health and safety will be adequately protected. They should be set low enough to allow for early notification of the officials responsible for selecting and implementing protective measures. However, they should be set high enough to assure that there are not so many false alarms that notification is not taken seriously by either the agencies or the public.

Notification to the public should be made by a clearly designated governmental official in accordance with individual site and State-local emergency plans and quantified criteria such as the Environmental Protection Agency's Protective Action Guides. Public notification should not be undertaken by the licensee or the NRC. Notification to

the public must clearly distinguish between emergencies for which action is to be taken and incidents reported for public information purposes only. Pre-emergency planning should be performed to define the types of information public announcements will contain as well as their format.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response plans?

Response:

State and local concerns should continues to be incorporated into Federal planning for several reasons:

1) The basic responsibility for implementing protective actions rests particularly with the local governments.

2) State and local governments are familiar with important site-specific conditions, some of which may change over time.

3) State and local governments are likely to be more cooperative with licensee and Federal efforts in emergency planning if they feel that their special concerns are being considered.

Coordination between State and local general emergency planning and Federal and licensee radiological-specific emergency planning should continue in order to

ensure that crucial gaps are filled and that unique requirements are met.

Incorporation of State and local concerns can be addressed at several stages. First, State and local agencies should be invited to participate at the earliest stages of emergency planning (i.e., pre-licensing), to ensure that the plan's assumptions are locally realistic. Second, State and local participation in drills should provide opportunities for corrections and adjustments. At all times, State and local officials should be able to suggest changes which may be required by any local physical, economic, or demographic changes that they are aware of.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The lines of communication and authority should be a clearly defined element of each site and State-local emergency plan. Both the direct communications links and provision for an offsite emergency response center will facilitate Federal cooperation. The role of the Federal government should be primarily supportive, providing special supplies, equipment, or knowledge, as requested by the State or local governments or licensees. Federal

agencies operate at a general level of knowledge, and thus should take their lead from State and local agencies, which are more familiar with the specific site, conditions, populace and resources. Federal agencies should obtain guidance from the licensee with respect to plant conditions and equipment needed at the site.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

The NRC should be concerned with the level of training of local emergency personnel (or other mitigating arrangements) rather than by whom such is provided. General radiological emergency training could be either conducted or funded by the NRC or FEMA for localities which could not otherwise afford it.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

The NRC licensee's role should remain primarily an advisory one. The licensee's unique knowledge of the

plant must obviously be the basis for the initial assessment of the potential hazard, and also for ongoing assessments of any increase or decrease in the danger or its duration. However, the decision to implement offsite protective measures must be made by State and local officials in accordance with their own plans. The licensee has the responsibility to help the State and local officials understand the situation so that those officials who have the authority to order necessary actions can make appropriate decisions. The licensee has no authority to implement off-site emergency protective actions.

After the initial notification by the licensee as discussed under Issue 9, above, State and local officials should have the means to review the initial assessment and to monitor the actual hazards. Because most State and local governments cannot support full-time radiological specialists, it will be difficult for them to assimilate a wide variety of subjective assessment criteria. Therefore, offsite monitoring equipment and training, funded or provided by the NRC or FEMA, may be necessary to help establish uniform action level criteria on which to base decisions. The NRC and other Federal agencies should provide support and advice.

14. Would public participation in radiological emergency drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

Public participation in emergency drills, including evacuation, would serve no useful purpose, carries unnecessary risks, and would be counter-productive. According to the NRC's response to the GAO report on emergency planning (EMD-78-110, March 30, 1979, page 52), public evacuations are carried out in the United States at the rate of about one per week. They are virtually all conducted without a prior drill, and usually result in an orderly public response with few evacuation-related health or safety effects. For example, in 64 evacuations involving 1,142,336 persons which took place between 1960 and 1973, there were only ten deaths and two injuries related to the evacuation process. Two of the deaths were the direct result of failure to follow directions, and seven were the result of the crash of a single helicopter, not a usual mode of evacuation. In "Evacuation Risks--An Evaluation" (EPA-520/6-74-002), an EPA study pointed out that there are many myths about public response to disasters. One such myth is that people become disoriented and hysterical during a disaster. The truth appears to be to the contrary: that it is difficult to make people take the danger seriously and to persuade them to leave their homes. If this is true during a genuine emergency, it is likely to

be more true for a drill; and it is questionable whether people can be legally required to participate in a practice drill.

Aside from the fact that such drills are unnecessary and could very well result in only a low level of public participation, there are real risks to consider. First, although evacuations are relatively safe, there still exists some likelihood of evacuation-related injuries and deaths. Second, there is the possibility that after a number of drills the public would not take the evacuation or other actions seriously and would fail to respond in a genuine emergency. Finally, there is the problem that drills may cause the public to react in a too patterned manner, limiting the ability of officials to make any changes necessary to adapt to actual emergency conditions.

The public should not be asked or required to participate in drills conducted by the licensee and State and local officials.

TELEPHONE
285-2222
EXT. 161 &162 163

COUNTY OF GEAUGA
COURTHOUSE ANNEX 219 MAIN STREET
CHARDON, OHIO
44024
BOARD OF COUNTY COMMISSIONERS
JAMES F. PATTERSON RICHARD C. FORD JAMES MUELLER
KIRK W. HALLIDAY, County Administrator
KEITH A. DOUGLASS, Clerk

(51)

August 28, 1979

-50144FR41483)

Secretary of the Commission
Attention: Docketing & Service Branch
Nuclear Regulatory Commission
Washington, D.C. 20555

RE: NRC Emergency Plans
Comments on No. 79-122

Dear Sirs:

In response to the questions posed by your release on the proposed NRC regulations, please find the following comments:

1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public? To what extent should these objectives be quantified?

Perhaps the most basic objective in emergency planning should be to minimize any danger to public and property and to maximize emergency response by appropriate officials and agencies.

If acceptance is made that some leakage will occur and that some hazard will exist, then emergency procedures must be undertaken to minimize those exposures to the general public. The NRC should study all aspects of emergency procedures toward containing any accident on-site. If however, an accident occurs and its effects, procedures must be made to ensure the evacuation of the general public in an orderly fashion. Perhaps use of the emergency broadcast system would be in order to notify the general public. One group must be in charge or designated to handle such a movement.

dlh 9/4

Emergency planning must address on-site management of a crises. Immediate response by on-site personnel is mandatory. Further, immediate response is vital by the power company, responsible state officials and local officials, and the NRC is clearly needed. NRC should undertake the creation of a Crisis Task Force which has the statutory authority to take overall command of a crisis. Legislation and regulations should make it mandatory that penalties would be imposed in the ways of fines or shutdowns of nuclear facilities if emergencies were not reported to the NRC. If the case in point - Three Mile Island - proved anything, it is that there is no provision currently for crises response management by any official. It was only after the NRC moved by order of the President, was the crisis managed to any degree of success. Clearly, the State and Metropolitan Edison did a magnificent job of botching the management of the crisis at Three Mile Island. A NRC response team should have the statuatory authority to overrule any decisions by local or state officials.

2. What constitutes an effective emergency response plan for State and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements?

1. Clear emergency procedures for the containment of any leakage on-site and beyond on-site.

2. Clear, effective leadership on-site with control over all management aspects of the crisis.

3. Procedures for the orderly evacuation of personnel of the on-site area and the civilian population in varying degrees.

I believe that current NRC rules do not allow for an "orderly" effective management of a crises. Further, it is my view that the NRC does not, in view of Three Mile Island, have any clear procedures stated that requires power companies to notify the NRC in case of any "emergency". Neither, referring back to question No. 1, does the NRC have any policy for on-site management of a crisis.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear plant with an existing operating License? If so, when should this general requirement become effective?

Yes, immediately.

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Yes, immediately.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Congress should appropriate immediately through either the Department of Energy or Defense, grant funds for the development of emergency containment and evacuation procedures and plans.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State and local governments, and licensees be required to participate?

All on-site personnel should be well trained in emergency procedures. This should also pertain to a representative number of public personnel - state police, fire and police officials should be trained as well in the management of radiological materials.

Unfortunately, even though Federal officials might be well-suited in management of on-site crisis because they can usually have a "take charge" attitude toward State and local officials, this may not be the case in any procedures outside the walls of a power plant. Local officials are notorious in passing the buck but taking credit. Clearly, even though Federal officials cannot take charge if evacuation or other procedures are necessary, clear policy must be established as to which local agency would be most effective in handling a crisis. Although ideally the State patrol might be called on, they may not have enough manpower to adequately do the job. Perhaps the most ideal agency would be the local Disaster Services Agency. However, not all areas have a DSA and it might not be adequate. The situation would be too far spread for any local police agency to be in charge.

The problem of control in an emergency, pass the on-site management portion, is therefore a crucial one. Quite frankly, I have no one answer - only to pose questions and problems.

7. How and to what extent should the public be informed, prior to any emergency, concerning actions, it might be called upon to take?

The public should be informed at all times through the media. All releases should be coordinated through the agency in charge on-site. Three Mile Island showed conclusively that the people were not being told the whole truth all of the time.

8. No comments.

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies?

When, how, to what extent, and by whom should the public be notified of these incidents?

Immediately upon notification within the plant of a clear "accident", the supervisor in charge should notify his superiors of the situation. Under no circumstances should the superiors sit on an incident. They, in turn must notify the NRC and this activates the Crisis Team. Response time is critical. A Crisis Team should be on its way within 3 hours of the reporting of an accident. Only then should the licensee notify other State and local officials. Only the plant supervisor should be in charge until the NRC arrives. Supervisors should have the protection of the Federal government in making decisions prior to the NRC's arrival which beconstrued to be contradictory to the licensee's policy or in direct conflict with his superiors which might tend to "cover-up" the seriousness of the accident.

Upon arrival, only the NRC officer in charge should authorize the release of news releases.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

The NRC should hold regional public hearings into the proposed rules. Further, each Governor and Disaster Services Agency in the country should be requested to respond and all pertinent Federal agencies. So many times, local governments are dictated to, and not consulted in areas which are generally of concern to them. In many cases, it is not the Federal government which is on the scene first, but rather the local agencies or the State which must respond.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

As already stated, the NRC should have exclusive control of all activities on-site. Not that the State or local officials are incompetent, but they have too much to gain politically and otherwise by masking the true extent of the emergency. Hopefully, with NRC personnel in charge, this would not occur.

12. Should the licensee be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

I would be in favor of utilizing the talent of a licensee to brief and train local officials and law enforcement people in the intricacies of radiological materials. However, quite frankly, I would not trust licensees to be in charge completely. It may turn into a mutual admiration society.

The Federal and State governments should provide grants for the training of personnel - perhaps through the local disaster service agencies.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Quite frankly, I would not trust the licensee. Three Mile Island demonstrated quite clearly the deceptive tendency of the licensee to "place the best face forward" on the consequences of an accident. The NRC should have exclusive control over the explanation to all parties and the general public of all potential hazards and problems relating to an on-site emergency. The general public is most likely to believe the Federal officials, most notably the NRC - particularly after Mr. Denton's performance at Three Mile Island. The State and local officials should have no voice whatsoever - they are not experts for the most part.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Generally, I would say yes. Public participation, if possible, would be most useful in alerting other people in emergency procedures. Quite frankly however, short of delivering to every home in America an emergency route in case of an accident, a drill of evacuation would result in chaos. (Even in rush hour, the traffic out of the greater Cleveland area is horrendous. Can you imagine evacuating New York City or Cleveland, since we have one plant already running and one being constructed very close to the greater Cleveland area).

In other comments, so much as been said about accidents on-site at nuclear power plants. Regulations are sorely needed on response by State and local officials on accidents by the transportation of radioactive materials. In Northeast Ohio, many communities have now required a permit for the transportation of nuclear materials through their communities. I too have authored such an ordinance in Chardon, as a Council member. Clearly, local areas are concerned over both accidents on-site at nuclear power plants and also along our highways where contamination might be extremely serious prior to responsible and trained officials are on-site. Assistance is training personnel is vital. Further, notification of local officials is also critical and those companies which do transport such materials should be required to notify the local jurisdictions through which the shipment is scheduled to travel. Only then can we protect our citizens.

Thank you for the opportunity to comment.

Sincerely,

Keith A. Douglass
Administrator/Clerk

KAD/slt
cc: Session
D. Pokorny

STATE OF CALIFORNIA — EDMUND G. BROWN JR., Governor

OFFICE OF EMERGENCY SERVICES
POST OFFICE BOX 9577
SACRAMENTO, CALIFORNIA 95825
(916) 421-4990

DOCKET NUMBER
PROPOSED RULE PR - 50 (44 FR 41483)
(52)

August 29, 1979

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

As the Designated State Authority for Nuclear Power Plant Emergency Response Planning in California, we have attached our response to the fourteen questions dealing with 10 CF Part 50 found in the Federal Register, Volume 44, Number 138, page 41183 (Attachment I). This is a coordinated response, taking into account all comments from state agencies in California.

We consider the most important topics under discussion to be:

a) the development of site-specific plans based on emergency zones established through the use of computerized meteorological models, such as the Atmospheric Release Advisory Capability at Lawrence Livermore Laboratory;

b) the development and distribution of public information concerning nuclear power, emergency planning, and emergency response;

c) a uniform, concerted effort for training and exercises; and

d) vastly improved federal funding and participation in these areas.

California has already spent considerable time discussing requirements for a complete emergency response organization. The recommendations of the Governor's Nuclear Power Plant Emergency Review Panel summarize these discussions and are also attached (Attachment II). Some of these recommendations have already been put into legislation; copies are attached (Attachments III and IV).

dlh 9/4

We trust the Nuclear Regulatory Commission will find these comments helpful as the Commission reviews emergency planning around nuclear powered electrical generating stations. We support the adoption of regulations which will lead to increased emergency readiness in the vicinity of nuclear power plants. The Commission should be commended for their concern and efforts in this important area.

Sincerely,

Alex R. Cunningham

ALEX R. CUNNINGHAM
Director

attachments

1. What should be the basic objective of emergency planning?

   In the absence of scientific agreement regarding the effects of low-level exposure, the basic objective of emergency planning should be to prevent public radiation exposure. For this reason evacuation becomes the principal countermeasure and detailed evacuation plans must be developed. Recognizing that evacuation cannot always be carried out in a timely manner, plans must also be developed to use other countermeasures (shelter, prophylaxis, etc.).

   Although the PAG's have been established at 1-5 REM whole body and 5-25 REM thyroid, these by no means constitute acceptable levels of exposure. Thus, rather than recommend protective action after exposure levels exceed 1 REM, emergency plans should have a series of responses which can be implemented to minimize public exposure. Even under emergency conditions, no member of the public should be exposed to any radiation in excess of background, if timely action can be taken to prevent this exposure.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

   For State and local government an effective emergency response plan consists of three parts: Part I is the document called the "Plan", which sets forth responsibilities and assignments for the various functions which may be required following a nuclear power plant emergency. Public protective measures--including evacuation, shelter, prophylaxis--must all be addressed in this document. The second part includes the Standard Operating Procedures (SOP's) which are written by the agencies and describe how the tasks will be carried out. The third part consists of checklists based on the SOP's, which ensure all of the details have been seen to, to create an effective response.

   Although NUREG 75/111 provides a good foundation, if each plant is considered individually, in the light of Three-Mile Island, federal guidance should be drastically revised. Federal guidance has heretofore failed to realistically consider the consequences of core melt and breach of containment (this is true even of the proposed NUREG 0396).

   Specifically, there is insufficient detail regarding such problems as identification of potentially exposed people, long-term monitoring of the exposed population, long-term site security for areas where contamination is sufficiently high that relocation of the populace may be required; serious consideration has not been

given to interdiction of crops, livestock, and milk (the milk problem alone may amount to 250,000 gallons per day), to potassium iodide prophylaxis, or to triage of potentially contaminated, exposed, injured, and uninjured evacuees--and combinations thereof. In addition to the above, as the NRC re-evaluates its emergency planning guidance, it should give special consideration to problems associated with large-scale evacation, and special situations represented by the handicapped and those in convalescent homes, hospitals, correctional facilities, and other institutions. In short, the Federal Government has not been sufficiently concerned about planning for major emergencies at fixed nuclear facilities.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

   Yes; June 1981, or 18 months after the adoption of this section.

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

   Yes; June 1981. Plans should be submitted for approval along with the Final Safety Analysis Report.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

   Yes, financial assistance should be provided; the following are some options to be considered:

   a. The licensee provides staff, money, and equipment.

   b. Licensee provides money; local government does the plan or contracts for it.

   c. Licensee pays a fee and NRC provides staff to assist in developing plans or pays a contractor.

   The NRC staff report "Beyond Defense in Depth" (NUREG-0553) discusses these as well as other options for funding the development of emergency plans.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, or local government? To what extent should Federal, State and local governments and licensees be required to participate?

No emergency response system can be considered to be truly effective until it has been exercised. It is important to emphasize the exercise is not an isolated event; rather it is part of emergency preparedness that is closely related to the planning process. To have an effective exercise, one must first identify those aspects of the plan which are to be tested then provide any needed training; and third, hold the exercise. Finally, critique the exercise with an eye toward updating and revising the plan, if necessary.

Specifically, one does not hold a full-blown field/command post/communications/EOC exercise right off the bat. An overall exercise program would typically begin with notification and communication: for example, the plant could notify local authorities of on-site difficulties, communications should be tested and after a couple of hours the on-site problem could be corrected. That would be the end of the exercise.

Next, field monitoring would be exercised. Training for monitors would involve local government--who would explain reporting procedures--and utilities who could provide expertise regarding the facility and radiological aspects of a nuclear power plant accident. With this training completed an exercise could be held in which communications are exercised and monitoring teams are actually assigned to go into the field. (Equipment needs to be developed which will enable monitors to receive realistic readings on instruments which are identical to those that would be used in the post-accident environment.)

Having exercised communications and monitoring, one is now ready to exercise command level personnel and staff for the decision makers. Training must be provided to personnel who will be interpreting the radiological data provided by the site and reported by the monitors. They then can be exercised independent of any field monitoring exercise.

Finally, with the basis firmly laid through training and exercise, one would be ready to include local government officials who, in California, would be making decisions regarding evacuation and other protective measures. For all of these exercises, local government should have principal authority; state and federal agencies provide support to local government. Federal, state, and local government agencies, as well as the licensee, should participate in overall drills on a yearly basis. The Press should also be invited, as should the public.

If Federal teams are to participate they must themselves be trained in two aspects: First, they must be knowledgeable of their roles as responders; and second, they must have clearly defined criteria on which to judge the exercise. (An exercise is not a failure if mistakes are made, or even if things do not go

according to plan. The purpose behind the exercise is to see if the plan needs to be changed and where mistakes would be made in a non-threatening atmosphere.) The Federal Government should be prepared to fund these exercises.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

The public as a whole has a right to know the benefits and risks associated with nuclear power and this can be done via public announcements on television, radio, or in newspapers. However, the population in the area immediately adjacent to a nuclear power plant has a need to know more definitive and detailed information. This would include, but not be limited to:

a. A brief description of radiation terms and dose comparisons including a description of relative health hazards resulting from various types of exposure.

b. A brief explanation of the kinds of events that can occur as a result of a serious reactor accident.

c. Information about countermeasures and protective actions which can be taken by the public.

This information could be disseminated in the utility company bills, as well as by the media as mentioned above. There is also the possibility of having such information included in the front of the telephone book.

In addition, information regarding the risks and benefits of potassium iodide as a prophylactic agent shold be made available. Potassium Iodide tablets should be procured and made available to personnel within the low population zone. Additional potassium iodide should be stockpiled to allow for all personnel within the protective action zone plus any emergency workers. Instructions should be given concerning the proper use of these pills.

Informational brochures could be distributed concurrently with the yearly exercise and the public should be invited to participate--if desired--by following the evacuation routes to reception centers, which should also be staffed.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

The Task Force report places such heavy emphasis on the 10-mile direct exposure Emergency Planning Zone, that little consideration is given to performing site-specific studies. The NRC should develop a regular schedule for using the Lawrence Livermore

Laboratory computer-based meteorological model--the Atmospheric Release Advisory Capability--to provide site-specific information regarding each reactor on the entire series of Rasmussen scenarios. This information coupled with NUREG 0396 should be sufficient to provide a planning basis for state and local governments.

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent and by whom should the public be notified of these incidents?

Local, state and federal agencies (in that order of priority!) should be notified any time the plant is not in normal operating condition. Through the use of exercise, a rapport and trust should be developed through the licensee and local, state, and federal agencies such that the licensee need not be afraid to make notification. In addition, automatic alarm systems--wich monitors if desired--should be installed for the following: Containment area and/or ventilation system, auxiliary building ventilation system, condensor ejector pumps, gross failed fuel, and activation of the emergency core cooling system. The public should be notified if any one of these alarms is tripped due to abnormal operating conditions in the plant. Such notification should be made by local government, using a method which it deems appropriate to the specific situation.

Public information should be coordinated between the licensee and local, state, and federal governments, but there should be a single source of information concerning plant conditions and projected consequences of any incident. This source should neither be a utility nor the NRC, since both lost credibility as a result of Three-Mile Island.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

If and when the NRC prepares a federal response plan for nuclear power plant accidents, the plan should be sufficiently flexible to allow for the wide variety of state's responsibilities and capabilities. In California, for example, primary responsibility for emergency management is vested in local government. If an emergency exceeds local capability, the state provides assistance; similarly, if state resources prove insufficient, we would expect assistance from the federal level. We certainly do not want the federal government to take charge, as it seemed to do in Pennsylvania.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

The question of federal/state interface has never been clearly resolved. To deal with this problem, representatives of the federal agencies most involved in the Interagency Radiological Assistance Plan should meet with state and local representatives to iron out these details.

In addition, states should have trained and certified individuals who would be dispatched to the nuclear power plant site upon confirmation of an emergency potentially having off-site consequences (e.g., activation of any alarms listed in response to question 9 above). Such individuals' sole responsibility would be to maintain liaison with state and local officials, apprising them of developments at the plant and recommending appropriate action.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Licensees should, particularly in radiological emergency response training, be providing technical information concerning plant operations and projected off-site doses. If necessary, they can also discuss use of radiation detection instruments and analysis of monitored information. To some extent, this is already required by 10 CFR 50, but greater participation on the part of the utilities should be encouraged by the NRC.

The Federal Government should provide funding for such training, including course development costs, instructor fees and transportation and per diem expenses for instructors and students. In addition, the number of Radiological Emergency Response Operations courses should be increased and additional courses on evaluation of meteorological data be given. At present there are too few training programs to prepare hospital and pre-hospital care personnel to fully carry out their responsibilities in the event of an accident. Medical programs, such as those at the Radiation Emergency Assistance Center/Training Site at Oak Ridge National Laboratory, should be provided on a site-by-site basis.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Every state having a nuclear powered generating station should be provided a computer by the Federal Government. Data concerning plant gaseous effluents should be periodically fed into the computer along with meteorological data from the power plant. Once releases exceed some pre-designated level, an alarm would sound and the computer would begin making off-site dose projections

automatically. Funding for this program should be borne by the Federal Government. (A bill to install automated alarm systems, Senate Bill 1158, is presently moving through the California State Legislature. See Attachment IV.) In addition, it is essential that the Atmospheric Release Advisory Capability at Lawrence Livermore Lab be tied into as many sites as rapidly as possible. Thus, any predictions regarding off-site consequences made by the licensees could be checked by state government personnel until such time as the Department of Energy and NRC could assist in accident assessment.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Public participation in radiological emergency response drills would be useful from two points: First, during evacuation drills it would provide the processing centers with test cases so they could check out their procedures. Second, public participation in the critique, either by oral or written comments, could provide valuable insight into the public view of efficacy of the protection action plans. Participation of not more than 5% of the population and/or evacuation of a school should be sufficient to exercise the response system; however, questions regarding liability for such participants should be thoroughly investigated and the results of the investigation communicated to the states.

ATTACHMENT II

STATE OF CALIFORNIA
EDMUND G. BROWN JR., Governor

OFFICE OF EMERGENCY SERVICES
POST OFFICE BOX 9577
SACRAMENTO, CALIFORNIA 95823
(916) 427-4990

May 30, 1979

TO: Directors of City and County Emergency Services Organizations

SUBJECT: Recommendations of the Governor's Nuclear Power Plant Emergency Review Panel

The panel established by Governor Brown to review the level of preparedness of State and local governments to respond to an accident at a nuclear power plant completed their study on May 20, 1979. A copy of the recommendations forwarded to the Governor by the panel is attached.

As indicated, the recommendations cover a broad spectrum of actions to improve our response capabilities in the event of a nuclear power plant accident. Some of the actions may impact on your jurisdiction and where additional resources are required, the panel concluded that these efforts should be funded by the utilities operating nuclear power plants. The cost of emergency preparedness is an additional expense associated with this power source; hence, it is appropriate that these costs be borne by the power companies and not the taxpayers in general.

I would like to thank those of you who assisted by completing and returning the questionnaire I mailed on April 11, 1979 and also those who participated in the various hearings, meetings and exercises related to nuclear power plant emergency preparedness. Your efforts are reflected in the recommendations and these should ultimately lead to an upgrading of our response capabilities.

Sincerely,

Alex R. Cunningham

ALEX R. CUNNINGHAM
Director

Attachment

NUCLEAR POWER PLANT EMERGENCY REVIEW PANEL RECOMMENDATIONS

A. PLANNING AND EMERGENCY RESPONSE

Issue: Present planning for nuclear power plant incidents is based on the likelihood of a so-called "design basis" accident which might affect those living in the low population zone, 3-6 miles from the plant. The experience at Three Mile Island indicates that the magnitude of nuclear power plant accidents could be greater than previously believed and that the effects of such accidents could extend beyond the scope of existing emergency plans.

Recommendation A-1.

The California Energy Commission should determine the probable consequences of a release of radioactive materials from nuclear power plant accidents involving core melting and breach-of-containment (class 9 accidents). As part of this study, the Energy Commission should prepare, within six months, site specific maps for each of California's commercial nuclear power plants showing the areas likely to be affected by such a release. These areas shall be designated as Emergency Planning Zones, where evacuation or other protective actions would be required and where the food chain would be affected. This analysis would consider the site and type of reactor, local topography, weather conditions and other relevant factors.

Implementation: Governor's Directive

Recommendation A-2.

The State Office of Emergency Services (OES) should revise its Nuclear Power Plant Emergency Response Plan to reflect the information provided by the Energy Commission; a similar upgrading of other state agencies' plans and procedures should be ordered.

Implementation: Governor's Directive

Issue: Local authorities have the primary responsibility for preparing emergency response plans for nuclear power plant accidents. Like the state plan, however, local plans are based on the present planning criteria. Furthermore, many counties outside the existing low population zones have no plans, but are likely to be within the enlarged planning areas delineated by the California Energy Commission.

Recommendation A-3.

Local planning for nuclear power plant accidents should be mandated by state law for any jurisdiction where protective action might be required. County plans should be based on guidance developed by the State Office of Emergency Services, consistent with information provided by the Energy Commission. OES should continue to be responsible for coordination and approval of these plans.

In developing its approval criteria, OES should give special attention to problems of large-scale evacuations, appropriate in-place protective actions, as well as special protection for the handicapped and those in hospitals, convalescent homes, correctional facilities, etc. In addition, OES should ensure that adequate communication links and equipment are available at the local level.

Implementation: Legislation requiring state-mandated local program.

Issue: Current Nuclear Regulatory Commission (NRC) regulations do not adequately recognize the need for off-site emergency planning for nuclear power plant accidents. NRC does concur in state plans, but this process is not mandatory for licensing or operation of a nuclear facility.

Recommendation A-4.

The State should urge passage of new federal legislation which would prohibit the granting of a commercial nuclear power plant operating license until local emergency response plans are approved by state authorities and state plans have received concurrence from the NRC. The Energy Commission should examine its authority to impose this requirement on any future nuclear plants in California.

Implementation: Governor's request to the California Congressional Delegation and the NRC.

3. NOTIFICATION AND ASSESSMENT OF EMERGENCY CONDITIONS

Issue: Adequate emergency response to nuclear power plant accidents depends on timely and accurate notification of local and state authorities by the plant operator. Emergency notification procedures should be initiated before an accident has reached serious proportion, so that state and local officials can take preliminary steps to respond. At present there are no uniform criteria for notification and local authorities complain of uncertainty as to when and under what circumstances they will be alerted.

Recommendation B-1.

The State Office of Emergency Services with the Energy Commission, local authorities, and plant operators, should develop within 90 days a detailed, objective set of notification procedures. These should guarantee that plant operators provide timely notification to off-site authorities in the event of a nuclear power plant incident which threatens to have consequences beyond the plant boundaries. These criteria would require notification in events such as the activation of emergency systems within the plant, evacuation of plant personnel from certain areas, as well as incidents not directly related to the operation of the reactor, e.g., fires, sabotage, etc.

These procedures should recognize the need for the earliest practical notification of local and state authorities of situations which are potentially serious. Uniform application of these procedures should be mandatory under state law.

Implementation: Governor's Directive
Legislation

Recommendation B-2.

The State should require the installation of automated systems in each commercial nuclear power plant. These systems would trigger alarms in the OES State Warning

Center and at designated local agencies. The alarms would be activated by any of the following: initiation of emergency core cooling systems, indications of high radiation in the containment building and indications of excessive radiation levels present in the release of stack gases.

Threshold levels for these devices should be established by the ARB, the Energy Commission, and the Department of Health Services, Radiologic Health Section.

Implementation: Legislation

Issue: During a nuclear power reactor emergency, communications between the plant and off-site authorities are of critical importance. Decisions to evacuate or take other protective steps must be based on an accurate and timely flow of information. At present, state and local officials must rely on periodic reporting of critical events by the utility operator as the basis of emergency actions. At Three Mile Island, this dependency resulted in confusion, misinformation, and a lack of credibility which is unacceptable in arriving at sound decisions.

Recommendation B-3.

The State Office of Emergency Services should train and certify individuals who would be dispatched to a nuclear power plant site upon confirmation of any emergency having potential off-site consequences (e.g. activation of at least two of the warning alarms specified in Recommendation B-2). This official's sole responsibility would be to maintain liaison with state and local emergency officials, apprising them of developments at the plant and recommending appropriate response actions.

Since this proposal may involve areas of federal jurisdiction, the Governor should request that the Nuclear Regulatory Commission, as part of its accident response plans, approve the placement of such state officials at the plants during an emergency and ensure that appropriate communications capabilities are in place.

Implementation: Governor's Directive to OES
Governor's letter to the Nuclear Regulatory Commission

C. TRAINING AND PRACTICE EXERCISES

Issue: At present there are few training programs which can prepare state and local officials to fully carry out their responsibilities in the event of an accident. Counties not previously involved in nuclear emergency planning are particularly in need of adequate training programs, especially in radiological monitoring and assessment of health effects.

Recommendation C-1.

The California Specialized Training Institute (CSTI) should incorporate nuclear emergency response into its emergency planning courses for local and state officials. Further, CSTI and the Office of Emergency Services should develop a program of simulation exercises to present realistic crisis management problems to decision makers responsible for handling nuclear power plant accidents. These exercises should be conducted at least annually, on location where possible.

Implementation: Governor's Directive

Recommendation C-2.

The State Office of Emergency Services along with the Department of Health Services and health physicists employed by the utilities, should develop radiological protection training for local and state health officials. Certification of local officials by the Department of Health Services should be required as part of the approval process of local emergency plans.

Implementation: Governor's Directive
Legislation mandating local programs

D. MONITORING OF RADIOACTIVE RELEASES

Issue: Monitoring equipment adequate to measure total radiation dosage or dose rate may not exist at all necessary locations.

Recommendation E-1.

The Department of Health Services in conjunction with the Federal Food and Drug Administration should, within the next 6 months, develop a program for the procurement and distribution of potassium iodide tablets to emergency response agencies. This distribution should be accompanied by cautionary advice on the use of the substance and its proper storage. The method of ultimate distribution of these products to the public in an emergency should be specified in local emergency response plans.

Implementation: Governor's Directive

Recommendation E-2.

The Department of Health Services and the Office of Emergency Services should develop a plan for predistribution of potassium iodide to those persons for whom it is determined that evacuation could not be carried out prior to their exposure.

Implementation: Governor's Directive

Issue: Present emergency plans do not adequately address the problem of radiological contamination of the food chain (the "ingestion pathway"). New federal guidance calls for ingestion pathway monitoring up to 50 miles from a nuclear power plant. Other studies have suggested much larger areas might be affected. In any case local capabilities to monitor food chain contamination would be taxed.

Recommendation E-3.

The Department of Health Services should assume responsibility for ingestion pathway monitoring following a nuclear power plant accident. Health Services should procure in situ sampling and analysis equipment and plan to monitor up to 200 miles from a power plant site. Training and information on sampling and contamination control should go to state and local officials who would assist the Department in this task.

Note: The Health and Safety Code gives the Department of Health Services authority to impound any crop or food product which, in its judgment, is affected with harmful levels of contamination. The Department and appropriate federal authorities should jointly establish threshold levels which would initiate this action.

Implementation: Governor's Directive

Issue: Under existing criteria, only minimal involvement of medical facilities is anticipated, but, in the event of a large power plant accident, emergency medical facilities could be overwhelmed.

Recommendation E-4.

The Department of Health Services and the State Office of Emergency Services should assist local jurisdictions in identifying those hospitals and other care facilities within a 50-mile radius of each nuclear power plant capable of handling radiological and trauma injuries. They should also identify provisions for large scale decontamination, handling of exposure cases and long-term monitoring of health effects on those exposed to radiation.

Implementation: Governor's Directive

F. PUBLIC EDUCATION

Issue: The experience at Three Mile Island clearly points out the need to provide better information to the public before and during a crisis at a nuclear power plant. At present the general public has little understanding of the nature of nuclear accidents, the hazards of radiation or possible protective measures they might take.

Recommendation F-1.

Information concerning accidental releases from nuclear power plants should be distributed to the public in the vicinity of nuclear sites. The State Office of

Emergency Services, assisted by the Department of Health Services and the Energy Commission, should prepare the following information for distribution to the public:

a. A brief description of radiation terms and dose comparisons including a description of relative health hazards resulting from various types of exposure.

b. A brief explanation of the kinds of events that can occur as a result of a serious reactor accident.

c. Information about countermeasures and protective actions which can be taken by the public.

This information should be distributed twice annually via utility bill inserts or a similar mechanism. Additionally, information on nuclear power plant accidents should be made a part of the "Survival Guide" which now appears in telephone directories in many areas of California.

Along with the general information described above, additional materials should be made available to those living in closest proximity to the plants (i.e., the Emergency Planing Zone as defined by the Energy Commission in Recommendation A-1). This would include information on the availability of potassium iodide as a thyroid blocking agent and special instructions concerning possible evacuation in the event of a reactor accident.

Implementation: Governor's Directive
PUC Order to private utilities
Legislation covering municipal utilities

G. LAND USE PLANNING

Issue: Current low density areas proximate to nuclear power plants face the prospect of significant population growth over time as the demands for housing increase. These demographic changes may erode the ability of local government to plan for the effective evacuation of at-risk populations in the event of an accident.

Recommendation G-1.

The Office of Planning and Research should amend the state guidelines for preparation and approval of Environmental Impact Reports under the California Environmental Quality Act. These guidelines should define within the class of "Mandatory Significant Effects" any proposed development or general plan change whose implementation may inhibit the execution of local emergency response planning for nuclear power plant accidents.

Environmental Impact Reports including such analysis should be reviewed for accuracy and adequacy by local and state offices of emergency services as well as the Energy Commission.

Implementation: OPR and Resources Agency

H. FINANCING FOR IMPROVED EMERGENCY PLANNING

Issue: Expanded emergency planning efforts to adequately prepare for nuclear power plant accidents will require increases in funding and staffing at the state and local level, beyond amounts currently budgeted.

Recommendation H-1.

The additional costs associated with improved emergency planning for nuclear power plant accidents should be borne by the utility operators themselves, since these expenses are part of the true costs of nuclear electric power generation in California. Therefore, the Office of Emergency Services, Department of Health Services, and the California Energy Commission should determine costs associated with development of emergency plans, training of personnel, procuring of equipment, and establishment of a public education program to meet the above outlined recommendations. The Public Utilities Commission and the Department of Finance should then establish an assessment structure whereby utility companies would reimburse state and local agencies for these expenses. The utilities should pay only those costs which can be assigned to nuclear preparedness, per se, as opposed to emergency planning in general.

Note: The costs of actually executing nuclear power plant response plans and the cleanup expenses following an accident may be substantial. Consideration of how these costs will be met was beyond the scope of this panel since that involves questions of liability insurance and the Federal Price-Anderson Act.

Implementation: Legislation

I. SUPPLEMENTAL RECOMMENDATIONS

Issue: While the federal government, through the Department of Energy and the Nuclear Regulatory Commission have responsibility for the handling of radioactive wastes, there are no current plans for the disposal of waste materials resulting from a nuclear power plant accident.

Recommendation I-1.

The State should insist that the Department of Energy and the NRC develop a plan for the handling and timely removal from the State of radioactive materials, including possibly portions of the plant itself, following a nuclear power plant accident.

Implementation: Governor's request to the NRC and Department of Energy

AMENDED IN ASSEMBLY AUGUST 23, 1979

AMENDED IN SENATE JULY 20, 1979

AMENDED IN SENATE JUNE 26, 1979

AMENDED IN SENATE JUNE 19, 1979

AMENDED IN SENATE JUNE 5, 1979

SENATE BILL No. 1183

Introduced by Senators Garamendi, Greene, Keene, Roberti, and Stiern

(Coauthors: Assemblymen Goggin, Agnos, Bosco, Costa, Harris, Hayden, Levine, Mello, Perino, Rosenthal, and Vasconcellos)

April 18, 1979

An act to add and repeal Section 8610.5 to the Government Code, relating to emergencies, making an appropriation therefor, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

SB 1183, as amended, Garamendi. Emergencies: nuclear powerplants.

(1) Existing provisions of law require the certification of sites and thermal powerplants, including nuclear powerplants, with a generating capacity of 50 megawatts or more.

This bill would require the Office of Emergency Services, in consultation with the State Department of Health Services, to investigate the consequences of a serious nuclear powerplant accident for nuclear powerplants in California with a generating capacity of 50 megawatts or more.

(2) Existing provisions of the California Emergency

Services Act specify procedures for responding to emergencies. The Governor is required to approve a State Emergency Plan and counties and cities are authorized to create disaster councils which are required to develop plans for meeting emergencies.

This bill would direct the Public Utilities Commission to develop and transmit to the Office of Emergency Services a method of assessment of the operators of the 4 specified powerplants sufficient to meet all state costs *not reimbursed from federal funds* pursuant to this bill and would specify that local agencies would be reimbursed for their costs *not reimbursed from federal funds* in preparing or updating their plans for the affected area surrounding such powerplants by the operator of each such powerplant. The bill would specify an initial $25,000 assessment on each such powerplant, and would direct each operator to pay this amount and such additional amounts, *not to exceed $2,000,000 from all such operators for reimbursement of state costs*, as are specified by the office to the State Controller for deposit in the Nuclear Planning Assessment Special Account, which the bill would create in the General Fund and would continuously appropriate to the State Controller for payment to state and local agencies for their costs pursuant to this bill. It would direct the State Controller to pay state and local agency claims which are certified by the Office of Emergency Services. It would provide for a pro rata reimbursement of any funds remaining after the purposes of this bill have been accomplished. It would direct each state and local agency concerned to submit its costs to the Office of Emergency Services.

The bill would specify that these provisions shall be repealed on January 1, 1983.

(3) Under existing law, Sections 2231 and 2234 of the Revenue and Taxation Code require the state to reimburse local agencies and school districts for certain costs mandated by the state. Other provisions require the Department of Finance to review statutes disclaiming these costs and provide, in certain cases, for making claims to the State Board of Control for reimbursement.

This bill provides that no appropriation is made by this act pursuant to Section 2231 or 2234 *for a specified reason.*

(4) This bill would take effect immediately as an urgency statute.

Vote: ⅔. Appropriation: yes. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

SECTION 1. Section 8610.5 is added to the Government Code, to read:

8610.5. The ~~State~~ Office of Emergency Services, in consultation with the *State* Department of Health Services *and affected counties*, shall investigate the consequences of a serious nuclear powerplant accident for each of the four nuclear powerplants in California with a generating capacity of 50 megawatts or more. This study, to be completed within six months of the effective date of this section, shall include the preparation of ~~site specific~~ *specific site* maps showing the areas likely to be affected by such an accident. These maps shall delineate Emergency Planning Zones, which shall reflect inhalation, ingestion, and other radiation pathways.

A similar study shall be made by the office for any subsequent nuclear powerplant with a generating capacity of 50 megawatts or more proposed for certification in California.

The ~~state~~ Office of Emergency Services shall revise its Nuclear Powerplant Emergency Response Plan to reflect the information provided in the study. The ~~state~~ Office of Emergency Services shall assist local authorities in preparing or upgrading their emergency response plans to reflect its new planning guidelines. The state plan shall be updated within six months after the study has been made. Local plans shall be updated and approved by the Office of Emergency Services in accordance with the following: (1) an initial draft plan shall be submitted to the office within six months after the study has been made, and (2) a final plan shall be completed, reviewed, and approved within 18 months after the effective date of this section. Neither the state plan nor any local plan

shall become effective or be implemented until submitted to the Legislature and approved by statute.

The current State Nuclear Power Plant Emergency Response Plan shall continue in full force and effect unless and until revised pursuant to this section and concurred in, or otherwise approved by, the Nuclear Regulatory Commission. *Local plans shall remain in full force and effect unless and until revised pursuant to this section.*

It is the intent of the Legislature that all state and local costs related to carrying out the provisions of this section *which are not reimbursed by federal funds* shall be borne by the operators of the four existing nuclear powerplants having a generating capacity of 50 megawatts or more, and that local agencies shall be reimbursed for their costs incurred in preparing or updating their plans for the affected area surrounding such powerplants by the operator of each such powerplant. The Public Utilities Commission shall develop and transmit to the Office of Emergency Services an equitable method of assessing the operators of such powerplants for their *reasonable* pro rata share of state agency costs. Each local agency involved shall submit a statement of its costs in such manner as the Office of Emergency Services shall require. Upon each such operator's notification by the Office of Emergency Services from time to time of the amount of its share of the actual or anticipated state and local agency costs, the operator shall pay such amount to the State Controller for deposit in the Nuclear Planning Assessment Special Account, which is hereby created in the General Fund and is continuously appropriated to the State Controller to carry out the provisions of this section. The State Controller shall pay from this account the state and local costs relative to carrying out the provisions of this section upon certification thereof by the Office of Emergency Services. Each powerplant operator shall within one month of the effective date of this section pay to the State Controller for deposit into the Nuclear Planning Assessment Special Account the sum of twenty-five thousand dollars ($25,000) for each nuclear

powerplant for the purpose of funding initial planning costs. Upon repeal of this section, any amounts remaining in the special account shall be refunded pro rata to the powerplant operators contributing thereto. *In no event shall the total of the reimbursements of state costs from all powerplant operators pursuant to this section exceed two million dollars ($2,000,000).* The amounts paid by ~~privately owned~~ *privately owned* utilities under this section shall be allowed for ratemaking purposes by the Public Utilities Commission. *Publicly owned public utilities may include amounts paid under this section in their rates.*

This section shall remain in effect only until January 1, 1983, and as of such date is repealed, unless a later enacted statute which is chaptered on or before January 1, 1983, deletes or extends such date.

SEC. 2. Notwithstanding Section 2231 or 2234 of the Revenue and Taxation Code, no appropriation is made by this act pursuant to these sections because self-financing authority is provided in this act to cover costs that may be incurred by it in carrying on any program or performing any service required to be carried on or performed by it by this act.

SEC. 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting such necessity are:

In order to protect the public health and safety in the event of a nuclear powerplant accident, it is essential that this act take immediate effect.

ATTACHMENT IV

AMENDED IN SENATE AUGUST 29, 1979

AMENDED IN SENATE JULY 17, 1979

AMENDED IN SENATE JUNE 5, 1979

SENATE BILL No. 1185

Introduced by Senators Garamendi, Carpenter, Greene, ~~Keene~~, Roberti, and Stiern

(Coauthors: Assemblymen Goggin, Agnos, Bosco, Costa, Harris, Hayden, Levine, Mello, Perino, Rosenthal, and Vasconcellos)

April 18, 1979

An act to add Chapter 7.7 (commencing with Section 25880) to Division 20 of the Health and Safety Code, relating to radiation, and declaring the urgency thereof, to take effect immediately

LEGISLATIVE COUNSEL'S DIGEST

SB 1185, as amended, Garamendi. Radiation: nuclear powerplants.

(1) Existing state law does not require operators of nuclear powerplants to follow specified criteria for notifying local and state authorities of situations dangerous to the public health and safety.

This bill would require the Office of Emergency Services to develop, within 6 months *of the effective date of the bill*, an alert classification system for nuclear powerplant operations. It would also direct each privately-owned and publicly-owned public utility operating a nuclear powerplant of 50 megawatts or more to install an automated alert system which will activate alarms in the California State Warning Center of the office ~~and certain local agencies designated by the office~~ in the event of activation by an emergency core cooling system

or the indication of threshold radiation levels, as specified. *Such system would be required to be operative within 9 months of the effective date of the bill.* The bill would require operators of nuclear powerplants to notify state and local authorities under the circumstances and in the manner specified in the alert classification system.

(2) Under existing law, Sections 2231 and 2234 of the Revenue and Taxation Code require the state to reimburse local agencies and school districts for certain costs mandated by the state. Other provisions require the Department of Finance to review statutes disclaiming these costs and provide, in certain cases, for making claims to the State Board of Control for reimbursement.

This bill provides that no appropriation is made by this act pursuant to Section 2231 or 2234, but recognizes that local agencies and school districts may pursue their other available remedies to seek reimbursement for these costs.

(3) This bill would take effect immediately as an urgency statute.

Vote: ⅔. Appropriation: no. Fiscal committee: yes. State-mandated local program: ~~no~~ *yes.*

The people of the State of California do enact as follows:

SECTION 1. Chapter 7.7 (commencing with Section 25880) is added to Division 20 of the Health and Safety Code, to read:

CHAPTER 7.7. NUCLEAR POWERPLANT RADIATION

25880. It is the intent of the Legislature that in the event of a nuclear accident timely and effective communications between the operators of nuclear powerplants in California and those state and local officials charged with nuclear emergency response activities be assured.

25880.1. The Office of Emergency Services shall, within six months after the effective date of this section, develop an alert classification system for nuclear powerplant operations, to be used by a nuclear

powerplant operator in determining whether circumstances exist which may cause an offsite radiation release in excess of that allowed during normal operating conditions. The office shall also specify notification requirements and procedures for each class of operating circumstances.

25880.2. *(a)* Each privately-owned and publicly-owned public utility operating a nuclear powerplant with a generating capacity of 50 megawatts or more shall install an automated alert system which will activate alarms in the California State Warning Center of the Office of Emergency Services ~~and each appropriate local agency as designated by the office~~. These alarms shall be activated by the operation of an emergency core cooling system or by an indication of threshold radiation levels in the containment structure or release stack. ~~The office, following consultation with appropriate State and local agencies and the public utilities, shall establish the threshold radiation levels requiring activation of such alarms.~~

(b) The alarm in the containment structure shall be activated when the radiation level exceeds 1.0 rem per hour. The Office of Emergency Services, in consultation with the Radiological Health Section of the Department of Health Services, shall establish specifications for the stack monitors to insure that, under the most adverse meteorological conditions, the alarms would be activated upon reaching levels which would result in a dose rate of .1 millirem per hour at the site boundary.

(c) Such automated alert system shall be operative within nine months of the effective date of this section.

25880.3. The operator of a nuclear powerplant shall notify local and state authorities under the circumstances and in the manner specified pursuant to this chapter.

SEC 2. *Notwithstanding Section 2231 or 2234 of the Revenue and Taxation Code, no appropriation is made by this act pursuant to those sections. It is recognized, however, that a local agency or school district may pursue any remedies to obtain reimbursement available to it under Chapter 3 (commencing with Section 2001) of Part 4 of Division 1 of that code.*

SEC. 3. This act is an urgency statute necessary for the immediate preservation of the public peace, health, or safety within the meaning of Article IV of the Constitution and shall go into immediate effect. The facts constituting such necessity are:

In order to insure that appropriate state and local authorities are notified of possible nuclear accidents in a timely fashion, it is necessary that this act take effect immediately.

TOWN OF ELON COLLEGE
P. O. BOX 339
ELON COLLEGE
NORTH CAROLINA 27244

MAYOR
T. L. SMITH
BOARD OF ALDERMEN
ROBERT OLSEN, JR. MAYOR PRO TEM
D. DWIGHT HALL, TREASURER
NELL W. SNYDER
D. S. ATKINSON
SHERLEY N. WHITE

CLERK
MARIE E. HUTTEL
ATTORNEY
SPENCER ENNIS
ENGINEER
LARRY ALLEY
CHIEF OF POLICE
HENRY F. HILLIARD

Nuclear Regulatory Commission
Washington, D. C. 20555

27 August 1979

To the NRC:

I am writing to comment on what should be included in rules concerning increased emergency readiness by both the licensee and the State and local authorities for the protection of those living near nuclear power plants. As the Shearon Harris nuclear plant is being built 40 miles southeast of us, this is a particularly important issue.

The basic objectives of emergency planning should include preventing exposure, reducing exposure, and evacuating the public if necessary. Preventing exposure is the most important thing in the event of off-site leakage.

An effective emergency response plan should include the following:

1) The licensee should have total responsibility for notifying state officials of any off-site leakage as soon as it happens, without delay.

2) The licensee should have the ability to evacuate the public within a 5-10 mile radius of the site of the leakage.

3) The State should have ways to reach everyone on a twenty-four hour basis. Some official in each locality should specifically be on call 24 hours to respond and alert the proper local officials and the public.

4) Stockpiles of potassium iodide foods that will retard radiation should be kept on hand at the local level.

5) The Evacuation Plan itself should include:

a) a designated place to evacuate the public to, which is away from the direction of the plume coming from the plant

b) there should be an alternate evacuation site designated ahead of time

c) both the primary and alternate evacuation sites should be at least 30 miles from the locality itself, and at least 50 miles from the plant site

d) the Fire Department, with the help of volunteers, in each locality, ought to be primarily responsible for evacuation

e) the Police Department in each locality probably should be left behind to guard against looters

f) the transportation necessary to evacuate the public should be checked out in advance so that citizens have access to transportation when it is needed, and include school busses, trucks from local firms, etc.

g) provisions should be made for emergency water, food, and first aid at the evacuation site

h) at least 5 persons in every locality should have medical training in treating both individuals for radiation exposure and in dealing with the whole community, especially to prevent panic

6) The State role in emergency planning will be larger at night, to make sure that police keep highways open, and that communications lines are kept open. It should be noted that some large cities, like Burlington, probably cannot be evacuated, but smaller cities and towns like Elon College can.

The State should co-ordinate the immediate evacuation of those in the outlying areas of the affected zone so that those moving from localities nearer the plant will not be held up by people in the perimeter areas who might be blocking exit routes if they are not evacuated in a smooth manner first.

The State should send its own communications team to the nuclear power plant as soon as they know there has been an accident. Permanently redundant phone lines should be maintained by the State, especially within 50 miles of the plant.

7) There should be at least one full-scale evacuation test of the emergency plan, of at least several communities.

dlh 9/4/79

8) Financial assistance definately should be provided to State and local governments for emergency response planning and preparedness. In addition to such funding, there should also be a crew of government experts, people who are experienced in disaster relief (military transportation planners, Red Cross, etc.) and in moving large numbers of people, to assist and train local officials in emergency preparedness and evacuating the public in the event of a nuclear accident.

9) In case the evacuation plan cannot or is not put into effect in time, emergency planning should include ways to get people under cover and fed in the event they cannot be evacuated safely. About the only way to reduce the public exposure is to have the State or federal government responsible for sending in an Army team (perhaps from Ft. Bragg for Shearon Harris, since its only an hour away by car), well-shielded and protected from the leaking radioactive material, to go in and spray the source of the off-site leakage, as it comes out of the plant.

10) The Evacuation Plan should be published in newspapers, once it is adopted; there should be public hearings in every locality to involve the public in adopting the plan and to ensure the plan's adequacy, and, special provisions should be made to evacuate institutions such as schools, hospitals, and prisons.

11) In each locality, there should be stockpiled emergency plastic radiation protection outfits (e.g., nuclecClean), at least 2 outfits per person, for emergency workers such as firemen and policemen. Breathing masks also should be provided. Emergency filters for gymnasiums and armories where large numbers of people may be lodged, should be ready and available for use. Safe water for those in such temporary shelters also should be set aside.

12) 90% of the funding for emergency evacuation planning, equipment and testing, should be borne by the licensee and the federal government, and 10% should be borne by the localities within 50 miles of the plant sites.

13) Emergency drills should be required because otherwise there is no way of knowing whether the evacuation plan adopted will really work in an actual off-site leakage situation, where many human lives may be at stake.

Sincerely,

TOWN OF ELON COLLEGE

Lew Church

Lew Church

SAN LUIS OBISPO AREA
TASK FORCE ON NUCLEAR POWER ISSUES
August 27, 1979

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR41483) (54)

Mr. Samuel J. Chilk,
Secretary of the Commission,
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Re: Comment Upon Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

Dear Mr. Chilk:

This letter transmits to the Commission formal written comments concerning the adequacy, acceptance and implementation of emergency planning around nuclear facilities in anticipation of proposed rulemaking by the Commission.

BACKGROUND

As noticed in 44 Federal Regulations 41483, the NRC is considering the adoption of additional regulations which will establish, as conditions of power reactor operation, increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both licensee and local and state authorities.

dlh.914

It is understood that the NRC's nuclear licensing process now requires only that power reactor license applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. Although some efforts have been made on the part of the NRC and other federal agencies to aid State and local governments in the development and implementation of adequate emergency plans on a cooperative and voluntary basis, there is ample evidence that plans are inadequate and woefully devoid of implementing systems which could reasonably demonstrate their operational feasibility in a true emergency.

At the present, NRC approval is not required for State and local emergency plans as a condition of nuclear power plant operation.

As recommended by the Government Accounting Office (GAO, Report to Congress, "Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies," March 30, 1979) and confirmed by the events surrounding Three Mile Island, the NRC ought not license new power plants or allow existing plants to operate unless off-site emergency plans, among other things, have been deemed adequate and operationally proven feasible.

A recent joint NRC-EPA Task Force Report entitled, "Planning Basis for 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, provides additional insight into need for better regulatory standards and approaches to emergency response planning. The content of this report is discussed below.

This commentary has been developed following, in part, the issues outlined in the notice by the Commission dated July 12, 1979, and discusses:

A. Critical objectives for effective emergency plans;

B. Acceptance criteria for State and local emergency plans;

C. NRC concurrence in State and local plans as a requirement for issuance of an operation license and for continued operation of a nuclear facility; and

D. coordination between the licensee plan and the State and local plans/implementation.

INTRODUCTORY STATEMENT

A full analysis of the issues raised by the NRC in seeking these written comments has led to the conclusion that the very risks which the NRC, State and local agencies, and licensees are attempting to protect against are of such proportions as to preclude any appreciable success. The NRC should carefully weigh the significance of this conclusion, for if the risks to the

public and the environment cannot be reasonably controlled under emergency situations, then there should be the gravest doubts whether the operation of such facilities should be allowed at all.

Nonetheless, it is crucial that the following comments be considered in order that the practical impossibility of successfully managing such risks be understood. If the NRC continues in its stated objective of improving emergency plans, the following responses represent the best and perhaps the only responsible manner in which such circumstances could be managed.

PUBLIC AND LICENSEE EMERGENCY RESPONSE PLANS

1. WHAT SHOULD BE THE OBJECTIVES OF EMERGENCY PLANS

On-Site Planning. The fundamental objectives of emergency planning within nuclear power plant sites are:

A. To prevent public radiation exposure;

B. To prevent the release of radiation off-site;

C. To reduce radiation exposure and damage on-site;

Off-Site Planning. The fundamental objectives of off-site emergency planning in proximity to a nuclear power plant are:

A. To prevent public radiation exposure;

B. To prevent injury and loss of life;

C. To provide all levels of the food chain and property from radiation contamination; and

D. To protect all aspects of the local eco-system from both short and long term radiation exposure and damage.

The NRC should establish quantitative criteria to accomplish the above only where such use will contribute to advance demonstration that the above objectives can and will be attained in a real emergency. Quantitative expressions should not be the exclusive means to determining whether objectives have been attained.

The objectives listed above are in order of the priority with which they should be dealt in an emergency situation.

2. WHAT CONSTITUTES AN EFFECTIVE EMERGENCY RESPONSE PLAN FOR STATE AND LOCAL AGENCIES? FOR LICENSEES? WHAT ARE THE ESSENTIAL ELEMENTS THAT MUST BE INCLUDED IN AN EFFECTIVE PLAN? DO EXISTING NRC REQUIREMENTS FOR LICENSEES (10 CFR PART 50, Appendix E) AND GUIDANCE FOR STATES (NUREG-75/111) LACK ANY OF THESE ESSENTIAL ELEMENTS?

An effective emergency response plan, whether on or off-site, is one which through testing demonstrates that the objectives of the plan can be achieved.

We believe a nuclear emergency plan is directly analogous to a grammer school fire drill and that no amount of planning on paper in terms of quantitative criteria or otherwise can satisfactorily guarantee success in advance of the emergency without thorough and repeated field testing of the plan and its components.

Existing NRC regulations require nuclear facility licensees to develop emergency response plans. 10 CFR 50, Appendix E. These regulations are expressed in terms of minimum requirements, or elements, which do not provide criteria sufficient to establish that plans would work even if actually enforced, tested and updated. Portions of these regulations require the licensees to coordinate their plans with State and local agencies. Federal guidelines (NUREG-75/111 and EPA-520/1-75-001) recommend that State and local governments formalize their emergency response plans in support of these facilities to protect public health and safety in the unlikely event of a significant release of radioactive material from a nuclear facility to the environment.

3-133

Public emergency response plans and implementing systems must meet the standards set forth in this letter as a mandatory precondition to the construction, licensing and continued operation of a nuclear power plant. Federal law and regulations for licensees and public agencies, after public notice and hearings (involving full citizen participation) must include provisions for the following crucial elements:

A. Provisions that the primary responsibility for writing and implementing emergency response plans rests with state and local governments which must comply with but may exceed comprehensive, tested minimum federal standards;

B. Provisions for determining that State and local emergency response plans are totally integrated, clearly delineating the responsibilities of each;

C. Provisions that licensee plans be totally integrated with such State and local plans, involving full citizen review and approval;

D. Assurances that both public agency and licensee emergency personnel have been certified through appropriate training and will remain on duty during an emergency;

E. Assurances that adequate and qualified medical and health services and facilities can and will accommodate the spectrum of medical and health needs which could arise during such an emergency;

F. Provisions for evacuating the public in times of radiation emergencies;

G. Specific measures to protect the public within not less than 100 miles of the licensed facility (planned off-site protective actions, including evacuation, shall explicitly take into account the anticipated range of actual or imminent radiation releases and durational, weather, seasonal, and traffic conditions);

H. Vesting of authority in the designated local lead emergency agency to halt plant operations where emergency plan tests demonstrate ineffectiveness.

3. and 4. SHOULD NRC CONCURRENCE IN THE ASSOCIATED STATE AND LOCAL EMERGENCY RESPONSE PLANS BE A REQUIREMENT FOR CONTINUED OPERATION OF ANY NUCLEAR POWER PLANT WITH AN EXISTING OPERATING LICENSE OR FOR THE ISSUANCE OF ANY NEW OPERATING LICENSE? IF SO, WHEN SHOULD THIS GENERAL REQUIREMENT BECOME EFFECTIVE?

Revised NRC regulatory standards should be enacted promptly to assure the public's health, safety and welfare under the ominous risks perceived from nuclear reactor operations.

It is imperative that public emergency response plans supported by proof of demonstrated workability be approved in advance by formal action of the NRC as a mandatory requirement for the continued operation of any nuclear power plant with an existing operating license and as a mandatory requirement for the issurance of any new operating license or construction permit.

Because NRC regulatory standards concerning the adequacy of such plans and operational systems are themselves presently inadequate, this requirement should be effective immediately upon issuance by the NRC of new comprehensive standards.

The new comprehensive standards must contain complete provisions for the matters enumerated in the responses to questions 1 and 2 above.

5. SHOULD FINANCIAL ASSISTANCE BE PROVIDED TO STATE AND LOCAL GOVERNMENTS FOR RADIOLOGICAL EMERGENCY RESPONSE PLANNING AND PREPAREDNESS? IF SO, TO WHAT EXTENT AND BY WHAT MEANS? WHAT SHOULD BE THE SOURCE OF THE FUNDS?

Public financial assistance should not be the source for State and local governmental radiological emergency response planning and preparedness. Applicants and licensees are creating enormous public and environmental risks through the operation of nuclear power plants and should bear the costs to adequately manage these extraordinary risks.

Proper emergency planning and operational systems needed even to attempt to cope with such risks will require special resources, expertise, and on-going testing and reevaluation. Licensees and applicants should be required to deposit and maintain in trust with and for the use of the designated lead public safety agency or other responsible authority an amount sufficient to offset these extraordinary costs for specialized planning and implementation considerations, including both human and material resources.

6. SHOULD RADIOLOGICAL EMERGENCY RESPONSE DRILLS BE A REQUIREMENT? IF SO, UNDER WHOSE AUTHORITY: FEDERAL, STATE OR LOCAL GOVERNMENT? TO WHAT EXTENT SHOULD FEDERAL, STATE AND LOCAL GOVERNMENTS, AND LICENSEES BE REQUIRED TO PARTICIPATE?

No plan, per se, can save a life or prevent irreparable injury or loss of property. It is critical to the emergency response preparedness process that plans formulated under adequate standards

and guidance be tested and demonstrated effective. Emergency tests should be required after the planning process has reached a point where testing would make evaluation possible. Such tests should be monitored by an agency qualified and disposed to render independent judgment. Tests should be under the direction of the agency designated by the State as being responsible for public safety within the area likely to be affected during emergencies.

Public participation in radiological response operational tests, including evacuation, would serve an essential purpose in evaluating whether the assumptions in the plans approximate reality.

Public participation should be considered only when the plans of the licensee and the public agencies have been sufficiently developed, integrated and been judged by the designated local emergency lead agency to warrant testing using human and equipment/facility resources which would be available in emergency conditions. The evaluation of drills should include maximum citizen participation through public meetings and other open forums.

It should be required that not less than two-thirds (2/3) of the population be involved in a minimum of three (3) drills prior to issuance of a construction permit and again prior to issuance of an operating license. Once a plant is operating, annual evacuation drills should be held to maintain a proper level

of emergency preparedness and to take into consideration changes in governmental, licensee and medical and emergency personnel as well as changes in population density and location. Unsatisfactory drills would result in suspension of plant operations until the deficiency was fully rectified.

7. HOW AND TO WHAT EXTENT SHOULD THE PUBLIC BE INFORMED PRIOR TO AN EMERGENCY, CONCERNING EMERGENCY ACTIONS IT MIGHT BE CALLED UPON TO TAKE?

Approved public emergency response instructions should be developed and widely published in the media; posted in public areas and places of public accomodation (eg. motels/hotels, campgrounds); and generally be kept available and up-to-date on a systematic basis within all neighborhoods and communities within the established emergency planning zone. Additionally, licensees should be required to include public emergency response instructions to all customers at least twice a year or whenever approved changes to the instructions occur.

An ongoing and systematic program of public education on radiological emergency planning should be established to complement both the emergency instructions and the emissions reporting and public-alert systems discussed below. The education program should be administered locally by the designated lead public agency and financed by licensees.

Full, accurate and timely public disclosure should characterize any incident occurring at a nuclear power plant where there is any likelihood of risk to the public or environment.

Routine plant emissions should be reported to the public. Daily independent readings of recorded emissions should be reported for broadcast by local media. Such a reporting method must be based upon a reliable monitoring system, independent of the licensee.

There should be prior public notice of all scheduled emissions, and a proven alert and communications system to announce unscheduled emissions. Such a system must be automatic and not within the immediate control of the licensee.

Specific mechanisms to accomplish the above should be direct and not strictly through representatives of the licensee. A regularly informed public will become a more knowledgeable and rational public in situations where panic, confusion, or at least misunderstanding might otherwise prevail.

B. WHAT ACTIONS SHOULD BE TAKEN IN RESPONSE TO THE RECOMMENDATIONS OF THE JOINT NRC/EPA TASK FORCE REPORT (NUREG-0396/EPA 520/1-76-016)?

This report was prepared in response to a request to the NRC from the Conference of Radiation Control Program Directors to "make

a determination of the most severe accident basis for which radiological emergency response plans should be developed by offsite agencies." This request followed other expressions of uncertainty from States regarding the extent of offsite planning and operational preparedness needed to cope with radiological emergencies at nuclear power plants.

Based upon our review of this report, it is urged that the NRC:

A. Require the use of a spectrum of accidents (not the source term from a single accident sequence) and concurrent external emergency conditions (eg. earthquake, hurricane, floods) as the basis for emergency response planning. Class 9 event sequences must be included in the planning basis, together with site specific evaluations regarding Class 9 accidents in environmental impact reports filed by license applicants;

B. Require and test Emergency Planning Zones for plume exposure and ingestion pathways based upon strict public safety/health risk considerations, not cost effectiveness or generic accident probabilities. Relative zone sizes/shapes should be based upon local planning and conditions using established minimum standards as the baseline;

C. Establish and test time frames and radiological characteristics of accidents at each plant site for use in determining appropriate effective emergency actions which could be taken to reduce accident consequences.

These requirements should be applied to and enforced upon all nuclear plants, planned, new or existing.

9. UNDER WHAT CIRCUMSTANCES AND USING WHAT CRITERIA SHOULD A LICENSEE NOTIFY STATE, LOCAL, AND FEDERAL AGENCIES OF INCIDENTS, INCLUDING EMERGENCIES? WHEN, HOW, TO WHAT EXTENT, AND BY WHOM SHOULD THE PUBLIC BE NOTIFIED OF THESE INCIDENTS?

Licensees have demonstrated repeatedly a lack of responsibility on this issue. The designated public safety lead agency shall be notified of all reportable facility occurences by a qualified representative certified by the NRC. Such notification shall be direct, accurate and timely, supported by an independent offsite radiological monitoring system to determine radiation exposure to the public from plant emissions. The public safety lead agency shall maintain for the public a current record of all reportable occurences.

Reportable occurences having public risk-potential shall be reported to the public on a basis consistent with degree of risk perceived by qualified and responsible representatives of the designated public safety lead agency. See comments to Question 7.

The vast and largely unmanagable dimensions of this issue reinforce concerns that adequate public protection can never be responsibly assured.

NRC EMERGENCY PLANNING AND PREPAREDNESS PROGRAM

10. HOW AND TO WHAT EXTENT SHOULD THE CONCERNS OF STATE AND LOCAL GOVERNMENTS BE INCORPORATED INTO FEDERAL RADIOLOGICAL EMERGENCY RESPONSE PLANNING?

The existing "guidelines" of the NRC to State and local governments do not provide any degree of assurance that response plans or implementation resources will be developed, tested and sustained. Federal law and regulations are needed to set rigid minimum standards by which State and local governments can better set planning and preparedness objectives, and through which the Commission can determine the adequacy of the total emergency response plans and operating system for each plant site. Such national standards should be premised upon public health, safety and the environment, not economic or cost factors, and should not be preemptive of more rigid, consistent state/local standards.

11. HOW SHOULD FEDERAL AGENCIES INTERFACE WITH STATE AND LOCAL GOVERNMENTS AND THE LICENSEE DURING EMERGENCIES?

The NRC must serve as the focal point for the development and enforcement of both licensee and public radiological emergency response and preparedness standards to the extent expressed in responses above. Other federal agencies and the NRC should first provide sufficient authority for the designated public safety lead agency to successfully cope with such emergencies. At the emergency scene, it will be this local agency that can best manage the emergency plan and coordinate both licensee and other organization/service resources, including federal support.

12. SHOULD THE LICENSEES BE REQUIRED TO PROVIDE RADIOLOGICAL EMERGENCY RESPONSE TRAINING FOR STATE AND LOCAL GOVERNMENT PERSONNEL? IS SO, TO WHAT EXTENT? SHOULD THE FEDERAL GOVERNMENT PROVIDE SUCH TRAINING? IF SO, TO WHAT EXTENT?

Operating licensees should be required to fund through a pooled trust arrangement adequate radiological emergency response training for State and local government emergency personnel. The training programs and the standards by which they are developed and administered should be the responsibility of the federal government working in close collaboration with State and local governments who are better able to perceive and judge local/site conditions. Failure to implement such training programs to the required standards would result in suspension of plant operations until the deficiency is fully rectified.

13. TO WHAT EXTENT SHOULD RELIANCE BE PLACED ON LICENSEES FOR THE ASSESSMENT OF THE ACTUAL OR POTENTIAL CONSEQUENCES OF AN ACCIDENT WITH REGARD TO INITIATION OF PROTECTIVE ACTION? TO WHAT EXTENT SHOULD THIS RESPONSIBILITY BE BORNE BY FEDERAL, STATE OR LOCAL GOVERNMENTS?

Operating licensees should not be the exclusive source of accident assessment where there is any public risk-potential.

The designated local public safety lead agency should assume this responsibility and be given the means to carry it out. See comment on Issues 8, 9, 10 and 11 above.

14. WOULD PUBLIC PARTICIPATION IN RADIOLOGICAL EMERGENCY RESPONSE DRILLS, INCLUDING EVACUATION, SERVE A USEFUL PURPOSE? IF SO, WHAT SHOULD BE THE EXTENT OF THE PUBLIC PARCICIPATION?

Public participation in and evaluation of radiological response operational tests, including evacuation, would serve an essential purpose in evaluating whether the assumptions in the plans approximate reality.

Public participation should be considered only when the plans of the licensee and the public agencies have been sufficiently developed, integrated and been judged by the designated local emergency lead agency to warrant testing using human and equipment/facility resources which would be available in emergency conditions.

It should be required that not less than two-third (2/3) of the population should be involved in a minimum of three (3) drills prior to the issuance of a construction permit and again prior to issuance of an operating license. Once a plant is operating annual evacuation drills should be held to maintain a proper level of emergency preparedness and to take into consideration changes in governmental, licensee and medical and emergency personnel as well as changes in population density and location. Unsatisfactory drills would result in suspension of plant operations until the deficiency was fully rectified.

CONCLUSIONS AND RECOMMENDATIONS

The adequacy of emergency response planning and preparedness in and around nuclear power plants should be predicated upon strict regulatory standards which affirmatively and directly demonstrate operational feasibility. It is now abundantly clear

that plans do not an operatical system make; and those public agencies responsible for safeguarding the health, safety, welfare and environment must aggressively and consistently discharge those responsibilities by developing and enforcing standards applied as a pre-condition to the construction or operation of nuclear power reactors. Because of the enormous risk-potential, lesser action would constitute gross disservice and irresponsibility. The cost of developing, managing and up-dating emergency plans should be the collaborative responsibility of the government at all levels. The extraordinary risks to the public and environment have been created by licensees who have neither the apparent business incentive nor corporate moral disposition to accept or responsibly manage such risks by their own initiative. Operators of existing plants and applicants for licenses should bear the full costs of these extraordinary risks. They should not, however, be placed in the position of determining the adequacy of emergency planning or preparedness systems.

3-139

It is strongly urged that the Commission:

1. Determine to proceed with proposed rules consistent with the above comments on issues relating to nuclear power plant and public emergency preparedness;

2. Make such regulations effective immediately upon issuance; and

3. Reconsider the petition for rulemaking filed by Critical Mass/Public Interest Research Groups concerning the operational details of evacuation planning. The petition has merit.

The protection of humanity and the environment deserve no less.

Respectfully submitted,

The San Luis Obispo Area
Task Force on Nuclear Power Issues

By: Robert E. Griffin

This task Force was formed by and for the citizen organizations listed on the following Addendum Page to write and file this joint letter.

SIGNATORY ADDENDUM PAGE

The following organizations within the San Luis Obispo, California, area join in the submission of the above letter dated August 27, 1979, to the U.S. Nuclear Regulatory Commission regarding the adequacy and acceptability of emergency planning around nuclear power facilities:

The Sierra Club
Santa Lucia Chapter
1727 Corralitos Avenue
San Luis Obispo, CA 93401

The Concerned Citizens
of San Luis Obispo
P. O. Box 456
San Luis Obispo, CA 93406

San Luis Obispo
Mothers for Peace
1415 Cazadero Street
San Luis Obispo, CA 93401

Seaside Survival Group
1397 Second Street
Baywood Park, CA 93402

Concerned Physicians of
San Luis Obispo
84 Santa Rosa Street
San Luis Obispo, CA 93401

Concerned Citizens of
Shell Beach
189 Leeward Street
Pismo Beach, CA 93449

South County Voters Against Diablo
1037 Ritchie Road
Grover City, CA 93433

Solid Rock
846 Marina
Morro Bay, CA 93442

People Generating Energy
452 Higuera Street
San Luis Obispo, CA 93401

Oak Tree Alliance
6604 Portola
Atascadero, CA 93422

Concerned Architects of
San Luis Obispo
738 Higuera Street
San Luis Obispo, CA 93401

The Secretary of the Commission is requested to provide each of the above organizations with all reports and documents published by the Commission relating to its actions on this matter.

cc: Senator Alan Cranston
Senator S.I. Hayakawa
Representative Robert J. Lagomarsino
Representative Leon E. Panetta
Governor Edmund G. Brown, Jr.
State Senator Robert Nimmo
Assemblyman Carol Hallett

DOCKET NUMBER
PROPOSED RULE PR - 50 (55) (44 FR 41483)

August 30, 1979

Secretary of the Commission
United States Nuclear
Regulatory Commission
Washington, D. C. 20555

Re: Advance Notice of Proposed Rulemaking
Adequacy and Acceptance of Emergency
Planning Around Nuclear Facilities
(10 CFR Part 50 Appendix E)

Dear Mr. Secretary:

Houston Lighting & Power Company (HL&P) and Texas Utilities Generating Company (TUGCO) are pleased to submit the following comments on the NRC's Advance Notice of Proposed Rulemaking ("Notice") concerning the adequacy of emergency planning around nuclear facilities. (44 Fed. Reg. 41483, July 17, 1979). HL&P and TUGCO are both constructing nuclear power plants expected to begin commercial operation in the period 1981-83. We are, therefore, vitally interested in the questions posed in the Notice.

We recognize that, notwithstanding the extensive precautions taken in the construction and operation of nuclear facilities, accidents may occur which affect off-site populations. Protection of the public health and safety therefore requires planning on a scale comparable to that which a State devotes to similar natural and man-made disasters. We believe that sensible and effective measures can be taken to protect the public without any unreasonable burden on the licensees or State and local governments. We are presently working with the State of Texas and local authorities on the development of an emergency plan which we expect to submit for NRC review before the end of this year. The Commisuion's request for comments on emergency planning thus comes to us at a particularly appropriate time. Our responses follow in the order of the questions set forth in the Notice.

* * *

dlh 9/4

1. What should be the basic objectives of emergency planning?

   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?

   To what extent should these objectives be quantified?

The objective of emergency planning should be to provide reasonable assurance that appropriate means will be taken to mitigate the consequences in the event of an accident. We do not believe, however, that emergency plans can prevent radiation exposure. Given the fact that the potential for nuclear accidents does exist, it is clear that every reasonable measure should be taken to reduce exposures. In our view the magnitude of the emergency planning effort should be sufficient to assure timely notification to appropriate authorities and mobilization of pre-designated public safety resources. We agree with the conclusion of the NRC/EPA Task Force that evacuation should be among the measures included but is not, in itself, an objective of emergency planning. The essential elements of an effective plan are described in our response to question 2.

As to the point of whether these objectives should be quantified, see our answer to question 8.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Among the essential components of an emergency plan are the following:

(1) Accident Assessment: A capability must exist (within the licensee organization and government agencies) for determining the magnitude of the release of radioactive material, including criteria for notification of public safety officials, as well as criteria for determining when protective measures (e.g., evacuation) should be recommended.

(2) Communication: Since implementation of off-site protective measures requires effective notice to local, State

and Federal agencies, it is essential that adequate communications facilities be in place for this purpose (e.g., sufficient telephone, radio and other communication systems).

(3) Off-Site Monitoring: There is a necessity for pre-designated sampling locations to evaluate the radiological consequences of the emergency in the environment and provide data to be used to determine the scope and nature of protective measures required.

(4) Emergency Organization: The licensee must have an organization with clearly delineated lines of authority and responsibility for implementing emergency notification and other measures, including call-up of off-duty personnel to supplement on-site capability as necessary. Comparable lines of authority and responsibility must be designated at the various levels of government. Plans should be available to utilize special governmental and nongovernmental teams of experts to report rapidly to the scene of the accident.

(5) Emergency Facilities: Emergency control centers should be established for licensee personnel and government officials which will not interfere with control room activities devoted to "management" of the accident. Such centers should be equipped to receive and transmit data to and from the control room and other locations as needed.

(6) Public Information: Centralized and informed communication with the public and the media is essential. Persons should be designated for this purpose in the licensee organization and within the affected levels of government. There should be some prior dissemination of information about emergency plans such as annual publication in the local newspapers. This should assure that the public will understand in advance the nature of such plans.

(7) Drills: The emergency plan should include provision for periodic drills. Licensees should make arrangements with State and local agencies assuring the full participation of those agencies in such drills. As discussed in the answer to question 13, specific elements of the plan can and should be tested periodically.

(8) Protective Measures: In addition to the simple and effective measure of sheltering about which the public should be advised, plans must be made for evacuation of either entire populations or special segments thereof (e.g., pre-school children) within certain geographic sectors. The burden of conducting the evacuation is on local agencies. But emergency plans should provide for an orderly discussion among public health officials, licensee personnel, and consultants -- as time permits -- of the

need for, and scope of, the evacuation. Preparations should also include provision for the distribution of thyroid blocking agents as the circumstances of the accident may indicate.

(9) Care and Treatment Facilities: In addition to on-site facilities for the care and treatment of plant personnel and operators, arrangements must be made with local hospitals to assure that the special equipment necessary to treat radiation injuries (or conventional injuries to persons who may be contaminated) are in place. Again, this will require close cooperation with State and local officials as well as special training for medical and para-medical personnel.

We believe that the terms of 10 CFR Part 50, Appendix E and NUREG-75/111 are sufficiently broad to encompass the components outlined above. There is merit in allowing the States, as they develop plans for nuclear emergencies, to draw upon their relevant experiences in dealing with comparable events. The broadly framed requirements of Appendix E and NUREG-75/111 permit this diversity of experience to be reflected in the various State emergency plans, and further, allow State and local governments to tailor plans to meet uniquely local requirements.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

The term "concurrence" as used in questions 3 and 4 should mean a review system similar to that now employed by the NRC -- basically an informal process. If, however, the failure to obtain "concurrence" means denial or revocation of a license, then the "concurrence" procedures will likely become more formal. This more formal approval process wil inevitably require lengthy administrative proceedings, including the possibility of complex quasi-judicial hearings.

We assume that the TMI experience has provided the States (as well as applicants and licensees) with a very high

incentive to have adequate emergency plans in place promptly. Our efforts with the State of Texas demonstrate our commitment to do so. However, we are concerned that some States may remain recalcitrant in their obligation to prepare State emergency plans. If formal approval by NRC of a State plan is made a pre-condition to licensing for operation, the recalcitrant State would then have a veto power over the licensing of any power reactor in the State. That situation must be avoided for obvious reasons.

In our view, a continuation of the present informal "concurrence" procedure will allow the States to develop adequate plans more quickly than the formal process discussed above. Of at least equal importance, it will permit the necessary flexibility to take into account the special features of each reactor site and the varied structure of State and local governments throughout the nation. We urge that the complex machinery of a formal review process not be created and activated without allowing a reasonable period for creative, voluntary responses to Federal criteria by each State, its local governments and concerned applicants and licensees.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

State and local governments may require assistance, financial and otherwise, for radiological emergency response planning. We do not envision a major program -- perhaps financial assistance to augment by 1 or 2 persons present State emergency planning organizations and distribution of equipment and materials uniquely required for nuclear emergencies (e.g., decontamination and thyroid blocking agents). The program should be funded through the Federal Emergency Management Agency (FEMA) which currently coordinates Federal-State emergency plans in many areas, including nuclear attack.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State, or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Drills are essential to effective emergency response planning. For the reasons discussed below, the State must play a pivotal role in any emergency. We, therefore, suggest that drills be conducted under the aegis of the State and that Federal, local government and licensee personnel participate.

Specific parts of the emergency plans can and should be tested periodically. For instance, it is especially important to test notification procedures. Other tests should evaluate the speed and efficiency of the deployment of public safety officials, their equipment and vehicles. In conjunction with such tests -- or as a separate exercise -- the readiness of care and treatment facilities should be tested and evaluated.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Prior notice to the public is an important element of an emergency plan. Specifically, the public should be advised of how they will be informed of the existence of an emergency, by whom, and the range of protective measures that may be required. The message may be conveyed through annual publication in local newspapers and/or direct distribution of informational materials. Special attention should be directed to informing persons within the Emergency Planning Zone for the plume pathway. These steps should assist materially in the crucial early stages of the emergency response where an understanding of the initial notification is important.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

As indicated above, HL&P and TUGCO believe that the essential objective of an emergency response plan is to reduce radiation exposure to the public. This is consistent with the Task Force Report which refers to "dose savings" as the ultimate objective of emergency plans. The Task Force Report identifies Emergency Planning Zones for the plume and ingestion exposure pathways. While we recognize that emergency planning beyond the LPZ is contemplated in certain instances by NRC regulations (43 Fed. Reg. 37473, August 23, 1978), the 10-and 50-mile EPZ's recommended by the Task Force are arbitrary and do not take into account local topography, demography, meteorology and other distinctively local characteristics.

The joint Task Force recommends the use of quantified dose exposure levels (Protective Action Guides) to determine whether emergency actions should be implemented. The use of PAG's as broad guidelines is useful; however, strict adherence to such quantified trigger values is not recommended. The pre-designated

State official should use his professional judgment to determine whether a particular emergency response is called for, given the total information available to him.

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The licensee should notify pre-designated Federal, State and local agencies as soon as it has been determined pursuant to pre-established criteria that an accident potentially involving off-site radiation exposures has occurred. This is not to suggest that emergency response procedures be triggered immediately, but rather that cognizant officials be promptly alerted to the fact that operations under the emergency plan may have to be initiated. Provisions for such an "advisory notice" should be part of licensee and government emergency plans. Subsequent notifications by the licensee should be based upon established site-specific limits reflecting EPA protective action guides.

Notice to the public, if necessary, should be given by the State official who heads the agency with primary responsibility for the development and execution of the State emergency plan or such other official as the Governor of the affected State may designate. The licensee should continue to furnish information relevant to the emergency throughout the course of the accident but the primary responsibility for implementing protective measures and making related announcements should rest with the designated State official.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

This group of questions is directed broadly to the interface between Federal agencies and State and local governments. It is vital that Federal emergency planning take into account the

requirements and roles of State and local governments. We are convinced that the success of an emergency plan - especially in the early stages of an incident -- will depend upon the effectiveness of the State and local response. Accordingly, provision should be made for a continuing dialogue in the forthcoming rulemaking to obtain the views of those State and local officials prior to promulgation of any final rule. It may also be useful to initiate a program of periodic meetings where officials at all levels of government convene to discuss matters of common interest relating to emergency planning.

During the course of an emergency, Federal agencies should communicate with State and local officials through channels reflecting pre-designated lines of authority and responsibility within each level of government. In general, however, we believe that the Federal role should be essentially advisory, the primary responsibility for implementing the plan resting with the State, acting with and through its local public safety authorities. While Federal authorities may have more extensive training and experience with respect to radiological emergencies (see below) and while their input will be of great importance, tactical decisions on invoking protective measures can best be made by those with a direct knowledge of local conditions.

In order to assist State and local officials in executing the functions described above, the Federal government (which has the largest repository of knowledge and experience in radiation protection) should make personnel and facilities available for the training of State and local officials.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Information provided by licensees will undoubtedly be crucial -- especially in the early stages of an accident. As events develop, however, the assessment capability of Federal agencies as well as State officials should be brought into play. As indicated above, the ultimate assessment of the responsible State official should govern with respect to initiation of protective measures.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

It is impractical to have public participation in emergency plan drills, especially those designed to effectuate evacuation. Nor are such evacuation drills necessary so long as State and local officials have determined, in advance, which routes will be utilized under postulated accident conditions.

* * *

Houston Lighting & Power Company and Texas Utilities Generating Company appreciate the opportunity to submit these comments. We recommend that the Commission provide opportunity for further comment prior to adoption of a final rule on this subject.

Respectfully submitted,

Jack R. Newman
David R. Toll
1025 Connecticut Ave., N. W.
Washington, D. C. 20036
Attorneys for Houston Lighting & Power Company

Nicholas S. Reynolds
1200 Seventeenth St., N. W.
Washington, D. C. 20036
Attorney for Texas Utilities Generating Company

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483) (56)

LeBOEUF, LAMB, LEIBY & MacRAE
1333 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, D.C. 20036
TELEPHONE 202-457-7500
CABLE ADDRESS
LEBMAN, WASHINGTON, D.C.
TELEX: 440274
TELECOPIER
202-457-7540

LEON A. ALLEN, JR.
JOSEPH E. BACHELDER, III
ERNEST S. BALLARD, JR.
S. B. PETER BERGEN *
GEOFFRY G. C. BEST
DAVID H. BICKS
TAYLOR H. BRIGGS
CHARLES H. BURGER
THOMAS E. BURKE
JOHN A. CHASE
ROGER D. FELDMAN *+
EUGENE R. FIDELL *+
JACOB FRIEDLANDER
GERARD GIORDANO
DONALD J. GREENE
JAMES H. GREER, II *+
JOHN L. GROSE *
DOUGLAS W. HAMES
CARL D. HOEGLMAN
MICHAEL HOWARD
JAMES F. JOHNSON, III*
RONALD D. JONES
JAMES A. LAPENN
LEE N. LAWSON *+
GRANT B. LEWIS
MINDA M. LOVEJOY

CAMERON F. MacRAE *
CAMERON F. MacRAE, III *
GERARD A. MAHER
SHEILA M. MARSHALL
JAMES G. MCELROY
JAMES P. MCGRANERY, JR.*+
PHILIP PALMER MEGUIGAN
E. ELLSWORTH MOWERY, III
WILLIAM D. MORRISON *
HARVEY A. NAPKIN
JAMES O'MALLEY, JR. *
J. MICHAEL PARISH
JOHN C. RICHARDSON *
WILLIAM M. ROSENBLATT
JOHN A. RUDY
PATRICK J. SCOGNAMIGLIO
HAROLD M. SEIDEL
HALCYON B. SKINNER
JOSEPH B. STRAUSS
SAMUEL M. SUGDEN
EUGENE B. THOMAS, JR.*+
LEONARD M. TROBSTEN *+
HARRY M. VOIGT *+
R. RICHARD WACHTEL
BERNARD F. WATSON
THOMAS A. ZIERK

RANDALL J. LEBOEUF, JR. 1929-1979
HORACE R. LAMB 1934-1977
ADRIAN C. LEIBY 1902-1976

140 BROADWAY
NEW YORK, N.Y. 10005
TELEPHONE 212-269-1100
CABLE ADDRESS
LEBMAN, NEW YORK
TELEX: 420349

47 BERKELEY SQUARE
LONDON W1X 5DB, ENGLAND
TELEPHONE 01-493-7531
TELEX: 28933

* RESIDENT PARTNERS WASHINGTON OFFICE
+ RESIDENT PARTNERS LONDON OFFICE
* ADMITTED TO THE DISTRICT OF COLUMBIA BAR

August 31, 1979

U.S. Nuclear Regulatory Commission
Docketing and Service Branch
Washington, D. C. 20555

Re: Nuclear Regulatory Commission
Advance Notice of Proposed
Rulemaking--Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities--
10 CFR Part 50 (44 Fed. Reg. 41483,
July 17, 1979)

Gentlemen:

Enclosed are comments of the Edison Electric Institute on the above referenced Notice. Detroit Edison Company, Niagara Mohawk Power Corporation, Omaha Public Power District, Public Service Company of Indiana, Inc., and Rochester Gas and Electric Corporation hereby adopt the comments of the Edison Electric Institute as their own in response to the above referenced Notice.

Respectfully submitted,

LeBoeuf, Lamb, Leiby & MacRae

Enclosure

dlh 9/4

3-145

August 31, 1979

Comments of the Edison Electric Institute
on Nuclear Regulatory Commission
Advance Notice of Proposed Rulemaking--
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities--10 CFR Part 50

I. Introduction

Edison Electric Institute submits these comments in regard to the Advance Notice of Proposed Rulemaking concerning Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities published by the Nuclear Regulatory Commission ("NRC") in the Federal Register of July 17, 1979, 44 Fed. Reg. 41483. These comments on emergency planning also apply to the issues raised in the Petition for Rulemaking recently filed by a number of organizations, including Critical Mass and Public Interest Research Groups. See 44 Fed. Reg. 32486 (June 6, 1979).

Edison Electric Institute is the association of the nation's investor-owned electric utilities. Its members serve 99.6 percent of all ultimate customers served by the investor-owned segment of the industry, generate more than 77 percent of all of the electricity in the country and service more than 77 percent of all ultimate electricity customers. A number of Edison Electric Institute's members are the operators of nuclear power reactors and/or are responsible for the planning, design or construction of additional reactors. Its members therefore

would be affected directly by the adoption by the NRC of additional regulations concerning the adequacy and acceptance of emergency planning around nuclear facilities.

Edison Electric Institute agrees that the Commission should complete this important proceeding promptly. Among other things, this will serve to provide the NRC staff and NRC licensees with necessary guidance. However, because of the complex and interrelated issues which this rulemaking addresses--including the legal and practical responsibilities of Federal, State and local governmental entities and NRC licensees--the Institute strongly urges the NRC to publish a proposed rule for notice and comment rather than making any rule immediately effective. There is no justification here for circumventing the normal requirements of Section 4 of the Administrative Procedure Act for obtaining comments from the public and deliberate consideration of these comments by the Commission prior to rulemaking. The requirements of the National Environmental Policy Act might also be violated by making any such rule immediately effective. Finally, the Commission would be violating the request by President Carter voluntarily to apply the policies and procedures of Executive Order 12044, 43 Fed. Reg. 12661 (March 24, 1978) if it acted precipitously in this important matter and without preparation of a Regulatory Analysis.

The precise applicability of any revised emergency planning requirements to the siting and licensing of nuclear power plants for which applications have not yet been filed requires further evaluation in the light of this rulemaking proceeding. The Commission should continue to consider emergency planning requirements at the construction permit stage. However, detailed planning requirements appropriate to the operating license stage are unnecessary and infeasible at the construction permit stage.

Edison Electric Institute's comments on the issues raised by the NRC in the Advance Notice of Proposed Rulemaking follow.

II. Comments on Issues Raised in Advance Notice of Proposed Rulemaking

1. What should be the basic objectives of emergency planning?
   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?
   To what extent should these objectives be quantified?

Response:

For nuclear facilities, the basic objectives of emergency planning should be:

(1) To provide reasonable assurance that appropriate measures can and will be taken to protect public health and safety in the event of an emergency.

(2) To limit public radiation exposure in the event of an emergency.

(3) To provide timely dissemination of accurate information to local, State and Federal authorities and to the public.

The objectives or purposes of emergency planning should not be confused with the various measures which may be employed to accomplish these fundamental objectives. To accomplish these objectives, any emergency plan must allow flexibility and provide for early communication to designated governmental officials who will determine the appropriate action to be taken. Experience has shown that emergency plans cannot account for all possibilities in any practical manner. The NRC should not require that emergency plans for nuclear facilities attempt to encompass every conceivable type of emergency situation or prescribe in advance specific protective measures (such as evacuation).

Evacuation is but one action which may be appropriate in the event of an accident. Evacuation should not be the objective of emergency planning. Other actions are sheltering, administering radioprotective drugs, using special breathing apparatus, and curtailing access to contaminated areas. Officials responsible for implementing the protective

actions must be able to take into account existing and projected constraints and use professional judgment to determine which actions are most appropriate to protect the public at a particular site. Each protective action carries its own risks and those risks must be balanced against both the risks from the projected radiation exposure in the event of an accident and the risks of alternative protective measures.

Preventing all exposure under all accident conditions is not a feasible objective. Each emergency plan should have as an objective taking the preventive measures most effective to limit public radiation exposure. Quantified criteria, such as the Environmental Protection Agency's Protective Action Guides, should be applied only to define an accident situation and to initiate various phases of the emergency plan taking into account the risks of alternative actions. Therefore, the Commission should not attempt to quantify an acceptable level of public exposure as a basis for emergency planning.

The objective of timely dissemination of accurate information to the public encompasses both prior notification (see Issue 7) and ongoing information during an emergency (see Issue 2). This objective includes not only providing accurate information but also eliminating or

refuting inaccurate information which is reported or rumored.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

Most of the elements of an effective radiological emergency plan are in common with those of an effective plan for other types of public emergencies such as floods, tornadoes, train derailments and chemical tank ruptures. Thus, the best assurance of an effective radiological emergency plan is for it to be incorporated in an overall plan for all other types of emergencies, which are dealt with much more frequently than are radiological emergencies. This also provides a greater opportunity for testing the plan's workability. Organizational responsibilities and emergency functions which are common to all types of disasters should be included in general emergency planning, so they need not be duplicated for radiological emergency planning. The latter should address only those matters which have particular significance or are unique in responding to a radiological emergency. The role of local officials

in communications, traffic control, evacuation, public notification and other emergency responses tends to be the same regardless of the cause of the emergency.

An effective emergency response plan must integrate the plans of the State and local agencies and the licensees. An effective emergency plan should ensure that actions to control an accident, assess the extent of a hazard, initiate notification and protective measures and terminate protective measures will be carried out promptly and expertly.

The essential elements of an effective emergency response plan are all defined within the following five functions:

1) define the organizational and operational roles of all of the parties involved;

2) state limitations which, when exceeded, actions will be taken;

3) establish communication channels;

4) outline plans which provide flexibility for dealing with the emergency; and

5) establish means to test the plan and monitor its effectiveness.

The first function is the most crucial; without identifying who is to do what, and when, the other elements in a plan exist in a vacuum. The question, 'Who is in charge?' should be answered before it must be asked. Fragmented authority can contribute to the problem, making

it more serious than it might have been.

State and local officials. State and local officials have the responsibility to determine and carry out appropriate measures to protect public health and safety in the event of an emergency. Responsibility for the initial response to limit public radiation exposure rests with local governmental officials who have the knowledge of existing local conditions and the authority necessary to implement protective measures for the public in their jurisdictions.

Licensee. The NRC licensee's role is necessarily limited to: (1) notifying offsite authorities of the potential hazard, (2) providing ongoing assessments of the hazards, (3) providing radiological assistance if requested, and (4) recommending to offsite State and local authorities public protective measures that might be effective.

Federal Government. The role of Federal agencies should be regarded primarily as supportive of, and not as a substitute for, responsible action by NRC licensees and State and local governments. The nature of the support to be provided to State and local governments by Federal agencies, including the NRC, should be clearly defined in the emergency plan.

The second essential element in an emergency plan is a set of procedures to define what an accident is; that

is, to determine when emergency activities of any sort should be initiated and terminated. Assessment is a subelement of this function: determining current and projected magnitude and possible impacts.

Once the initial emergency determination and assessment has been made, the next essential element of the plan--communications channels--becomes crucial. Communication among all of the parties to the plan is essential to provide assurance that appropriate measures will be taken. The consequences of an accident can be effectively limited only if the actions of Federal, State, and local government and licensees are well-coordinated and lines of communication are clear. The NRC and other Federal agencies must identify their chain-of-command for communications. Early communication by the licensee of potential hazards and consequences to responsible governmental officials is important to allow them the time to decide promptly among the measures available. The time available for action is strongly related to the time consumed in notification. All of the parties involved--NRC licensees, State and local authorities, and Federal agencies--must know how to communicate with the others, with whom to communicate, and what information should be communicated in what form. Some of the necessary subelements are the bases for notification,

methods of communication, call lists of specific authorities, notification networks, 24-hour-day coverage, and listings of specific information needed from the facility for decision-making. The concept of an offsite emergency response center has been offered as part of the solution to the communications problem and it should be adopted. Physical as well as organizational communications channels must be adequate for emergencies. Direct links through dedicated circuitry, or their equivalent, between facilities and State and local officials and between facilities and NRC regional or Washington offices should be required. Communication links between State and Federal officials should be established where required to support the emergency plan.

State and local government plans must provide for the fourth element, flexibility. The responsible government officials must be not only aware of, but prepared to implement, a variety of protective measures. Each accident may have different consequences, both in nature and degree. Different types of releases may cover different time periods; wind and weather conditions also affect release characteristics. Planners must consider the time required to implement particular protective measures (such as evacuation) in terms of the specific release characteristics for each site.

The final element, testing, is essential in order to ensure that the other elements are all in place and that the plan will work as designed. The means to implement this element must provide for regular review, drills and tests, and cooperation among all parties. See the discussion for Issues 6, 10, and 14.

The existing NRC requirements and guidance are adequate on a generic basis, but they should be viewed as guidelines to be adapted for individual facilities. The emphasis should be on two areas: site-specific variations, and radiological-specific variations. A large number of specific emergency plan elements will vary from site-to-site, because of facility characteristics such as size and safety features, local geographic, climatic, and demographic features, and technical resources of the responsible State and local governments. Similarly, the assistance and guidance required to be offered to State and local governments by the NRC and the NRC licensee should be aimed at those aspects of emergency planning which are significant or unique to radiological accidents and the particular plant, respectively. Review in connection with licensing actions by NRC should be functional and site-specific; plans should not be required to contain elements which are unnecessary or inappropriate for the particular facility under review.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continuing operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response:

The NRC already evaluates State and local emergency response plans on a site-specific basis in the licensing process, and it should continue to do so. However, prior NRC "concurrence" in State and local emergency plans should not be a requirement for either new or continuing licensing. If there is to be a significant modification in either the level of review or the result of a review, three key issues must be addressed:

1) How should concurrence or non-concurrence be defined?

2) What time frame should be allowed for bringing plans into compliance?

3) What are the legal and practical problems involved and how can they be resolved?

Concurrence should be defined on a functional and site-specific basis. Emergency plans should be reviewed only in terms of whether they satisfy the objectives

outlined in the response to Issue 1. The NRC should not dictate or require specific procedures for implementation, but should consider whether essential functions for public protection are included. Licensing decisions should not be based on whether or not every item on a detailed list is checked off. The NRC may define key elements which must be covered in some manner but should not define subelements in such detail as to preclude flexibility of response or ability to adapt to differing State and local government organizational concepts. The plans should be reviewed from an overall perspective rather than in a piecemeal fashion. The NRC should consider whether some elements of the plan are defined or implemented in such a way as to offset or mitigate an apparent deficiency in other elements. Similarly, the NRC should review State plans only in conjunction with and with reference to the plans of the licensee and the localities in the vicinity of the nuclear facility. If the public in the planning zone is provided adequate protection in any manner, further NRC concurrence in the State's overall plan should not be necessary. Functional review should also be directed to site-specific characteristics rather than to technical compliance. Neither the State and local governments nor the licensee should be required to include elements which are clearly inappropriate or unnecessary for a particular site.

The time frame afforded for plans to be brought into compliance should be realistic and should also be site-specific. In setting deadlines, the NRC must recognize that licensees cannot take unilateral action to improve State and local plans. Furthermore, any deadlines should recognize that actions cannot be taken until further guidance is given by the NRC in coordination with other responsible Federal agencies. The time limit should also allow for normal scheduling problems and for site-specific adjustments. For example, States and local governments which have done little emergency planning in this area will need more time to "start from scratch" than governments which already have plans which merely need minor adjustments or improvements to be brought into compliance. Areas made up of a number of small, independent local governments will need more time for coordination than an area with one large, active county government. Such small governments will also have fewer resources to devote to the emergency planning problem and may often be distracted by more immediate local problems.

There are also several legal and practical issues which should be considered. These involve problems of the role of the new Federal Emergency Management Agency (FEMA) and Federal/State and State/local relationships. First, the NRC has no authority to require States or

localities to develop emergency plans. The NRC should not link emergency planning and nuclear powerplant licensing in a way which would penalize consumers for the failure or unwillingness of States or localities to develop emergency plans. This is a particularly sensitive issue where a single site may encompass a multi-State emergency planning zone. Secondly, the level of emergency planning which is acceptable to the affected public is essentially a State and local political issue. If the public to be protected wants a more effective plan, it will make this known to the State and local government planners through the political process. The Federal Government could provide additional financial and technical assistance to encourage emergency planning if financial constraints are the problem. Finally, NRC concurrence procedures cannot impose any specific division of labor or relationship between States and their local governments. State laws and State participation in and contributions to local emergency planning will vary. The NRC cannot require any particular type of decision to be made or action to be taken at any particular level. This problem may be overcome, however, by reviewing emergency plans on a functional basis rather than on a detailed procedural basis.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

Federal funds should be provided as needed for general plans to meet all types of emergencies. This should be administered by the new Federal Emergency Management Agency. If States and localities have adequate general emergency plans, there should be little need for additional planning, or funds, for radiological emergencies at specific sites. Federal assistance for generic radiological emergency needs, however, should be provided. This could be done either through FEMA, or through the NRC, which has more expertise in assessing and defining such needs. The NRC has a responsibility to encourage and assist State and local authorities to develop nuclear emergency plans.

"Generic" needs which could be Federally funded include training for State and local personnel who might be expected to respond to a nuclear emergency (e.g., police, firefighters, medical workers), communications links, and equipment necessary for offsite monitoring and assessment. The amount of assistance provided should be site-specific and geared to the realities of the problems encountered by

State and local governments in developing their own emergency plans. Federal oversight should be provided to ensure that the assistance is used appropriately.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response:

Drills by licensees are now required by 10 C.F.R. 50, Appendix E, are described in Regulatory Guide 1.101, and are recommended in NUREG 75/111. Although a decision to require state or local government participation on a regular basis could provoke legal challenges concerning Federal authority over state and local governments, cooperation in such tests should be strongly encouraged to ensure that the emergency plans will work as expected. Drills should be conducted under combined Federal, State and local authority. Drills should be as realistic as possible and should, at a minimum, test the communications links for ability to make contact, and for notification speed and message content.

Although it may not be possible for the NRC to require State and local participation, it may be possible to encourage it in a number of ways. For example, State and local authorities can be educated about the types of

problems which have been identified in previous drills and which could have been serious in a genuine emergency, pointing up the need for identifying such problems in advance. If financial constraints inhibit State and local cooperation, Federal funding should be provided. The public should not be asked or required to participate (see Issue 14).

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

It is both impractical and undesirable to provide detailed information about the actions which might be taken for all possible emergencies. As emphasized above, one of the essential objectives of an emergency plan is to maintain flexibility of response. Providing detailed information to the public in advance of an emergency situation might even limit the ability of responsible officials to choose among major alternative protective actions. Yet, without some prior knowledge of what to expect and what to do, the public may not react as quickly or as cooperatively as the situation demands. If information is supplied in advance to the public, it must include (1) the potential hazards involved, (2) the range of

protective responses expected, and (3) how emergency instructions will be communicated. The communications aspect of prior information is most important. The information need not explain the specific protective measures to take, but it is important for the public to know the nature of the possible emergency, that an emergency plan exists and how the public will be informed about it if it is ever put into operation. As with many other aspects of radiological emergency planning, providing prior public information should be part of the State and local general emergency planning. If the public knows how it will be instructed about hurricanes, tornadoes, floods, or industrial accidents they need only know that the same source will also be used for nuclear emergencies.

The general level of information recommended could be disseminated in a number of ways. It is a State or local responsibility to provide this information, as it is for any other emergency planning information, and the NRC should not shift this responsibility to its licensees. If necessary, FEMA may provide funds for publication in local newspapers, announcements on local radio or television stations, or similar methods. The detailed emergency plans could be maintained for public inspection and comment at announced locations and a copy could be made available to a

member of public on request. As noted above the plan, should not be generally published or distributed.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response:

There should be emergency planning efforts based on a plume exposure pathway. Detailed emergency planning should continue to be performed for the Low Population Zone, established for each plant on the basis of specific plant and site features. It would also be reasonable to establish an emergency planning zone around each plant ranging out to about 10 miles for the plume exposure pathway. However, the detail of planning should be greater within the smaller radius of the Low Population Zone than beyond the boundary of this zone and out to the 10-mile radius. Recognizing, for example, the fact that there is more time to take protective action the farther one is from the plant in the event of an accident, it is reasonable to conclude that the type and level of emergency planning should not be the same for the entire 10-mile radius. Requiring the same level of planning for the entire 10-mile radius would divert scarce resources from the real task at hand.

State and local planning should address controls over an ingestion pathway. It is important in this connection to consider what constitutes a real "emergency" situation, and to recognize that some types of protective measures cover situations that are not "emergencies" in the most immediate sense. For example, while potential ingestion exposure zones may be large, the time period available for taking protective measures is much longer. Wind speed and dispersion effects tend to be correlated in such a way that the [illegible] ahead, the more it is [illegible]ntial exposure. Because [illegible]stion, there are more points at [illegible]e measures may be taken. Sources of exposure [illegible]ctified and dealt with on the ground and before [illegible]ocessing, or after processing and before distribution. Again, there is considerably more time for projection, assessment, and implementation of protective measures than there is for the plume exposure pathway.

The emergency plans made for other accidents contain elements which are also applicable to so-called Class 9 accidents, such as a definition of the organizational and operational roles of the parties; communications channels; a chain of command; and protective action guidelines. However, detailed planning should not be required

for Class 9 accidents. There is no other type of emergency planning which is required or performed for disasters of such a level and of such low probability. The Three Mile Island accident and the response to it by Federal, State and local governmental agencies indicate that improvements are needed in emergency planning but also tend to confirm that Class 9 accidents should not form an explicit emergency planning basis. It is true that public perception of danger plays a much larger part than probability of occurrence in nuclear emergency planning. However, public perception should not be the NRC's final arbiter in this instance, where the magnitude of planning and the probability of occurrence are at such odds. Such planning, if required in similar detail as for other radiological emergencies, would constitute a considerable burden on State and local governments which, as noted above, do not perform emergency planning for analogous types of disasters.

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, and to what extent, and by whom should the public be notified of these incidents?

Response:

The licensee should be required to notify State, local, and Federal agencies where there is a serious

potential of radiological consequences in excess of a clearly defined limit, and when that excess has been indicated by plant conditions. As discussed in the Response to Issue 2, an essential element of an effective plan is a definition of action levels. A set of action levels in each emergency plan should define when notification will take place. The action levels should be established in such a way as to be non-discretionary for the licensee: when the level is met, the action is taken.

Notification levels should be set low enough for each nuclear facility to ensure that the public health and safety will be adequately protected. They should be s low enough to allow for early notification of the officials responsible for selecting and implementing protective measures. However, they should be set high enough to assure that there are not so many false alarms that notification is not taken seriously by either the agencies or the public.

Notification to the public should be made by a clearly designated governmental official in accordance with individual site and State-local emergency plans and quantified criteria such as the Environmental Protection Agency's Protective Action Guides. Public notification should not be undertaken by the licensee or the NRC. Notification to

the public must clearly distinguish between emergencies for which action is to be taken and incidents reported for public information purposes only. Pre-emergency planning should be performed to define the types of information public announcements will contain as well as their format.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response plans?

Response:

State and local concerns should continues to be incorporated into Federal planning for several reasons:

1) The basic responsibility for implementing protective actions rests particularly with the local governments.

2) State and local governments are familiar with important site-specific conditions, some of which may change over time.

3) State and local governments are likely to be more cooperative with licensee and Federal efforts in emergency planning if they feel that their special concerns are being considered.

Coordination between State and local general emergency planning and Federal and licensee radiological-specific emergency planning should continue in order to

ensure that crucial gaps are filled and that unique requirements are met.

Incorporation of State and local concerns can be addressed at several stages. First, State and local agencies should be invited to participate at the earliest stages of emergency planning (i.e., pre-licensing), to ensure that the plan's assumptions are locally realistic. Second, State and local participation in drills should provide opportunities for corrections and adjustments. At all times, State and local officials should be able to suggest changes which may be required by any local physical, economic, or demographic changes that they are aware of.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The lines of communication and authority should be a clearly defined element of each site and State-local emergency plan. Both the direct communications links and provision for an offsite emergency response center will facilitate Federal cooperation. The role of the Federal government should be primarily supportive, providing special supplies, equipment, or knowledge, as requested by the State or local governments or licensees. Federal

agencies operate at a general level of knowledge, and thus should take their lead from State and local agencies, which are more familiar with the specific site, conditions, populace and resources. Federal agencies should obtain guidance from the licensee with respect to plant conditions and equipment needed at the site.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

The NRC should be concerned with the level of training of local emergency personnel (or other mitigating arrangements) rather than by whom such is provided. General radiological emergency training could be either conducted or funded by the NRC or FEMA for localities which could not otherwise afford it.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

The NRC licensee's role should remain primarily an advisory one. The licensee's unique knowledge of the

plant must obviously be the basis for the initial assessment of the potential hazard, and also for ongoing assessments of any increase or decrease in the danger or its duration. However, the decision to implement offsite protective measures must be made by State and local officials in accordance with their own plans. The licensee has the responsibility to help the State and local officials understand the situation so that those officials who have the authority to order necessary actions can make appropriate decisions. The licensee has no authority to implement off-site emergency protective actions.

After the initial notification by the licensee as discussed under Issue 9, above, State and local officials should have the means to review the initial assessment and to monitor the actual hazards. Because most State and local governments cannot support full-time radiological specialists, it will be difficult for them to assimilate a wide variety of subjective assessment criteria. Therefore, offsite monitoring equipment and training, funded or provided by the NRC or FEMA, may be necessary to help establish uniform action level criteria on which to base decisions. The NRC and other Federal agencies should provide support and advice.

14. Would public participation in radiological emergency drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

Public participation in emergency drills, including evacuation, would serve no useful purpose, carries unnecessary risks, and would be counter-productive. According to the NRC's response to the GAO report on emergency planning (EMD-78-110, March 30, 1979, page 52), public evacuations are carried out in the United States at the rate of about one per week. They are virtually all conducted without a prior drill, and usually result in an orderly public response with few evacuation-related health or safety effects. For example, in 64 evacuations involving 1,142,336 persons which took place between 1960 and 1973, there were only ten deaths and two injuries related to the evacuation process. Two of the deaths were the direct result of failure to follow directions, and seven were the result of the crash of a single helicopter, not a usual mode of evacuation. In "Evacuation Risks--An Evaluation" (EPA-520/6-74-002), an EPA study pointed out that there are many myths about public response to disasters. One such myth is that people become disoriented and hysterical during a disaster. The truth appears to be to the contrary: that it is difficult to make people take the danger seriously and to persuade them to leave their homes. If this is true during a genuine emergency, it is likely to

be more true for a drill; and it is questionable whether people can be legally required to participate in a practice drill.

Aside from the fact that such drills are unnecessary and could very well result in only a low level of public participation, there are real risks to consider. First, although evacuations are relatively safe, there still exists some likelihood of evacuation-related injuries and deaths. Second, there is the possibility that after a number of drills the public would not take the evacuation or other actions seriously and would fail to respond in a genuine emergency. Finally, there is the problem that drills may cause the public to react in a too patterned manner, limiting the ability of officials to make any changes necessary to adapt to actual emergency conditions.

The public should not be asked or required to participate in drills conducted by the licensee and State and local officials.

DOCKETED USNRC
PROPOSED RULE PR - 50 (44 FR 41483) (57)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 31 1979

OFFICE OF THE ADMINISTRATOR

Mr. Samuel J. Chilk, Secretary
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chilk:

In accordance with the U.S. Environmental Protection Agency's (EPA) responsibilities under Section 309 of the Clean Air Act, as amended, we have completed our review of the Nuclear Regulatory Commission's (NRC) July 17, 1979 Federal Register advance notice of proposed rulemaking entitled, "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" (10 CFR Part 50). We commend the Commission's decision to initiate an expedited rulemaking procedure on licensee and State and local emergency response plans. Our responses to the specific questions listed in the notice are enclosed. Our general comments are listed below.

We strongly recommend adoption of the joint NRC-EPA Task Force Report, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants." The report underlines the concept of generic Emergency Planning Zones as a basis for the planning of response actions in the event of a serious nuclear accident. We recommend the adoption of this concept as well as application of EPA's Protective Action Guides for use in all emergency planning. These guideines provide for the initiation of pre-determined protective actions as soon as dose projections exceed a given trigger level. Trigger levels are designed to minimize impacts by requiring action prior to actual exposure.

We recommend that the entire spectrum of possible accidents be considered in emergency planning because it cannot be assumed that only a single release will result from an accident. The timing and radiological characteristics of projected releases should be considered in emergency planning.

We believe that Federal funding should be provided to States for designing and testing their Radiological Emergency Response Plans for facilities now in operation. The extensive manpower required to accomplish this effort in a reasonable time would probably tax many of the states most in need of developing plans. Support on a regional level from EPA, NRC, the Federal Emergency Management Agency and the Food and Drug Administration should be strengthened to meet this initiative. However, we believe that the licensees should be responsible for funding all necessary emergency planning for new facilities.

Thank you for your attention to our comments on this advance notice. If you have any questions regarding our comments, please contact Mr. Thomas Pierce of my staff at 755-0780.

Sincerely yours,

William N. Hedeman, Jr.
Director
Office of Environmental Review

Enclosure

U.S. ENVIRONMENTAL PROTECTION AGENCY
Comments on
Nuclear Regulatory Commission's
Advance Notice of Proposed Rulemaking
"Adequacy and Acceptance of Emergency
Planning Around Nuclear Facilities"

Listed below are NRC's questions and EPA's responses.

1. What should be the basic objectives of emergency planning? To what extent should these objectives be quantified?

The main objective should be to ensure public health and safety (1) by reducing public exposure to radiation through evacuation or other means and (2) by neutralizing or removing the radiation source.

2. What constitutes an effective emergency response plan for state and local agencies?

As discussed at the "Radiological Emergency Preparedness Training Conference" in Kansas City on July 24-25, 1979, there are certain actions which we believe should be taken immediately.

- Upgrade all licensees' existing plans to conform with Regulatory Guide 1.101;
- Establish adequate Emergency Operations Centers;
- Provide for adequate offsite monitoring;
- Develop adequate state plans for the population within a 10-mile radius of the site;
- Test current plans with full exercises.
- Clearly identify responsible officials at all levels of government for emergency decision-making and for monitoring.

In addition, an effective plan should include maps showing:

- emergency planning zones;
- evacuation routes and transportation networks;
- drinking water sources and surface and groundwater systems;
- population distribution;
- hospitals, schools, police stations; dairies within 10 miles of the site
- prevailing winds.

3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

Yes, NRC concurrence on state and local emergency response plans should be a requirement for continued operation of any nuclear power plant. For future plants, this requirement should become effective at the time radioactive material is brought on site. For existing plants, this requirement should become effective within one year after promulgation.

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for issuance of any new operating license for a nuclear power plant?

Yes, construction permits should not be issued for sites where an effective emergency evacuation could not be accomplished, as outlined in NUREG-0396. Similarly, no construction permits should be issued where the resources of a state or local emergency response group would not be adequate to implement an acceptable plan.

EPA believes that the NRC should institute a new siting policy which formally incorporates the requirements outlined in NUREG-0396 for emergency planning purposes.

EPA recommends that this policy be applied at the Construction Permit stage rather than at the Operating License stage. This requirement should become effective within one year after promulgation.

5. Should financial assistance be provided to state and local governments...?

We believe that Federal funding should be provided to States for designing and testing their Radiological Emergency Response Plans for facilities now in operation. The extensive manpower required to accomplish this effort in a reasonable time would probably strain the resources of many states and localities. Support on a regional level from EPA, NRC, the Federal Emergency Management Agency (FEMA) and the Food and Drug Administration (FDA) should be strengthened to meet this initiative. However, we believe that the licensees should be responsible for funding all necessary emergency planning for new facilities.

6. Should radiological emergency response drills be a requirement?

Current test procedures involve drill evaluation by the Regional Field Cadre (which includes representatives of EPA, NRC, FDA and FEMA). An annual drill involving the licensee and state and local emergency response personnel, with a critique by the Cadre, would seem to be a minimum requirement. In cases where a state fails to comply with this requirement, consideration should be given to cancellation of concurrence. Subsequent upgrading of a plan would be expected as well as periodic telephone drills to test communications.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Basic information should be distributed with customers' electric bills each month. The licensees and local jurisdictions should also seek to maximize media coverage of each drill.

8. What actions should be taken in response to the recommendations of the joint EPA/NRC Task Force Report?

The Task Force recommendations should be promptly implemented.

9. Under what circumstances ... should a licensee notify state, local and Federal agencies of incidents, including emergencies? When, how, to what extent and by whom should the public be notified of these incidents?

A description of methods of notification by facility operators is described in NUREG-75/111, "Guide and Checklist for Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities." The same document describes procedures for notification of the public. The mutually agreed upon criteria by State, Local and Federal representatives, and by the licensee should be followed. Methods of notification, should be site-specific. Either the State or the NRC should designate one individual as the official spokesperson to avoid conflicting reports.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

The Federal, State, and Local authorities are responsible for the health and safety of the population within their jurisdictions. Any new regulations should clearly delineate the responsibilities of all parties, including the licensee and all appropriate government agencies. (One of the major problems at Three Mile Island was that Federal authorities were not brought into the situation early enough.)

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

The NRC should coordinate the Federal effort. Each Federal agency should have its areas of responsibility clearly spelled out in the emergency plan, i.e., EPA would be responsible for air and water monitoring, etc.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should one Federal government provide such training? If so, to what extent?

Federal agencies should provide the training in the latest up-to-date methods and equipment. The licensees should fund this training.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Assessment of the actual or potential consequences of an accident should be the responsibility of Federal, State and local government. See responses to questions 10 and 11 above. The licensee should be responsible for providing the appropriate agencies with all relevant information available to it.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

No, but the public should be made aware of emergency plans and of drills and other tests as stated in our response to issue 7 above.

August 27, 1979

(58)

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Mr. Samuel J. Chilk
Secretary of the Commission,
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Subject: Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

Dear Mr. Chilk:

In writing this letter I am responding to a request for public comment published in Vol. 44 of the Federal Register, p. 41483. In the interest of brevity, questions enumerated in that request will not be repeated in this letter; instead, responses numbered herein will address identically numbered questions in the Register.

By way of introduction, I live with my wife and our two small children in San Luis Obispo, where we have owned our home for five years. I have a B.A. in Zoology and an Elementary Teaching Credential; I have taken several years additional coursework in Engineering, and am employed by the San Luis Obispo County Air Pollution Control District.

Living approximately 10 miles from the as yet unlicensed Diablo Canyon Nuclear Power Plant, and in the wake of Three Mile Island, I feel a strong sense of urgency for development of adequate, effective emergency plans around all nuclear facilities. While I applaud the NRC's recent interest in improving emergency planning, the agency deserves a strong reprimand for not fully recognizing this vital need at an earlier date. To the extent that emergency plans for nuclear plants currently operating or under construction are functionally inadequate, the NRC has been derelict in pursuing its responsibility to protect public health and welfare.

Acknowledged by card. 9-6-79

Comments addressing specific questions published in the Federal Register are included below:

1. The primary objective of emergency planning should be to prevent public radiation exposure offsite and onsite by any means necessary, including but not limited to the timely evacuation of all people threatened with exposure. A corollary to this objective is that of preventing public injury or illness as a result of an emergency. The secondary objective of emergency planning should be to protect property within the exposure area from loss or damage as a result of an emergency.

2. An effective emergency response plan for State and local agencies and licensees should be practical and tested through drills. Definition of the elements which should be included in a plan should be determined at a series of workshops held by NRC staff at a variety of locations nationwide, to encourage maximum public participation in that decision.

3. NRC concurrence in State and local emergency plans for operating nuclear power plants should be required within 60 days following promulgation of these contemplated rules. Provision should be made for continued operation of existing plants at decreased capacity beyond that date by means of a petition for variance from the rule, submitted by the licensee, and establishing a schedule of compliance whereby the licensee will coordinate the preparation of any necessary State or local plans. Such variances should be limited to a duration of one year. If suitable plans have not been approved within this period, operation of the facility should be suspended.

4. Issuance of new operating licenses for any currently unlicensed nuclear facility should be suspended until criteria for adequate plans have been developed through these proceedings, and related State and local response plans have been approved by the Commission.

5. Since the necessity for an emergency response plan is a direct result of the operation of a nuclear facility, the cost of preparing any required response plan should be borne by the licensee and passed on to ratepayers, rather than being supported by general public funds. Only by directly accounting for all costs associated with operation of a nuclear facility will the actual cost effectiveness of nuclear generation of power be properly evaluated.

6.&7. The public should be completely informed prior to an emergency of all actions it will be expected to take. This information should be reinforced by periodic drills performed by the licensee, public agencies and the public.

8. No comment.

9. As witnessed by historical performance (Browns Ferry, Ala.; Three Mile Island, Pa.), licensees experiencing an actual or potential emergency situation are reluctant to notify authorities

early enough to allow evacuation of downwind residents who are threatened with radiation exposure. This performance has led to the conclusion that an independent public representative, possibly an NRC inspector, should be on site to monitor plant operation at all times. This representative should be charged with the responsibility of notifying local authorities and the public at the first warning of a potential emergency problem. Only in this manner will the public receive warning sufficiently in advance of possible exposure to permit effective, orderly evacuation.

10. The concerns of State and local governments should be incorporated fully into Federal emergency planning, possibly by means of the local workshops discussed in the response to question 2.

11. No comment.

12. As discussed in the response to question 5., above, licensees should bear all financial responsibility for preparation of emergency plans, including training of State and local government personnel who will play roles in a response plan, and including financial responsibility for performance of the periodic drills which will assure the success of a plan.

13. See response to question 9. above

14. A large enough fraction of the public should participate in emergency response drills to assure knowledgable, orderly response to an actual emergency.

Unsolicited comment: Successive spheres of influence around each nuclear facility should be defined by careful meteorological and emissions modelling, establishing a series of concentric potential impact areas unique to each facility. Response plans should be designed to address the specific needs of each of these areas. Some areas, for instance, will need earlier evacuation notification than others. In any event, these spheres of influence should define actual projected impact areas, rather than convenient preexisting geographical or political regions, and they should include all areas of possible radiation exposure under worst case conditions.

Thank you for your attention and the opportunity to comment on this subject of critical importance.

Sincerely,

Paul H. Allen III
197 Lunata Drive
San Luis Obispo, Ca.
93401

Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

[10 CFR Part 50]

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Advance Notice of Proposed Rulemaking.

SUMMARY: The Nuclear Regulatory Commission is considering the adoption of additional regulations which will establish as conditions of power reactor operation increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both the licensee and local and state authorities. The Commission is interested in receiving public comment on objectives for effective plans, acceptance criteria for State/local emergency plans, NRC concurrence in State and local plans as a requirement for issuance of an operating license or for continued operation of a nuclear facility, and coordination between the licensee plan and State and local plans. The Commission seeks written comments on what items should be included in the rule.

DATES: Comments are due no later than August 31, 1979.

ADDRESSES: Written comments concerning these issues should be submitted to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

FOR FURTHER INFORMATION CONTACT: Patricia A. Comella, Site Designation Branch, Office of Standards Development, Nuclear Regulatory Commission, Washington, DC 20555, 301-443-3691.

SUPPLEMENTARY INFORMATION: The NRC requires that power reactor license applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. In this way off-site emergency planning has been related to the nuclear licensing process. See 10 CFR Part 50, Appendix E (1979), see also additional guidance in U.S. NRC, Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," (Rev. 1, 1977).

To aid State and local governments in the development and implementation of adequate emergency plans, the NRC, in conjunction with seven other Federal agencies, has attempted, on a cooperative and voluntary basis, to provide for training and instruction of State and local government personnel and to establish criteria to guide the preparation of emergency plans. However, the NRC has not made NRC approval of State and local emergency plans a condition of nuclear power plant operation.

The accident at Three Mile Island has raised a number of questions about the adequacy of radiological emergency response plans. Even before the accident the GAO had recommended that NRC not license new power plants for operation unless off-site emergency plans have been approved by the NRC. GAO, Report to the Congress, "Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies," March 30, 1979. The Commission is also considering new guidance to State and local governments on emergency planning, based on an analysis of a joint NRC-EPA Task Force Report, "Planning Basis for 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, December 1978. See 43 Fed. Reg. 58856 (December 15, 1978), see also 44 Fed. Reg. 27137 (April 18, 1979). Furthermore, a number of organizations, including Critical Mass and Public Interest Research Groups, have renewed and supplemented a petition for rulemaking, previously denied by the Commission, concerning the operational details of evacuation planning. See 44 FR 32486 (June 6, 1979).

The Commission has decided to initiate an expedited rulemaking procedure on the subject of State and local emergency response plans and those of licensees. The Commission is soliciting public comments in this area, particularly on the following issues:

1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?

b. To prevent public radiation exposure?

c. To be able to evacuate the public?

To what extent should these objectives be quantified?

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The comments received will be collected and evaluated by the NRC staff, which will, in turn, submit recommendations on proposed rules to the Commission. Based on the comments it receives from the public and the analysis of the problem presented by the NRC Staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rule immediately effective. The Commission anticipates completion of this expedited rulemaking in approximately six months.

The NRC staff is presently conducting a comprehensive review of all aspects of the NRC emergency planning and preparedness program. Therefore, the Commission is also interested in receiving comments on all other aspects of emergency planning, including issues raised in the Critical Mass/PIRG petition for rulemaking and questions such as the following:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Dated at Washington, D.C. this 12th day of July, 1979.

For the Commission,

Samuel J. Chilk,

Secretary of the Commission.

Commonwealth Edison
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

August 31, 1979

DOCKET NUMBER (59)
PROPOSED RULE PR-50 (44 FR 41483)

Secretary
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Commonwealth Edison Company hereby submits comments in respect of the Advance Notice of Proposed Rulemaking published by the NRC on July 17, 1979, 44 Fed. Reg. 41483. Commonwealth Edison owns and operates seven nuclear units at three sites in northern Illinois and presently holds construction permits for six additional units. As a result, Commonwealth Edison has substantial experience in developming and coordinating radiological emergency response plans.

Commonwealth Edison has reviewed and hereby adopts the thoughtful and well-articulated comments on this subject drafted by the Edison Electric Institute. We have two additional points to make.:

With respect to question 2, State and local agencies should also include in their emergency response plans some provisions for recovery operations in the aftermath of any accident. For example, some thought should be given to providing food and medical care to affected members of the public under circumstances where normal means of obtaining such services are overtaxed or unavailable.

With respect to question 14, we wish to emphasize our belief that evacuation drills are not in the public interest. In the first place, there are well-known risks associated with moving large numbers of people in evacuation drills. These risks are of the same magnitude as

Acknowledged by card. 9-6-79

Commonwealth Edison Company

those incurred in evacuations undertaken in response to actual emergencies. The public should not be subjected to such risks needlessly. Second, we agree with EEI's observation that even in a genuine emergency it is difficult to make people take the danger seriously and to persuade them to leave their homes. Practice evacuation drills would tend to compound this problem by exposing large numbers of people to substantial inconvenience and hardship, which might make them more reluctant to respond to evacuation orders in a real emergency. Further, the annual practice drills advocated by Critical Mass and the Public Interest Research Groups would have the effect of crying "wolf" in that they might lead many people to discount official warnings in a genuine emergency requiring evacuation. Finally, Commonwealth Edison wishes to emphasize its belief that practice public evacuation drills are unlikely to improve public response in a real emergency. Training the public to follow certain evacuation routes and other prescribed measures can only cause confusion, delay, and perhaps even tragedy in the event an actual emergency does not unfold according to plan.

Respectfully submitted,

Cordell Reed
Assistant Vice President

SHELDON, HARMON, ROISMAN & WEISS
1725 I STREET, N.W.
SUITE 506
WASHINGTON, D.C. 20006
TELEPHONE (202) 833-9070

KARIN P. SHELDON
GAIL M. HARMON
ANTHONY Z. ROISMAN
ELLYN R. WEISS
WILLIAM S. JORDAN, III*
*ADMITTED IN MICHIGAN ONLY

(60)
DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

September 4, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Enclosed are comments of the Concerned Citizens of Rhode Island on the notice of advance rulemaking on the adequacy of emergency planning. Due to the press of other business, including particularly an unavoidable court appearance, Counsel for CCRI was unable to complete these comments by August 31, 1979. CCRI therefore requests an extension to September 4, 1979, the first business day after the deadline.

Very truly yours,

Ellyn R. Weiss

ERW/dmw
Enclosures

Acknowledged by card. 9-6-79

DOCKET NUMBER
PROPOSED RULE PR-50
(44 FR 41483)

CONCERNED CITIZENS OF RHODE ISLAND
COMMENTS ON ADVANCE NOTICE OF RULEMAKING

On July 17, 1979, the NRC published an advance notice of proposed rulemaking on the adequacy and acceptance of emergency planning around nuclear facilities. 44 Fed. Reg. 41483. The notice informed the public that NRC is considering adopting regulations which will establish as a condition of licensing that applicants demonstrate a higher level of preparedness to take action to protect the public in the event of a serious reactor accident. These comments on that notice are submitted by Concerned Citizens of Rhode Island ("CCRI").

CCRI is a non-profit membership organization concerned with the quality of life and open, honest government. CCRI has some 3400 members, at least 1700 of whom live within 10-15 miles of a site for which the New England Power Co. has submitted an application to build a nuclear power plant. NEPCO's plans for that site have been at least temporarily stalled. Nevertheless, CCRI's members have a direct and personal in seeing that people living in the vicinity of plants could be effectively evacuated and protected in the event of an accident: they could be the persons involved.

CCRI's general response is that NRC's present practice is woefully inadequte. Reactors sited near major population concentrations, such as New York, Chicago and Boston, constitute a real and present danger to public health and safety. This is documented by the General Accounting Office, "Sites

Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies," EMD-78-110, March 30, 1979.

The source of this grave regulatory failure is also cited by the GAO - neither the NRC nor the licensees have ever acknowledged that an accident could really happen. Therefore, both the NRC's vague requirements and the licensees' compliance with them have been hollow and half-hearted. There can be no justification for a continuation of this attitude after Three Mile Island. Even the most enthusiastic nuclear promoters must see that it is in their interests to provide effective protection for the public.

The following will respond specifically to some of the questions posed in the notice of rulemaking:

1. The basic objective of emergency planning should be to prevent public radiation exposure.

2. Evacuation plans must include:

   a) distribution plans for evacuees,

   b) logistic plans for food, shelter, medical supplies,

   c) clear channel for financial responsibility and immediate payment.

An effective emergency plan must be based on the potential of a Class 9 accident.

NRC's present regulations are deficient in the following ways:

   1) They do not specify that the planning basis is a Class 9 accident.

2) They require no detailed implementation plan.

3) They have no provision for annual updates.

4) They have no requirement for verification by testing.

5) They do not provide for the licensee to inform the public of what is required of it in the event of an emergency.

6) They do not specify appropriate requirements for radiation monitoring equipment.

7) The areas covered are far too small - usually five miles or less.

8) It does not require, as a prerequisite to licensing, an NRC-approved state emergency plan.

9) At a minimum NRC should require operating monitoring stations at 1, 5, 10 and 25 miles from the plant, with well-planned communication centers to receive and assess the data from these stations, and with plans for action. It is essential that "adequate monitoring" be defined, with precision.

3. NRC concurrence in field-tested emergency plan must be a requirement for continued operation of nuclear plants. This should be effective at once. The plan should be tested annually and the public fully informed as to its specific contents.

4. NRC concurrence in the plan must be a prerequisite for licensing of new plants, effective immediately.

5. State and local governments should receive financial assistance for radiological emergency response and planning preparedness. Direct grants should be provided for management and for special equipment that might be required for

monitoring and for hospital care of radiological victims. The costs of such plans should be a direct charge to the electric utilities, since it is their selection of the nuclear option that imposes the need for such planning preparedness. Protests that this might be reflected in a serious increase in the cost of electricity are outweighed by the need for the public to understand the real costs of the nuclear option.

6. Emergency response drills should be required each year. These could be conducted under the management of the state but would require NRC review, particularly in light of the fact that most states have moved excessively slowly toward implementing emergency plans.

7. It is critical that the public be informed of the specifics of the emergency plan, including what actions it might be called upon to take. Special instructions for the sick and elderly and for the treatment of animals should be included. These should be distributed by mail to all residents within 50 miles, updated annually, annual public meetings should be held in all affected localities. In the past, as GAO found, "facilities operators were reluctant to provide public information for fear of creating public alarm that could result in new or prolonged current protect activities." (GAO Report, p. 31) This is the consequence of vesting major responsibility for emergency action in the hands of the utilities. Their concern for smooth public relations has outweighed their concern for public safety. It is clear that

public information requirements have to be a condition of licensing and operation.

9. A licensee should be required to inform certain indicated centers immediately of any abnormal occurrences which could provide a threat to the public. Any incident reportable to the NRC should be included in report to the information center. The public should be informed through established state and local channels by emergency radio and local police when such an emergency exists.

10. Federal Regulations should incorporate state and local concerns except for those which are uniquely site-specific. To the extent that the federal regulations rely on state and local officials to perform certain functions both in the planning stages and during an emergency, they must require concurrence by the level of government given the responsibility. This concurrence must be renewed annually.

12. Radiological emergency response training for state and local officials should be mandated under federal auspices. Although the licensee should be required to pay a specific annual fee for this, they should not have supervision of the training.

13. Licensees should not have final responsibility for assessing possible accident consequences for purposes of initiating protective action. The interest of the licensees in preventing public concern interferes with their ability to perform this function.

14. As stated above, radiological emergency response drills

should be held annually, with group assembly points established for areas, discussion of the purpose of the drill, and the necessary actions were there to be a real emergency. Evacuation is probably not necessary, but a clear discussion of management of evacuation - general objectives, directions, and details covering departure points, personal property by class and quantity (depending on the estimated seriousness of the emergency) to be included, handling of critical papers, pets and farm animals. A document should be prepared spelling out in detail general emergency plans, perhaps on a State level, and with addenda covering the details at the local and individual level to be included through local planning and discussion. Public participation is required as an indication of the seriousness of evacuation requirements.

This concludes CCRI's comments.

By: 
Ellyn R. Weiss
Counsel for CCRI

DATED: September 4, 1979

RUSSELL M. BIMBER
[illegible] Priority Road
PAINESVILLE, OHIO [illegible]

(61)
DOCKET NUMBER PR-50
PROPOSED RULE (44 FR 41483)

August 29, 1979

Secretary
Nuclear Regulatory Commission
Washington, D. C. 20555

Nuclear Power Plant Offsite Radiation Emergency Planning:

My responses to questions posed in your Press Release No. 79-122 follow:

1. The basic objective of emergency planning should be to limit public exposure to radiation, in excess of normal background, to no more than one tenth of that which is considered permissible for workers in the nuclear industry. This has been advocated by the ICRP. Since the NRC has set limits of 5rem/year and 3 rem/calendar quarter for the industry, the Protective Action Guide (PAG) of 1000 millirems used for the public during the TMI-2 emergency was too high. Federal Regulations, 10 CFR 20, Section 20.105, sets a limit of 500 millirems/year, and may impose further limits of 100 mrem/week and 2 mrem/hour. Since the TMI-2 emergency lasted about a week, a PAG of 100 millirem seems appropriate. To assure that the basic objective is likely to be achieved, both independent (non-utility, preferably local government) monitoring of radiation and a proven capability to evacuate the public are necessary.

2. I think NRC guidance lacks a requirement of independent radiation monitoring. Also, because the State of Alabama Radiation Emergency Plan Annex B was not updated after initial completion Oct. 2 , 1972 until the March 22, 1975 fire, there is a need to insure at least annual updating. I suggest local government have the responsibility, but that some means be devised to have the nuclear plant operator reimburse the costs.

3. It has been my understanding from the outset-- and I believe the Cleveland Electric Illuminating Company speakers have led the public to believe-- that this has always been a requirement. I think two years would be a reasonable time to bring all plants into compliance.

4. Yes. Immediately.

5. Yes, primarily to local government, because it must be prepared to act quickly, and it bears the burden of providing most of the people to carryout necessary actions. Costs of Emergency Preparedness were considered by Dennis K. Rathbun, in Supplemental Testimony on Emergencies and Evacuation re TMI, Docket 50-289, with the date 10/26/73, and also incorporated in Dockets 50-440 & 441 before July, 1974. He considered possible evacuation of only a part of a 2 mile LPZ and came up with initial capital and planning costs of $500,000 plus maintainance costs of $150,000 per year. Now we know TMI was not adequately prepared, and 7%/year inflation would add 50% to those 1973 costs. Doubling Rathbun's estimate in 1980 dollars might be reasonable. I think the consumers should bear the full cost of all services they demand, and therefore the nuclear utilities should have to reimburse government for these costs.

6. Yes. They should be controlled by local government, after plenty of advance notice to permit state and federal participation. Even the public should be given advance notice that a drill is imminent- within days- and required to participate to the extent of acknowledging that their evacuation could be required in a real emergency.

7. See 6.

Acknowledged by card. 9-6-79

8. The 10 and 50 mile radius Emergency Planning Zones advocated on page 17 should be adopted. I disagree with much of the rest of NUREG-0396: page 15 says there should be no storage of potassium iodide pills (thyroid blocking agent which offers cheap protection against radioiodines), and no public participation in tests. Participation is necessary to help convince the public that radiation they cannot sense could hurt them! Page III-10 PAGs of 1-5 rem are too high, as I noted in 1. Page 19 indicates one-half to several hours will be available to implement protective action prior to the start of a major release. TMI-2 spread no warning until after releases had begun. Page I-37 says 200 rem whole body is where early injuries start, but WASH 1400, Appendix VI, page 9-4 reports 0.01% deaths at 150 rem and 50% deaths at 340 rem.

9. (see 1.) The public might best be notified by the head of local government to help insure that it is taken seriously and with a minimum of panic. The utility should be able to initiate the notification, using a prerecorded notice when speed is essential. Ordinarily all such notifications should be triggered from the nuclear plant, but if excessive radiation is detected by independent official monitoring and attempts to contact the plant are futile, local government should act by itself.

10. The present Ohio government seems to have no concern! The Federal Response Plan for Peacetime Nuclear Emergencies (CDA/FPA, April 1977) is a very good start. Financial aid to local governments (see 5.) is the major need I see.

11. Listen for any suggestions from the President's Commission on the Accident at TMI.

12. Yes, at least training in radiological monitoring. This will help to acquaint people who may have to collaborate in an emergency. The NRC may want to participate in this. The Federal Preparedness Agency/CDA might set up training sessions for other federal agencies having emergency [illegible] to get their messages to local emergency personnel.

13. I prefer minimum reliance on licensees, as individual job tenure may demand optimistic, rather than realistic, estimation of projected doses to the public. Contrary to NUREG-0396, the PAG should include the dose already received during the incident, though it might be acceptable to discount it to a minor extent.

14. Yes. I would favor some sort of voluntary evacuation to learn more about unexpected problems in dealing with the situation while minimizing inconvenience to the public. (It might be desirable to supplement evacuees with students or other extras to get enough people.) It would be desirable to at least be able to check on the completeness and timeliness of notification of those who might have to be evacuated in a real emergency.

I'm a chemist with twenty plus years of industrial experience, volunteering some help to Lake County in preparing its part of emergency plans for the Perry Nuclear Power Plant, to be operated by my electric utility. I hope this is of some help to the NRC.

Sincerely,

Russell M. Bimber

Russell M. Bimber

DOCKET NUMBER (62)
PROPOSED RULE PR-50 (44 FR 41483)

STATE of NEBRASKA
DEPARTMENT OF HEALTH
DIVISION OF RADIOLOGICAL HEALTH
301 CENTENNIAL MALL SOUTH (3rd FLOOR)
P.O. BOX 95007
LINCOLN, NEBRASKA 68509
(402) 471-2168

August 29, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

The U. S. Nuclear Regulatory Commission has requested comments concerning the adoption of additional regulations for continued operation of nuclear power plant facilities.

A problem that needs resolutions is the ill advised comments of utilities and others (prior to Three Mile Island) that a serious accident cannot happen, that no one has been killed by nuclear power. This gives the public and government agencies a false assurance that planning is not necessary.

My staff and I will respond numerical to the questions posed in the Federal Register.

1. The objective of an emergency plan should be to reduce public radiation exposure with an evaluation of cost vs benefit. To reduce the public exposure may require evacuation. Each situation or accident will have to be reviewed on its own merits, as evacuation of large numbers can produce a certain amount of trauma.

2. An effective plan is one which provides protection of the public from the event (accident). It is one whereby the appropriate agencies are coordinated in resolving any health and safety problems.

   I believe the existing guidelines as provided by N.R.C. are adequate.

   An effective emergency plan for State agencies should include the ability to carry out statements and representations of the written plan. The ability of Federal Teams to review and assess the collection of technical data pertinent to each plan provides an area of justifiable concern. There appears to be too few N.R.C. technically qualified personnel in the field able to critically review data

Acknowledged by card 9-6-79

3-171

collection and conversion to PAG's. It seems that one of the most important elements of emergency planning, namely the conversion of radiological data to appropriate PAG's, has not received its proper attention in the hierarchy of requirements under cadre review.

3. N.R.C. concurrence in the associated State and local emergency response plans should be a requirement for continued operation of the nuclear power plant. This should be a requirement prior to licensure. Concurrence after the plant is operational is poor policy from a health and safety aspect.

   It would also appear that N.R.C. concurrence is only as good as the people reviewing the plan. It would appear that appropriately qualified people should be provided by federal agencies to look at the health physics of some plans.

4. See 3 above.

5. It has been my personal experiance as Director of a Radiation Control Agency that adequate resources, people and equipment have not been provided for emergency response planning and one of the main reasons our State has not had an adequate emergency response plan for nuclear power plant facilities.

   Funding should be from the State government as the people in that States are the beneficiary of the protective service. If adequate funding is not available, then the nuclear power plants should lose its license.

6. Radiological emergency response drill should be a requirement under State authority. All agencies involved in protection of the health and safety of the public should be involved, this includes licensees. Federal participation should be available to review the adequacy of the drill.

7. The public should be completely informed, especially concerning actions to be taken in evacuation and protection.

8. No comment

9. A licensee should notify State and Federal agencies of any incident which has the potential of becoming an emergency. The public should be notified by the Governor or appropriate State agency on any emergency which could potentially affect their health and safety after appropriate evaluation by the State Radiation Control agency, utility management and federal advisors.

10. I feel it is of upmost importance that State and local government concerns be incorporated into Federal Radiological Emergency Response Planning.

11. Federal agencies should be readily available to assist States and licensees during emergencies.

    I would propose that the N.R.C. look very critically at providing an expanded IRAP group of people to manage emergency incidents and accidents. The public should have a great deal more confidence if a swat team of technicians were readily available on a few hours notice to assist in the management of a radiation accident.

    I propose that State agencies should have the capability to manage the first few hours of an accident, after that they would have the assistance of the radiation swat team.

    This would seem to be the most efficient, economical and effective way of management of an accident of any duration and greatly relieve the States in this responsibility with limited resources.

12. Licensees should be required to provide funding for radiological emergency response teams for State and local personnel. The funding should be at a level to permit adequate response to any incident.

    The Federal government should provide funding for training, but limit it to radiation monitoring teams.

13. The licensee through his emergency plan should be prepared to provide initiation protective actions if the situation warrants. State and local governments should be consulted on these actions to secure concurrence.

14. I do not believe the public participation in radiological emergency response drills would serve any useful purpose except perhaps a very small segment of the population groups.

    This may be needed by local agencies to determine the effectiveness of this evacuation plan.

Thank you for the opportunity to comment.

Very truly yours,

H. Ellis Simmons, Director
Division of Radiological Health

HES/jkb

3-172

DOCKET NUMBER
PROPOSED RULE PR-50 (43)
(44 FR 41483)

Rt. 12, R.D. 1
Waterville, N.Y. 13480
August 29, 1979

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D.C. 20555

To the Secretary of the Commission:

I write as a concerned citizen in response to your request for public comment on the subject of additional regulations on emergency plans for nuclear power plants.

I think the events at Three Mile Island have made it clear that much better emergency planning is needed to protect the public. If we are to have nuclear power then we must be able to protect the public from extreme possible hazards from it. No nuclear plant should be licensed to operate which does not have emergency planning to prevent the public from radiation exposure and to evacuate the public. Plans for evacuation should be made public and public participation in evacuation drills should be required every one or two years for areas within a one hundred mile radius of nuclear power plants, or a radius which represents the immediate danger zone in the event of a serious nuclear accident.

The public should have the benefit of immediate notification of possible accidents at nuclear plants, drill practice in evacuation, instruction in minimizing the radiological exposure and hazards, clear channels of communication during an emergency, access to information about test results of the air, water and land contamination.

Six months to a year should be the maximum time given to any nuclear power plant to comply with new regulations on emergency plans. No new licenses should be granted without compliance.

The full burden of radiological emergency response planning should be carried by the nuclear utilities; this is part of the cost of nuclear power and should be subtracted from their profits and/or passed onto the consumer.

Radio, T.V. and brochures mailed to the homes should be used to notify the public of possible emergency actions it might be called upon to take in the event of a nuclear emergency. I think that it is crucial that the public is informed, prior to an emergency, of possible emergency actions.

Acknowledged by card. 9-6-79

During an emergency, it is hard to imagine that the licensee as well as Federal agencies and State and local governments will not all be called upon to give information and directions. Prior to an emergency, the plan for co-ordinating these activities should be decided upon.

In the event of conflicting accounts from these four sources, as occurred at Three-Mile Island, the public should be given the conflicting accounts to best enable them to make their own individual choices.

I can foresee that co-ordinating the supervision of incidents at nuclear power plants as well as emergency operations will be extremely difficult and often redundant. But it is important that the operation of these plants is overseen by Federal and State agencies on a continual basis to ensure that the public is forewarned of any incident which might be hazardous.

I think I am fully aware of just how cumbersome the precautions which I am suggesting here are, but even so they seem to be inadequate in the face of an extreme nuclear power plant accident. Most importantly, we must have clear and well known emergency plans and we must test these plans to make sure that evacuation is a real possibility not just a vague hope that we never plan to rely on.

Sincerely,

Anne Herold

Anne Herold

3-173

(64)

DOCKET NUMBER
PROPOSED RULE PR-50
(44 FR 47483)

RFD Box 434A, Route 85
Raymond, Maine 04071

August 30, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlefolk:

I am writing in response to an article in the paper stating that you are seeking input from citizens on the evacuation plans for areas near nuclear power plants.

I do not believe that Maine's evacuation plan is anywhere near adequate. The residents of the area surrounding the plant have not been informed of the content of the plan and it has been stated that the plan is merely an outline with no provision for transporting people.

I believe that all evacuation plans must be detailed and extensive and that those who may be asked to follow them be thoroughly trained as to what they must do.

First of all much stricter standards of tolerable radiation exposure must be adopted so that it will be clear to everyone where the danger point is. The public must also be informed immediately of radiation release and subsequent levels in the environment.

There must be provision for transportation for all residents--vehicles for those without vehicles, gas for those taking their cars or busses if this is more efficient.

The possibility of more serious accidents is too great and too dangerous for extensive emergency plans not to be a requirement and for all branches of government to cooperate in the development, implementation and financing of these plans.

Further, the public should be required to participate in drills and given full information as to emergency plans and options.

Sincerely yours,

Betsy Neale

Acknowledged by card. 9-6-79

Westchester County

ALFRED B. DEL BELLO
County Executive

DOCKET NUMBER (65)
PROPOSED RULE PR-50 (44 FR 41983)

August 30, 1979

Secretary to the Commission
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Secretary:

I am enclosing a copy of hearing testimony I delivered to a Special New York State Assembly Committee on Nuclear power safety that covers in content most of the questions asked by you in the July 17 Federal Register Notice of Proposed Rulemaking.

I hope you are able to incorporate these thoughts as useful feedback to the NRC. Basically, we are in agreement with most of your recent initiatives, and we would like to assist so that we in turn are helped, especially in technical, training, and funding areas.

We have written our Congressional delegation regarding S.562, and are prepared to move to expedite legislative, budgetary, and intergovernmental program efforts to move us in New York to a state of improved nuclear power accident preparedness.

Sincerely,

Alfred B. DelBello
County Executive

ADB:DRS/yel
Enclosure 1

Acknowledged by card. 9-6-79

County Office Building • White Plains, N.Y. 10601 • 914 682-2222

3-174

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41983)

HEARING TESTIMONY ON BEHALF

OF

THE FOUR COUNTY NUCLEAR SAFETY COMMITTEE

ALFRED B. DELBELLO
WESTCHESTER COUNTY EXECUTIVE

LOUIS HEIMBACH
ORANGE COUNTY EXECUTIVE

DAVID O. BRUEN
PUTNAM COUNTY EXECUTIVE

SAMUEL COLMAN, CHAIRMAN
ROCKLAND COUNTY LEGISLATURE

August 29, 1979

Presented to "The Special Committee on Nuclear Power Safety," New York State Assembly, Stanley Fink, Speaker of the Assembly, and Chairman of the Special Committee.

Hearing Statement

I am Alfred DelBello, County Executive of Westchester County and am representing today the four Lower Hudson Valley counties of New York, which formed, on May 1st., an informal compact, which we have called the Four County Nuclear Safety Committee. Our counties comprise some 1,800 square miles and are the homes for a million and a half New Yorkers.

Situated nearly in the middle of these counties on the Hudson River is the Indian Point Nuclear Generating Station, with its two large operating Nuclear power reactors, and one inactive one, owned by Consolidated Edison of New York (Indian Point 1 and 2) and the State Power Authority (Indian Point 3).

I must address my remarks to this Distinguished Special Assembly Committee with the perspective that, unlike the Shoreham nuclear generating plant, which is still under construction, Indian Point has been a continuously operating generating station since 1962. Thus whatever potential but unmeasurable threat to public health and safety may exist for Long Island because of Shoreham, this threat is real and immediate for us; the four counties near to Indian Point. And so I must communicate to you first a sense of urgency about the need to move forward quickly and diligently on the recommendations that we have now to upgrade state and local radiological accident emergency response plans. These plans for safety must be re-thought and must be improved for all nuclear generating stations in the state, but especially and particularly for Indian Point, which has special characteristics of population density and limited highway egress away from it.

I would point out that Indian Point is situated in the most densely populated area in the nation for any commercial nuclear reactor. Indian Point is within 10 miles of the homes of 300,000 people, within 50 miles of 19 million people. This zone, incidentally, covers parts of 4 states, 23 counties, and 195 municipalities, and thus presents unusual problems for regional planning, communication, and coordination. Indeed, the single Emergency Operations Simulation Drill that was held on June 5th. and 6th. in Westchester County pointed up weaknesses of our own intra-county communications preparedness. Our plan does not even address the problem of full evacuation of the public--for which we have no real plan except for a token one square mile area. Clearly, we and the state agencies responsible for protecting health and safety are all fooling ourselves and the public if we think we are ready to handle a major radiation accident at Indian Point. Orange County has a communications-notification plan like Westchester's, and Rockland and Putnam counties have no emergency response plans at all.

But this should come as no surprise. From a reading of the recent reports on nuclear power safety, it is apparent that all of the hindsight observations made about inadequate state and local emergency response plans after the Three Mile Island nuclear accident were being said before TMI, only in more muted tones. Both a General Accounting Office report, entitled Emergency Preparedness Aroung Nuclear Plants Needs Improvement and an NRC report entitled, Beyond Defense in Depth, both published in March, 1979, cited sweeping inadequacies with scope and level of funding for state and local emergency response plans across the nation. These in-house and objective judgments of inadequacy, reflecting a new emphasis on offsite safety,

is explainable. One is that prior to Three Mile Island, the NRC felt that state and local plans were "not essential in determining whether nuclear power plants could be operated without undue risk to public health and safety." Power plant safety was based on the NRC's "defense in depth" strategy, which called for forever sealing of the fission reaction and potential contaminants in a fortress-like steel and concrete containment vessel, with secondary and tertiary safety backup systems to shut off the power and cool the plant at the first sign of trouble. This total onsite containment strategy was threatened by TMI and changed conceptually by the March 30, 1979 NRC report by Stephen A. Salamon, who wrote Beyond Defense in Depth, calling for a nationwide commitment of up to one hundred and forty seven (147) million dollars of new resources to improve state and local emergency response planning and preparedness.

Given this perceptible shift in thinking, post-TMI, both in reactor location decisions and in the NRC recommending a "Beyond Defense in Depth" strategy, there is a growing national consensus around the nuclear power issue of the need for full offsite emergency response plans to be in place, before new reactors are approved, or full plans to be retrofitted around existing nuclear reactors or the plants should be closed. The specific basis for this new planning concept is contained in NUREG-0396, which outlines the ideas of the 10-mile plume pathway and 50-mile ingestion pathway emergency planning zones. Regardless of the somewhat arbitrary sizes of these planning zones, it is imperative we move to using these concepts, or ones similar, as an improvement over the one-half mile planning zone Westchester now has in its plan, and the other counties do not deal with at all.

The county officials in the four counties within four miles of Indian Point are clearly part of this growing national consensus for upgraded safety, and all of us responsible for the health and safety of our citizens must now work together to achieve a sufficient state of preparedness.

The existence of consensus that a problem exists does not mean that we have a consensus on a solution. In presenting our recommendations here, let me say that our staff has consulted at some length with collateral state and federal agencies having jurisdiction or regulatory responsibility in the area of nuclear power safety. We have, I believe, the benefit of the most current thinking and direction that these agencies expect to move in as a response to Three Mile Island and to the various critical reports.

Some of our recommendations merely support state or federal initiatives now underway or in planning. Some will seek to have clarified jurisdictional responsibilities.

Finally, our Four County Committee has a view toward funding these nuclear power safety activities.

Let me begin with federal initiatives and recommendations that we ought to be joining forces on, in carrying our message to the Congress and the NRC and FEMA.

1. The Congress, the President, and the agencies themselves must clarify the areas of jurisdictional responsibility between the Nuclear Regulatory Commission (NRC) and the Federal Emergency Management Agency (FEMA), and state and local agencies. As the Toby Moffett Congressional Subcommittee report pointed out: "responsibility for emergency planning is dispersed among several federal agencies, several levels of

government, and the private and public utility organizations which own and operate nuclear powerplants." The NRC has been in the past designated lead agency for planning. But the NRC has no resources, staff or money with which to assist state and local governments in actual planning or in supervising development of plans. NRC's past role required them to "concur in" but not regulate state level plans. NRC's new safety planning "acceptance criteria" that will replace the old operating regulations Appendix E should result in broader, more coordinated state and local emergency response plans. These new NRC regulations, just published in draft last week, should be supported by both state and local officials as an overdue move in the appropriate direction.

Further, the NRC should begin funding planning grants to critical areas such as Indian Point, through enactment of the $500,000 appropriation in the Simpson-Hart bill, S.562, which has passed the U.S. Senate and is now in the House.

If NRC is the lead federal agency for nuclear power licensing, regulation, and safety planning, then its collateral agency, FEMA, ought to do what it has been designed to do--plan for and be prepared to react to disaster situations of all types. Unfortunately, what current resources FEMA has in its $90 million budget is confined to disbursement to states according to the old Defense Civil Preparedness Agency guidelines under the Federal Civil Defense Act of 1950. This is for nuclear war preparedness only, although some technical response capability does exist because of the similarity of radiological monitoring equipment and crisis relocation plans in all cases. This narrow approach contained in the Civil Defense Act must be amended by the Congress so that general disaster preparedness funds can flow to states and local governments for nuclear powerplant safety and preparedness.

A division of federal responsibility of NRC for planning and FEMA for preparedness seems to be the intentional policy in Washington. Such a division seems logical and probably ought to be supported.

Moving to recommendations for state action, let me make the following points:

1. State agencies responsible for state responses to radiological disaster situations are the State Bureau of Radiological Health, State Office of Disaster Preparedness, and State Department of Transportation.

   We understand these agencies will be requesting in their 1980-81 budgets seven to eight new personnel and monitoring equipment, costing about $250,000, some of which is federally reimbursable. The Four County Nuclear Safety Committee fully supports this anticipated budget request, especially insofar as these resources can be dedicated to solving our particular preparedness problems at Indian Point. New York was singled out in the NRC safety overview report, Beyond Defense in Depth, as--and I quote--"a state viewed as underequipped" (p.II-27). The $250,000 to be requested by state agencies is in line with NRC--recommended state level planning that will utilize the new concepts of the 10-mile plume pathway and 50-mile ingestion pathway.

2. Deciding what is adequate funding and who should pay for improved nuclear safety preparedness are difficult, subjective policy judgments. With no verifiable predictions available as to level of risk we are assuming at Indian Point, we will not ever know what additional spending is right to solve the problem. All we can do now is make our best guesses, our best estimates, and think in terms of our responsibilities to public health and safety, and to weigh budget constraints in making our judgments.

Regarding funding of these new safety measures, there are at least two schools of thought as to the appropriate source of funding for nuclear power safety. One would have the state and local governments pay, since according to law and the federal and state emergency regulations and plans, " . . . the protection of public health and safety outside the plant is basically the responsibility of state and local governments. . . ." (from 10 Code Federal Regulations, Appendix E). One might say that the funding is a proper levy against state and local taxes. We do not believe so. We believe that the actual users of the nuclear power generating capacity should bear all of its costs. Certainly, there is no justification for the local taxpayers of Rockland, Orange, and Putnam counties to pay for improved safety when they are only threatened by the plant, but get absolutely no benefit from it in terms of taxes or energy. Further, there is the need to remove the subsidies from nuclear power to find out just what nuclear energy is going to cost us in the long run. Federal taxpayers have already subsidized the industry by several billion dollars in uranium technology and gaurantees in liability insurance. We do not know what nuclear plant decommissioning will cost. But we are beginning to find out what appropriate safety measures will cost, and that should become a levy against the beneficiaries of the power generated and should not be levied against the persons threatened by the generating process. But let us be realistic. Con Edison's rates are already the highest in the country and going higher now faster even than the current inflation rate. We do not need more charges on the backs of Con Edison ratepayers. Further, the practical realities of power pool sharing of all plants statewide means, on some occasions non-Con Ed customers may use Indian Point power.

Therefore, I suggest a funding compromise as follows:

1. Planning - to be paid by NRC and State Civil Preparedness Agency.
2. Preparedness--

   Communication systems - paid by FEMA
   Radiological Equipment - paid by utilities
   Drills and Exercises - paid by utilities
   Public information - paid by utilities

   This gives to government control of its policy making and personnel and allows utilities to fund the full share of costs for hardware and evacuation training and drills. This can be accomplished through a special nuclear power plant fee rather than a tax levied against each

plant. I recommend you look closely at the state of Illinois, which enacted legislation to raise $350,000 per plant initially and $50,000 each year afterward for nuclear safety and preparedness.

3. I want to comment also that we need to clarify our lines of authority between federal, state, and local officials, and between county and municipal officials as well. For example, the "Basic Plan for New York State Emergency Operations" states, "Primary responsibility for disaster relief rests with the local political subdivisions in which the disaster occurs." That is all well. But in the course of responding to disasters, in my political subdivision, which is a county, what action can I take as County Executive that cannot be contested or even overruled by a village or town official? What is the Governor's authority in ordering me and my political subdivisions to take specific action, especially if our information is at variance to his? Can we move in advance of the Governor by ordering an evacuation ourselves? What is the NRC's role in advising or directing the state agencies and the Governor to take specific action? What is the utilities' responsibility in complying with specific orders or information requests by federal, state, or local officials? Can we verify what the utilities report to us through our own radiological monitoring? These are all unanswered questions of authority and jurisdiction that would inevitably come up in any area-wide radiological accident at Indian Point. I hope the State Committee on Nuclear Power Safety will focus on these questions, and where potential conflict may exist, clarify these roles for us. Effecting any coordinated evacuation plan from four different counties would be difficult enough, but major conflict or confusion would make timely evacuation or other response virtually impossible.

4. Finally, let me comment on the question of evacuation plans. I have advised you how we stand at the 10-mile plume pathway planning radius around the Indian Point plant. No real evacuation plan exists today.

Designing a workable evacuation plan for 300,000 people is possible and certainly necessary. Whether it would work or not in reality is another matter. Again, major questions of practicality arise. For example, How do you inform everyone in the potential plume pathway on what the plan is and how it works? What do you do if some people refuse to cooperate? How would you secure the area vacated? Why would emergency services personnel want to stay behind, if to do so exposes them to radiation? If the wind is blowing ten miles per hour, how do you evacuate everyone in an hour or less given little or no prior notice? Should we avoid evacuation and shelter people in their own homes? What happens to the other plant at Indian Point that may not be effected by an accident? Do we have alternative sources of power supply?

In short, in designing a 10-mile evacuation plan and its contingencies, we have many unanswered questions and untested premises. We ask the assistance of our higher levels of government to initiate a legislative and budgeting process that will speed the realization of these plans and result in improved nuclear power safety in this state and at Indian Point. Our own county staffs and County Disaster and Emergency Services Directors are already at work in the planning phases. We need the state's assistance in securing federal funding, in the levying of a fee system on nuclear power plant licensees, and in clarifying and solidifying lines of authority and communications. Only when and if all of these questions are answered and policy goals achieved, can we say as public officials that we have fulfilled our full responsibilities to public safety and to public health.

I congratulate this State Committee on taking this initiative toward this end.

SHELDON, HARMON, ROISMAN & WEISS
1725 I STREET, N.W.
SUITE 505
WASHINGTON, D.C. 20006
TELEPHONE (202) 833-9070

KARIN P. SHELDON
GAIL N. HARMON
ANTHONY Z. ROISMAN
ELLYN R. WEISS
WILLIAM S. JORDAN, III*
*ADMITTED IN MICHIGAN ONLY

(66)

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

August 31, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

Enclosed please find "Comments of the Union of Concerned Scientists on Emergency Planning Around Nuclear Facilities."

Very truly yours,

Ellyn R. Weiss

ERW/dmw
Enclosure

Acknowledged by card. 9-6-79

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

COMMENTS OF THE UNION OF CONCERNED SCIENTISTS ON EMERGENCY PLANNING AROUND NUCLEAR FACILITIES

On July 17, 1979, the NRC published an advance notice of proposed rulemaking on the adequacy and acceptance of emergency planning around nuclear facilities. 44 Fed. Reg. 41483. The notice informed the public that NRC is considering adopting regulations which will establish as a condition of licensing that applicants demonstrate a higher level of preparedness to take action to protect the public in the event of a serious reactor accident.

Before addressing ourselves to the specific questions posed in the notice, UCS will offer some general observations. The AEC and then NRC's failure to adopt serious requirements for evacuation planning and other protective measures or to tie these requirements to licensing, stems directly and inexorably from the agency's refusal to face forthrightly the possibility of a major reactor accident which would result in radiation doses offsite. It has been a historical hallmark of U.S. nuclear regulatory philosophy to deny the credibility of a so-called Class 9 event. The consequences of a major accident are systematically excluded from impact statements prepared pursuant to the National Environmental Policy Act. In like fashion, Class 9 accidents are not considered as "design basis events" and no measures are required to mitigate their effect. The NRC's ambivalent attitude toward emergency planning - requiring lip-service

commitments but no genuine review - is thus squarely in the tradition of avoiding the issues which arise from the possibility of a serious accident such as a core meltdown.

We say this not simply to chide the Commission for past negligence but to point out that it must acknowledge that the crucial lesson of TMI is that serious accidents can happen. It is a simple proposition, but its acceptance by the NRC would begin to work a revolution in regulatory philosophy. In fact, this proposed rulemaking represents acknowledgement that such accidents can happen. So too, albeit in an equally tacit fashion, does the staff's policy on rejecting sites with population densities out to 40 miles above certain "trip levels." After all, such populations are only at risk if one assumes the occurrence of a serious (Class 9) accident.

However, the Commission needs to affirmatively wipe out the vestiges of a fatally flawed regulatory policy and require the consideration of serious accidents in all aspects of licensing. The discredited "proposed" Annex to 10 CFR Part 50, excluding Class 9 consequences from NEPA review should be immediately withdrawn. The present system is logically and philosophically inconsistent as well rationally insupportable.

Finally, emergency planning issues are tied closely to siting policy. There are presently some operating reactor sites where the number and concentration of surrounding population make it a practical impossibility to take protective

measures. No one yet knows how many such sites exist, but certainly Indian Point, near New York City and Zion, near Chicago, present essentially intractable problems. All operating reactors should be reviewed on a priority basis to determine for how many the environs are unevacuable as a practical matter. These should not be permitted to operate. In addition, future siting should be restricted to areas truly remote from population. This would be a major step forward in learning the TMI lessons.

The remainder of UCS's comments will address the specific questions posed in the published notice.

QUESTION:

(1) What should be the basic objectives of emergency planning?

(a) To reduce public radiation exposure?

(b) To prevent public radiation exposure?

(c) To be able to evacuate the public?

To what extent should these objectives be quantified?

ANSWER:

Prevention of radiation exposure to the public should be the basic objective. This is tied directly to evacuability. It would be irresponsible to qualify or compromise on this objective. Furthermore, any qualification of this

objective would totally undermine public confidence in the safety of the population living near reactors.

Feasible implementation of emergency plans must be a prerequisite for siting approval for new reactors in order to insure public safety. Where existing reactors cannot meet feasible implementable emergency plans to provide for public safety in event of a core meltdown, licenses should be revoked until such time as an implementable emergency plan has been demonstrated.

QUESTION:

(2) What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

ANSWER:

An effective emergency response plan must be tested and proven implementable as judged by a number of responsible local, regional, state and federal officials. Perhaps the keynote of feasibility is that there must be persons with both technical information and expertise in combination with decision-making authority in a position to judge whether a danger to public health exists and to implement protective action. This was, of course, sadly lacking in the TMI case.

The Governor, who had the authority, did not have access to accurate information at least within the critical time periods.

- State governments should either employ or contract appropriate local resident specialists in nuclear physics, nuclear engineering, chemistry and biology giving them responsibility for regular inspection and crisis intervention which charges them with making declaration of a pending public safety emergency simultaneously to the licensee, chief elected official or local and regional governments within a 50 mile radius and the press.

- The U.S. HEW process for emergency medical care coupled with the official health planning agencies for states and their sub-state regions should bear the responsibility for assessing the plan's feasibility of meeting emergency response from a health perspective.

- The transportation systems must have adequate capacity to accomodate the number of people evacuating because of a public health safety hazard in the affected area within a set period of time (6 hrs). Judgment on this aspect of an emergency response plan can best be made through the process U.S. DOT uses to approve transportation development projects. Significant federal planning resources already enable each of the nation's "MPO's" (metropolitan planning organizations of chief elected local and state officials) to know their capacity limitations for road vehicles, rail vehicles,

airplanes and ships.

Present NRC practice is totally inadequate, although this is probably due as much to a lack of zeal for assuming responsibility for the entire subject - and imposing it on licensees - as to deficiencies in the regulations in Appendix E to 10 CFR Part 50. There are, however, certain obvious holes in Appendix E. The most important are:

1) it does not require any detailed implementation plans at either the construction permit or operating license stages,

2) it does not require any testing or actual field verification. Essentially, it requires only paper, and vague paper at that,

3) it contains no performance criteria whatever against which this paper can be judged,

4) this is compounded by the fact that there is no guidance offered to the agencies charged with the responsibility to take protective action on what the health and safety consequences could be of the range of potential accidents. Thus, the Governor of Pennsylvania had to ask the Commissioners in the middle of the TMI accident what the consequences of exposure could be and was told by the Chairman that there is no good information on the subject! Meanwhile, of course, the plume had already passed,

5) it does not specify that the "design basis" for emergency planning should be a Class 9 accident, or provide parameters for evaluating the range of potential releases. Therefore, the areas covered are far too small.

QUESTION:

(3) Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing opera-

ting license? If so, when should this general requirement become effective?

ANSWER:

Yes. Prior NRC concurrence, concurrence of the governor(s), the chief elected local officials within 50 miles of the site, and the concurrence of elected legislature officials (local, state and federal) for the same geographic area should be required on emergency plans for public safety and evacuation. This concurrence must be a matter of public record and official sign off should take place subsequent to a month long period of local distribution of public education materials coupled with a drill on said emergency plan.

The requirement should be immediately effective for existing plants in an area where population within a 50 mile radius exceeds 1,000,000 people. Other plants in sparsely populated areas should have a deadline of 6 months to operate prior to plan approval.

NRC must find, as to each operating plant, that the affected public can be protected in the event of a Class 9 accident. There are a number of operating reactors for which this is clearly not the case. Indian Point and Zion are two obvious ones. These plants are a real threat to public safety.

QUESTION:

(4) Should prior NRC concurrence in the associated State and local emergency response plans be a requirement

for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

ANSWER:

Yes - immediately. And a much more detailed showing of the suitability of the site for evacuation and/or appropriate protective action in the event of a Class 9 accident should be a prerequisite for a construction permit. No more Seabrooks should be permitted, with the NRC officially blinding itself to the existence of thousands of people just outside the LPZ on the beach several miles from the plant. If TMI had happended at Seabrook in July, the evacuation even of women and children within 5 miles would have produced utter chaos.

QUESTION:

(5) Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source for the funds?

ANSWER:

Absolutely. The level of funding required should be derived from national standards to be met set by NRC together with HEW and DOT. The licensee should be obligated to pay the municipality, any affected regional government, and the state (each in separate transactions) 50% of this funding annually from the filing of an application for a

license until said plant has been decommissioned long enough to present no further potential public health and safety risk. The local, regional or state government should annually appropriate the other 50%. Should any of these governments in any year fail to appropriate their share the licensee should be obligated to shut down until such appropriation is made.

QUESTION:

(6) Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

ANSWER:

Yes. GAO concluded in its recent report to Congress on this subject,[1/] after site visits to eleven nuclear facilities and analysis of quesionnaires to all states, that untested plans "would probably be ineffective in an emergency situation."[2/] Thus, an untested plan is worse than nothing at all; it provides a false sense of security and lulls people into complacency.

1/ "Sites Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies," EMD-78-110, March 30, 1979.

2/ Id. p. 11.

State and local civil defense agencies should assume the lead with proper training from the NRC as closely monitored by the state's committee of technical experts described in the answer to question (2) above. At least one drill should be held before the public and their officials sign off approval on implementability of the plan.

QUESTION:

(7) How and to what extent should the public informed, prior to any emergency, concerning emergency actions it might be called upon to take?

ANSWER:

The GAO investigation cited above found that the only efforts at informing the public about possible emergency action were public meetings called by utilities during the licensing process - years before actual operation.[3/] No further actions were taken to inform the public. UCS believes this failure to be little short of scandalous. GAO stated:

> Facility operators did not appear concerned about the lack of information made available to the public. This reflects the attitude of most operators, namely, that there is little danger to the public from their facilities. This attitude was summarized by one operator who said that he did not expect serious accidents requiring large-scale public involvement to occur and that prompt

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3/ Id. at 28-31.

notification and normal local offsite emergency response actions would receive total public cooperation if a nuclear emergency did occur.

In most cases, the operator's confidence in public cooperation has not been put to the test, even on a limited scale, to determine its validity.

There can be little question that the public needs to know what to do in the event of an emergency. This requires, the distribution of information, by mail, updated annually, to all persons living within 50 miles of a plant, of procedures for evacuation, the location of evacuee centers, the location of medical facilities, etc. In addition, the utility should be responsible for arranging widely-advertised public meetings in each affected city or town to bring together the responsible officials and the public, to review the emergency plans.

QUESTION:

(8) What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

ANSWER:

The Joint Task Force Report represents a significant step forward in bring this issue into the light of day but does not go far enough. There is insufficient justification for limiting the Emergency Planning Zones for plume exposure to 10 miles. As indicated above, we support the use of a Class 9 accident as a planning basis for emergency action. The Task Force fudges badly on this, apparently

compromising on a "less severe Class 9 accident." There is no excuse for this temporizing. The recommendations of the Joint Task Force, with this important change, might usefully serve as the focus of the rulemaking proceeding. However, that should not be permitted to serve as a wedge for prolonging Commission inaction. It should act immediately to require licensees to have NRC concurrence to at least the present requirements.

QUESTION:

(9) How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

ANSWER:

It is irresponsible not to heed state and local concerns as, in the last analysis, they are the people who are most impacted by the accident -- living with it, and recovering from it. They are in a position to turn any theoretical emergency response planning into a workable reality. In addition to all the comments in other responses to these questions concerning their role, it is critical that on an ongoing basis state, regional and local officials have better access to training, data and other information heretofore only housed with federal officials as well as data and other information heretofore considered proprietary.

As a practical matter, the involvement of numerous levels of government in this situation tends to create confusion, diffuse responsibility, and weakened accountabi-

lity. The only effective way t knit together the whole is for one organization to assu supervision, and the only effective wedge is the interest of the licensee in continued operation of his plant. Therefore, the supervision has to be in NRC, which can enforce it.

Under NRC's review, licensees should at least annually contact each responsible state and local official, make sure that he/she understands and concurs in his/her role in the event of an emergency and solicit comments on the need, if any, for changes.

By the Union of Concerned Scientists

Ellyn R. Weiss
General Counsel

Carla B. Johnston/EPW
Carla B. Johnston
Deputy Director
Union of Concerned Scientists
Cambridge, Massachusetts

DATED: August 31, 1979

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483) (27)

JAMES R. COULTER
SECRETARY

STATE OF MARYLAND
DEPARTMENT OF NATURAL RESOURCES
ENERGY & COASTAL ZONE ADMINISTRATION
TAWES STATE OFFICE BUILDING
ANNAPOLIS 21401
(301) 269-2281

LOUIS N. PHIPPS, JR.
DEPUTY SECRETARY

August 29, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commiss
Washington, D.C. 20555

RE: Advance Notice of Proposed Ruelmaking "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" (FR 44; 138, Tuesday, July 17, 1979)

Dear Mr. Chilk:

It appears from the superficial nature of the questions in the subject Federal Register notice that the NRC is not yet familiar with the real world problems inherent in public planning for emergencies at nuclear power plants. Unfortunately, most state and local civil defence coordinators, who are very faimliar with their local situations, are not yet familiar with the detailed consequences of the reactor accidents for which they must plan. Until the NRC can educate the civil defense planners as to realistic values and interrelationships of parameters such as the warning time before release, the duration of release, types of material released, the time of plume passage, the extent of ground contamination, the dose-reduction affects of sheltering in buildings of various types, etc., the planners cannot effectively optimize mitigative measures for the specific plant sites within their jurisdictions. Until this gap is bridged, substantive improvement in public protection from a nuclear accident cannot be expected. Until the NRC becomes familiar with what can and what cannot be accomplished by informed and intelligent local emergency planning, additional NRC regulation is likely to be off-base and NRC "concurrence" would be meaningless.

Prior to the incident at Three Mile Island Unit 2, the need for a better basis for local emergency planning was recognized by EPA and NRC. Their joint document draft (NUREG-0396/EPA 520/1-78-016) issued in December 1978 was a reasonable beginning for improvement. Similarly, GAO's Report to Congress in 30 March 1979 recognized the need for better preparation in areas around nuclear power plants. It is ironic that the incident at TMI, during which the maximum doses were an order of magnitude lower than the EPA's guideline values for taking even voluntary protective action, now threatens to negate this beginning by forcing quick rather than substantive actions.

Acknowledged by card. 9-6-79

Rather than attempt to directly answer the questions in the Federal Register notice, we offer several points for your consideration:

A. The planning for emergencies at nuclear power plants is intensely site-specific. It should be considered in a realistic manner during site selection and approval. For this purpose, 10CFR100 is presently inadequate, as are current NRC Regulatory Guides on population density.

B. Given the variety of sites currently approved for nuclear power plants by NRC, standarized national guidelines for emergency planning are not likely to significantly improve the emergency plans. Population density, physical barriers to evacuation, types of shelter available and other demographic factors differ to a degree which defies a generalized planning concept. Something general enough to be appliable everywhere is unlikley to be specific enough to ensure realistic planning anywhere.

C. The NRC should provide much more specific detail about the kind of situations for which the planners must prepare. Scenarios similar to the release catagories of the consequences model in the Reactor Safety Study would be a much better basis for developing plans than is currently provided in the "plume zones" and "ingestion zones" of NUREG 0396. The NRC should exercise its judgement in defining these scenarios so as to exclude those potential high-consequence accidents which are of sufficiently low probability to pose acceptable risk levels without planning beyond that level already required by the more probable accidents. It should also consider the uncertainties which were apparent during the TMI incident, and help provide a rational basis for action during a period when existing conditions do not require action but future detrioration of the situations may occur.

D. The NRC should make available to the local planners the technical information regarding effectiveness of various types of mitigative measures against the various dose pathways expected under accident conditions. For instance, for plume shine, inhalation and surface contamination doses, dose reduction factors due to sheltering in buildings of various construction types should be made available.

E. The NRC should provide both technical and planning assistance to the state and local civil defense personnel. If the NRC adopts regulations requiring adequate emergency plans to be implemented by a specific date, then NRC should be prepared to supply sufficient consulting personnel to help all affected state and local planners to prepare their plans within the time allowed. The NRC should be prepared to provide an example of an acceptable plan for any plant site where it feels that local officials have not planned adequately. Without this level of commitment on the part of the NRC, it is probable that the NRC personnel reviewing the plans will, in many cases,

end up making impossible or unrealistic demands, either from their own ignorance or due to political pressure. If the NRC originally approved a site for a nuclear power plant, it should be able to show by specific example that an acceptable emergency plan can be made for it.

F. If the NRC concurrence is required for emergency plans within a 50 mile radius of a reactor site, it must have a plan for dealing with state borders and uncooperative or unresponsive neighbors. In the east, few power plants have 50 mile radii contained wholly within a single state. Especially if a time constraint is imposed, each state can be expected to place priority on plans for sites within its borders, and may, if necessary, neglect planning in their portions of 50 mile rings of distance plants. With rivers serving as borders for states, service territories and even interconnected utility groups, power plants at many riverine sites could have little importance to the jurisdiction directly across the river. The threat of shutdown may be ineffectual in producing adequate speed in such cases. If speed is desired, then the NRC may well have to provide it through adequate assistance, not coercion.

G. During emergencies, plant personnel should be expected to retain control. A cadre NRC personnel cannot be expected to become familiar with the design of one hundred different reactors and control rooms to the degree that they would be preferable to a well trained group of the utility's employees. The NRC could improve the current situation by developing regulations and guidelines for emergency situation training programs which utility companies would develop for senior operators at each of their reactors. A cadre of NRC personnel should be developed to focus expertise on emergency situation instrumetation, simulation and training. This group could also be made available as consultants during an actual emergency, should time permit.

In summary, we urge that emergency planning for nuclear reactors be substantially improved, but we caution against haste. The emphasis on timing, rather than substance in the Federal Register notice is ill advised, although understandable in the face of public opinion.

Sincerely,

Steven M. Long, Ph.D.
Acting Director
Power Plant Siting Program

SMLips

cc: Paul Massicot, Acting Director
Energy Administration

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483) (68)

Susquehanna Alliance
P.O. Box 249
Lewisburg, Pennsylvania
17837

August 31, 1979

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

Re: Proposed Rulemaking (10 CFR Part 50), 44 FR 41483-41484
Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

The following comments are based on a preliminary overview of the needs and potential shortfalls of emergency planning related to granting a license to the Pennsylvania Power and Light Company to operate the Susquehanna Steam Electric Station, Unit 1 and 2 (Docket Numbers 50-387, 50-388). The responses to questions in 44FR41483-84 relate therefore to conditions to granting a new operating license, but many of the comments bear of emergency response cabapilities at existing nuclear facilities.

1. A new license should not be granted for the operation of a nuclear plant until an emergency evacuation plan has been prepared by the utility, accepted by the local governments, and tested by full scale drill including the evacuation of persons living within 50 miles of the facility, say a seven sector(?*).

2. The emergency plan should include provisions to periodically inform persons living within or working within the 50 mile radius.

3. Part of the utilities responsibility should be to provide instruction in the use of iodine blocking medication (sources, why needed, etc.)

4. It should be the utilities responsibility to maintain appropriate emergency materials in each household within the 10 mile plume zone to provide protection against radiation.

5. Expenses for preparing the emergency plan, and training local personnel should be borne by the utility.

6. Offsite monitoring equipment should be equipped with telemetering equipment to transmit information to county or local government emergency centers. Costs for this should be borne by the utility.

7. States should not be given the option of preparing local emergency plans nor should NRC concurrence with state plans be assumed to mean that local government have concurred.

Sincerely,

Thomas P. Bresenhan

Acknowledged by card. 9-6-79

3-189

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483) (69)

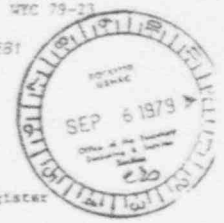
Telephone 617 366-9011
TWX
710-390-0138

YANKEE ATOMIC ELECTRIC COMPANY

B.1.2.1
WYC 79-23

20 Turnpike Road Westborough, Massachusetts 01581

August 31, 1979



Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: Advance Notice of Proposed Rulemaking, Federal Register Volume 44, No. 138, Page 41403, July 17, 1979

Dear Sir:

SUBJECT: COMMENTS ON REFERENCED FEDERAL REGISTER NOTICE

The issues related to radiological emergency response planning are many in number and broad in scope. Yankee Atomic Electric appreciates this opportunity to comment on the subject and hopes that our views will assist the NRC in providing industry, state and local authorities with more effective and appropriate bases for nuclear power plant emergency planning. The Yankee Nuclear Services Division of Yankee Atomic is responsible for the operation and management of three units in New England; Yankee-Rowe, Vermont Yankee and Maine Yankee, as well as acting in a project management capacity for the Seabrook New Hampshire Units. The experience gained while executing the various operations and management responsibilities required by these facilities has provided our organization with a broad background of valuable knowledge which we believe, should be considered by the Commission.

A portion of this responsibility for these plants and new project involves radiological emergency plan development and maintenance. This effort includes establishing interface arrangements with responsible off-site authorities, principally state radiological health and civil preparedness agencies and the proper integration of on-site emergency response actions with those off-site. A key area within this interface effort is the implementation of appropriate and applicable guidance from federal agencies on the subject of radiological emergency planning.

Yankee Atomic is opposed to continuation of radiological emergency planning without a risk-probability basis and without comparison to a similar basis for other technological hazards. With such a basis and comparison, nuclear power plant radiological emergency planning would be consistent with planning for all hazards. This is important from both a cost effectiveness standpoint (i.e. decisions must be made based on hazard probabilities on where to expend emergency response resources) and from a public understanding and acceptance standpoint.

Our specific comments and views on the questions posed in the referenced notice are enclosed. Because of our concern with the issue

Acknowledged by card. 9-6-79

identified in Question No. 8 in particular, we also enclose our comments filed with the NRC on March 28, 1979, which contain our view on NUREG 0396 and its implementation. We urge proper resolution of this particular question, including consideration of our views, prior to adoption or any further use of the Emergency Planning Zone concept proposed by NUREG-0396.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

D. E. Vandenburgh
Senior Vice President

DEV/smw

YANKEE ATOMIC ELECTRIC COMPANY
COMMENTS ON ADEQUACY AND ACCEPTANCE OF RADIOLOGICAL EMERGENCY PLANNING

1. What should be the basic objectives of emergency planning?

   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?

   To what extent should these objectives be quantified?

Response: The basic objective is to properly provide public health considerations in the event of an emergency. This objective entails considerations of the public health and safety implications of protective actions designed to reduce or prevent public radiation exposure balanced with the public health consequences of radiation exposure with no protective action. In other words, overall public health risk is the guiding principle in any emergency action and must be reflected in emergency plans.

This principle should be quantified as much as possible. Some guidance such as the EPA Protective Action Guides are useful for this purpose, but additional emphasis must be derived from the quantification of an acceptable risk basis for radiological accidents as compared to other natural and man-made hazards. It is our view that four rationales must be integrated in establishing a planning basis - risk, probability, cost effectiveness, and consequence spectrum. The plan should be adaptable to real-time conditions and also provide assurance that overall public risk during an accident is recognized and actually used. A radiological emergency plan should be integrated into the overall emergency plan of state and local agencies.

2. What constitutes an effective emergency response plan for state and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licenses (10CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

Guidance to those organizations involved in the radiological emergency planning business should define what constitutes an effective emergency response plan. We feel an emergency plan should:

1) Assure that responsibility for overall emergency planning and preparedness in State and local governments has been assigned, and that emergency responsibilities of the various supporting agencies and organizations within the State and local governments have been specifically established.

2) Determine and tabulate for ready availability the types of radiological assistance available within each state locale, and

assistance available from others (e.g., federal agencies, other states, etc.),

3) Provide notification procedures and communication systems applicable to an emergency,

4) Identify and coordinate methods, systems, and equipment to be used by nuclear facility operators, state and local governments for assessing or monitoring off-site consequences of a radiological emergency,

5) Provide pertinent protective action guides. This is to include the information needed to assure their proper implementation on the basis of various projected doses, dose rates, contamination levels, airborne activity, etc.; and also that information has been prepared concerning planned protective measures,

6) Establish training for radiological exposure control, and insure that predetermined controls are established for;

a) state and local emergency response personnel and b) other emergency response people,

7) Establish general recovery and re-entry plans for areas surrounding the facility,

8) Assure that the established emergency plan will be used when needed, and

9) Provide for periodic plan review, exercise, and updating.

While evacuation may be an appropriate protective action, it should not be the sole protective action considered in an emergency plan as it would compromise the flexibility needed for an actual emergency condition. It is our view that an integral part of emergency planning is a quantification of an acceptable probability basis which could be compared with other technological hazard probabilities. Federal guidance must acknowledge and incorporate this principle so state and local agencies can plan for radiological hazards within the frame work of overall emergency planning. We feel current NRC guidance to licensees, states, and local governments does not recognize this need and should be altered accordingly.

3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response: Since the contexts of questions 3 and 4 are similar, our response will be unified. It is wrong to assume that NRC concurrence in state and local emergency response plans guarantees good radiological emergency plans. As a result, there should be no licensing dependence on state plan concurrence. Radiological emergency planning is only one element of state and local government disaster planning efforts and responsibility. Any emergency plan review must recognize this and must also recognize the need for overall disaster plan development, maintenance, and testing and the qualified personnel and funding associated with these activities. Current NRC concurrence policies do not carry these recognitions and actually should not continue as a NRC function. Overall state and local disaster plan review and maintenance, including radiological emergency plans, should be assumed by the Federal Emergency Management Agency. The NRC can and should assist FEMA in radiological emergency matters and plan reviews but should not be the prime federal agency for this purpose.

Prior to construction stage, FEMA should assist the licensee in obtaining from state and local governments adequate confirmation that they will indeed conform to the regulations, and provide or establish radiological emergency plans. Changes in the political views of state and local authorities during the construction and licensing stage, should not void this compliance agreement. Such preplanning will guarantee good radiological emergency planning coordination, as well as prevent the licensee from incurring cost - prohibitive expenses.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response: Recognizing NRC's lack of statutory authority over state and local peace time nuclear emergency response planning, we recommend that FEMA assume the responsibility for making policy and, coordinating radiological emergency response planning around nuclear facilities in a proper context with other disaster planning. As a focal point for federal emergency preparedness activities, we believe FEMA can more effectively influence state and local governments to develop adequate emergency plans around nuclear facilities.

Additional coordination could be attained through the development of state branches of FEMA (SEMA) which relied upon the federal government for funding and direction. At this level a quantification of risk assessment for all industries including nuclear power within that state should be developed upon which appropriation and distribution of federal financial aid may be based. Adoption of this responsibility by FEMA offers this coordination.

It should be noted that Federal financial aid, appropriated by FDAA, has previously been accrued by State governments for the sole purpose of disaster planning, and yet many states have not recognized this revenue as a source of radiological emergency planning funds. Additional funds should originate from the tax income presently allotted to the towns which maintain nuclear power plant sites. Surrounding communities are deprived of this financial

support but nevertheless they are required to implement an adequate radiological emergency plan. A portion of this revenue should be provided to other surrounding communities within the emergency zone in accordance with the financial burden that radiological emergency planning creates.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, state or local governments? To what extent should federal, state, and local governments, and licensees be required to participate?

Response: Drills are presently required by 10CFR 50, Appendix E for licensees, and this is regulated by NRC. Any additional requirement designated by federal authorities is beyond its regulating authority since it is the state and local governments' responsibility to implement emergency planning procedures. Any federal regulation enacted imposing state and local government participation in radiological emergency drills must be consistent with drill requirements for other disasters. We feel radiological emergency response drills are necessary and should be incorporated directly into any state/local emergency plan. The licensee should encourage state/local agency participation in such drills with federal agency involvement in accordance with their pre-established emergency plan role.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response: It is impractical and counter productive to provide detailed information concerning all possible radiological emergency situations - just as it is for other disasters. Efforts should be made to provide the public with some assurance as to the capabilities of emergency planning, so as to enhance their trust in the adequacy of the proposed plans and the officials who would implement them. This can be done by public information programs designed to highlight the basic planning considerations and identify those agencies responsible for their implementation. During the planning process, public participation should be encouraged but not to the extent that it would significantly confuse or hamper the development of needed plans.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA520/1-78-016)?

Response: We feel it is incorrect that any guidelines established for a radiological emergency planning basis can disregard the rationale of probability and risk assessment. Present radiological emergency plan guidance plans fail to place the radiological hazard of nuclear power in the proper perspective with all natural and technological risks. The planning guidance within NUREG-0396 continues this failure of using proper risk-probability logic.

We are still as opposed to implementation of NUREG-0396 as a planning basis as we were when we filed comments to the NRC on March 28, 1979. We continue this opposition now by enclosing our original comment letter; this opposition will continue until such time that NRC begins to recognize the necessity of reviewing all public comment, addressing these issues, particularly responses to question 8, prior the implementation of such guidance.

9. Under what circumstances and using what criteria should a licensee notify state, local, and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Response: Notification should be subject to agreement between plant personnel and the state and local authorities. This includes the notification method(s) and criteria for its activation. These notification channels must be reserved for incidents of public protective action significance.

Notification to the public should be designated within the established emergency plans, and subsequent releases to the media must come from a central source. A distinction must be made prior to notification as to the purpose of notification; whether it be for purposes of emergency action or for public information. The responsibility of notification must be refined in accordance with accident classification, for example, notification of a general emergency rests with the proper state designated official otherwise such notification should be the responsibility of the Emergency Coordinator. A destinction of responsibility, in this manner, will eliminate the risk of improper notification.

10. How and to what extent should the concerns of the state and local governments be incorporated into federal radiological emergency response planning?

Response: Because only state and local governments are responsible for public protective action decision-making and implementation, their concerns, capabilities, resources, and perspectives of state and local governments are paramount and must be fully recognized in any federal planning effort. The most direct and certain way of assuring this is to incorporate federal emergency assistance into state and local plans - not vice versa.

11. How should federal agencies interface with state and local governments and the licensee during emergencies?

Response: State and local emergency plans should include the role and assistance capabilities of federal agencies and how they are to interface with state and local capabilities and resources. NRC must regulate on-site activities and, assure that reactor operations command, control responsibilities, and authority are adequately defined regardless of State and local emergency plans.

12. Should the licensees be required to provide radiological emergency response training for state and local government personnel? If so, to what extent? Should the federal government provide such training?

Response: Everyone with expertise in radiological emergency planning and

its bases serves as a resource for training purposes. This includes but is not limited to licensees and federal agencies. No one organization or agency, public or private, should be required to provide training services. It is a combined team effort dictated by the needs of individual state and local agencies. FEMA assistance and capabilities in this area should definitely be included.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by federal, state or local governments?

Response: Licensees are responsible for the initial and continuing assessment of the actual or potential consequences from accident conditions. The designated governmental agency (usually a state health department) should be responsible for reviewing this assessment capability. Since state and/or local authorities are responsible for the initiation of any protective action, every effort should be made to explain the licensee assessment methodology and any of its limitations to those with the protective action decision-making responsibility to use the most accurate and rapid resource available for the necessary input into these decisions. The licensee can and should be allowed to provide the assistance it can lend in reviewing and familiarizing state protective action decision-makers with this assessment capability within overall radiological emergency plan training programs.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation.

Response: Public participation in radiological emergency response drills constitutes a risk to public health and safety. It is an unnecessary risk and there should be no requirements for public participation.

Telephone (617) 365-9011
TWX
710-390-0720

YANKEE ATOMIC ELECTRIC COMPANY

B.1.2.1

20 Turnpike Road Westborough, Massachusetts 01581

WYC 79-12

March 28, 1979

Mr. Harold E. Collins
Assistant Director for Emergency Preparedness
Office of State Programs
United States Nuclear Regulatory Commission
Washington, D. C. 20555

Reference: Notice in Federal Register, Volume 43, No. 242, Page 58658, December 15, 1978, which Invited Comments on the Subject Report

Dear Mr. Collins:

Subject: Comments on NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants"

Yankee Atomic Electric Company wishes to comment on this report. Yankee, through its Nuclear Services Division, is responsible for the operation and management of three operating units in New England: Yankee Rowe, Vermont Yankee, and Maine Yankee; as well as project management for the Seabrook, New Hampshire units; and the proposed New England Power Company units, NEP 1 and 2.

A portion of this responsibility for these plants and projects involves radiological emergency plan development and maintenance. This effort includes establishing interface arrangements with responsible off-site authorities, principally state radiological health and civil preparedness agencies, to properly integrate on-site emergency response actions with those off-site. A key area within this interface effort is the implementation of appropriate and applicable guidance from federal agencies on the subject of radiological emergency planning. The report issued by the joint NRC/EPA Task Force is certainly in this category and is why we want to transmit to you our comments.

Our specific comments are detailed in the enclosure to this letter. We point out many items that in our view render the Task Force Report recommendations premature and, in some cases, based on incomplete information or understanding.

In addition to these specific concerns, we wish to address a general issue of critical importance--the overall impact of the recommendations of the Task Force Report on the nuclear power plant licensing process, particularly the hearing aspects. Adoption in any way, even just publication, of a document such as the Task Force Report could serve to add yet another issue to the list of "open-ended" issues which an opponent of a nuclear

plant can be permitted to raise. The length of the hearing process is, right now, a national disgrace and it seems inappropriate simply to add to the problem for no good reason.

We do appreciate the opportunity to comment on a matter of importance to us and would be glad to discuss our views with you if you desire.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

D. E. Vandenburgh
Senior Vice President

Enclosure

LEMinnick
DEVandenburgh/WPJohnson/LHEeider/DWEdwards
RHGroce
DEMoody
Fred Stetson
RTTurcotte
JAMacDonald

3-194

YANKEE ATOMIC ELECTRIC COMPANY
COMMENTS ON NUREG-0396

1. Role of Task Force Report

To date guidance to those organizations in the radiological emergency plan business has taken the form of material issued separately by the individual federal agencies who have responsibilities for developing such guidance pursuant to the effort established by the Federal Preparedness Agency, which was noticed in the December 24, 1975 Federal Register (40FR59494). Examples are:

a) NUREG-75/111, issued by the NRC,

b) EPA-520/1-75-001, issued by the EPA, and

c) Federal Register notice (43FR58790), issued by the FDA.

In addition to these examples, each of which formulate or propose guidance to federal, state, and local emergency planning authorities, are the NRC regulations and guidance which apply directly to nuclear power plant applicants and operators such as those with which Yankee is associated. Chief among these documents are 10CFR50.34 and Appendix E, and Regulatory Guide 1.101.

In each of these cases the requirements and/or guidance are somewhat "stand-alone". That is, they are pointed at particular organizations involved in the emergency planning task by the various federal agencies charged with the particular responsibility that applies. There is, of course, recognition and in some cases adoption of the requirements or guidance of one agency in the documents produced by another, when and where this is appropriate.

The Task Force Report is a document that represents a deviation from the established practice. This deviation raises many questions or concerns that are unanswered at this point and, in our opinion, need to be addressed before going further. These questions and concerns are as follows:

a) As a Task Force constituted by both NRC and EPA representatives, its recommendations are not officially adopted by either agency individually at this point, and they may not be by either or both. Should this occur, which is entirely possible, what meaning could emergency planners place on a jointly issued Task Force Report?

b) How would disagreements, which we suspect exist, between NRC and EPA on the Task Force recommendations and/or their implementation be resolved? We feel they really wouldn't be resolved and seriously question the position emergency planners would be left in as a result.

c) Who would implement the Task Force recommendations? We foresee the distinct possibility of a situation where implementation is charged to one agency while the Report is not officially adopted by the other. This too would be an untenable situation for emergency planners.

In our opinion, these concerns render the use of the Task Force Report difficult, if not impossible. It's unfortunate they weren't recognized and addressed when the concept of the joint NRC, EPA Task Force was reviewed.

2. Composition of Task Force

Notwithstanding the concerns we outlined on Comment 1 above, we question the fact that only NRC and EPA were represented on the Task Force. Such an undertaking, if made at all, should include at least representation by all the federal agencies charged with specific radiological emergency planning responsibilities by the Federal Preparedness Agency notice. Further, a case could be made for direct involvement of all the various "recipients" of guidance such as the Task Force Report. This would certainly include nuclear power utilities, state radiological health agencies, and, most certainly, state civil preparedness agencies since the bulk of any implementation effort falls to them and their arrangements with appropriate local agencies.

To underscore this point, we contend that the effort of the Task Force to identify a new area for emergency planning emphasis - the ingestion exposure pathway - necessarily involves recommendations and guidance from the federal agency charged with the responsibility of establishing Protective Action Guides for this pathway. This agency, the Food and Drug Administration, was conspicuously absent from Task Force representation. It is illogical to us to assume an agency such as FDA shouldn't be allowed the opportunity to participate in deliberations on how their PAG guidance is to be used.

Without such representation by FDA and the other organizations we mention, we seriously question the usefulness of the Task Force Report. We believe with proper composition of the Task Force, the recommendations would be either altered from what appears in the Report or would not be made in the first place.

3. Impact of Task Force Report

One of the Task Force conclusions given on page 24 of the Report is that "...the establishment of Emergency Planning Zones should not result in large incremental increases in required planning and preparedness resources." This conclusion is somewhat qualified with the reference to previous considerations of NUREG-75/111, EPA-520/1-75-001, and Regulatory Guide 1.101 contents. Even with this qualification, the conclusion that 10 and 50 mile EPZ's carry no large incremental planning impact is very doubtful. In fact, this type of conclusion further underscores our Comment 2 above. We feel such a conclusion would not have come from a Task Force that included representation by those organizations involved in the detailed implementation of emergency planning requirements and guidance. We refer particularly to state radiological health and civil preparedness agencies and all the local authorities and assistance agencies who necessarily interface with these state-level officials to establish an effective, workable emergency plan for a nuclear power plant site.

To expect, for example, that for existing nuclear power plant emergency plans a redesignation of certain surrounding communities and locations from "reception" status to "evacuation" status would not result in "large incremental" impact is difficult to believe. An expansion of the planning radius subject to evacuation considerations from 5 miles to the recommended 10 miles represents a four-fold increase in planning area. To expect that such a planning area increase carries no "large incremental" impact is difficult to believe. Because of this concern, we believe the potential impact of the EPZ recommendations should be subject to review and input by those involved in the details of emergency planning. We do not believe the Task Force contained representation to produce such important review and input. We therefore take exception to the cited conclusion.

4. NRC Regulatory and Licensing Impact

The impact of the Task Force Report on nuclear power plant regulatory and licensing matters is of great concern to us. After reviewing the Report in detail for some identification of what this impact could be, we are left uncertain and confused.

The greatest uncertainty and confusion stems from the fact that the report mentions "some clarification" of NRC regulations (presumably 10CFR50, Appendix E, and 10CFR100) "may be desirable" (page III-16). This statement taken together with the current NRC position on the Task Force Report itself (last sentence of the FOREWARD, page ii starts "If adopted by the NRC...") leaves the impact question on plant applicants and operators unanswered and largely unaddressed. The Task Force concentrated on developing nuclear power plant emergency planning guidance to federal, state, and local agencies and authorities without adequately addressing the impact of even implications of such guidance on those who propose or operate the facilities in question. This situation adds more confusion to applicants and operators on an already confusing subject - plant siting alone and in connection with emergency planning requirements.

In effect, publication of the Task Force Report and request for public comments is actually premature. A key part of the "public" being asked to review and comment on the Report is certainly organizations such as Yankee, representing plant applicants and operators. Without a definition of the impact of the Task Force findings on NRC regulations and licensing practices - without even a definition of whether the findings are to be adopted by the NRC - we are being asked to comment

on a document that is incomplete in many areas, most critically including the area discussed in this comment, and is of questionable status. In essence, how can we and others comment on its impact when it's ill defined and when the Report is not even adopted by the agencies involved, principally the NRC? We believe this issue must be addressed and resolved before the Task Force Report goes any further.

5. Reduction in Public Protection

Recommendations such as those contained in the Task Force Report which call for a significant expansion of currently established areas and populations subject to planning details for the potential implamantation of some form or forms of protective action, could actually compromise, to some degree, the effectivenesr of protective action on behalf of individuals who would need it most - those who inhabit areas immediately surrounding plant sites.

Effective emergency plans require established details in many areas - assembly of emergency assistance personnel, public warning, protective action, shelter and reception area designation, etc. Each of these provisions of a plan require decisions for the most effective implementation. These decisions hinge on many factors, not the least of which is the area and population characteristics of the so-called "planning zone". Over the years of nuclear power plant siting and emergency planning, this "planning zone" has usually been defined as that area within a facility's Low Population Zone. These LPZ's have typically been at least a factor of two in radial distance less than the Task Force recommended distance of ten miles for the plume exposure pathway. In fact, since the trend in recent years has been to reduce the size of LPZ's surrounding sites (a measure to ease site suitability demonstration from a 10CFR100 standpoint), there has been a steady increase of improvements in and additions to plant engineered safety features. The features improved or added to make this trend possible is a definite measure of improvement in overall public health and safety since hypothetically calculated accident doses are reduced in all areas, near and far, surrounding plant sites as safety features are augmented.

The effect of a recommendation which represents a significant expansion of areas and their accompanying complexities, a recommendation reached by the Task Force in calling for a generic ten mile Emergency Planning Zone, could actually reduce public health and safety by reversing the recent trend to add or improve designs in order to reduce LPZ sizing. We certainly feel such a situation would not be in the public interest and should be studied carefully before the Task Force Report goes any further.

6. Need for Ingestion Pathway Considerations

A recommendation of the Task Force with seemingly considerable importance is the call for generic 50 mile radius EPZ's surrounding plant sites to cover the potential ingestion exposure pathway following accidents. The Report contains much discussion and presents results of many analyses to support the need of such a recommendation. Despite all this material, we think the recommendation is unnecessary.

We think it is unnecessary simply because such planning and protective action capability already exists. It currently exists in many forms within the capabilities and planning of state radiological health departments working with state agriculture authorities. It also exists within the federal government working with these state authorities. The EPA in 1973 consolidated the radioactivity monitoring networks previously operated by the U.S. Public Health Service into their Environmental Radiation Ambient Monitoring System (ERAMS). The ERAMS is a comprehensive and flexible arrangement by which environmental levels of radioactivity are continually assessed by sampling and analyzing many media, including milk. Quoting from a report of the use of this system (EPA-520/5-77-002), it is stated:

> "This monitoring program is designed to provide long-term radioactivity assessment of trends and seasonal changes and short-term early warning to establish the need for emergency abatement actions on contingency sampling operations." (Page iii, emphasis added)

This system has been and will continue to be used for both purposes cited in the above quote. We suggest that before the Task Force recommendation for 50 mile radius ingestion pathway EPZ's goes any further, the Task Force personnel familiarize themselves with the assessment networks already in existence to cover this pathway, both at the state level and in conjunction with EPA's ERAMS. We submit such familiarization would eliminate the need for the generic ingestion pathway recommendation.

7. Use of Protective Action Guides

The key recommendations of the Task Force are the generic distances from a plant site that are considered appropriate for plume and ingestion pathway planning arrangements. These are specified as 10 miles for the plume pathway and 50 miles for the ingestion pathway. In the various analyses that were made to support each of these recommendations the Protection Action Guides (PAG's) proposed by EPA for the plume exposure pathway and by FDA for the ingestion exposure pathway were relied upon heavily. We have two concerns with this reliance.

The first is the fact that the PAG's determined by these two agencies are not officially adopted recommendations as yet. We realize EPA's PAG's were proposed in 1975 and FDA's were first proposed in 1976 with a later proposal in 1978. Despite the fact that both proposals have been available for some time, in actual fact they are not official recommendations to use for emergency planning purposes as yet. We are certainly as disturbed by this delay as anyone because of the uncertainty it places on our emergency planning responsibilities and arrangements. It also raises the question in our mind how the Task

Force in developing its recommended plume and ingestion pathway Emergency Planning Zones could use these PAG's at this point in time with any more assurance that others in the emergency planning business, since they are indeed in the proposal status (in fact the latest FDA PAG's are still out for public comment).

This fact causes us to seriously question the usefulness of the recommendations reached by the Task Force since they were derived directly from these unofficial PAG's. The timing of such recommendations is premature. The PAG's should be official before recommendations such as those made by the Task Force are determined.

A useful function to all emergency planners for the Task Force to perform before going any further with its recommendations would be to involve itself in any way it can to bring about some progress on this important matter.

Our second concern with the PAG's is the manner in which they were used. The results of the many analyses performed by the Task Force from which the 10 and 50 mile EPZ recommendations were established are given in Figures 1-6 through 1-13. The conclusions drawn from these figures are distance recommendations based on the lower value of the EPA and FDA PAG ranges. Our question is why were the lower values used to arrive at the distance recommendations? The PAG's proposals by these agencies do not specify a single dose value but a range to allow for proper consideration of the many factors that would play a role in any actual protective action decision by health authorities. The Task Force could have used the upper values of these proposed PAG's and the resultant recommendations, in addition to being much more palatable, would have been just as defendable as the ones that were made.

We request that these concerns expressed above be seriously considered because the use of the unofficially adopted PAG's weighs so heavily in the Task Force recommendations.

8. Failure to Answer Request

The principle basis cited for the Task Force effort was the discussion* by the Conference of (State) Radiation Control Program Directors to request the NRC to "make a determination of the most severe accident basis for which radiological emergency response plans should be developed by off-site agencies". There were many reasons behind the various discussions of such a request. Certainly one of the issues involved was the recognition by state authorities that emergency planning efforts for nuclear power plants were or could be disproportionate when compared with emergency planning efforts for other more probable hazards. Another reason was the confusing array of accident analyses performed for plants - analyses that vary from minor, no off-site consequence events to design basis events which, when conservatively analyzed in accordance with NRC groundrules, have off-site consquences to consider. Still another reason for the discussions was the fact that, despite the design basis accidents analyzed in the conservative manner, there were many fundamental NRC regulatory requirements designed to prevent or mitigate the occurrence and/or consequences of such events.

To an emergency planner facing hard decisions on where to best spend his limited resources, this situation was and still is of crucial concern. It has not been removed by the publication of the Task Force recommendation. The confusion about the array at accident scenarios from which to select a basis appropriate for emergency plan purposes has been expanded by the Task Force when it is concluded:

> "A spectrum of accidents (not the source term from a single accident sequence) should be considered in developing a basis for emergency planning." (Page 24)

A "spectrum of accidents" is the situation emergency planners faced before the Task Force recommendations. There are two differences now, however. The first is the spectrum has been significantly expanded to include another "spectrum" - the Class 9 spectrum. The second difference is the generic distance recommendations - the Emergency Planning Zones - which did not exist prior to the Task Force Report. Presumably the generic EPZ's would remove the continued and expanded uncertainty about the "spectrum of accidents" situation.

This is not the case. Review of Table 1 on page 17 of the Report reveals the EPZ's recommendations actually offer no answer to the detailed planning decisions that must be made. The plume exposure pathway EPZ is given as "about 10 mile radius*" with the asterisked footnote as follows:

> "Judgement should be used in adopting this distance based upon considerations of local conditions such as demography, topography, land characteristics, access routes, and local jurisdictional boundaries".

Judgements on these factors face emergency planners constantly. This was precisely the reason the spectrum of accidents issue came up in the first place. Now the Task Force Report attempts to answer the concern with an indication that an expanded spectrum of accidents is the proper planning basis, subject to "local conditions such as demography, topography...", etc.

From this we maintain the request has not been answered.

*Despite the indication on page 1 of the Introduction to the Report, the discussion did not produce a Conference resolution.

9. Use of Class 9 Accidents

Until the issue of Class 9 accident use in nuclear power plant matters is properly and finally resolved, if it ever is, we are opposed to any application of such events to an effort such as that conducted by the Task Force. We do not agree Class 9 accident scenarios should be used by a group or groups within the NRC without an official Commission-wide determination on whether use and, if so, how they are to be used.

In any event, guidance to emergency planners that utilizes and is largely based upon the incredibly low probability Class 9 events is not, in our opinion, very useful. The issue of using them in the first place and appropriateness of them for emergency plan purposes in the second place should be reconsidered.

P.O. BOX 529100, MIAMI, FL 33152

DOCKET NUMBER
PROPOSED RULE PR-50 (70) (44 FR 41483)

FPL
FLORIDA POWER & LIGHT COMPANY

August 31, 1979
L-79-243

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Docketing and Service Branch

Dear Mr. Chilk:

Re: Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities (44 F.R. 41483

Florida Power and Light Company has reviewed the referenced Rulemaking Proposal and makes the following comments:

(6) Radiological emergency response drills should be conducted annually to verify proper functioning of emergency communication systems and procedures, and to demonstrate the proficiency of the licensee's emergency teams and non-licensee emergency support groups. Non-licensee groups include state, county, and local agencies responsible, by law, for the health and safety of the public within their legal jurisdictions. Annual drills serve to familiarize support group personnel with other support group functions, and to develop the coordination required between the many emergency support elements that have to work together under realistically simulated emergency conditions.

The licensee is responsible for maintaining authority over all activities, including drill activities, within the fenced-in controlled area over which he can exercise physical control. Authority over surrounding areas should be the responsibility of state and local agencies, which have in many cases integrated nuclear events into their overall nuclear planning. The actions of state and local agencies should remain consistent with their current legally constituted emergency response authority. Federal agencies should also participate in drills to the extent necessary for them to evaluate the effectiveness of the implementation of the licensee's emergency plan and the plans of state and local agencies and groups as their plans relate to the licensee's emergency plan.

(7) Information about emergencies or emergency action which may result from the operation of a nuclear power plant should be coordinated in the same way as for other more common and often more hazardous activities that are an accepted part of everyday life. The exact circumstances surrounding any commercial, industrial, transportation, military, etc., accidents that might occur are, by definition, no entirely predictable. Therefore, an accident and the effect it might have on the surrounding areas must be determined in "real time" and protective actions recommended (or taken) must be based on the "real time" evaluation of the situation considering, to the greatest extent possible, all factors involved.

(11) Certain federal agencies have developed excellent radiological emergency response teams and equipment. This capability should be used to augment the state's radiological emergency capability and should be used in re-

Acknowledged by card 9-6-79

sponse to state's requests for assistance. The release of information on the existing radiological situation and recommendations for protective actions to be taken by the public should be closely coordinated between the licensee, the state's agency in charge, and any federal agency called in by the state for assistance. Traditionally, state authorities handle all public health and safety problems within their state, and request assistance from federal agencies only if the state's resources are marginally capable of handling a situation affecting the public. State authorities should always remain in charge and any decisions affecting public safety must continue to be promulgated by these recognized state authorities.

(12) State and local government emergency response personnel are selected and trained by their respective agencies to perform all of the jobs for which these agencies are responsible. The licensee, at the request of these agencies, should assist them in those aspects of radiological emergency training that are specifically related to the effect of nuclear plant activities on off-site areas.

(14) It is unwise and impractical to involve the general public in a mass evacuation for purposes of a drill. In any case, such action would be valueless as an educational process since there is little chance that public drill involvement would ever be duplicated in an actual protective action situation.-

Responsible public officials are charged with safety concerns for the general public. The officials recognize that the hazards attendant to the mass movement of people of all ages and physical condition, strictly for purposes of a drill, far outweigh any possible benefit that could be derived from such action. Public officials also recognize that people do not want to abandon their possessions and thus expose them to the possibility of theft and vandalism just to satisfy nonproductive activities.

Thank you for the opportunity to make these comments.

Sincerely,

Robert E. Uhrig /cy
Vice President
Advanced Systems & Technology

REU/dlh

cc: Robert Lowenstein, Esquire
George Liebler

3-199

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE AREA 704
373-4083

DOCKET NUMBER (71)
PROPOSED RULE PR-50
(44 FR 41483)

August 30, 1979

Mr. Samuel J. Chilk, Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Advance Notice of Proposed Rulemaking (10CFR Part 50)
Emergency Plans (State/Local) in Areas of Power Reactor Operations
Federal Register Vol. 44, No. 138, Page 41483
FR Docket Number 79-22078

Dear Mr. Chilk:

Duke Power Company generally agrees with the comments submitted by the Atomic Industrial Forum and the EMC, Inc. on the subject Notice of Proposed Rulemaking concerning "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" and hereby essentially adopts them as our own comments.

Also, we submit the following comments (see Attachment I) which are intended to clarify our specific answers to each of the fourteen (14) sets of questions asked in the subject Notice.

Additionally, we are attaching two letters which have been previously submitted on closely related issues which support and further explain our position on Emergency Plans.

Attachment II - Mr. W. O. Parker, Jr., Vice President, Steam Production, Duke Power Company, March 27, 1979 to Mr. Harold E. Collins, U. S. Nuclear Regulatory Commission. Subject: NUREG-0396 Radiological Response Plan.

Attachment III - Mr. Lionel Lewis - System Health Physicist, Duke Power Company and Emergency Planning, July 18, 1979 to Mr. Samuel J. Chilk, Secretary, U. S. Nuclear Regulatory Commission. Subject: Critical Mass Emergency Plan Petition for Rulemaking

Very truly yours,

William O. Parker, Jr.

RFJ:scs
Attachments

Acknowledged by card 9-6-79

ATTACHMENT I

DOCKET NUMBER
PROPOSED RULE PR-50

COMMENTS ON ADVANCE NOTICE OF PROPOSED RULEMAKING (44 FR 41483)

ADEQUACY AND ACCEPTANCE OF EMERGENCY
PLANNING AROUND NUCLEAR FACILITIES

1. What should be the basic objectives of emergency planning?
   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?

Response:

The basic objective of emergency planning is to mitigate the possible offsite consequences of emergencies and provide reasonable assurance that appropriate measures can and will be taken to protect the health and safety of the public and to minimize damage to property.

The EPA Protective Action Guides are useful for quantifying action levels to minimize radiological risks. However there is a need to establish appropriate dose levels below which protective action is not appropriate. In all cases the non-radiological risks need to be considered in any evacuation.

2. What constitutes an effective emergency response plan for State and local agencies? For Licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

The essential elements of an effective emergency response plan are to define accessment capabilities, response capabilities, communications networks, and how an emergency would be managed.

These elements are described for licensees in Reg. Guide 1.101. The elements for State and local agencies are contained in NUREG-0396. However, we do not agree with planning to 50 miles. Items lacking in existing guidance includes the organization for crises management which was a lesson learned from Three Mile Island. Duke Power Company essentially believes in a two-tiered plan for emergency handling. The first would involve the utility and local emergency organizations that are involved in the initial response. The State and Federal governments would be involved in supplemental emergency measures or follow-up measures. In other words the State and Federal government would add resources to the local area response as a follow-up to the initial immediate emergency response that was taken by the utility and local agenices. Flexibility needs to be considered in developing a plan as well as site specific aspects and the capabilities of local agencies.

3. & 4. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plan? If so, when should this general requirement become effective.

Response:

NRC concurrence should not be necessary to continue or to begin operation of a nuclear power station. However, concurrence should be looked upon as a goal to be achieved within some reasonable period of time such as three (3) years. It would be very difficult to work with and develop emergency plans with local agenies if their plans had to be submitted to the NRC for concurrence. We feel a concurrence should be reserved solely for the State plan.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

Duke Power Company believes that emergency funds should be available through the Federal Emergency Management Administration to assist State and local agencies with the development of their plans.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response:

Yes, it appears to be appropriate to hold radiological emergency response drills. The utilities, Federal and State agencies could each hold their own drills to develop competency in their areas and at some period of time a comprehensive drill involving the utility, Federal, State and local agencies and should be held. Individual drills could be held under the authority of the individual agencies but comprehensive drills could be initiated under the authority of the utility and follow-up action in the same emergency plan could be done under the authority of the Federal and State agencies.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

Brief descriptive information concerning the emergency plan should be made available by all of the agencies involved. However, they should not be distributed on a routine basis to all persons within the local area around the nuclear power station.

In a sense, the emergency plan should be handled as the Civil Preparedness Agency now does for all other emergency situations such as floods, hurricanes, tornadoes, earthquakes and the like. In other words, at present, local Civil Preparedness Agencies have plans, people can obtain these plans, they are made aware of the fact that such plans are available and that the plans can be obtained but a copy is not necessarily distributed to each and every person within the local area. Utilities could advise their local customers that the emergency plans are available upon request and upon receiving a request a brief synopsis of pertinent information could be submitted to the individual inquiring about this.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response:

The NRC should not endorse the NRC/EPA Task Force Report (NUREG-0396) since it conflicts with established safety philosophies designed to protect the public in regard to Class 9 accidents. Duke Power Company has previously submitted comments on NUREG-0396 by letter dated March 27, 1979. This letter is appended and our position on this matter has not changed - see Attachment II.

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Response:

If quantitative or concise descriptive information is available to define incidents and emergency situations, then the utility is obviously obligated to

report these situations immediately upon determination that they have an incident or emergency situation or upon their evaluation of the potential offsite effects of such an accident situation. If the public will or is likely to become involved as a result of releases offsite to the extent that protective action will be required on their part, then they should be notified immediataly by the utility, by the NRC, by State and local agencies through their communications networks with the communications media.

Duke Power Company has submitted comments on the Critical Mass Energy Project petition for rulemaking by letter dated July 18, 1979 (Attachment III) and hereby adopts this response in reply to the questions raised in Item 9.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Response:

The Federal government should provide guidelines for State and local governments. However the government should not have a plan that preempts State and local government authority. Funds for development of State and local governments plans should be available through the Federal Emergency Management Agency.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The initial action in response to an emergency situation should be between the utility and local agencies. Follow-up public health action would then come through State and Federal agencies in a two-tiered type of response such as we referred to earlier. Obviously coordination between these agencies at a central emergency response center is necessary to accomplish this.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

The licensee should not be required to provide generalized radiological emergency response training for State and local government personnel. However, local agencies as well as local government and State personnel would certainly need to be informed of the utilities plans and the means by which they would initiate the plans and so forth to this extent, training should be provided by the utility. But, generalized training in emergency response should not be provided. This should be available through Federal programs.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

The immediate or initial action is obviously best handled by the utility and local agencies because the utility is obviously in the best position to know that they have an emergency situation and what action is required. The local agencies are in the best position to respond immediately if protection of the public is required. Follow-up action for the further protection of the health and safety of the public should result from actions of State and Federal agencies, again, in a two-tiered response system which we have referred to in replies to earlier questions.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpos . If so, what should be the extent of the public participation?

Response:

There should be no requirements for public participation in emergency response such as evacuation. The public of course should have some knowledge of local agency plans and obviously in an emergency situation they will be advised by the communications media as to the appropriate action to be taken. However, there should be no public participation required in these drills. The normal safety hazards of such participation by large groups of people can and will far outweight any good that can result from their participation. By comparison, the public does not get involved in rehersals or drills of emergency actions for floods, fires, hurricanes, tornadoes and the like and yet they are knowledgeable of them and take appropriate action when and if they do occur.

ATTACHMENT II

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE (704)
373-4083

March 27, 1979

Mr. Harold E. Collins
Assistant Director For Emergency Preparedness
Office of State Programs
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: NUREG-0396, EPA 520/1-78-016
"Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants"
Duke Power Company Comments

Dear Sir:

With regard to the above subject, Duke Power Company considers that the "50 Mile Emergency Plan" is a regulatory absurdity. Up to now considering the defense in depth concept required for the construction and licensing of a nuclear power plant, the licensing considerations concerning those design aspects required to prevent an accident from occurring and to mitigate the consequences of an accident should it ever occur were considered to be quite conservative. The emergency plan on the other hand was considered to be a prudent, if not a realistic requirement, for use if all else failed concerning a spectrum of accidents up to and including the Design Basis Accident.

Looking back, it would appear that what the Agreement State program directors really wanted was an evaluation by the NRC as to what realistically should be required for an emergency plan given the considerable conservatisms that went into the licensing. In other words, it would appear that the design basis accident was really not realistic as far as the requirements for emergency planning were concerned. It is believed that the more knowledgeable program directors probably expected a considerable reduction from the design basis accident as a realistic level for emergency planning purposes. Instead, they received via this report an accident that is much greater than that even considered for licensing purposes.

It is unsupportable to consider an accident for emergency planning purposes that is much greater than any that need be considered for conservative licensing purposes. We do not believe that a realistic plan should cover accidents that are not considered as necessary for licensing.

Since the specific reactor licensee is affected by state and local planning, we are extremely concerned if the state makes plans for 50 miles radius distance for the emergency planning zone. It is obvious from experience in these matters that licensing of the nuclear power plant would depend on the state's having such a plan and thus it would directly affect the utility's ability to get a given nuclear power plant licensed. For example, if a utility must provide accurate information and organize emergency procedures for local government for the 50 mile emergency planning zone, the amount of work required would be very extensive. In any event the 50 mile radius presents a considerable problem as far as the magnitude of work is concerned since many counties and several states would likely be involved. If a State did not agree to do the work the utility might be required to finance the State program. If the State was not an Agreement State the job might be impossible to accomplish.

It is Duke Power's belief that only a realistic spectrum of accidents should be assumed, within the limit of the design basis accident required for licensing, for emergency planning and the unjustified increase for emergency planning purposes out to 10 miles and to 50 miles should be elimited.

Very truly yours,

William O. Parker, Jr.

RFI:scs

ATTACHMENT III

DUKE POWER COMPANY
STEAM PRODUCTION DEPT.
GENERAL OFFICES
422 SOUTH CHURCH STREET
CHARLOTTE, N. C. 28242

P. O. BOX 33189

TELEPHONE AREA 704
373-4011

July 18, 1979

Mr. Samuel J. Chilk, Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Re: Docket No. PRM-50-23
Critical Mass Energy Project, et al
Petition for Rulemaking

Gentlemen:

Duke Power Company, an investor-owned utility serving the Piedmont sections of North and South Carolina, has reviewed the petition for rulemaking filed by the Critical Mass Energy Project, et al. in the above-referenced docket. Duke Power Company believes that the petition should be rejected and submits the following comments:

The proposed rulemaking suggests a totally unrealistic and impractical program and uses the Three Mile Island accident as its basis. The Three Mile Island accident in itself did not show that a more comprehensive and extensive evacuation plan was necessary. On the contrary, it showed that an evacuation plan of any size, was indeed not even needed! (To avoid any possible misunderstanding here, we are not arguing for the elimination of the present NRC emergency planning requirements; they appear to us to be appropriate.) What the Three Mile Island accident did show, however, is a need for an effective communications network and an efficient mechanism for managing the emergency.

As a first step in achieving effective emergency communications and accident handling capability, Duke Power Company recommends incorporation into existing Regulatory Guide 1.101 the recently accepted American National Standard, ANS 3.7.2, entitled "Emergency Control Centers for Nuclear Power Plants." Other related standards worthy of incorporation into the Regulatory Guide are ANS 3.7.1 and 3.7.2, entitled "Facilities and Medical Care for On-Site Nuclear Power Plant Radiological Emergencies, and "Radiological Emergency Preparedness Exercises for Nuclear Power Plants," respectively.

Duke Power Company asserts that the petition should be rejected. The present Regulatory Guide 1.101 with appropriate modifications for an effective communications network and for emergency management capabilities will adequately cover this situation.

Sincerely yours,

L. Lewis

Lionel Lewis
System Health Physicist

LL/jpb

bcc: W. F. Wardell
W. H. Owen
J. E. Lanscha
K. S. Canady

28 August 1979

Secretary of the Commission
Nuclear Regulatory Commission
Washington, DC 20555

DOCKET NUMBER
PROPOSED RULE PR-50 (72) (44 FR 41433)

According to a newspaper article quoting spokesman Frank L. Ingram, the NRC is soliciting suggestions on the revised regulations for nuclear plant emergency plans.

As a resident of the immediate area, I feel any realistic emergency plan must contain provisions for quickly and adequately evacuating the populations of Morro Bay, Los Osos, Baywood Park, San Luis Obispo, Arroyo Grande, Pismo Beach, and Shell Beach, as well as Avila Beach. This would include all the population within about a 15 mile radius. In addition to this there needs to be immediate notification publically so that the populations of Santa Maria, Santa Barbara, and Paso Robles, Templeton, and Atascadero would have the time by virtue of their farther distance, to make and carry out appropriate plans. By prewailing wind patterns, that would give them an extra two hours to evacuate that the closer towns don't have.

I am appalled that under current inadequate emergency plans a total of six miles, including about 20 people would be evacuated. That constitutes a neat, tidy, workable plan that would be totally useless. As a board who is supposed to guard the health and insure that a nuclear plant poses no danger to the population, you would be derelict in your duties if you allow such an absurd excuse for a plan to masquerade as intelligent planning for possible contingencies. After Three Mile Island we can no longer afford to assume that accidents won't happen. Therefore we must formulate emergency plans which while more complicated than evacuating 20 people, more realistiely account for the numbers of people who would be immediately effected by an accident.

Since there is no safe level known for radiation exposure we can not afford to take chances. The plan should be to prevent public exposure, not merely reduce it. While there have been no immediate deaths from Three Mile Island there may well be an increased incidence of cancer which will not appear for 20 years. Merely reducing public exposure is not enough, as a regulating commission your job needs to be making sure that PG&E prevent any exposure.

It is vital that NRC approval of emergency plans be required before nuclear plants be allowed to operate. It is also vital that adequate emergency plans be required. If the present emergency plan were approved by you, that would be worse than a farce. There has been no thought to what would happen if there were an accident during school hours. Are there enough school buses to transport the children? Would they be transported or would parents be required to pick them up? We have only one medical facility in the entire county capable of handling a nuclear emergency. What happens when more than 3 people require immediate aid? If as in Three Mile Island the public is not notified until several hours later the people within the 15 mile radius would have long since been radiated. Notice must be immediate for the plan to be effective.

If it is possible to build a sophisticated energy generating plant, it must also be possible to design equally sophisticated emergency plans which realistically provide protection to the local population from exposure to radiation.

Sincerely,
Elaine Rosenfield
1561 Hillcrest
San Luis Obispo, CA 93401

Acknowledged by card 9.6.79

EXXON NUCLEAR COMPANY, Inc.
RESEARCH AND TECHNOLOGY CENTER
2955 George Washington Way, Richland, Washington 99352
PHONE: (509) 943-7100

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483) (73)

August 31, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Comments on Proposed Rulemaking
"Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities". Fed. Reg. 44, 41483,
July 17, 1979.

Gentlemen:

Exxon Nuclear Company, Inc. appreciates this opportunity to comment on the referenced proposed rulemaking. We have commented earlier on this general subject on the occasion of publication for comment of NUREG-0396. We generally concur with the specific responses to the 14 questions proposed by the Commission's request for comments, which are being submitted on behalf of the Edison Electric Institute in the subject rulemaking. We believe that those comments are equally responsive to the concerns raised by the recent Critical Mass petition for rulemaking on the subject of emergency planning, and therefore believe that any further consideration of that petition, being duplicative, should now be subsumed within the Commission's proposed rulemaking.

In addition to generally endorsing the specific responses the the Commission's questions noted above, we offer the following additional comments:

- We have commented before, and wish to reiterate in the strongest possible terms, our view that planning for a nuclear accident is but one aspect of effective emergency planning. We believe the public would best be served by considering the risks from nuclear accidents along with the risks from a broad spectrum of hazards associated with non-nuclear industrial accidents and the effects of natural phenomena. We believe that a state would not be fully responsible in limiting its emergency planning resources to nuclear accident response preparations while ignoring or downgrading the hazards associated with chemical plant accidents, accidents in fossil fired electric power facilities, massive dam failures, trucking and railroad accidents involving toxic substances and so forth. We urge, therefore, that the Commission regulations reflect this concern by explicitly recognizing the possibility that nuclear

Acknowledged by card. 9-6-79

emergency planning may be but a part of more general coordinated plans prepared by the states.

- Clearly the degree of general emergency planning, and plan details, will very widely from state to state and locale to locale within a state, being dependent upon population densities, population mobility, available communications systems, and concentration and severity of hazards sources. Hence, the depth and detail of much of emergency planning is best left to state and local authorities, and the Commission should insure that nuclear hazards are incorporated in proper perspective.

- Clear responsibility for decision-making coupled with the ability to communicate decisions and supporting information effectively is the single most important ingredient in a successful emergency plan, and this ingredient is common to all types of emergencies. It is unlikely that the hazards of a nuclear power plant accident would put the most severe test to a communications system. A disaster such as a hurricane or tornado would be more disruptive of communication links, and an accident of sudden onset, such as an earthquake, a massive explosion or a large toxic chemical release would more severely test the responsiveness of the system. Therefore, we believe that Federal aid and guidance, if provided to local authorities, could most appropriately be applied to assuring an appropriate level of effective communications, tailored to the local risk environment.

- Emergency planning should take Class 9 accidents into account only to the extent that an understanding of the sequence of such accidents might affect response times for protective actions. The determination of quantitative criteria for protective actions should remain the EPA Protective Action Guide.

- The Commission's approach to emergency planning, above all, should be pragmatic and sufficiently flexible to minimize any impact on present plant construction and operation schedules. A judicious balancing of the Nation's pressing energy needs with legitimate health and safety concerns is obviously required in any responsible approach to implementing effective emergency planning.

Sincerely,

R Nilson

R. Nilson, Manager
Licensing

Attachment

ATTACHMENT

Q.1 *What should be the basic objectives of emergency planning?*

a. To reduce public radiation exposure?
b. To prevent public radiation exposure?
c. To be able to evacuate the public?

To what extent should these objectives be quantified?

A. Objectives should be (1) to provide reasonable assurance that appropriate measures can and will be taken to protect public health and safety in the event of an emergency, (2) to control public exposure, and (3) to be able to evacuate the public necessary to control exposure. Quantification should be based on the present EPA Protective Action Guides. Plan should be part of an overall plan for all types of emergencies.

Q.2 *What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?*

A. Plan should include essential planning elements which define the organizational and operational roles of the licensee and various Federal, State and local agencies, including which agencies are in charge of specific actions. Should state when actions will be taken, establish communication channels and outline alternative plans for management of incident (e.g., evacuation and prophylaxis). Existing NRC requirements and guidance are adequate on a generic basis, but should be adapted for individual facilities. Plans to be reviewed in connection with licensing actions by NRC should be site-specific.

Q.3 *Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?*

Q.4 *Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so when should this general requirement become effective?*

A. NRC already considers State and local plans. It should continue to review such plans. If there is an adequate site-specific plan for a particular facility should not be necessary that NRC have concurred in the overall State plan. NRC concurrence in a plan should not call for a shift in primary decision making by States and localities. Concurrence should be based upon the key elements of the plan.

Q.5 *Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?*

A. Federal funds should be provided as part of a response program for all types of emergencies. This should be administered by the new Federal Emergency Planning Agency. Licensees should not be required to fund emergency planning not directly associated with requirements unique to a particular nuclear plant.

Q.6 *Should radiological emergency response drills be a requirement? If so, under whose authority? Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?*

A. Drills by licensees are now required by 10 C.F.R. 50, App. E. A decision to require State or local government participation could provoke legal challenges concerning Federal authority over State and local governments. State and local government should be encouraged to participate in drills and consideration should be given to making Federal funds available to finance such drills. The public should not participate in such drills.

Q.7 *How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?*

A. It is impractical to provide detailed information about all possible emergencies. Reliance should be placed upon prior coordination with appropriate government officials.

Q.8 *What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?*

A. Planning should be based on Emergency Planning zones for both plume exposure pathways and ingestion exposure pathways considering local conditions rather than fixed 10- and 50- mile radii, respectively. Planning should take into account Class 9 accidents only to the extent that an understanding of the sequence of such accidents would determine response times for protective actions.

The numerical determinant for protective actions and evacuation should remain the EPA Protective Action Guide not the hypothetical consequences of Class 9 accidents.

Q.9 *Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?*

A. Notification should take place only where there is a serious potential of radiological consequences in excess of a defined limit clearly established in the site emergency plan. This limit should be clearly established by in-plant instrumentation. Notification to the public should be made by a designated governmental official in accordance with individual site emergency plans. These plans should clearly distinguish between notification for purposes of emergency action and for purposes of public information.

Q.10 *How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?*

A. There should be an appropriate level of coordination with State and local governments, because of their familiarity with site-specific conditions, and because of their responsibility to take action under emergency conditions.

Q.11 *How should Federal agencies interface with State and local governments and the licensee during emergencies?*

A. An appropriate "chain of command" should be established by individual site emergency plans.

Q.12 *Should the licensee be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?*

A. NRC during its licensing process should review the level of training of emergency response personnel. If additional training is warranted, it may be provided by licensees or government agencies. NRC should concern itself with the level of training (or other mitigating arrangements) rather than by whom such is provided. However, as a general principle, licensees should not be required to provide training which is not required by the unique problems of a particular nuclear plant.

Q.13 *To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation or protective action? To what extent should this responsibility be borne by Federal, State or local governments?*

A. Licensees should be responsible for the initial assessment of the actual or potential consequences but the designated governmental agency should be responsible for reviewing this assessment and defining the appropriate response. Whether to initiate protective action should be determined by the designated governmental agency based upon predetermined action levels established by individual site emergency plans.

Q.14 *Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?*

A. The public should be informed about drills, but should not be required to participate in them. Such participation, particularly evacuation, would cause more harm than good.

30 August 1979

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

(74)

citizens for a better environment

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sirs:

The following are the comments of Citizens for a Better Environment on the Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities, as noted in the Federal Register, Vol. 44, No. 138, pp. 41483-41484.

1. Emergency plans should be regarded as simply another part of the engineered safeguards. They serve to reduce the radiation dose to the public in the event of a radiation release. At present they appear ineffective, unable to protect the public. They should be tested by drills to assure that they would function when required. When they have been brought up to a level where they function, arguments about how high a dose of radiation is acceptable come into play; now they are pedantry.

2. An effective plan would enable the emergency services to decide what to do, inform the public what they should do and help them to do it. Whether that be sheltering or evacuation or whatever, the value of the plan does not lie in the number of essential elements it contains; its value lies in its effectiveness in dose reductions. Essential elements may make planning easier but nothing will substitute for a test of the plan. How do you tell if a Volkswagon runs? You give it a test drive. How do you tell if an emergency plan functions?

3, 4. The emergency plan is not just an ornament, polished by NRC concurrence; it is an essential part of the reactor. No reactor should be without one that works. Obviously it will take time and arm-twisting to persuade localities to stop building swimming pools with their reactor tax dollars and to divert some of that money into emergency planning, but it is surely possible. A State could perhaps by malice or incompetence force a reactor to be shut down by developing an unacceptable plan, a situation as intolerable as the present one where no proven State plan is required for reactor operation. No doubt NRC lawyers can come up with some formula which will protect both the public and the delicate sensibility of the utilities. It appears that NRC may be able to require a plan proven in some way, perhaps by the Federal Emergency Management Agency, as a condition of granting an operating license. Currently operating reactor sites should be required to demonstrate proven plans within a reasonable period.

Acknowledged by card. 9-6-79

Suite 2600/ 509 South Wabash Street/ Chicago, Illinois 60605/ Administrative: 312-939-1981/ Phone/TX: 312-939-1530

citizens for a better environment

5. Funding for emergency plans is discussed in an excellent NRC paper by Dr. Salomon entitled "Beyond Defense-in-Depth".

6. Emergency response drills are essential and require the full cooperation of all who would be involved in a real emergency, with the possible exception of the public, whose role could be taken by volunteers.

7. The public should be given general information about radiation protection and as much specific information as possible. Too much information might cause confusion, too little might cause panic if an accident occurred.

8. CBE has already issued a comment on this subject.

9. The agencies and the utility need to practice talking to each other to build up confidence in each other's ability, but too much communication of trivia to understaffed State agencies does not help anyone.

This completes CBE's comments on this topic.

Yours sincerely,

Peter CLeary

Peter CLeary
Staff Physicist

References

1. Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies, U.S. General Accounting Office, EMD-78-110 p. 1.

2. Beyond Defense-in-Depth, NUREG-0553 (Draft), U.S. NRC March 30, 1979, p. II-98.

3. Emergency Planning Around U.S. Nuclear Powerplants: Nuclear Regulatory Commission Oversight, Fourth Report by the Committee on Government Operations, August 8, 1973, p. 32.

4. CBE Comment CBE-79137, Citizens for a Better Environment, March 1979.

Atomic Industrial Forum, Inc.
7101 Wisconsin Avenue
Washington, D.C. 20014
Telephone: (301) 654-1090
Cable: Atomforum Washingtondc

August 31, 1979

(75)

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chilk:

The purpose of this letter is to comment, on behalf of the Atomic Industrial Forum's Committee on Reactor Licensing and Safety, on the July 17, 1979 Federal Register Advance Notice of Proposed Rulemaking, "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" (44 FR 41483).

Our comments address each of the fourteen issues listed in the notice. We would be pleased to respond to any questions you may have on the enclosed.

Very truly yours,

John E. Ward, Chairman
Committee on Reactor Licensing
and Safety

JEW:skh

Enclosure

Acknowledged by card. 9-6-79

3-210

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Atomic Industrial Forum
Committee on Reactor Licensing and Safety

Comments on

U.S. Nuclear Regulatory Commission
Advance Notice of Proposed Rulemaking
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities
(44 FR 41438, July 17, 1979)

August 31, 1979

DOCKETED USNRC
SEP 6 1979
Office of the Secretary
Docketing & Service Section

1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?
b. To prevent public radiation exposure?
c. To be able to evacuate the public?
d. To what extent should these objectives be quantified?

Response: The basic objective of emergency planning is to minimize public risk, from radiological or other sources, in the event of an emergency. This objective considers the public health and safety implications of protective actions designed to reduce or prevent public radiation exposure (e.g. injuries during evacuation) balanced with the public health consequences of radiation exposure with no protective action. In other words, overall public health risk is the guiding principle in any emergency action and must be reflected in emergency plans.

This principle should be quantified. The EPA and FDA Protective Action Guides are useful for quantifying action levels to limit radiological risk, but additional guidance must be derived from the quantification of an acceptable risk basis for radiological accidents as compared with other natural and man-made hazards. It is our view that four rationales must be integrated in establishing a planning basis - risk, probability, cost-effectiveness, and consequence spectrum. The plan should be flexible in order to accommodate the conditions that exist during the emergency. The radiological emergency plan should be integrated into the overall emergency plans of the state and local agencies.

The specific questions a,b, and c above, lack the proper perspective of public risk as an objective of emergency planning. While evacuation may be an appropriate protective action, it is only one of several appropriate protective actions defined in an emergency plan.

2. What constitutes an effective emergency response plan for state and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licenses (10 CFR Part 50, Appendix E) and guidance for States (NUREG- 75/111) lack any of these essential elements?

Response: The essential elements of an emergency plan should:

1) Assure that the responsibility for overall emergency planning and preparedness in state and local governments has been assigned, and that emergency responsibilities of the various supporting agencies and organizations within the state and local governments have been specifically established,
2) Provide and tabulate for ready availability the types of radiological assistance available within each state,
3) Provide notification procedures and communication systems applicable to an emergency,
4) Establish management control of post-accident information centers,
5) Identify and coordinate methods, systems, and equipment to be used by nuclear facility operators, state and local governments for assessing or monitoring off-site consequences of a radiological emergency,
6) Provide pertinent protective action guides and procedures for their implementation,
7) Establish training and provide information concerning radiological exposure control, and ensure that predetermined controls are established for emergency response personnel,
8) Establish general recovery and re-entry plans for areas surrounding the facility,
9) Assure that the established emergency plan will be used when needed,and
10) Provide for periodic plan review, exercising and updating.

An integral part of emergency planning is a quantification of an acceptable probability basis that could be compared with other technological hazard probabilities. Federal guidance must acknowledge and incorporate this principle so state and local agencies can plan for radiological hazards within the framework of overall emergency planning. We feel current NRC guidance to licensees, states and localities does not recognize this need and should be altered accordingly.

3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response: Since the contexts of issues 3 and 4 are similar, our response is combined. Federal concurrence with state and local emergency plans should not be a condition of an operating license independent of the existing licensing process. Radiological emergency planning is only one element of state and local government disaster planning responsibilities. Overall state and

local disaster plan reviews and maintenance, including radiological emergency plans, should be assumed by the Federal Emergency Management Agency (FEMA). Effective emergency planning would be assured by tying FEMA funding of state governments to their concurrence with the state's overall emergency plan. The NRC should assist FEMA in radiological emergency planning and plan reviews.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response: Recognizing NRC's lack of statutory authority over state and local nuclear emergency response planning, we recommend that FEMA assume the responsibility for making policy and coordinating radiological emergency response planning around nuclear facilities in proper context with other disaster planning. As a focal point for federal emergency preparedness activities, we believe FEMA can more effectively influence state and local governments to develop adequate emergency plans around nuclear facilities.

Additional coordination could be attained through the development of state branches of FEMA that rely upon the federal government for funding and direction. At this level a quantification of risk assessment for all hazards, including nuclear power plants, within that state should be developed and emergency planning resources allocated accordingly. The advantage of using FEMA is that it already provides many of these services, e.g. training, emergency planning, maintenance and calibration of radiological instruments, and simulated exercises.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, state or local governments? To what extent should federal, state, and local governments, and licensees be required to participate?

Response: Radiological emergency response drills at the licensee's site should be conducted periodically to verify the proper functioning of emergency communications systems and procedures, and to demonstrate the proficiency of the emergency teams of the licensee and the non-licensee emergency support groups, including the state, county and local agencies which are responsible, by law, for the health and safety of the public within their legal jurisdiction. Such drills also serve to familiarize involved agencies and their personnel with the functioning and coordination required of numbers of emergency support elements working together under realistically simulated emergency situations. The licensee must maintain authority within the exclusion area at all times, including the time during which drills are being conducted. State and local agencies whose normal and legally constituted functions include emergency response to all types of incidents and accidents must retain this authority during drills as well as actual emergencies. Federal agencies should also participate in the drills at the state's request to evaluate the effectiveness of the implementation of the licensee's emergency plan and the plans of the state and local agencies as these plans relate to the licensee's emergency plan. The state must maintain the autonomy and authority in determining the extent of federal participation in the state's emergency drills. The state's requirements should be flexible enough to recognize the possibility of having more than one nuclear site within that state (i.e., it may not be necessary for the state to conduct a full-scale drill for each nuclear facility in the state).

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response: Information on emergencies and emergency actions which may result from the operation of nuclear power plants should be provided periodically. The mechanism for providing this information to the public should be agreed upon by the state and local agencies and the licensee. It must be recognized that the exact circumstances affecting the results of any emergency which may occur are, by definition, not entirely predictable. Therefore, an emergency and how it may affect its surroundings must be determined in real-time and protective actions taken, or recommended, must be based on the real-time evaluation of the situation considering all factors involved.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA520/1-78-016)?

Response: The AIF Committee on Reactor Licensing and Safety has previously commented on NUREG-0396 in its March 30, 1979 letter to Harold E. Collins. The analysis in this letter is still considered valid and excerpts from the letter are attached. We have considered this matter further and recommend a zonal approach to emergency planning. The first zone could be the low population zone (LPZ) as defined in 10 CFR 100. This first zone should be independent of whether or not the calculated maximum doses of an accident are less than EPA protective action guides. The emergency planning for this zone should include evacuation. The evacuation time for any angular sector in the LPZ should be based on the worst design

basis accident, a conservative release rate with conservative meteorology. We call this emergency planning zone the "Priority 1 Zone". The emergency planning in this zone would be fully implemented in accordance with the regulations. This recommendation is consistent with current licensing and siting practice and could be implemented for each nuclear plant with the local and state agencies relatively quickly because many nuclear plants already have this type of planning.

We believe that planning should be carried beyond this Priority 1 Zone. How far beyond? The answer lies in making the emergency planning flexible such that what is done for the Priority 1 Zone could be extended radially outward using similar concepts, agencies, decisional aids, radiation monitoring network, etc. Therefore, if an emergency occurs, the conditions existing at that time will determine the extent of the actions to be taken but the planning basis itself will be as the one established for the Priority 1 Zone. The planning for this additional zone should include the identification of all shelter areas, routes and identification of special buildings. (Identification of evacuation routes to relocation centers beyond this zone should be included.) We call this zone the "Priority 2 Zone". Confirmation that capability exists to extend the planning out beyond the Priority 1 Zone into the Priority 2 Zone should be done periodically. Annual testing of the communications procedures and equipment and annual verification of resources for the Priority 2 Zone is also recommended.

The Priority 2 Zone should be based on a site and plant specific design basis analysis comparable to the site suitability analyses presently performed. Based on the results of this analysis, the maximum radial extent of the Priority 2 Zone should be such that the EPA protective action guides would not be exceeded within this distance.

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Response: As a minimum, events involving significant radiation releases such that the EPA's protective action guides would be exceeded should require notification.

In order to effectively respond to this question, the terms "emergency" and "incident" need to be defined. An emergency is a situation requiring activation of part or all of the plant's emergency organization. The emergency would be declared as such according to the criteria of NRC Regulatory Guide 1.101 (i.e., Personnel, Alert, Plant, Site or General). An incident would be any other unusual event causing damage or exposure to radiation to the extent specified in NRC Regulatory Guide 1.16.

The criteria for informing the state and local authorities should be defined in the state and local response plans. Basically, this should include immediate response for potential site and general emergencies.

The extent of notification for less significant events, in terms of public health and safety, would be determined by the state and local officials in a particular region. The criteria used are regional and depend on the local media and public interest, rather than the impact on public health and safety. Criteria for informing federal agencies should be the same as for state and local agencies with the additional notification requirements for incidents as specified in NRC Regulatory Guide 1.16.

Public information releases by the plant should be made expeditiously when factual information becomes available. Information should be factual and placed in perspective such that it is understandable to the general public. When speculative information is released, the likelihood of occurrence should also be specified and the information clearlyidentified as being based upon certain assumptions. The local news media should be a part of the emergency plan and should be utilized for accurate and timely communications to the public. There should be a plan for the coordination of media releases by the federal, state, local and utility officials. For long duration emergencies, joint media releases should be made from a predetermined Center with each group speaking to their area of involvement only. Such an approach would develop public confidence and responsiveness to any required action. Because of the need for timely information, local community, state, federal and licensee officials should be prepared to make such joint media releases as soon as possible.

10. How and to what extent should the concerns of the state and local governments be incorporated into federal radiological emergency response planning?

Response: Concerns, capabilities, resources, and perspectives of state and local governments are paramount, since they are the responsible authorities involved, and must be fully recognized and incorporated into any federal planning. The most direct and certain way of assuring this is to incorporate federal emergency assistance into state and local plans - not vice versa.

11. How should federal agencies interface with state and local governments and the licensee during emergencies?

Response: Certain federal agencies have developed radiological emergency response teams and equipment. This federal capability should be used to augment the state's own radiological emergency capability and should respond to state requests for assistance. The release of information on the existing radiological situation and recommendations for protective actions to be taken by the public should be very closely coordinated between the licensee, the state agency in charge, and any federal agency called in by the state to assist them.
Traditionally, state authorities handle all public health and safety problems within their state, and calls for assistance from the federal government should be made when the state determines that additional resources would be desirable for handling a situation affecting the public. State authorities will always remain in charge and any decisions made affecting public safety must continue to be promulgated by these recognized authorities.

12. Should the licensee be required to provide radiological emergency response training for state and local government personnel? If so, to what extent?

Response: Training should be provided by the licensee to offsite agencies to the extent necessary to provide effective support to the plant during an emergency. This training should cover the plant's emergency plan and include a familiarization of the plant layout, the emergency organization, emergency procedures, and the role of outside agencies. To the extent that state and local government agencies and the licensee cannot provide realistic radiological emergency training, the facilities of the federal government are available. Through FEMA (the single federal agency) the coordination, organization and implementation of these training programs can be accomplished.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective actions? To what extent should this responsibility be borne by federal, state or local governments?

Response: The licensee maintains the ability and expertise to provide assessment of the consequences of the accident. Through in-plant monitoring systems, an initial assessment of the release can quickly be made and communicated to the agency responsible for evaluating the need for protective action. Ongoing assessment of the plant's status can most readily be accomplished by the licensee.
Owing to time constraints and detailed technical knowledge of plant conditions, the licensee is in the best position to make the initial assessment (calculated and/or field measurement) of projected doses and thus trigger protective action decisions by the local and state officials in accordance with the state's emergency plan.

As time permits, the proper expertise from the local, state, federal agencies and the licensee should be involved, as a team effort, to make continuing assessments. This team effort and its logistics should be identified in the state's plan in detail.

14. Would public participation in radiological emergency drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response: Responsible public officials are charged with total safety concerns for the general public. They recognize that the hazards associated with the mass movement of people of all ages and physical condition, strictly for purposes of a drill, far outweigh any possible benefit which could be derived from such actions. It is also recognized that people do not want to abandon their possessions and thus expose themselves unnecessarily to the possibility of theft or vandalism.

On the other hand, some state and local emergency preparedness agencies have included in evacuation drills a limited number of public participants, on a voluntary basis, to add realism to the drill. Even in these cases, however, major emphasis was placed on exercising the mechanics and organization of the emergency plan (i.e., communications, transportation vehicles, receptor areas, medical support, lines of authority and responsibility) and not on the public participation.

We conclude that the involvement of a large segment of the general public in an evacuation for purposes of a drill would be of little value. There is presently no requirement for general public participation in evacuation drills of similar scope for other hazardous situations and there should not be a requirement for public participation in a radiological emergency practice exercise.

Excerpts from letter, John E. Ward, AIF, to Harold E. Collins, USNRC, March 30, 1979, on NUREG-0396

Philosophical Basis

It is illogical to use one spectrum of postulated accidents to design and site a facility, and a more severe spectrum of accidents for emergency planning. The Task Force states that it is not appropriate to develop plans for the most severe and most improbable "Class 9" events, yet it believes that consideration should be given to the more likely types of "Class 9" events. Thus the need to plan for the most likely of unlikely events is more than just a semantic problem, but also one of basic philosophy as to the need for developing emergency plans to cope with accidents the NRC believes are so unlikely as to not require their consideration in the design of the plant.

Until the issue of Class 9 accident considerations in nuclear power plant regulation is properly and finally resolved, we are opposed to any application of these events to an effort such as that conducted by the Task Force. We do not agree that Class 9 accident scenarios should be used by a group or groups within the NRC without an official Commission-wide determination on their use.

In any event, guidance to emergency planners that is largely based upon the low probability Class 9 events is not, in our opinion, very useful.

Perspective

NUREG-0396 implicitly applies a very conservative risk criterion to nuclear plants compared to other hazards that emergency planners have to consider. Some state and town officials have already expressed adverse comments on the need to prepare for 1 in 100,000 to 1 in 1,000,000 year accidents when their other emergency planning bases are on the 1 in 50 to 1 in 100 year event range. Planning for such extensive accident consequences will present a major if not insurmountable hurdle for the town and state agencies with their present limited resources.

The risks from nuclear plants should be integrated into comprehensive emergency planning, at the state and regional levels, and not treated individually.

Rationale

Appendix I of NUREG-0396 is entitled "Rationale for the Planning Basis." This appendix discusses four possible rationales for establishing a planning basis-risk, probability, cost effectiveness, and consequence spectrum. It then chooses to use consequence spectrum "tempered by probability considerations." It is difficult to determine how probability was used to temper the consequence spectrum considerations. It is our view that all four rationales should be considered in establishing the planning basis, and that the conclusions and recommendations would be very different if any basis other than the most conservative-consequence spectrum were used.

Policy Conflicts and Reduced Public Protection

NUREG-0396 conflicts with the long-established safety philosophy designed to protect the health and safety of populations. This philosophy is expressed primarily through 10 CFR 50, Appendix E, and 10 CFR 100, which were designed to preclude the necessity for planning for the evacuation of population centers. NUREG-0396 recommends, albeit implicitly, that population center evacuation be considered.

Effective emergency plans require established details in many areas - assembly of emergency assistance personnel, public warning, protective action, shelter and reception area designation, etc. Each of these provisions of a plan require decisions for the most effective implementation. These decisions hinge on many factors, not the least of which is the area and population characteristics of the so-called "planning zone".

Over the years of nuclear power plant siting and emergency planning, this "planning zone" has usually been defined as that area within a facility's Low Population Zone. The LPZ's have typically been at least a factor of two in radial distance less than the Task Force recommended distance of ten miles for the plume exposure pathway. In fact, since the trend in recent years has been to reduce the size of LPZ's surrounding sites (a measure to ease site suitability demonstration from a 10 CFR 100 standpoint), there has been a steady increase of improvements in and additions to plant engineered safety features. The features improved or added to make this trend possible is a definite measure of improvement in overall public health and safety since hypothetically calculated accident doses are reduced in all areas, near and far, surrounding plant sites as safety features are augmented.

Value-Impact

A value-impact assessment, though perhaps not required for a "guidance" document, is needed and should be performed. It is our judgment that a carefully prepared value-impact assessment would clearly reveal many of the flaws in the conclusions and recommendations of NUREG-0396.

DOCKET NUMBER
PROPOSED RULE PR-50
(44 FR 41483) (60)

P.O.BOX 73
LINDENWOOD, ILL.
AUGUST 29, 1979

NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C.

DEAR SIRS,

THANKYOU FOR SENDING THE LIST OF QUESTIONS I REQUESTED. I REGRET THAT THERE IS SO LITTLE TIME TO CONSIDER THEM & SEEK INPUT FROM OTHER PEOPLE IN MY COMMUNITY.

SOME OF THE QUESTIONS ARE BEYOND MY ABILITY TO OFFER SUGGESTIONS, BUT I WOULD LIKE TO COMMENT ON SEVERAL OF THEM.

YOU SAY THAT YOU HAVE MADE AVAILABLE, ON A VOLUNTARY BASIS, TRAINING COURSES AND INSTRUCTION TO STATE AND LOCAL GOVERNMENTS TO HELP THEM DEVELOPE AND IMPLIMENT EMERGENCY PLANS. THIS IS VERY GOOD, BUT ISN'T IT JUST AS IMPORTANT TO OFFER THIS MATERIAL TO THE PUBLIC IN GENERAL? IF PEOPLE ARE NOT MADE AWARE OF THE DANGERS TO HEALTH FROM RADIO-ACTIVE FALLOUT, AND THE NEED FOR QUICK ACTION TO AVOID IT, I CAN'T IMAGINE AN URGENT RESPONSE FROM THE AFFECTED GROUPS WHEN A NUCLEAR ACCIDENT OCCURS. SOME INFORMATION AND ADVICE, IN TERMS THAT THE AVERAGE PERSON CAN UNDERSTAND, WOULD MAXIMIZE PUBLIC COOPERATION, AND MINIMIZE PANIC AND CONFUSION.

THIS IS THE SITUATION WE HAVE, AND IT IS SHARED BY MANY SMALL, UNINCORPORATED TOWNS; OUR VILLAGE OF 250 PEOPLE ARE WITHOUT ANY LOCAL GOVERNMENT OR LAW ENFORCEMENT AGENCY. WE HAVE TO DEPEND ON THE COUNTY SHERIFF'S DEPARTMENT FOR LAW AND ORDER. OUR TOWN IS IN THE NORTHEAST CORNER OF THE COUNTY AND WE SELDOM SEE A DEPUTY. THERE ARE AT LEAST 6 SMALL TOWNS THAT ARE WITHIN A TEN MILE RADIUS OF THE BYRON NUCLEAR PLANT. WITH 20,000PEOPLE LIVING IN THIS RADIUS, AND OUR LOCATION, HOW MUCH HELP COULD WE EXPECT TO RECEIVE FROM THE COUNTY IF BYRON HAD A SERIOUS ACCIDENT? IT SEEMS LIKELY THAT WE WOULD HAVE TO ORGANIZE LOCALLY TO PROTECT OURSELVES. IN OTHER EMERGENCIES, OUR LOCAL VOLUNTEER FIRE DEPARTMENT COMES TO OUR AID. THEY ANSWER CALLS INVOLVING FIRE & ACCIDENTS. THEY WOULD HELP IN SOME WAY SHOULD WE HAVE AN EMERGENCY. BUT THEY TOLD ME THAT THEY DIDN'T WISH TO VOLUNTEER TO TAKE THE TRAINING YOU HAVE OFFERED TO GIVE. THIS IS A DISAPPOINTMENT TO ME. WE CAN'T OPT TO REMAIN UNINVOLVED WHEN WE LIVE LESS THAN 10 MILES FROM BYRON PLANT AND THERE ARE FIVE OTHER NUCLEAR PLANTS WITHIN 60 MILES OF LINDENWOOD.

THIS MORNING I HAD A CHANCE TO DISCUSS THIS WITH A COUNTY DEPUTY, AND HE SAID HIS PERSONAL OPINION WAS THAT THE COUNTY WOULD BE OF LITTLE ASSISTENCE BECAUSE THERE ARE ONLY 14 PEOPLE IN THE DEPARTMENT. HIS GUESS WAS THAT THE NATIONAL GUARDE WOULD BE MOBILIZED.

WHY DO YOU WAIT FOR AGENCIES TO ASK FOR YOUR HELP IN PLANNING FOR A NUCLEAR DISASTER? IT SEEMS TO ME THAT THIS IS VITALLY IMPORTANT TO PUBLIC SAFETY, AND SHOULD BE DISTRIBUTED TO LOCAL AND STATE AGENCIES AUTOMATICALLY. IF YOU SHOULD DECIDE TO DO THIS, PLEASE REMEMBER THE PLIGHT OF THE RURAL COMMUNITIES AND INCLUDE OUR FIRE DISTRICTS ALSO.

QUESTION 1

THE BASIC OBJECTIVE OF AN EMERGENCY PLAN SHOULD BE TO REACT TO THE PREVAILING CONDITIONS IN THE BEST WAY POSSIBLE TO CONTAIN THE RADIOACTIVITY AND PROTECT THE PUBLIC FROM CONTAMINATION IN THE AIR, WATER AND FOOD. IF EVACUATION IS NECESSARY, PROTECTION OF PERSONAL PROPERTY SHOULD BE PROVIDED.

QUESTION 2

I AM NOT QUALIFIED TO COMMENT.

9-6-79

SEP 6 1979

3-216

QUESTIONS 3 & 4

YES. AS SOON AS POSSIBLE.

QUESTION 5

THE GOVERNOR OF ILLINOIS HAS PROPOSED A STATE NUCLEAR EMERGENCY PLAN WHEREIN THE STATE AND ALL THE OPERATING NUCLEAR PLANTS WILL SHARE THE EXPENSE OF THE SYSTEM'OPERATION. WHENEVER I HEAR THAT THE STATE OR FEDERAL GOVERNMENTS ARE PAYING PART OF THE EXPENSE FOR THE PROBLEMS CREATED BY NUCLEAR INDUSTRY I KNOW THAT WE TAXPAYERS ARE REALLY PAYING A HIGH PRICE FOR THAT "INEXPENSIVE" ELECTRICITY. WOULDN'T A UTILITY BE MORE DEDICATED TO PUBLIC SAFETY IF THEY WERE HELD TOTALLY ACCOUNTABLE FOR ANY DANGERS THEY CREATE IN THE OPERATION OF THEIR PLANTS? I WOULD LIKE TO SEE THEM PAY THE WHOLE EXPENSE AND NOT BE ALLOWED TO PASS IT ON TO THE CONSUMER AS PART OF THE ELECTRIC RATE.

QUESTION 6

I DON'T KNOW.

QUESTION 7

IN OUR CASE, THE COUNTY WOULD PROBABLY CALL OUR FIRE DEPARTMENT. THEY WOULD SOUND THE ALARM AND TRAVEL THE ROADS TO ALERT THE RURAL POPULATION.

QUESTION 8

NO COMMENT.

QUESTION 9

WE WOULD LIKE THE WHOLE TRUTH FROM A SOURCE WHOSE FIRST CONCERN IS FOR OUR SAFETY. THE PUBLIC IS WARY AND SKEPTICAL OF THE MOTIVES AND PRIORITIES OF THE PUBLIC RELATION MEN IN THE EMPLOY OF A NUCLEAR UTILITY. THE N.R.C. ON-SIGHT INSPECTOR SHOULD ASSESS THE SITUATION AND NOTIFY HIS SUPERIORS WHO COULD DECIDE WHAT AND WHEN TO ACT IN PUBLIC INTEREST.

IF THESE LETTERS FROM US IN THE PEAPLES CORNER, SO TO SPEAK, GIVE YOU SOME INSIGHT CONCERNING OUR NEEDS AND THEORIES, I HOPE THE RESULTING PLANS WILL WORK FOR OUR GOOD.

SINCERELY,

Jeanne Crowe

(77) DOCKET NUMBER PROPOSED RULE PR-50 (44 FR 41483)

The State of South Carolina
Department of Consumer Affairs
2221 DEVINE STREET
P. O. BOX 5757
COLUMBIA, S. C. 29250

IRVIN D. PARKER
ADMINISTRATOR AND CONSUMER ADVOCATE

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HUGH LEATHERMAN, FLORENCE
LONNIE RANDOLPH, JR., COLUMBIA

August 29, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Secretary:

In accordance with 44 FR 41483, July 17, 1979, the Department of Consumer Affairs for the State of South Carolina would like to offer the following comments relating to the adequacy and acceptance of emergency planning around nuclear facilities. Comments pertain to numbered sections appearing in the Federal Register:

1. Effective emergency planning around fixed nuclear facilities would encompass all three of the objectives of evacuating the public; preventing public radiation exposure; and reducing public radiation exposure. By focusing on the ability to evacuate the public, however, the other two objectives might well be accomplished. Therefore, we suggest evacuation be a primary objective. We also suggest that this objective should be quantified as follows. The NRC should fund projects to develop site specific radii for emergency planning zones by application of computer models. The Commission should develop these radii in conjunction with public hearings in order that interested parties could assist in development of them. These models would measure such things as atmospheric dispersion around a site.

2. An effective emergency response plan for state and local agencies as well as for licensees, would include elements basic to a state's natural disaster plan, such as South Carolina's Comprehensive Disaster Plan but would also include mechanisms for increased coordination among the above three parties in times of emergency away from the facility. Offsite planning appears to be the area which needs the most improvement.

3. Prior NRC concurrence of an associated state and local emergency response plan should be a requirement before issuance of any new operating licenses and should be effective immediately with as little grandfathering as possible.

Acknowledged by card. 9-6-79

TELEPHONES (AREA CODE 803)

ADMINISTRATION 758-3017 | CONSUMER COMPLAINTS 758-3040, WATS 1-800-922-1594 | PUBLIC INFORMATION 758-7549 | NOTIFICATION 758-8987 | CONSUMER ADVOCACY 758-5984

3-217

5. We are presently participating in South Carolina in the Governor's Task Force For Emergency Response Capabilities In Support Of Fixed Nuclear Facilities. The NRC should use federal tax dollars to develop the computer models for site specific characteristics and provide them to the state and local governments for incorporation in their emergency response planning. Additional financial assistance might be required to increase warning capabilities through siren systems or better yet automatic warning systems. The NRC might require a utility to bear the additional expense as part of its licensing process and construction of a nuclear facility of installing adequate siren systems throughout a 10 - 15 mile radius. In addition as part of the licensing process the NRC should require the installation of automated systems in each commercial plant which would trigger alarms in the Governor's Office and at designated local agencies. The alarms would be activated by any of the following: initiation of emergency core cooling systems, indications of high radiation in the containment building, and indications of excessive radiation levels present in the release of stack gases. Threshold levels for these devices could be established by respective state Health and Environmental Control agencies. Individual state regulatory commissions could decide whether a utility could pass through these costs to affected customers or whether stockholders should bear the expense of installation and maintenance of the siren and automated warning systems.

6. Some type of radiological emergency response drills should be a requirement of a licensee. The source of authority for these drills would be contingent upon whether the computer model which develop site specific radii included more than one state boundary; and if it did, then the federal government might likely take the lead role in coordination of such drills. Normally, however, assuming a response drill would be carried on only within a given state's borders, then the state government should take the lead coordination role in conjunction with the local and federal governments. As a practical matter a state government might be in the best position to take the lead in response drills within a given state or across state boundaries, and assuming that, then the state(s) would in all instances be the primary authority. Local governments and licensees should be required to participate to the extent the state government deems necessary to evacuate effectively a given radius around a fixed facility.

7. The public should be informed through normal channels in the media of a facility malfunction, resulting from the triggering of an automated system referred to in paragraph 5 above.

9. At the very least a licensee should notify state, local, and federal agencies of incidents, including emergencies, in accordance with the criteria set forth in paragraph 5 above for

the automated warning system installed in a facility. Members of the public would be notified at that point and should be told precisely the status of the malfunction at the time, preferably by the Governor's Office in conjunction with the state health official, if he is qualified. After this initial alarm went off the NRC and licensee employees would work in conjunction with the Governor's Office. It would appear likely that the NRC and the governor of the affected state(s) would be the primary spokespersons. We have assumed that the NRC onsite inspector would be aware of a malfunction whenever a governor or a local agency tied in with an automated warning system would be.

13. Primary reliance for the assessment of the actual or potential consequences of an accident should lie with the federal and state and local governments rather than the licensee. Triggering of an automated alarm system would put the state and local and federal government on notice of a malfunction which might become a threat to the health and safety of the general population. Placing reliance on the above would insure timely notification under all circumstances.

14. Public participation and radiological emergency response drills, including evacuation, would serve a useful purpose but would possibly be expensive. At the least the state, local and federal agencies developing state emergency response plans should hold a series of workshops designed to inform the general public and possibly to lay the foundation for what their response should be in an actual evatuation situation (i.e. that an individual should drive his own car or should drive or go to a designated area to ride a public transportation vehicle).

Thank you for your consideration of these comments.

Sincerely yours,

Raymon E. Lark, Jr.

Raymon E. Lark, Jr.
Staff Attorney

/phk

Telephone 617 366-9011
TWX
710-390-0730

YANKEE ATOMIC ELECTRIC COMPANY

YANKEE

20 Turnpike Road Westborough, Massachusetts 01581

August 31, 1979

Mr. Joseph Hendrie, Chairman
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Chairman Hendrie:

Yankee is an organization with which you and your staff are familiar. Your staff has interfaced with us continuously over our twenty-five calendar years of nuclear plant design, construction, and licensing work which includes nearly thirty-five reactor years of highly successful operation of four nuclear plants.

One of the many areas involved in this accumulated experience has been radiological emergency planning. For each of our plants, during their initial stages of design and licensing, we initiated preparations for emergency plans which were carried forward to what became complete plans prior to initial plant criticality. These plans and our involvement with them have been extensive since then, since effective plans require continuous scrutiny and exercising. This is especially true of off-site radiological assessment and protective action and the interface arrangement established between the plant operator and the appropriate state and local public health and emergency response authorities.

Emergency plans in general and this interface feature specifically have recently been the subject of very intense scrutiny, as you are well aware. Yankee shares the considerable concern for the problems regarding existing emergency plans identified during and following the Three Mile Island accident. We are working and will continue to work on addressing these real concerns. We feel strongly, however, that our efforts, those of the nuclear industry, and those of the state, county and local officials with emergency plan responsibilities, should not be impaired and diluted by confusion or by other than truly necessary and appropriate requirements. You are probably aware that the legitimate concerns have given rise to a proliferation of new approaches, proposed requirements, and threatened dead lines.

In our judgement, a most unfortunate recent example of overreaction was provided recently by members of your staff as manifested in the enclosure to this letter. The new acceptance criteria for nuclear plant emergency plans delineated therein were identified to licensees throughout the country in regional meetings held during the week of August 20, 1979. They were stated to be immediately

[redacted] 9-6-79

Acknowledged by card.

applicable to licensee, state and local radiological emergency plans and will be audited within a few months during review of these plans by the newly formed NRC Emergency Plan Review Task Force.

The staff representatives presenting this material indicated that the need for these new acceptance criteria stems from the requirements identified in U. S. Senate Bill S.562 which requires NRC concurrence in state radiological emergency plans by June 1, 1980. According to the Bill, plants without such concurrence by that time must shut down until concurrence is achieved. Even assuming that this Senate Bill ultimately becomes law, it does not contain or require a new basis for NRC concurrence. It simply requires concurrence and mentions the basis existing on July 16, 1979. Furthermore, the Senate Bill addresses only NRC concurrence in state/local plans, but the attached criteria specifically address licensee plans as well.

Finally, however, our greatest concern stems from the fact that many of the new requirements - addressing both the licensee and state/local plans - appear to be of questionable merit, without clear cut criteria, and -- above all -- are being imposed as immediately effective without benefit of the established processes normally and necessarily associated with the development of regulatory requirements.

As one outstanding example of the cart before the horse syndrome described above the NRC is in the midst of a public comment period leading to rule making procedures on key emergency plan issues many of which will directly affect the criteria listed in the attached document.

In our judgement such precipitate and ad hoc action by the NRC staff can only further exacerbate controversy and confusion in the difficult and crucial area of emergency planning, while what is obviously required is the best and most reasoned and rational approach possible. We urge prompt Commission review of this situation and would be pleased to assist in any manner you consider appropriate.

Respectfully,

YANKEE ATOMIC ELECTRIC COMPANY

L. H. Minnick
President

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Enclosure

Emergency Planning Acceptance Criteria
for Licensed Nuclear Power Plants

INTRODUCTION

Licensees will submit updated facility plans either before or after the site visit by the NRR review team, together with the appropriate State and local plans, which will be evaluated collectively against the requirements of Appendix E to 10 CFR Part 50, the positions set forth in Regulatory Guide 1.101, and the acceptance criteria contained herein. The criteria contained herein will be used in conjunction with the aforementioned regulations and guidance to assure that the following emergency planning objectives have been achieved.

(1) Effective coordination of emergency activities among all organizations having a response role.

(2) Early warning and clear instructions to the population-at-risk in the event of a serious radiological emergency.

(3) Continued assessment of actual or potential consequences both onsite and offsite.

(4) Effective implementation of emergency measures in the environs.

(5) Continued maintenance of an adequate state of emergency preparedness.

A model plan is currently being developed by the NRC staff to assist licensees in the revision of their plans.

ACCEPTANCE CRITERIA

1. To assure effective coordination of emergency activities among all organizations having a response role

A. Licensee plans will:

1. Provide for an onsite emergency coordinator at all times having the authority and responsibility to initiate any emergency actions within the provisions of the emergency plan, including the exchange of information with authorities responsible for coordinating offsite emergency measures.
2. Provide for the augmentation of the minimum onsite emergency organization within 60 minutes for all classes of emergencies above the "alert" level.
3. Identify and define by means of a block diagram the interfaces between and among the onsite functional areas of emergency activity, licensee headquarters support, local services support, and State and local government response organizations. The above shall include the onsite technical support center and the operational support center as described in NUREG-0578.
4. Describe the location, resources, and role of the onsite technical support center in accordance with the position set forth in item 3 of Section II.2.2.b of Appendix A to NUREG-0578 (e.g. communications with NRC, State emergency operations center, offsite news media; physical accommodations for technical advisors, contractors, etc.; instrumentation; plant drawings).
5. Describe the location, resources, and role of the onsite operational support center in accordance with the position set forth in item 3 of Section 2.2.2.c of Appendix A to NUREG-0578.

6. Provide for the dispatch of a representative to the principal emergency operations center established by the offsite agencies.

B. State/local plans will:

1. Identify authorities responsible for coordinating offsite emergency activities for each of the Emergency Planning Zone discussed in NUREG-0396.
2. Designate the authority and specific responsibility for each coordinating authority.
3. Describe the concept of operations from the perspective of each official having a coordinating role, including the operational interrelationships of all Federal, State, and local organizations providing emergency support services.
4. Identify the predetermined location of the State emergency operations center to be used for the coordination of all offsite emergency support activities.
5. Describe the communication plan for emergencies, including titles and alternates for both ends of the communication links and the primary and backup means of communication. Where consistent with the agency function, these plans will include:
   a. Provision for prompt and assured activation of the State/local emergency response network.
   b. [illegible] for [illegible] methods for [illegible] activation and control of [illegible]

c. Provision for communications with contiguous State/local governments within the Emergency Planning Zones.

d. Provision for communications with Federal emergency response organizations.

e. Provision for communications with the nuclear facility, State and/or local emergency operations centers, and field assessment teams.

II. To assure early warning and clear instructions to the population-at-risk in the event of a serious radiological emergency

A. Licensee plans will:

1. Provide an emergency classification scheme as set forth in Regulatory Guide 1.101.

2. Establish specific criteria, including Emergency Action Levels (EAL) as appropriate, for declaring each class of emergency.

a. EALs for declaring a "site emergency" will include instrument readings and system status indications corresponding to an airborne fission product inventory within containment which, if released, could result in offsite doses equivalent to the lower limit of the EPA Protective Action Guides (PAG) for exposure to airborne radioactive materials. Examples will be provided in the model plan.

b. EALs for declaring a "general emergency" will include [illegible] corresponding to an airborne fission product inventory

within containment which, if released, could result in offsite doses equivalent to the upper limit of the EPA Protective Action Guides (PAG) for exposure to airborne radioactive materials. Examples will be provided in the model plan.

3. Provide a clear and explicit methodology for relating EALs to PAGs.

4. Identify the onsite capability and resources to properly assess and categorize accidents including:

a. Instrumentation for detection of inadequate core cooling in accordance with the position set forth in item 3 of Section 2.1.3.b of Appendix A to NUREG-0578.

b. Radiation monitors in accordance with the position set forth in item 3 of Section 2.1.8.b of Appendix A to NUREG-0578.

5. Provide for recommending protective actions to the appropriate State and local authorities, based on projected dose to the population-at-risk, in accordance with the recommendation set forth in Table 5.2 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA-520/1-75-001. Upon declaration of a "general emergency" immediate notification shall be made directly to the offsite authorities responsible for implementing protective measures within the Emergency Planning Zone as discussed in NUREG-0396.

6. Describe the onsite communications capability for assuring contact with the offsite authorities responsible for implementing protective measures including a primary and backup means of communications.

B. State/local plans will:

1. Identify authorities having a response role within the Emergency Planning Zone as discussed in NUREG-0396.
2. Designate the authority and specific responsibility for each of the responding authorities.
3. Provide for 24 hours/day manning of communication link by authorities responsible for implementing offsite protective measures.
4. Provide an emergency classification scheme that is consistent with that established by the licensee.
5. Describe the resources that will be used if necessary to notify the populace within the Emergency Planning Zone associated with the plume exposure pathway (NUREG-0396) within 15 minutes following notification from the facility operator (e.g. tone alert systems, sirens).
6. Provide for periodic dissemination of educational information to the public within the Emergency Planning Zone regarding the potential warning methodology, and provisions for posting such information in areas visited by transients (e.g. recreational areas).
7. Identify appropriate emergency measures for response

8. Provisions for testing the overall communications link to assure that the criteria specified in item 5 above is met on a continuing basis.

III. To assure continued assessment of actual or potential consequences both onsite and offsite

A. Licensee plans will:

1. Identify the onsite capability and resources to provide valid and continuing assessment throughout the course of an accident including:
   a. Post-accident sampling capability in accordance with the position set forth in item 3 of Section 2.1.8.a of Appendix A to NUREG-0578.
   b. In-plant iodine instrumentation in accordance with the position set forth in item 3 of Section 2.1.8.c of Appendix A to NUREG-0578.
   c. Plots showing the containment radiation monitor reading vs. time following an accident for incidents involving 100% release of coolant activity, 100% release of gap activity, 1% release of fuel inventory, and 10% release of fuel inventory. Example plots will be provided in the model plan.
2. Identify the capability and resources for field monitoring in the environs of the plant including the additional dosimetry specified in the revised technical position

B. State/local plans will:

1. Identify the agencies having a radiological assessment role within the Emergency Planning Zone as discussed in NUREG-0396, including the lead agency for data coordination.
2. Designate the specific responsibilities for each agency having an assigned assessment role.
3. Describe the arrangements established with the Department of Energy Regional Coordinating Office for radiological assistance under the RAP and IRAP programs.
4. Designate a centralized coordination center for the receipt and analysis of all field monitoring data.
5. Describe the methods and equipment to be employed in determining the magnitude and locations of any radiological hazards following liquid or gaseous radioactivity releases.

IV. To assure effective implementation of emergency measures in the environs

A. Licensee plans will:

1. Provide written agreements with each Federal, State, and local agency and other support organizations having an emergency response role within the Emergency Planning Zone as discussed in NUREG-0396. The agreements will identify the emergency [illegible] to be provided and the mutually acceptable criteria for their implementation.

B. State/local plans will:

1. [illegible] to be [illegible] specific protective actions

in accordance with the recommendations of EPA regarding exposure to a radioactive gaseous plume (EPA-520/1-75-001) and with those of HEW/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of December 15, 1978 (43 FR 58790).

2. Designate the informational needs (e.g. dose rates, projected dose levels, contamination levels, airborne or waterborne activity levels) for implementing the protective actions identified in item 1 above.
3. Describe the evacuation plan and/or other protective measures for the Emergency Planning Zone associated with the plume exposure pathway (NUREG-0396) including:
   a. Maps showing evacuation routes as well as relocation and shelter areas.
   b. Population and their distribution around the nuclear facility.
   c. Means for notification of all segments of the transient and resident population.
   d. Plans for protecting those persons whose mobility may be impaired due to such factors as institutional confinement.
   e. Provisions for the use of radioprotective drugs, including that for emergency workers.
   f. Means of effecting relocation.
   g. Potential egress routes and their projected traffic capacities under emergency use.

h. Potential impediments to use of egress routes, and potential contingency measures.

4. Describe the protective measures to be used for the Emergency Planning Zone associated with the ingestion pathway (NUREG -0396) including the methods for protecting the public from consumption of contaminated foodstuffs.

5. Provide for maintaining dose records of all potentially exposed emergency workers involved in response activities.

V. To assure continued maintenance of an adequate state of emergency preparedness

A. Licensee plans will:

1. Provide, in addition to the drills and exercises identified in Regulatory Guide 1.101, a joint exercise involving the entire Federal, State, and local response organizations. The scope of such an exercise should test as much of the emergency plans as is reasonably achievable without involving full public participation. Definitive performance criteria will be established for all levels of participation to assure an objective evaluation. This joint test exercise will be scheduled about once every five years.

B. State/local plans will:

1. Provide for emergency drills and exercises to test and evaluate the response role of the agency, including provisions for periods by unidentified observers.

2. [illegible]

3. Describe the training program for those individuals having an emergency response assignment.

4. Provide for periodic review and updating of the emergency response plans of the agency.

Environmental Policy Associates

(79) DOCKET NUMBER PR-50 (44 FR 41483)

Planning As If People Mattered

P.O. BOX 1934 • HIRAM, OHIO 442
(216) 569-7915

August 27, 1979

SEP 6 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

The following comments are submitted [illegible] the proposed rulemaking on the Acceptance of Emergency Planning Around Nuclear Plants as outlined in the Federal Register of July 17, 1979.

My perspective and experience may be enough out of the ordinary to provide a practical approach to the protection of the public. I have directed a major metropolitan civil defense operation for a number of years; I have personally instructed over a thousand police and fire personnel (as well as volunteers) in radiation monitoring and basic health physics; I have directed the planning for the evacuation of approximately 2 million persons and have implemented those plans with full traffic control staffing and associated services and reception areas. These years of experience and subsequent work in planning evaluation at a university, and as a planning consultant, have developed a perspective that is less than optimistic about the adequacy of local response in the absence of federal oversight and support.

I will comment briefly on each of the 14 issues listed in the Federal Register. I have two general concerns which I will summarize first. On February 10th I wrote to the Commission expressing my disagreement with a public statement of the evacuation of the low population zone. "To refer to the ad-hoc evacuations in the face of floods, hurricanes, chemical releases and the like as being comparable, by inference, to the evacuation which might be required in a nuclear accident, is grossly misleading. Neither the scale of the evacuation which must be planned (due to wind variability among other factors) nor the available response time are comparable. To speak of an effective notification scheme as being the key to implementation of protective measures is outrageously simplistic. Immediate notification is indispensable, but 99% of the action, and therefore the planning, must follow in a precisely structured and practiced format. If equipment is required, for communications, for monitoring, for preparation and reception of wind advisories, for any of the multiple tasks that need to be accomplished in such an emergency, it must be in place, tested, and maintained on a regular basis. Planning manuals and training programs are of no value without a state of readiness."

To continue the quote: "I realize that a readiness program is in direct conflict with the "safe" nuclear power image, in spite of the recent downgrading of the Rasmussen report. Nevertheless, if the low population zone continues to be one of the criteria for nuclear plant siting, this program requires realistic assessment and development to the point of utility. If this is not to be done, the program itself should be cancelled rather than being displayed as an additional safeguard."

The events at Three Mile Island have established a continuing doubt about the capacity and willingness of a nuclear plant operator to provide immediate notification of an emergency. The reticence of the operators of the Davis-Besse plant in Ohio to provide information, even to the NRC, until well after an emergency event, is a case in point.

Acknowledged by card 9-6-79

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25

NRC - 2

The second concern relates to what has been the implicit acceptance of the social planning performed by the public utility. The future preferred by the utility (an identification required for any planning effort) has failed, in the past, to acknowledge the train of requirements that now must be recognized as an essential concomitant of nuclear power. That is, an emergency system, staffed, trained, equipped, and in a state of readiness for operation, 24 hours per day, every day of every year. The equipment mentioned above, such as instrumentation for monitoring exotic contaminants (well beyond the capability of current civil defense instruments), must be available, in place, tested, with trained operators available, and with communications to an operations center that can use the data to support emergency measures. This requirement has never been considered in the cost/benefit ratio of nuclear power. It should be from now on.

The general tenor of my response to the specific questions posed by the Commission is indicated by the foregoing. The specific response follows:

1. The basic objectives of emergency planning should encompass all three alternatives indicated. Public radiation exposure should be reduced, prevented, if at all possible, using evacuation measures to accomplish that protection. Your guidance acknowledges that "acceptable values for emergency doses to the public under actual conditions cannot be predetermined." Further, the concept of Protective Action Guides as a triggering level appear unacceptable if action to save lives or prevent damaging exposures is delayed in a fluid situation. There is no current assurance that the limits of the accident or of radioactive emissions are determinable while the accident is evolving. Just the opposite seems indicated by the Three Mile experience. Deliberate quantification of this response, except in terms of the population identified at risk, seems unacceptable. A qualitative response based on the desired outcome is a more appropriate planning path.

2. I have indicated earlier what I consider the only effective emergency response plan for State and local agencies. Obviously, given the time frame for possible response, the readiness of local or substate jurisdictions must be greater than that of the state or federal agencies which can only perform a support role. The requirements for licensees appear adequate in terms of on-site preparation. The notification process and the assurance that notification of potential offsite emergencies will be made is inadequate. I would prefer that provision for criminal charges be available where notification is avoided. State guidance also appears adequate in outline. I would prefer more explicit, precise guidance together with level of performance indicated.

3. NRC concurrence in associated state and local emergency response plans should be a requirement for continued operation of existing licensed power plants. No more than six months should be allowed for compliance following the issuance of revised guidance.

4. NRC concurrence in associated state and local response plans should be a requirement for issuance of new licenses. It should become effective immediately.

5. Financial assistance (and instrumentation) should be provided to state and local governments for radiological emergency response planning and preparedness. Training in the planning process and requirements, training for instructors for local agencies, aid for acquiring and maintaining equipment other than that normally used by safety forces, such as monitoring equipment, air samplers, and meteorological equipment. Coordination and shared expense with DOD emergency preparedness may be possible.

6. Radiological emergency response drills are an absolute requirement, involving all levels of government involved in the plan and the licensee. Participation must be mandated. The eventual authority must be federal, but the authority should be staged as in a real emergency.

Paper plans deteriorate rapidly. It is amazing how fast telephone numbers and personnel change. Cooperation and coordination, as well as equipment need to be tested under pressure. Regular testing, however, (at least twice a year) must not be allowed to substitute for a readiness requirement that is subject to regular unit testing. How often do you replace batteries in radiological monitoring equipment, for instance?

7. The GAO has identified the lack of federal policy on public notification. This is a deficiency that must be remedied at once. The public needs to know about the potential hazards, the emergency responses that may be required, and the plans of local and other government for providing protection. The public should be involved in the emergency planning as part of the mandated government response.

8. The recommendations of the joint NRC/EPA Task Force relating to the establishment of minimal emergency planning zones, time factors using no more than the recommended 30 minutes as the lower end of the time frame, and establishing radiological characteristics of the potential releases should be adopted for planning purposes. I disagree with their contention that no special provisions for the general public should be made, or that members of the public should be excluded from test exercises. Certainly, some provision should be made (for instance) for regional hospitals to be prepared for decontamination of radiation victims. To do otherwise, is to assure the further spreading of contamination and compounding the difficulties of cleanup.

Recent events require the updating of this report in a number of respects such as the estimate of the probability and consequences of a Class 9 accident.

9. Considering the limited response time, licensees should be required to notify the local state and federal agencies at once in any emergency involving off-site release. Lesser emergencies should require notification of federal agencies for determination of the need for local notification. If a permanent NRC representative is on site, the decision might be made by that individual.

10. The concerns of local and state governments should be incorporated into plan requirements. From full, accurate information on radiological hazards to such requirements as on-site pre-fire planning, the known concerns should be specified. Credibility can only be obtained with open planning.

11. Federal officials and agencies can only provide support in off-site emergencies when initiated, providing advice and expertise. The probability of federal control as the emergency phases into decontamination and cleanup is likely. This assumes that the local governments, and the state are prepared and ready.

12. The licensees should be required to assist in providing training for state and local personnel. They cannot remain just the beneficiaries. Such elements as refresher training and instrument repair and maintenance would be appropriate technical service.

13. According to the recent GAO report, there is little confidence among local officials that licensees would provide them with prompt and accurate notification. The responsibility should rest on a permanent NRC representative

14. While mass public participation in evacuation drills would probably not be useful, selected participation of institutions and organized groups in a range of emergency responses would be useful. Systems must be tested under minimal load, including shelter and reception areas. Public involvement in the planning process should be mandated.

Very truly yours,

James W. Cowden

3-226

Department of Natural Resources

ENVIRONMENTAL PROTECTION DIVISION
270 WASHINGTON STREET, S.W.
ATLANTA, GEORGIA 30334

JOE D. TANNER
Commissioner

J. LEONARD LEDBETTER
Division Director

DOCKET NUMBER
PROPOSED RULE PR-50 (80)
(44 FR 44483)

August 22, 1979

DOCKETED
USNRC
SEP 6 1979
Office of the Secretary
Docketing & Service Branch

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Dear Sir:

In regard to the announcement by the Nuclear Regulatory Commission seeking public comment in the consideration for additional regulations on emergency plans and in the review of the NRC emergency planning and preparedness program, the following comments are submitted:

1. "Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?"

   Yes; within 120 days the NRC, the state and local authorities and the utility should establish basic response mechanisms and functions (i.e., notification procedures, communications, medical assistance, direction and control, radiological support, etc.) and within 12 months, with NRC and utility assistance, formal written response plans should be prepared to meet concurrence requirements.

2. "Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, should this general requirement become effective?"

   Yes; except that for reactors scheduled to operate within 12 months, the requirements should be consistent with those facilities having an existing operating license.

Acknowledged by card 9-6-79

3. "Should financial assistance be provided to state and local governments for radiological emergency response, planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?"

   Financial assistance should be provided to state government radiation protection programs, such as Health, Civil Defense, Environmental Protection, etc. for personnel and equipment to improve emergency planning, preparedness and response. As a part of these funds, grants could be given to local governments for specific radiological preparedness and administered by the appropriate state radiation control agency. Funding should come from federal sources such as NRC, EPA, and FEMA as well as the licensees.

4. "Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government" To what extent should Federal, State, and local governments, and licensees be required to participate?"

   Radiological emergency response drills, which are tests of the varying levels of emergency response procedures, should be a requirement. On-site drills should be held under NRC authority. Off-site drills should be held under state authority; both cases should involve close coordination and participation of Federal, State and local governments and licensees.

5. "Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?"

   The licensee should advise the lead radiation control agency (state or local as delegated), of any incident which causes or threatens to cause an abnormal off-site release, in a timely manner by phone and follow-up with written report as required.

   In emergencies the plant manager or shift supervisor should immediately notify by phone local authorities if off-site radiation levels may exceed 5 rem whole body or 10 rem thyroid and advise evacuation of selected areas may be warranted. Once the local authorities have been notified, the state and federal agencies should receive immediate notification. In other cases (i.e., off-site release results in less than 5 rem whole body and 10 rem thyroid), state and federal agencies should receive immediate notification and an advisory call to the local official thereafter.

6. "How should Federal agencies interface with state and local governments and the licensee during emergencies?"

   The NRC should establish a "Joint Control Group" comprised of the NRC, licensee, state and local authority for on-site and off-site control and coordination. This arrangement may help alleviate communications, public relations and emergency control problems.

7. "Should the licensees be required to provide radiological emergency response training for state and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

   We believe it would be proper for the licensee to provide some form of radiological emergency response training especially to local authorities within a ten-mile radius and for state personnel to become familiar with licensee emergency procedures, capabilities, and degree of state/local assistance that might be required. The federal government (NRC, EPA, FEMA) should increase training opportunities for state and local personnel. The PEECO (NRC) course should be expanded to perhaps several separate courses with more specific emphasis of varying degrees on individual accident types. EPA should offer formal courses on environmental monitoring, lab and field analyses and assessment. FEMA should offer more courses of general and technical training to local governments.

8. "To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by federal, state or local governments?"

   Initially, the licensee has the most reliable information and insight available, and their information should be used "as the best available" keeping in mind that conditions may be worse or less than estimated by the licensee. If doses are potentially or actually above off-site evacuation guidelines, the licensee should inform local officials directly of the situation and make recommended actions until federal or state expertise can assist. Federal and state personnel should be kept thoroughly informed of changing conditions.

9. "Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?"

   Public participation, excluding actual evacuation limited to warning and alternative protective actions such as shelter, etc. may be of limited benefit. Actual evacuation tests are not

recommended. "Dry runs" for local, state and federal operations would be useful including communications, personnel response, mechanics of handling specific problems, etc.

The State of Georgia currently has a radiological emergency plan being reviewed for concurrence and is well aware of the problems involved in emergency planning, preparedness and response.

Hopefully these comments will be of benefit in solving some of these issues.

Sincerely,

J. Leonard Ledbetter

J. Leonard Ledbetter
Director

JLL:rpj

3-228

SHAW, PITTMAN, POTTS & TROWBRIDGE
1800 M STREET, N. W.
WASHINGTON, D. C. 20036

DOCKET NUMBER
PROPOSED RULE PR-50 (81)
(44 FR 41483)

August 31, 1979

DOCKETED
SEP 6 1979
Office of the Secretary
Docketing & Service
Branch

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Re: Advance Notice of Proposed Rulemaking: Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

Dear Sir:

On July 17, 1979, the Nuclear Regulatory Commission published in the Federal Register an Advanced Notice of Proposed Rulemaking on the adequacy and acceptance of emergency planning around nuclear facilities. In the Notice, the Commission stated that it had decided to initiate an expedited rulemaking procedure on emergency response plans of licensees and state and local governments. The Notice solicited public comments on fourteen questions concerning emergency planning. These questions included issues raised by a petition for rule-making submitted by Critical Mass Energy Project, et al. (Docket No. PRM-50-23).

We are pleased to submit the enclosed comments on behalf of Baltimore Gas and Electric Company, The Cleveland Electric Illuminating Company, Kansas Gas and Electric Company, Kansas City Power & Light Company, Madison Gas and Electric Company, Ohio Edison Company, Union Electric Company, Wisconsin Electric Power Company, Wisconsin Power and Light Company, and Wisconsin Public Service Corporation, all of whom are operating, constructing or planning nuclear power plants. Also incorporated as a part of these comments are two documents which were submitted by some

Acknowledged by card 9-6-79

of the same companies in Public Interest Research Group, et al., Docket No. PRM-50-14. These documents are (1) a Stanford Research Institute study entitled "Importance of Preparatory Measures in Disaster Evacuations", prepared by Walmer E. Strope, John F. Devaney, and Jiri Nehnevajsa (November, 1975), and (2) a document entitled "Comments of Walmer E. Strope, John E. Devaney and Jiri Nehnevajsa on behalf of The Cleveland Electric Illuminating Company [et al.]" These documents address several of the questions posed in the Advance Notice of Proposed Rulemaking and the Critical Mass Energy Project rulemaking petition.

Based on our comments, we conclude that no precipitous action on emergency plan regulations is required and that the Commission's questions which remain after consideration of all the comments submitted should be dealt with rulemaking. No basis appears for making any changes in the Commission's regulations immediately effective. All parties should be afforded the opportunity to comment on any changes the Commission may ultimately propose.

In this context, we strongly object to the Staff's attempt to short cut administrative procedures by imposing new obligations, not found in any NRC regulation, on licensees. The Staff, in the regional meetings held on August 20, 21, 22 and 24, informed licensees and states and local government that it will seek to impose numerous new, expensive and untested requirements concerning emergency plans. This type of Staff-level "rulemaking" is inconsistent with administrative due process and deprives the Commission itself, affected licensees, state and local agencies and members of the public, of the right to a thoughtful consideration of these matters before new requirements are adopted.

We hope that these comments are helpful to the Commission and urge that you proceed to rationally evaluate the need for, and content of, any changes in NRC emergency planning requirements.

Sincerely,

SHAW, PITTMAN, POTTS & TROWBRIDGE

By: Jay E. Silberg
Jay E. Silberg

3-229

COMMENTS
of
BALTIMORE GAS AND ELECTRIC COMPANY,
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY,
KANSAS GAS AND ELECTRIC COMPANY,
KANSAS CITY POWER & LIGHT COMPANY,
MADISON GAS AND ELECTRIC COMPANY,
OHIO EDISON COMPANY,
UNION ELECTRIC COMPANY,
WISCONSIN ELECTRIC POWER COMPANY,
WISCONSIN POWER AND LIGHT COMPANY
and
WISCONSIN PUBLIC SERVICE CORPORATION

1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?

b. To prevent public radiation exposure?

c. To be able to evacuate the public?

COMMENT:

It should be clear that preventing public radiation exposure is unrealistic and unsound as an objective for emergency planning. Given the levels of background radiation, and the levels of exposure permitted under NRC and EPA regulations, it makes no sense to have zero radiation exposure as an objective for emergency planning or indeed for any other purpose.

The two remaining objectives are essentially non-controversial, if not self-evident. One would find it hard to quarrel with the propositions (1) that emergency plans should be capable of reducing exposure to the public in the event of plant accidents having significant off-site consequences, and

(2) that under certain circumstances emergency plans should provide for evacuation of some members of the public.

The statement of these objectives, however, begs the difficult questions: To what level should public radiation exposure be reduced? Under what circumstances should evacuation be called for and which members of the public should be evacuated? Explicit answers to these questions are needed. While implementation of emergency responses at the time of the accident must depend upon the circumstances as they exist at that moment and on a balancing of risks involved, the geographic area for planning particular types of responses should be established with some certainty. For example, guidance must be provided in the licensing context to licensing boards and the parties as to the distances from the plant that emergency planning capability must extend and whether emergency planning by state and local governments should be the subject of litigation in NRC licensing hearings. So long as the parameters chosen are reasonable, clear and definitive, the precise values of the parameters are not critical. Absent such definition, licensing boards would have no guidance in setting some reasonable scope to litigation of emergency plan issues. Emergency planners would similarly be subject to second-guessing on the scope of their program.

A good example of the lack of clear definition is a draft of revisions to 10 CFR §§50.33(g) and 50.54(s), distributed by the NRC Staff at its emergency plan meetings during the week of

August 20, 1979. These provisions define "Emergency Planning Zones" as areas approximately 10 and 50 miles in radius. While these distances are arbitrary and unnecessarily large, they are at least clear and definitive. However, the draft provisions then eviscerate any regulatory certainty by providing that in particular cases the size and configuration of emergency planning zones shall give "consideration ... to such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries". This language means that emergency planning zones would be set on a case-by-case basis with no standards to guide the Staff, licensing boards, licensees and intervenors. The Commission must not leave these important questions essentially unanswered.

2. What constitutes an effective emergency response plan for state and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for states (NUREG-75/111) lack any of the essential elements?

COMMENT:

While some refinements and site specific adaptations may be needed, the present criteria on emergency response plans are adequate. The Three Mile Island accident did not indicate that wholesale changes were required.

Throughout the other sections of the comments we address some of the changes and new requirements which have been suggested. Without attempting to address all the additions which have been proposed for emergency plan requirements, we offer the following comments on some of the other proposed changes:

a. Class 9 accidents: It appears that the Staff will seek to arbitrarily include certain types of Class 9 accident considerations in licensee emergency plans. For example, the Emergency Planning Acceptance Criteria for Licensed Nuclear Power Plants, distributed at the August 20-24, 1979 regional meetings, would require that licensees assume the occurrence of an accident involving "10% release of fuel inventory" (Section III. A. 1. c.). This arbitrary, non-mechanistic assumption has no basis and postulates a hypothetical situation which is totally implausible.

b. Dose-rate devices: At the August 20-24, 1979 regional meetings, NRC Staff suggested that a ring of dose-rate monitoring devices be deployed around each plant. Aside from the very large number of these extremely costly devices which would be needed to cover all stability categories, information already provided by thermoluminescent dosimeters, release calculations and field measurements appears to be more than adequate.

c. On-site technical support center: One of the Staff's recommendations in its Emergency Planning Acceptance Criteria is for an "onsite technical support center". As explained in NUREG-0578, this area would have to be separate from but close to the control room, habitable under postulated accident conditions to the same degree as the control room, and capable of displaying and transmitting plant status information. The basis for the Staff's suggestion was the congestion that occurred in the Three Mile Island control room. This problem can be solved by controlling access. And even if there is a technical support center, it would seem unlikely that high ranking government officials would be limited to that area and kept from the control room. Particularly for existing plants, these requirements may be difficult (if not impossible) to meet. It would seem unlikely that existing plants would have the physical space near the control room to accomodate such a center. The rewiring to provide plant status information has a greater possibility for introducing problems than for solving them.

d. Timing of public notification: The Staff's Emergency Planning Acceptance Criteria would require a showing that the population within

the inhalation Emergency Planning Zone (i.e., 10 miles) can be notified within 15 minutes following notification of state or local agencies by the facility. We know of no basis for assuming that such a short notification period would be needed. Even for accidents far in excess of design basis accidents, the need for evacuation is measured in hours, not minutes. And, as the distance from the plant increases, the time periods likewise increase. The 15 minute period is therefore arbitrary and without foundation.

2. Licensee responsibility of state and local actions: For the draft revisions to Appendix E to 10 CFR Part 50 which were distributed by the NRC Staff at the August 20-24, 1979, regional meetings, licensees would be made responsible for actions and capabilities of state and local agencies. For example, the draft would add the following to §D of Appendix E as a required element of the utility's emergency plan:

> Administrative and physical means, and the time required, for prompt alerting and providing restrictions to the public within the inhalation Emergency Planning Zone. It is the licensee's responsibility to ensure that such means exist, regardless of who implements them. (emphasis added)

These types of requirements place the licensee in the difficult (if not impossible) position of being

responsible for something over which it has no control. They would appear to involve NRC in seeking to do indirectly (control state and local governmental actions) what it has no authority to do directly.

3. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license?

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

COMMENT:

Congress currently has before it legislative proposals which would require the shutdown of operating nuclear plants unless the NRC had concurred in the state radiological emergency plan. (See NRC Authorization Bill for FY 1980 (S. 562), Section 202 (Cong. Rec. S9471-9484, July 16, 1979), which would require the shutdown of operating reactors unless the NRC has approved state emergency plans within nine months after enactment of the legislation. Under this proposal, no new operating licenses could be issued unless NRC has concurred in the state plan.) We believe that a decision on prior concurrence is essentially a political one and

should be left to Congress. We also believe that Congress should reject such a requirement. As a matter of policy, NRC ought not to condition the licensing of privately owned facilities upon the independent action of state governments any more than Federal approval of an LNG terminal should be linked to a state emergency plan or the Corps of Engineers should link operation of a dam to approval of emergency plans of downstream jurisdictions.* This is not to say that NRC should ignore state emergency plans or refuse to assist states in preparing these plans. NRC should continue to work with the states to aid in the preparation of these plans.

The proposal for NRC concurrence is based on the apparent premise that emergency response plans are designed only for potential nuclear accidents. In fact, most jurisdictions have emergency plans intended to deal with a variety of situations. Even where no evacuation plans exist, disaster evacuations have been very effective.** If a requirement is to be imposed for

*The same criticism applies to the idea that NRC should shut down nuclear power facilities whenever it decides to withdraw its concurrence of a state or local plan. See draft revision to 10 CFR §50.54(s), distributed by NRC Staff at the August 20-24, 1979 meetings. Wholly apart from the total lack of standards governing concurrence and the unreasonably short time to cure the deficiencies NRC may perceive, this concept unfairly ties the fate of the licensee's facility to actions over which it has no control.

**For example, in 1971, 80,000 of 81,000 Los Angeles residents threatened by the impending collapse of the Van Norman dam were evacuated within 6 hours despite the absence of an evacuation plan. Strope, Devaney and Nehnevajsa, "Importance of Preparatory Measures in Disaster Evacuations" (Stanford Research Institute, November 1975), submitted as a part of these comments (hereinafter cited as "SRI Report"). The SRI Report was submitted by The Cleveland Electric Illuminatory Company, et al. in Docket No. PRM-50-14.

approved emergency plans, it would seem that a more sensible approach would be for jurisdictions to be required to have emergency plans designed to respond to all types of accidents and natural disasters, not just accidents at NRC licensed nuclear facilities. Emergencies which require evacuation or other steps occur with some frequency. Railroad accidents involving chlorine releases, fires in chemical plants, floods, hurricanes and the like have all been initiating events for emergency response by state and local governments. Given the relatively large number of these events compared with the one emergency response situation associated with the commercial nuclear power industry (Three Mile Island), a better case can be made for an across-the-board emergency plan requirement to cover all accident contingencies, rather than only one possibility.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

COMMENT:

As noted above, most jurisdictions have emergency plans to deal with a variety of situations. In many cases, federal matching funds and other forms of federal support were provided to establish these programs. See SRI Report, p. 11. Plans and programs of general applicability ought to be funded by general

funds, i.e., by general tax revenues. If Congress determines that all jurisdictions should have plans to respond to natural and man-made disasters, Congress can (as it has in many other areas) provide financial assistance to meet these requirements. Considering the substantial state and/or local taxes paid by nuclear power plants (and the relatively small burden of social services required by them), the costs of emergency planning specific to a nuclear power plant should be covered by that source of revenue.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: federal, state or local government? To what extent should federal, state and local governments, and licensees, be required to participate?

COMMENT:

NRC's current regulations require that emergency plans provide for periodic drills of radiation emergency plans. 10 CFR Part 50, App. E, §IV.I. This regulation also requires that the plans make "provisions for participation in the drills by other persons whose assistance may be needed in the event of a radiation emergency."

There is general agreement that emergency plan exercises by licensees, responsible officials and emergency organizations are important. One study has found that "familiarity of local officials with emergency plans and capabilities appears the

most important desideratum in preparing for evacuation." SRI Report, p. 21. NRC can, and does, require licensees to conduct emergency plan exercises and drills. However, there may be some question as to NRC's authority to require such activities by state and local governments. The important role of state and local governments in the emergency planning area, extending to many contingencies beyond nuclear power plant accidents, would seem to call for a cooperative relationship between NRC, state and local jurisdictions in the conduct of exercises and drills.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

COMMENT:

This question raises in a general manner an issue posed specifically by the Critical Mass Energy Project petition (Docket PRM-50-23). Issue 4 of the petition would have NRC require every licensee to distribute detailed information on emergency plans "to every residence, business, school and other facility (with sufficient copies for each person or household unit)." The petition would have this information distributed before issuance of a construction permit or operating license, and annually after operating license issuance. In addition, a

public hearing on the emergency plan would be required before each such distribution.

The Commission rejected a similar request when it denied the 1975 PIRG petition.* The reasons underlying that denial are still valid. There has been no showing that the wide-scale distribution of information would in fact improve public awareness of emergency plans. Under normal conditions, there is little motivation for people to learn and retain detailed information on emergency plans. In fact, studies have shown that many, if not most, of the people were unaware even of the existence of emergency plans, notwithstanding wide-scale publicity campaigns. SRI Report, p. 17. On the other hand, in actual emergency situations, the public is highly receptive to authoritative and clear communications. There is nothing complicated about the type of instructions which would be given in an emergency. Distributing details of emergency responses will also tend to create inflexibility in people's reactions, if they in fact retain the information. This would be inconsistant with the need for flexibility in responding to emergency situations.** As the Commission has stated:

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*Public Interest Research Group, Docket No. PRM-50-14, Denial of Petition for Rulemaking, 42 Fed. Reg. 36326 (1977).

**See Comments of Walmer E. Strope, John F. Devaney and Jiri Nehnevajsa on behalf of The Cleveland Electric Illuminatory Company, et al. (November 24, 1975), p. 15 (hereinafter cited as "Strope, et al. Comments"). This document was submitted by The Cleveland Electric Illuminatory Company, et al. in Docket PRM-50-14, and is submitted as a part of these comments.

> Information explaining the emergency plan would be so general as to be subject to misinterpretation and would be of little help; or, if written to cover the wide range of possibilities, would be too complex for the public to understand or follow in an emergency. A simple instruction directing public evacuation by preset routes in the event of any threatening nuclear accident could be in error in particular circumstances.

42 Fed. Reg. at 36327. If any information is to be distributed, it should be in accordance with procedures determined by appropriate state and local agencies and consistent with what is done for emergency plans in general.

Wholly apart from these policy justifications for rejecting the Critical Mass proposal, some very practical problems make it unworkable. First, the proposal would in many, if not all, cases require a utility to distribute this information outside of its service territory. The cost would be significant in view of the fifty mile radius proposed by Critical Mass. Because the appropriate range of protective actions varies with distance from the site, many different types of information would have to be distributed. It would make little sense for persons living 50 miles from a plant to be given information on emergency measures intended for the area immediately surrounding the facility. Particularly at the outer bounds of Critical Mass' 50 mile zone, people might be receiving emergency plan information from more than one facility, a situation bound to cause confusion.

Given the absence of any showing that the Critical Mass proposal would aid in emergency plan response, its main aim would

appear to be to create unnecessary and unwarranted concern over nuclear power facilities.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

COMMENT:

The major recommendation of NUREG-0396 is the establishment of "emergency planning zones" of about 10 miles for the plume exposure pathway and about 50 miles for the ingestion pathway. According to NUREG-0396 (p. 14), "the EPZ guidance does not change the requirements for emergency planning, it only sets bounds on the planning problem". One of the problems with this NUREG-0396 recommendation is that the bounds which it sets on the planning problem may be more apparent than real. Thus, NUREG-0396 states, p. 17 footnote, that "Judgment should be used in adopting [the 10 mile distance] based upon considerations of local conditions such as demography, topography, land characteristics, access routes, and local jurisdictional boundaries". Neither guidance nor limits are suggested to the Staff, licensees, licensing boards, or others on how this judgment is to be applied. Thus, in both the planning process and in licensing, the apparent certainty of a 10 mile zone is erased.

We also believe that the EPZ concept embodied in NUREG-0396 separates emergency planning from mechanistic accident evaluation. This separation leads to arbitrary selection of planning distances and opens the possibility that other distances could be imposed with equal ease. Particularly arbitrary is the 50 mile ingestion EPZ. A considerable time delay is built into the ingestion pathway. As a result, no immediate action would be needed, even under the extreme accident conditions assumed in NUREG-0396. The ingestion pathway should therefore be handled on a case-by-case basis.

Instead of NUREG-0396's arbitrary distance concept adjusted by individual, unquantifiable considerations, we would recommend that planning zones be based upon the protective action guideline dose values and a source term which uses a less extreme set of values than those used in NUREG-0396. This will provide a more objective basis for determining the area for which various protective actions are appropriate.

We would also point out that the NRC Staff is already seeking to impose the EPZ concept, notwithstanding the lack of a regulatory basis. See Emergency Planning Acceptance Criteria for Licensed Nuclear Power Plants, §§ IV. B. 3. We object to this practice. Even under the "interim guidance" adopted by the Commission, 43 Fed. Reg. 37473 (1978), emergency planning beyond the low population zone is not to be considered for facilities with operating licenses until a final rule is adopted and is not to be considered for projects holding construction permits

until the operating license stage. And in any case, the protective action guides are specified as the key factor, not the EPZ concept.

9. Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

COMMENT:

Both the timing of notification and the magnitude of the incident must be considered in answering this question. Current NRC technical specifications provide reporting requirement thresholds for the entire spectrum of incidents. The more important aspect of this question is the threshold level for reporting of situations which could trigger emergency plan responses. At one extreme could be an obligation for the utility to immediately report to governmental agencies any off-normal condition potentially affecting the nuclear portion of the plant. At the other extreme could be a requirement to notify appropriate agencies only when off-site emergency response plans are to be put into motion. The best answer clearly lies somewhere between these two positions.

Considering the extremely wide range of conceivable situations which might call for emergency response, it seems clear

that no mathematical formula or numerical value should be applied. Rather, NRC should adopt a common sense approach. We would frame that approach by proposing that appropriate governmental agencies should be notified at the earliest possible time after the plant learns of conditions which could reasonably be expected to invoke on-site or off-site emergency response plans. A less restrictive standard would raise the probability that agencies charged with carrying out emergency response measures would receive a large number of "false alarms" This would put needless burdens on the agencies as well as dilute the effectiveness of a notification that a real emergency is occurring. A more restrictive criterion would not give agencies with emergency responsibility adequate time to put their plans into motion.

The criterion proposed above will of course not prevent the hindsight criticism which a more quantitative standard might avoid. However, the latter type of rule is unnecessarily rigid and would give the least ability to cover the wide range of possible emergencies.

Public notification likewise requires a balancing in terms of the timing of notification. People who may be called upon to take emergency actions, including evacuating their homes and offices, should be given adequate warning that such steps are contemplated. On the other hand, public notification which occurs too early will lead to a larger number of "false alarms" and reduce the effectiveness of the public notification when emergency action is actually required. The threshold for

alerting the public should also be higher than the threshold for alerting the response agencies. As in the case for notification by licensees of governmental agencies, it is our opinion that a quantitative standard, while easy to apply, will be unnecessarily inflexible.

As to who should notify the public of incidents, we believe that the more routine events should be handled directly by the licensee, in accordance with the present practice. Where emergency action is involved, the governmental agency with responsibility for emergency action (for example, the agency -- whether local, county or state -- which would order evacuation) should carry out the notification.

10. How and to what extent should the concerns of state and local governments be incorporated into federal radiological emergency plans?

COMMENT:

The intent of this question is not clear. Since the major share of off-site emergency planning is in fact done by state and local agencies, it would appear that they can address their concerns directly. The question may be addressing the larger issue of what the federal role should be with regard to state and local emergency plans.

The responsibility of state and local governments to handle emergency situations of course extends well beyond potential

nuclear emergencies. These jurisdictions must deal with emergencies from all possible causes. Organizing to deal with emergencies at a nuclear facility is not likely to differ from organizing to meet other types of emergencies. Thus, federal (i.e. NRC) regulation of at least some aspects of state and local emergency planning would seem inappropriate.

Under present legislation, there is also a question as to NRC's legal ability to set standards for state and local plans. Congress is currently considering legislation which would direct NRC to establish minimum requirements for state plans to deal with emergencies at nuclear power plants. NRC Authorization bill, S. 562, §202; see S. Rep. No. 96-176, 96th Congress, 1st sess. (1979). Absent such authority, NRC's jurisdiction to set these standards is uncertain. NRC, EPA and other government agencies have in the past provided guidance, recommendations and training.* Going beyond this function may raise serious legal questions.

11. How should federal agencies interface with state and local governments and the licensee during emergencies?

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*See, e.g. NUREG-0396/EPA-520/1-78-016, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants" (1978); EPA-520/1-75-001, "Manual of Protective Action Guides and Protective Actions for Nuclear Incidents" (1975); NUREG-75/111, "Guide and Checklist for the Development and evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities" (1974).

COMMENT:

It is unlikely that any hard and fast guidelines can be formulated to define the licensee/federal/state/local interface. There is an obvious need for reliable channels of communications among all parties and the need for rapid exchange of accurate information. The responsibilities of the parties would seem to call for federal agencies and the licensees to provide information and recommendations to the emergency plan decisionmaker (whether state of local) on the possible course of events at the facility and the potential for off-site harm. The ultimate decision on implementing emergency responses should continue to rest with the appropriate state or local agency. More attention should be given to communications between state and local agencies. NRC could give valuable assistance in improving these communications.

12. Should the licensees be required to provide radiological emergency response training for state and local government personnel? If so, to what extent? Should the federal government provide such training? If so, to what extent?

COMMENT:

As a matter of practice, most (if not all) licensees have provided some types of radiological emergency training to local personnel, most frequently in terms of training for hospital

personnel in handling radiation injuries and decontamination cases. Licensees are best equipped to provide training which involves familiarization with the nuclear plant, general health physics training, etc. However, much of the training for emergency response personnel is not specific to nuclear plants or radiation accidents. Such steps as evacuation, protection of food and water supplies are (or should be) part of the general emergency plan. These would be applicable to natural disasters, chemical and transportation accidents as well as accidents at a nuclear reactor. It is unlikely that a utility would have particular expertise in this area. Since this training would be generally applicable to all accident situations, it would also seem inequitable to require the licensee to fund such training, particularly in view of the substantial state and local taxes paid by the nuclear plant and the minimal burdens which the plant places on state and local governments.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective actions? To what extent should this be borne by federal, state or local governments?

COMMENT:

In the early stages of an accident, information on the course and likely consequences can only come from the licensee.

It is the licensee who will have first hand information on in-plant conditions and local meteorological conditions. Off-site monitoring is also carried out by licensees, generally with thermoluminescent dosimeters in the environs of the plant. In the event of an accident, real-time monitoring can be brought to bear, as it was at Three Mile Island, by existing federal programs (for example, the Airborne Radiation Monitoring System). The federal agencies should assure that such equipment is available on short notice at any plant. Some states and local governments may wish to work with licensees or establish independent monitoring programs. While there is no basis for requiring such action, state and local programs may nonetheless be appropriate in individual cases.

Accident assessment is likely to be a joint enterprise, as it was at Three Mile Island. All the forces which can be brought to bear should be used. Efforts should be made by the licensee, NRC and the state to avoid contradictory public positions and to have public pronouncements be authoritative. It would therefore be appropriate for NRC to coordinate public statements with the licensee and for NRC to defer to the licensee's information on plant conditions and accident assessments.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

COMMENT:

This issue, raised by the Critical Mass petition, is identical to one raised in the August 6, 1975 petition for rulemaking filed by many of the same groups. See Public Interest Research Group, et al., Docket No. PRM-50-14. The 1975 petition was denied by the Commission on July 14, 1977 (42 Fed. Reg. 36326). The same reasons which justified the Commission's 1977 rejection of actual evacuation of the public as a part of testing the emergency response plan continue to justify that position.

The Critical Mass petition would require the evacuation of a seven-degree sector to a distance of 30 miles as part of an emergency plan test. (The 1975 Petition sought the actual evacuation to a distance of 40 miles). This test would be required prior to issuance of a construction permit, prior to issuance of an operating license, and then at least annually thereafter. Petitioners' main support for this request seems to be that the Commission is denying the similar 1975 request cited to the Rasmussen Study(WASH-1400) to compare the risk to an individual from an evacuation drill with the risk from a potential reactor accident.

Petitioners apparently do not quarrel with the risk to persons participating in an evacuation drill. The Commission, based on EPA analysis, found that the risk would be 5×10^{-7} that an individual would be killed and 2×10^{-5} that he would be injured, if an evacuee had to drive 20 miles. (42 Fed. Reg. at 36327). Petitioners also fail to acknowledge that the NRC/

EPA Report*, which they seem to cite with approval, recommends that there be "[n]o participation by the general public in test exercises of emergency plans." NUREG-0396 (EPA 520/1-78-016), p. 15 (original emphasis). This recommendation was shared by those states commenting on the 1975 petition. See 42 Fed. Reg. at 36326.

Not surprisingly, there are many substantive reasons why public participation in emergency response drills, and particularly in evacuation drills, should be rejected. The Critical Mass petition fails to address any of these objections. Evacuations of sizeable populations have been accomplished rapidly without benefit of prior public drills. Experience with civil defense tests in the 1950's showed that public response to such drills or tests is low. Drills involving public evacuation would likely introduce a significant degree of inflexibility into the emergency planning system. Frequent drills would cause a large segment of the public to become conditioned, and should a real emergency arise, result in many interpreting the warning as just another drill. The "game" quality and ex ante knowledge of the drill cannot provide a good learning opportunity for the public. These and other reasons supporting the proposition that public participation in evacuation drills is counterproductive

*NUREG-0396 (EPA 520/1-78-016), "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants" (December 1978).

are set forth in the SRI Report and the Strope, et al. Comments. They remain dispositive of the petitioners' request.

November 1975

IMPORTANCE OF PREPARATORY MEASURES IN DISASTER EVACUATIONS

Prepared for:

CLEVELAND ELECTRIC ILLUMINATING CO.
DUQUESNE LIGHT CO.
INDIANA & MICHIGAN POWER CO.
KANSAS GAS AND ELECTRIC CO.
NORTHERN STATES POWER CO.
OHIO EDISON CO.
TOLEDO EDISON CO.
UNION ELECTRIC CO.
WISCONSIN ELECTRIC POWER CO.

SRI
STANFORD RESEARCH INSTITUTE
Menlo Park, California 94025 · U.S.A.

SRI
STANFORD RESEARCH INSTITUTE
SRI Washington D.C. Office · U.S.A.

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Prepared by: WALMER E. STROPE
JOHN F. DEVANEY
SRI WASHINGTON

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WISCONSIN ELECTRIC POWER CO.

SRI Project 4688
Engineering Systems Division

1611 NORTH KENT STREET, ROSSLYN PLAZA, ARLINGTON, VIRGINIA 22209 · TELEPHONE (703) 524-2053
Main Office and Laboratories, Menlo Park, California 94025, U.S.A.

TABLE OF CONTENTS

I INTRODUCTION

Background

Evacuation of people from an area of danger is a basic protective action both in war and in peacetime disaster. Hardly a week goes by in the United States without some sort of evacuation being performed to avoid possible injuries and death. Many of these evacuations involve only a few people or a few families. They tend to occur "naturally" in response to observation of a threat or instructions from police or other officials. Periodically, however, large numbers of people are evacuated. In these cases, it would seem to be important that preparatory measures of some sort had been made if the evacuation was to be successful in saving lives.

Interest in preparations for evacuation is more-or-less routine in areas subject to certain natural hazards, such as hurricanes and floods. It is more sporadic in other areas although transportation accidents, explosions, and fires can call for evacuation of large numbers of people. The extent to which it is prudent to engage in preparations for such contingencies may be subject to question. One basis for judgment that might be useful is an understanding of the degree to which various preparatory measures have influenced the conduct of the disaster evacuations that have already occurred.

The preparatory measures that can be readily identified as potentially useful are:

(1) Preparing a plan of action.
(2) Acquiring any specialized equipment and communications.
(3) Training and orienting emergency personnel and decision-makers in the actions to be taken.
(4) Informing and instructing the population who may be evacuated in event of need.

All of these preparatory measures, and possibly others, can be argued to be necessary in principle. The questions addressed in this paper are to what extent they were taken in advance of past disaster evacuations and what was the effect, if any, of the presence or absence of one or more of the above measures. To address these questions, it was proposed to review the results and conclusions of other scholarly disaster studies and to evaluate directly disaster records in the files of the Federal agencies concerned with emergency operations.

Scope of the Study

The scope of the study can be described as follows:

1. Assemble and summarize readily-available after-action reports, analyses, and other information in the files of the Defense Civil Preparedness Agency, the Federal Disaster Assistance Administration, and other agencies and sources on evacuation experience in floods, hurricanes, earthquakes, explosions, transportation accidents, and other incidents.

2. Analyze the above data with respect to the existence of and effect on performance of emergency plans, pre-disaster public information activities, and tests and exercises involving either disaster organizations, the public, or both.

3. Draw conclusions on the need for and feasibility of the various evacuation preparedness measures.

Limitations of the Analysis

Every analysis is limited to some degree by the amount of information available to be analyzed and this present study is no exception. The record identifies many more evacuations than it contains data on. And in many cases, the data is limited to place, date, number of evacuees, and cause. This makes it difficult to perform a rigorous quantitative analysis of the effect of a particular characteristic on the effectiveness of an evacuation. But a number of analyses are available in which trained observers have examined various aspects of disasters and these contain substantial data. In addition, many disaster reports include statements by officials about various aspects of the disaster especially needs that they have seen for better preparation. And finally, the record gives mute testimony as to the actions of government officials and agencies and as to the results.

Taken all together these bodies of information were found sufficient to arrive at conclusions as to what is important and what is not important in preparing for emergency operations including evacuation. And while it was not possible to assess the relative value of all alternative preparedness measures related to effectiveness, it was found possible to identify the kinds of data that should be recorded to permit such an assessment in the future

On balance, then, the limitations of the analysis did not inhibit the drawing of the conclusions called for in item 3 of the Scope of Work as described above.

II DISASTER EVACUATION EXPERIENCE

General

Historically, evacuation has long been adopted as a protective measure against known or perceived hazards--an approaching enemy army or a rising river. Before 1960, most evacuations were of this kind, e.g., Boston in 1775 and Topeka, Lawrence, and Kansas City in 1951. With the development of means for identifying approaching hazards--enemy bombers, hurricanes, etc.--in the 1950's, evacuation came to be seen as an effective defense against a wider spectrum of hazards. Several evacuation tests by civil defense in 1954 and 1955 showed that planned, orderly evacuations could be successful. When Hurricane AUDREY struck Cameron Parish in Louisiana in 1957 with great loss of life, impetus was given to planning for evacuation and its wider adoption as a defensive measure. As the years have passed, the incidence of evacuation has increased; how much it has increased is difficult to say.

Evacuation Data

In planning this study, it was decided that a rigorous analysis would require the data listed on the Evacuation Study Work Sheet (Figure 2-1) and that only those evacuations in which 100 or more people moved would be studied. Data were obtained chiefly from a search of the files of the DCPA Disaster Research Center and from Hans and Sells (11). Information on major events were obtained from studies by the Defense Civil Preparedness Agency (DCPA), the Office of Emergency Preparedness (OEP), the Disaster Research Group of the National Academy of Sciences/National Research Council (NAS/NRC), and the Ohio State University Disaster Research Center. Availability of data was discussed with the American National Red Cross, the Bureau of Motor Carrier Safety, and the Federal Railroad Administration. These three organizations advised that their records would not yield the kinds of data being sought.

In all, reports of 228 evacuations of 100 or more people were found. These events are listed in Appendix A in five classes by type of event that posed the hazard. Accidents include events involving the release of--or threat of release of--toxic and corrosive chemicals and explosions--and the threat of explosions. Fires include forest and wild land fires and conflagrations in urban and suburban areas. Flash floods are those in which the warning is measured in a few hours as in the occurrence of torrencial rains or the collapse or impending rupture of a dam or reservoir. Floods are those in which the warning is measured in days as when a river crest moves downstream. Hurricanes are tropical storms that produce exceptionally high tides or tidal waves and often produce heavy rainfall. For simplicity, this class also includes--for this study--the two cases of tsunami for which evacuation data were found.

Evacuation Study Work Sheet

Incident_____
Place_____
Year_____

I. Incident.

1. Nature: Natural_____ Accident_____ Exercise_____
2. Description:_____
3. Buildup: Instant_____ Hours_____ Days_____
4. Prior Warning: Of Possibility: No____ Yes____ When____ How_____
   Of Approach: No____ Yes____ When____ How_____
   Of Event: No____ Yes____ When____ How_____
5. Time of Event: Date_____ Hour_____

II. The Evacuation.

1. Area Evacuated:_____
2. Reception Area:_____
3. Number of Evacuees:_____ Total Population_____
4. Time of Evacuation: Start: Day___ Hour___; Finish: Day___ Hour___
5. Evacuation Order: By_____ In Name of_____
6. Spontaneous: No____ Yes____ Triggered By_____
7. Movement Control: No____ Yes____ By_____

III. The Preparation.

1. Plan: No____ Yes____ By_____ Date_____
2. Publicized: No____ Yes____ By_____ How_____
3. Exercise: Government: No____ Yes____ Date_____
   Public: No____ Yes____ Date_____
4. Previous Evacuations: No____ Yes____ Dates_____

IV. Results:

1. Deaths: No____ Yes____ Number_____
2. Injured: No____ Yes____ Number_____
3. After-Incident Report: No____ Yes____ Findings_____

Recommendations_____

Documentation:_____

FIGURE 2-1 EVACUATION STUDY WORK SHEET

Accidents and fires as well as flash floods tend to have a rapid build up; i.e., only a few hours pass between the first perception of the threat and the onset of the hazard. In these terms, floods and hurricanes have a long build up. And it is worthy of note that there is a rough correlation between length of build up and area involved: the longer the build up, the greater the area.

In only 56 of the cases listed in Appendix A were data found other than place, date, cause, and number of evacuees. Substantial amounts of data were found only in the few instances in which post-disaster studies had been made. The extent of the data, by type of event, is shown in the following table.

DATA ON EVACUATIONS

Type of Event	Number of Evacuations	Reports with more than Basic Data	Reports Mentioning Plan
Accident	75	12	8
Fire	10	0	0
Flash Flood	22	7	3
Flood	92	15	13
Hurricane	29	22	21

The total numbers of the people evacuated for the evacuations listed in Appendix A are as follows.

NUMBER OF EVACUEES

Type of Event	Number of Evacuations	Total Number of Evacuees
Accident	75	298,120
Fire	10	11,500
Flash Flood	22	148,380
Flood	92	296,170
Hurricane	29	1,166,310
	228	1,915,400

It should be noted that hurricane evacuations account for the majority of evacuees and that the average hurrican evacuation has involved about 40,000 evacuees as compared with about 4,000 in other types of disasters.

The increase in number of pre-disaster evacuations over the years can be judged roughly from the following table.

PRE-DISASTER EVACUATIONS

Period	Accident	Fire	Flash Flood	Flood	Hurricane	Total
Before 1960				5	1	6
1960-1969	30		2	20	21	73
1970-1975	45	10	20	67	7	149
	75	10	22	92	29	228

The increases shown may exaggerate the real situation because record-keeping has gradually improved and because records of recent years are more readily available. For example, DCPA after-action documents for years before 1973 had been retired to a government document center and were not available for study.

All of these numbers would have been larger if sufficient data had been available. Hans and Sell listed 338 evacuations in 8 states for which the number of evacuees was not found. In the search of the DCPA files, many reports of evacuation were found that did not give number of evacuees. Not all of these would have met the 100-minimum criterion set for this study. But if the data for them had been available, the numbers of evacuations in the above table would have been larger, especially for the periods after 1960.

Evacuation Tests

Tactical evacuation of the central cities was introduced into civil defense planning in the early 1950s as an optional measure for defense against enemy attack. In those days, warning of 4 hours or so of the onset of an attack was expected. Previous evacuation experience was for the most part related to events with a long build-up time, e.g., several days in the case of a flood on a sizeable river. But there were few data on the factors affecting the planning for tactical evacuation.

In 1954 and 1955, about ten cities conducted tests of evacuation plans to obtain data, primarily on traffic flow, organization, and control. Those identified are listed in Appendix B. The tests varied in size from 8,000 evacuees out of 28,000 people in Bremerton, WA, to 101,000 evacuees out of 372,000 people in Portland, OR. They included a test in Mobile, AL in which 37,300 out of 38,000 school children were evacuated. Then in 1957, 1,500 volunteers were evacuated from Binghamton, NY to Deposit, NY to test methods for reception and care of evacuees. This evacuation also tested a proposed method of traffic control, which was found unnecessary. In no case were these tests designed to publicize adopted evacuation plans or to train the public.

III EFFECT OF PREPARATORY MEASURES

General

Sources of information bearing on the need for or usefulness of preparations for the evacuation of threatened population groups are of several kinds. First, there is the body of data concerning actual disaster evacuations summarized in Appendix A. Second, there are the perceived needs voiced by officials involved in disaster evacuations as a result of their experiences. Third, there are the observations and conclusions of trained observers who have published analyses of various aspects of disasters. Finally, there is the mute evidence of behavior on the part of public officials and agencies of government. All of these have been consulted in this study.

Some 228 instances of disaster evacuations in which it is known that at least 100 persons were evacuees are tabulated in Appendix A. Other instances have doubtless occurred but records of these evacuations, if they exist, are not readily available. Of the 228 tabulated incidents, only in 56 or 25 percent was the presence or absence of preparatory measures mentioned in the documentation reviewed. This does not mean that preparatory measures played no role in the 75 percent for which the record is silent. As will be discussed, disaster preparations are more pervasive than some might imagine and are likely to have exerted some influence even though not remarked upon.

In attempting to evaluate the effect of preparatory measures on disaster evacuations, we will follow the organization suggested in the Introduction although it will be found that, in many respects, it is not possible to discuss each measure separately from the others.

Emergency Plans

All of the 56 tabulated incidents in which reference to preparatory measures was found contain references to the existence or lack of specific evacuation plans. In 80 percent of the cases (45 instances), existence of an evacuation plan was mentioned. In 20 percent (11 instances), lack of prior planning was mentioned. Most of the plans mentioned were in connection with flood and hurricane evacuations, as can be seen in the following table.

SUMMARY OF DISASTER EVACUATION DATA

Disaster Type	Number of Cases	Mention Measures	Had Plan
Accidents	75	12	8
Large Fires	10	0	0
Flash Flood	22	7	3
Flood	92	15	13
Hurricane	29	22	21

Floods and hurricanes are repetitive seasonal threats in many areas. One kind of evidence for the perceived utility of specific evacuation plans is that few communities facing this sort of threat are without such plans, at least in recent years. Of course, hurricane evacuations are usually major operations. Of the approximately two million evacuees accounted for in the incidents tabulated, a majority were caused to evacuate because of the threat of hurricane tides. About ten times as many people are involved in the average hurricane evacuation as are involved in other types of disaster evacuations. Thus, the need for prior planning is most evident for this disaster type.

In the accident and flash flood incidents, 11 of 19 cases in which preparatory measures are discussed were said to be based on an evacuation plan. Several of these plans, however, were devised after the threat to the population was imminent. The chlorine barge incidents at Baton Rouge (7) and Morgan City, Louisiana, (16) and at Louisville, Kentucky, (9) are examples. How many other slowly-developing threats motivated the preparation of evacuation plans is not known. There are several instances of plans being prepared in response to a specific threat where an evacuation never was needed. Operation Red Hat, in which military nerve gas was moved by rail in the Pacific Northwest, was a case in which fairly elaborate evacuation plans were laid but never implemented. Although not treated here, these incidents also demonstrate an official recognition that evacuation plans are useful.

With respect to the data summarized in the table above, however, it does not seem possible to attribute any quantitative improvement in the disaster outcome to the existence of prior evacuation plans. In general, disaster evacuations have been remarkably effective whether they are based on specific evacuation plans or not. For example, 5,700 out of 6,000 residents of Cameron Parish, Louisiana, were evacuated in 1961 on the basis of a written parish evacuation plan brought about by the

Hurricane Audrey disaster of 1957. (27). In 1971, 80,000 out of 81,000 people in Los Angeles threatened by the impending collapse of the Van Norman dam were evacuated in a period of six hours without benefit of an evacuation plan (30). Where needless loss of life has occurred, it seems to be attributable to factors other than lack of an evacuation plan, as discussed at a later point.

Despite the failure of the limited data to exhibit a quantitative effect that can be attributed to the existence of evacuation plans, there is a relative abundance of other evidence. Incidents in which preparatory measures are mentioned always discuss the evacuation plan. Moore et al. (16), in a study of the response to Hurricane Carla, concluded, "Civil defense planning was shown to have had high value in meeting the emergency and in keeping the number of casualties at a minimum." Where a plan existed at the time of the evacuation, its value was extolled. For example, the mayor of Lansing, Michigan, is reported as stating during the April, 1975, flood, "Years of planning and exercises are paying off." Where no plan existed, preparation of an evacuation plan was proposed as part of the lessons learned. An official review of the Louisville, Kentucky barge incident, for instance, argued that it demonstrated the need for predisaster planning. Proposals for improvement are also common in after-action documents; e.g., the after-action report on the 1972 flood evacuation of Wilkes-Barre, Pennsylvania, cites the need for a better, more detailed plan.

One possible explanation for the fact that instances of major evacuation can be found that were successful without the aid of a plan is that few local jurisdictions are without an emergency plan of some sort even though a specific evacuation plan may not exist. This situation is largely the result of a civil defense requirement that must be met by State and local governments to qualify for Federal support in the form of matching funds for staff and equipment and access to surplus property of considerable use to the community. The required plans focus on response to enemy attack but have much in common with responses to peacetime disasters. A field study by System Development Corporation for the Defense Civil Preparedness Agency in 1970 (25) disclosed that while many such plans were pro forma or compliance documents of a too-general character, many others were rated highly. A relatively recent requirement is that these plans must be updated at least every two years, which is intended to correct these kinds of deficiency. Additionally, the Defense Civil Preparedness Agency, within interagency agreements, has broadened its emergency preparedness program to include readiness for all the types of emergencies that are identified in a risk analysis for a locality and has had in operation for a number of years a program of on-site planning assistance to local governments that has tended to emphasize peacetime incidents rather than nuclear war. The Van Norman Dam incident is a clear example of the influence of such emergency planning. It is quite true that a specific evacuation plan for the affected area was not

available but a well-developed emergency organization exists in the Los Angeles basin and that could well explain the evacuation success.

It is significant to note that after-action documents on the Van Norman Dam incident stress that the county emergency plan was not sufficiently explicit for this type of incident, that provision should be made for better exclusion control, and that there should be written "Red Cross plans," presumably for reception and care of evacuees (30). This is characteristic of the support given to the need for evacuation plans.

Equipment and Infrastructure

The second kind of preparedness measure that should be considered has to do with the facilities, equipment, and supplies that are needed to make an evacuation plan work. For the most part, disaster operations rely on resources normally available to the community and evacuation of people is no exception. Private automobiles or travel by foot are used for most of the actual evacuation, with school buses and other suitable vehicles provided for those in need of transportation. Public safety vehicles and communications are also relied upon. Commercial radio and TV stations are relied upon to broadcast messages to the affected public. In most cases, however, some specialized facilities, equipment, and supplies are found to be needed in order for an evacuation plan to work efficiently. The nature of these specialized needs tends to vary with the type of threat.

An important distinction among various disaster types is the amount of buildup or advance warning intrinsic in the event. Floods and hurricanes are not only seasonal in occurrence but also slowly-developing threats on which advance information is obtained through the use of weather forecasts, aerial surveillance, upstream flood stage measurements, and the like. Thus, the public can be alerted to the potential danger well in advance and given instructions relative to evacuation behavior. In a flash flood situation, such as the Rapid City, South Dakota, disaster, the evacuation process involves little warning and great urgency. In the evacuation incidents that we have tabulated, the fires, floods, and hurricanes are generally slowly-developing events whereas the accidents and flash floods are of the rapidly-developing kind.

In the slowly-developing events, specialized means of providing warning have not usually been found to be needed since weather warnings and flood measurements are now well developed. The Marysville-Yuba City flood of 1955 is an exception where the need for better upstream measurements was noted in the after-action documents. Rather, the need for coordination of evacuation and other disaster activities from a centralized emergency operations center has been noted since the Midwest floods of 1951. In the data screened during this study there are four cases in

which the need for better Emergency Operating Center (EOC) facilities was stressed in after-action documents. An equal number of comments on the inadequacy of communications can also be found. This relatively low incidence of expressions of need is probably the result, in our opinion, of the long-standing emphasis in civil defense programs on the development of an adequate emergency operations center in every political jurisdiction. These EOCs and the communication systems they tie together are routinely of value in a wide variety of peacetime emergencies.

In the rapidly-developing kind of disaster threat, maximum forewarning of existence of the threat and effective means of alerting and advising the affected population are the specialized capabilities of general note. These are found especially in the documentation of flash flood disasters such as in Buffalo Creek, West Virginia, and Rapid City, South Dakota (12). As a consequence, the National Oceanic and Atmospheric Administration is presently engaged in developing a nationwide flash flood warning network. Having knowledge of the threat, civil defense sirens, public safety vehicle sirens, loud speakers, and door-to-door visits have been used for alerting the population. Broadcast media and door-to-door visits are the main means of instructing the public to evacuate. In the past, these methods have been successful.

Finally, some threats, such as radiological accidents and transportation accidents and explosions involving the release of hazardous chemicals, specialized instruments and training must be included in the requirements for specialized facilities, equipment, and supplies. These may be needed not only to provide a basis for ordering evacuation but also to define the area at risk and to indicate when the need for evacuation has ended.

While this discussion has emphasized lessons from disaster evacuation experience, it should be understood that careful preparation of an evacuation plan can serve to identify specialized needs and ways to meet them. This is perhaps another reason for asserting the utility of evacuation planning.

Training and Exercising

The third kind of preparatory measure identified in the Introduction is the training and orienting of emergency personnel and decision-makers in the actions to be taken in event an evacuation becomes necessary. In the data tabulated in Appendix A, specific mention of training and orientation is generally confined to the mention of prior exercises, as shown in the following table.

EXERCISES RELATED TO DISASTER EXPERIENCE

Disaster Type	Mentioned Had Plan	Used Plan	Mentioned Exercise
Accidents	8	7	1
Large Fires	0	0	0
Flash Flood	3	2	0
Flood	13	10	1
Hurricane	21	20	2

There were four such mentions. There could, of course, have been more exercises pertinent to a disaster than were mentioned. The data are quite limited in this respect. As one might expect, all of the instances in which a prior exercise was mentioned were instances in which the existence of an evacuation plan was mentioned. It would be difficult to conduct a training exercise without a plan on which to base it. Moreover, all of these instances were cases in which the plan was used in the actual emergency. Put another way, in all six instances in which a plan was said to have existed but was not used, no prior exercise of the plan was mentioned (and, most probably, had not occurred.) This would suggest that a plan not exercised by the emergency organization may not be useful in an emergency because too many members of the organization may be unaware of its contents.

With regard to the exercises mentioned, they were uniformly noted to have contributed significantly to the successful conduct of the evacuation. We have already noted the comment of the mayor of Lansing, Michigan that "Years of planning and exercises are paying off." In Petal, Mississippi, where ignition of a leak from an LP gas storage area in August 1974 led to the evacuation of 3,000 people, the after-action report notes that on-site assistance activities (which involve an EOC exercise) and further testing of the plan in spring 1974 floods (no actual evacuation was required) made local operations "run smoothly."

It is in the case of lack of exercising of the emergency organization that the value of such exercises in most apparent. Two or three instances will be described to illustrate. The Rapid City, South Dakota, flash flood in June 1972, in which 226 were killed with 53 missing, is the first example (12). The Rapid City-Pennington County Civil Defense Director was stranded at his home in the hills by the heavy rains and was unable to reach the city. Officials were deprived of his knowledge of the plan and of specialized capabilities. The city had a well-developed EOC but responsible officials knew little about its capabilities. City officials mobilized several hours before the flood and know that evacuation of the river area was essential about an hour prior to the crest. Warnings were broadcast by telephoning the radio station and asking the announcer to make the announcement. The station announcer was not as credible to the public as an official might have been. Many phone calls were received berating the station for exaggerating the emergency. Also, many people had turned off television and radio because of interference and static caused by the electrical storm. The civil defense sirens were not sounded to gain their attention. Officials said that it never occurred to them to sound them. But the radio station was part of the Emergency Broadcast System (EBS) and the transmitter was equipped with emergency power and a remote programming unit located in the EOC that would have permitted the mayor and the county commissioner to broadcast directly to the public. This capability was not used prior to the main disaster. Shorting of a power transformer about 11:47 pm, said to be about three-quarters of an hour after the deluge, put the radio station off the air. About 1 am, it was realized that the remote program unit existed and that both the EOC and the transmitter had emergency power and only then was communication to the public reestablished. Despite these problems 8,700 people who might have been lost were evacuated during the short warning period. Nonetheless, the circumstances suggest that if orientation and training of local officials and emergency personnel had occurred, some of the loss of life may well have been prevented.

A second example is the Van Norman Dam incident previously discussed (30). The earthquake occurred at 6:01 am. At 7:10 am, the police captain on the scene below the Van Norman Dam began requesting the people to evacuate. At 8:45 am, engineers at the dam recommended evacuation. The assistant chief of police ordered evacuation at 9:05 am. At 10:00 the area at risk was expanded and the evacuation order was changed to advice. Finally, at 10:37 am, the area at risk was again expanded and the evacuation order reinstated. Two hours later the evacuation was said to be complete. About 80,000 people were involved. The police force had a general emergency plan and organization and had had a number of tactical exercises. A specific plan for evacuation apparently did not exist nor had one been exercised. Fortunately, the dam did not collapse. Otherwise, the uncertainties exhibited by changes in evacuation instructions over the 5½ hour period might have been disastrous.

A final example may be drawn from Hurricane Carla in 1961 (27). Although hurricane evacuation plans did not exist, civil defense evacuation plans for the affected jurisdications had been completed in 1958. Officials in Jefferson County, Texas, were well aware of these plans and had conducted several exercises of the plan earlier in 1961, including a tactical exercise in July in which emergency units actually assumed their planned positions. In the hurricane evacuation, the same units deployed as the plan indicated and the evacuation was highly successful. Officials reported that the only change made from the civil defense plan was that highways were not made one-way outbound. In Galveston, Texas, a similar plan was not used because local officials were unaware of it. All instructions given there left it up to the citizen to decide whether to evacuate or take shelter. Only 95,000 out of 140,000 chose to evacuate before egress routes were closed by the rising tide. Investigators believed that an exercised plan and an evacuation order would have resulted in nearly the whole population having evacuated.

These examples exhibit the value of orientation and training of decision-makers and emergency forces in readiness for disaster evacuation. They also point to the value of exercising the organization for orientation and training. For the training to be effective, an evacuation plan is essential. Given the plan, the exercise can take on some aspects of a test; i.e., the workability of the plan and its organizational arrangements and the sufficiency of the equipment, supplies, and communications called for or provided can be assessed. Tests and exercises also afford the opportunity to evaluate alternative plan provisions. For both testing and exercising, valid scenarios are needed to present the postulated disaster accurately in its dimensions and pace. Such scenarios permit the exercise of the plan, either in decision-making in command centers or in tactical operations involving actual deployment of emergency units.

In addition to accomplishing necessary orientation and training of officials and emergency forces, these exercises usually identify deficiencies in facilities, equipment, and supplies that can be planned for correction. Deficiencies in the plan, in performance, and in equipment are disclosed in post-exercise critiques in which the participants and experienced observers discuss their observations. Many such exercises have occurred throughout the country in recent years.

Public Information, Instruction, and Drills

The fourth kind of preparedness has to do with measures for informing and instructing the public that may be evacuated in the event of need. In this, effectiveness is measured in terms of giving the public knowledge that they can use in a potential disaster situation as well as in terms of its impact on life-saving responses in an actual disaster. The possibility and appropriateness of drills involving public participation also needs to be considered.

In discussions of preparedness for emergency operations, the terms "test", "exercise", and "drill" tend to be used interchangeably. Used strictly, they are not. A test involves the deployment and operation of the emergency organization in simulated conditions for the purpose of discovering deficiencies with a view toward correcting them. An exercise involves the deployment and operation of the emergency organization in simulated conditions for the purpose of training the personnel with a view toward improving their performance in a real emergency. A drill may be either a test or an exercise with the added feature of the participation of the public.

If public information on how to respond to a disaster threat is to be effective at all, the minimum requirement would seem to call for public knowledge of the existence of appropriate plans, if not of their content in behaviorly useful terms--where to go and what to do. However, for the most part, the evidence in the disaster literature (3, 15, 16, 24) does not support a conclusion that the public, even when informed and instructed under normal conditions, will retain such information. For example, after the disaster of Hurricane Audrey in 1957, Cameron Parish developed an evacuation plan and publicized it widely in the media and through organization of neighborhood civil defense groups. But when Hurricane Carla occurred in 1961, 4 out of 10 residents of the Parish were unaware of the plan or asserted that no such plan existed (16). In Galveston, 58 percent of the people were unaware of the evacuation plan or thought that it did not exist. (16)

There is little doubt--no study seems to show otherwise--that information and instructional campaigns under normal conditions fail to prove effective in affecting behavior in a disaster context. If this is so, then such information, regardless of the mode and intensity of its dissemination, cannot have a positive effect on subsequent responses in the disaster situation itself. This, of course, is a result of the selectivity with which people absorb information. Relevancy to their life-conditions seems to be among the crucial factors in knowledge acquisition and retention. Thus, information given publicity at the beginning of the hurricane season may have some impact because of its relevancy but the impact would be short of that associated with specific hurricane warnings to a particular area.

Among the many stimuli which bombard us all everywhere at all times, information pertaining to actions in preparation for low-probability

and "unscheduled" (time-unpredictable) occurrences must rate as having low saliency. The motivation to learn and to retain what has been learned--and then be able to use the knowledge in the form of appropriate behavior in coping with these occurrences—is correspondingly low. However, information and instructions, if authoritative and unambiguous, given under threat conditions or at the onset of a disaster are assimilated rapidly and produce high levels of compliance. In slowly-developing disasters, there is relatively ample time for the dissemination of even complex information and instructions. In rapidly-developing disasters, reliance must be placed on the dissemination of that minimal information which is required to lead to effective public response.

Thus, it seems important to prepare essential messages to be disseminated to the public as an aspect of overall evacuation planning, especially in regard to rapidly-developing disasters. But the need for authoritativeness and clarity (and, by implication, message standardization, at least in its core elements) in emergency communications to the public makes such information content-and-dissemination planning highly desirable regardless of the time trajectory of the disaster agent.

The extent to which the public can develop more effective modes of coping with a disaster situation by participation in drills (perhaps, of course, coupled with dissemination of other information) is open to serious doubt. In the disasters we have surveyed in this study, public participation in drills antecedent to the actual evacuation never occurred. Thus, there is no way to compare evacuation performance in which there had been prior public participation in drills with that in which there was not. Not only were no instances found in which public drills preceded evacuation in an actual disaster, but we also found no case in which the after-action documents mentioned the need for public drills or recommended them.

The closest that we can come to making a comparison on this point is in considering areas of the country which had been affected by prior disasters of a similar nature, especially those that called for evacuation. In this context, one may then consider the antecedent experience (with an actual prior disaster) to be a "drill" for a subsequent disaster. The results, similar though the situations are, show some of the problems. "We've been through All this before, we can handle it again" is, perhaps, a succinct summary of one of the key attitudes exhibited. But, in reality, it does not follow that prior behavior was as effective as it might have been or that it would be as effective under somewhat different circumstances, or that alternative coping actions would not be preferable. Thus, prior experience leads some to ignore official instructions in favor of personal decision. At the same time, most with prior disaster experience are able to respond quickly to comply with instructions and information given at the time they are needed, so that "learning" in this sense does tend to occur. (16).

Another comparison that can be made relates to public behavior when civil defense sirens have sounded an alert in the context of previous routine siren tests. (15, 24) Such alerts sounded in this country have all been accidental but the public had no way of knowing this. The practice of audible siren testing introduced ambiguity into the alert message and allowed the public to interpret the event not as a warning of dire emergency but rather as "just another test." In rapidly-developing disasters, such ambiguity could be fatal for some. Just the time spent confirming that the emergency was real and not just another drill could be costly.

The several civil defense tests conducted in the 1950s (Appendix B) cannot be used easily as data sources to determine how response effectiveness might be enhanced by public participation in drills. These tests involving public participation were carried out largely as research efforts--to gather data and test elements of the emergency organization. These tests were not designed to inform or instruct the public or even to test complete evacuation plans but rather to provide feedback of data to improve the character of civil defense evacuation plans. Testing of the operating system as an important way of determining problems, evaluating alternatives, and yielding data on possible improvements, is, of course, important. But such testing is now known not to require the participation of the public, and the limitations imposed by such participation, compared with the flexibility afforded by simulated problems, may actually lessen their teaching value for the system.

The possible value of public drills, it appears, is also degraded by the fact that highly-unusual circumstances tend to prevail: a drill has to be announced and publicized in some detail well ahead of time; a great deal of "tooling-up" by the public can, and does, occur. The situation is more like one of a "game" than of an approximation to reality. The members of the public are so removed from being able to conceptualize the real meaning of the "game" that it is highly questionable whether any learning applicable to an actual disaster can, in effect, take place. When, in addition to that, the operating system is learning too—functioning less than adequately, attempting to identify its problems, and critiquing its plans and their performance--the public visibility resulting from public participation is likely to have a negative, rather than a positive impact on the credibility of instructions in an actual disaster situation.

In emergencies that call for a response by the public, credibility of the source of information and instruction is known to be a major factor in how well and how quickly the public responds. This is especially so in emergencies in which the individual cannot perceive the danger through his own senses. A major consideration in planning for emergency

public information activities is maintaining and protecting the credibility of the source of the information and this includes avoiding whatever may degrade source credibility. Public participation in evacuation drills and the inevitable discussions in the media and other forums of the deficiencies disclosed would surely contribute to the degradation of the credibility of the information source. In this respect, a public participation drill can be foreseen to have a counter-productive effect.

Furthermore, the evidence from the limited tests of the 1950s suggests that the social situation itself changes when a drill is attempted. In Bremerton and Spokane, for instance, many people simply stayed home to avoid involvement in the test, with the result that there were unusually light traffic loads and concurrent normal activities. Klass et al (13) were led to conclude that "the public participation in 'Operation Rideout' was so small as to imply that even a homogeneous population presented with a logical plan by an organization that it respects as a group of persons, if not an institution, will not fully participate in a civil defense exercise."

Last, but not least, the economic costs and intrusiveness of evacuation drills, even if considered alone and apart from other problems already referred to, may be such as to make their "cost/effectiveness" exceptionally problematic. There is, as it were, no compelling reason to believe that public drills would enhance the population's capacity to cope with disasters more effectively or improve planning and there is fair evidence that the results might well be counterproductive.

IV. FINDINGS AND CONCLUSIONS

Findings

On the basis of the data analyzed in this study, the following findings are drawn:

1. Records of disaster evacuations--as well as of other characteristics, especially antecedent preparatory measures--are incomplete and this introduces uncertainty into analyses of specific aspects of disaster experience.

2. Evacuations of people from danger areas have been routinely successful, even when specific plans for them had not been made in advance.

3. Existence or lack of a plan is most often noted in after-action comments on disasters and improvements in a plan are often recommended by officials and observers. Next most common are recommendations for improvements in equipment and infrastructure. Also noted were exercises of the emergency organization, but in no case was public participation in drills noted or recommended.

4. Familiarity of local officials with emergency plans and capabilities appears the most important desideratum in preparing for evacuation.

5. Preparation of specific evacuation plans is essential for orientation and training, but if not exercised by responsible officials and the emergency organization such plans are often not used in actual disasters.

6. No record was found of public evacuation drills and there is no evidence that large-scale participation in such drills is achievable. There is some evidence that such participation, even if achievable, could be counterproductive in a subsequent disaster evacuation by introducing misinformation and ambiguity, by limiting response flexibility, and by degrading information source credibility.

7. Intensive efforts to inform the public on evacuation plans and procedures have had limited success.

Conclusions

The following conclusions are drawn from the above findings and from the data analyzed in this study.

1. Responsible agencies of government, such as the Defense

Civil Preparedness Agency, should use a standard data sheet similar to that in Section II of this paper in recording disaster-related characteristics in order to obtain a better basis for improving the ability of government to protect life and property in disasters.

2. A broad and vigorous program of planning, investment in infrastructure and specialized equipment, and orientation and training of local officials and emergency personnel for disaster preparedness, including tests and exercises of emergency plans, is well justified and should be supported.

3. Public participation in practice drills would produce no benefit, may tend to degrade effectiveness, and should be deemphasized.

4. Efforts on preparedness for disaster should emphasize advance preparation of message content and means of dissemination of authoritative and unambiguous information and instructions in time of need; public information on disaster preparedness in normal times should be limited to that needed to enhance source credibility in the emergency.

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APPENDIX A

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATION

The tables in this Appendix present the applicable data that could be found. These data were obtained for the most part from:

- Files of the DCPA Disaster Information Center.
- Hans, J. M. and Sells, T. C.; Evacuation Risks - An Evaluation, EPA National Environmental Research Center, (Los Vegas, Nevada: June 1974).
- Reports of post-disaster studies by DCPA and OEP.
- Reports of disaster studies by the NAS/NRC Disaster Research Committee and its successors.
- Reports of disaster studies by the Ohio State University Disaster Research Center.

The data are assembled in this Appendix by type of event that was the proximate cause of the evacuation. The types used are:

- Accident. These events are "man-made." They include transportation accidents--water, rail, and highway--explosions in pipelines, buildings, storage facilities, and so on, and such events as leaking storage tanks, etc. Their common feature is that they pose a present or a possible danger of physical harm to people. The dangers include missiles from explosions and the emission of poisonous and corrosive substances.
- Fire. These events are either "man-made" or natural. They include conflagrations in urban and suburban areas. They do not include fires in one or a very few buildings. They include forest and other wild land fires.
- Flash Flood. Again these events are either "man-made" or natural. Man-made flash floods are those in which a flash flood is--or can be--the result of the failure of a man-made structure such as in the Baldwin Hills Reservoir and Van Norman Dam events in Los Angeles and the Buffalo Run event in West Virginia. Natural flash floods are the result of torrential rains on a relatively small watershed. The two kinds have in common a short build-up and warning time--measured, at most, in a few hours.

- Flood. These are natural events. They occur ordinarily on rivers as the result of relatively long periods of rainfall sometimes accompanied by melting of the snow-pack. The buildup is slow; it can be perceived in rising river stages; and warning is usually had from observations of the times of the flood crest at upstream points.

- Hurricane. These are natural events. They are severe tropical storms whose chief hazards in these days are from the high tides and tidal waves they cause although some hazards still exist from building collapse and wind-borne missiles. These again have slow build-up and the warning time is relatively long. Their location and path are watched by "hurricane hunters" and well publicized in the media. However, the prediction of the location and timing of the onset of the "eye" of the storm is not as precise as for floods. To avoid unnecessary complication, the two cases of tsunami--tidal wave caused by earthquake--for which data were found are included with the hurricane data.

The headings of the data columns are defined as follows:

- Number evacuated: The number of people who moved out of the area at risk by any mode--walking or by auto, public transport, or boat--and whether spontaneously or in response to advice or direction of the government.

- Population: The population reported in the record from which the data were extracted. This can be either the total population in the area or the population at risk. Whenever a choice was possible between total population and population at risk, the number at risk is given.

- Evacuation Time: The evacuation time given is the total elapsed time, in hours, from the first beginning to the end of the outward movement. In some cases, spontaneous evacuation or "advised" evacuation went on for some time before an evacuation was ordered.

- Plan: This refers to the existence and use of an evacuation plan applicable to the evacuated area. In this, we followed Hans and Sells:

  P - plan available, not used

  PU - plan available and used

  NP - no plan available

- Government Exercise: This refers to an exercise of the organization to test a plan or its readiness to execute the plan or to train it in the execution of the plan. In some cases, it involves activation of the government's Emergency Operations Center (EOC) and simulation of an event. This is similar to a military Command Post Exercise (CPX). In others, it involves actual deployment of the field units of the organization to their assigned posts and the exercise of their operations.

- Public Drill: This refers to an exercise of an evacuation plan involving the participation of the public to the extent of evacuating the area. The purpose of such a drill is to educate the public in the detailed requirements of the plan and their proper response to them.

Blanks in the data columns indicate that no data were found.

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Accident

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1961							
1 Aug	Crave Coeur, IL	7,500		1	PU		
1965							
9 Sep	Baton Rouge, LA	150,000		2	PU		
26 Sep	Westfire, OR	300					
4 Dec	Cambden, AR	1,000					
1966							
	Richland Co., SC	200					
1967							
27 Aug	Texarkana, TX	5,000		4	NP		
28 Oct	Danbury, TX	1,200					
18 Nov	Waterford, AL	2,800					
1968							
1 Jan	Dunreith, IN	240					
13 Jan	Chadbourne, NC	1,500		5	NP		
27 Feb	Hagerstown, MD	2,500			NP		
21 Apr	Kelley, LA	240					
13 Aug	Urbana, OH	4,000		3.5			
19 Aug	Beattie, KS	300					
1969							
13 Jan	Lima, OH	2,000					
25 Jan	Laurel, MS	1,000					
18 Feb	Crete, NB	400					
4 Apr	Wewoka, OK	2,000		8	PU		
15 Apr	Allentown, WI	400					
16 Apr	Allentown, LA	150					
25 Apr	Pershing, IN	400					
16 May	Logansport, LA	1,800			NP		
24 Aug	Piedmont, WV	150					
3 Sep	Wellington, AL	200					
10 Sep	Butler, IL	700					
11 Sep	Glendora, MS	35,000		4	P		
18 Oct	Troup, TX	100					
26 Nov	Rockwell, TX	200					
30 Nov	Crew Lake, LA	250					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Accident

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
29 Dec	Carlisle, SC	450					
1970							
3 Mar	Danbury, TX	300					
9 Apr	New Athens, IL	1,500					
24 May	Jasper, AL	500					
21 Jun	Crescent City, IL	600					
25 Oct	Farmers, KY	1,000					
2 Dec	Clay City, IL	100					
1971							
10 Feb	Ashkum, IL	2,500					
27 Mar	Panther Burn, MS	250					
2 May	Eden, MS	200					
16 Aug	Rock Hill, SC	1,000					
18 Sep	Weston, IL	150					
2 Nov	Sumter Co., SC	180					
3 Dec	Wheatfield, IN	700					
3 Dec	Thomasville, AL	110					
11 Dec	Corbin, LA	500					
1972							
14 Mar	Louisville, KY	4,400		3	PU		
14 May	Isleta, OH	1,100					
16 May	Cashocton, OH	350					
1 Jun	Dallas, TX	100					
1973							
4 Jan	Harrod, OH	100					
19 Jan	Morgan City, LA	3,000	3,300	4	PU		
5 Feb	Downington, PA	700	800	2	PU		
19 Feb	Charleston, SC	2,000					
20 Apr	Williamsburg, MI	450	450				
28 Apr	Roseville, CA	20,000					
17 Jul	Superior, AZ	300					
20 Jul	Superior, AZ	200					
30 Jul	Markle, IN	900	900				
13 Sep	Adrian, MI	1,000					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Accident

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
30 Oct	Edmonton, Canada	5,000					
1974							
10 Jan	W. St. Paul, MN	200					
23 Apr	New York, NY	300					
26 Apr	Chicago, IL	400					
28 May	New Britain, CT	2,000					
12 Jun	Moore, OK	5,200					
11 Jul	Leland, MS	200					
19 Jul	Decatur, IL	10,000	100,000				
5 Aug	Plotoma, IL	500	3,000				
6 Aug	Bluford, IL	400					
25 Aug	Petal, MS	3,000			PU	Yes	
1975							
6 May	Omaha, NE	1,000					
13 May	Vierton, LA	1,500					
23 Jun	Calipatric, C'	1,200					
18 Jul	Tiller, AK	100					
23 Oct	Fertile, MN	950					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Fire

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1970							
26 Sep	San Diego, CA	5,000					
1973							
21 Aug	Klamath Falls, OR	350					
10 Sep	Whale Gulch, CA	200					
14 Oct	Chelsea, MA	2,500					
28 Oct	San Diego Area, CA	350					
30 Oct	Topanga Canyon, CA	700					
1974							
8 Jul	Walker, CA	400					
29 Aug	Soboba, CA	1,000					
29 Aug	Pine Cove, CA	1,000					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Flash Flood

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1963							
14 Dec	Los Angeles, CA	9,000	16,500	1.5	NP		
1968							
7 Jul	Anderson, SC	210		2	NP		
1970							
Sep	Payson, AZ	150		12	PU		
1971							
9 Feb	Los Angeles, CA	80,000	81,000	5.5	NP		
20 Jul	Cane Run, KY	1,500	1,520	36	NP		
1972							
26 Feb	Buffalo Creek, WV	700					
9 Jun	Rapid City, ND	8,700	9,000	1	P		
13 Sep	Hicksville, OH	280					
1973							
Feb	Conway, SC	180					
12 Apr	Greeley, CO	1,000		3.5	PU		
7 May	Denver, CO	5,300					
24 May	Payson, UT	5,000					
28 Oct	Ketchikan, AK	350					
1974							
10 Jun	Calion, AR	800					
1 Dec	Mineral Co., WV	100					
1975							
31 Jan	Nacogdoches, TX	500					
18 May	SE, Kentucky	1,000					
22 Sep	Rock Hill, SC	250					
23 Sep	Dothan, AL	12,000					
25 Sep	Susquehanna Basin, PA	20,000					
26 Sep	Alexandria & Arlington, VA	250					
26 Sep	Elmira, NY	1,100					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Flood

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1951							
Jul	Topeka, KS	20,000					
Jul	Lawrence, KS	2,000					
Jul	Kansas City, KS	12,000					
1955							
23 Dec	Yuba City-Marysville, CA	30,000					
1959							
Mar	King Co., WA	500	518	18	PU		
1961							
16 Jun	Port Angeles, WV	100		2	P		
1962							
	Velva, ND	400					
1964							
22 Dec	Humboldt Co., CA	180			P		
1965							
Apr	Grand Forks, ND	200			NP		
Jun	Littleton, CO	250					
Jun	Sheridan, CO	200					
Jun	Denver, CO	125					
Jun	Newton, KS	550					
24 Jul	Middlesboro, KY	700					
1966							
	Grand Forks, ND	300					
Apr	Jamestown, ND	280					
1967							
7 Mar	Harlan, KY	500					
25 Jul	Middlesboro, KY	200					
Apr	E. Dubuque, IA	200			PU		
14 Aug	Fairbanks, AK	14,000			P		
1968							
4 Apr	Russellville, KY	700					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Flood

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1969							
Apr	Jamestown, ND	360	360	24	NP		
May	Minot, ND	12,000			PU		
May	Jefferson Co., KY	125					
30 Dec	Harlan Co., KY	360					
1971							
8 Jan	Ferndale, WA	225		4	PU		
1972							
15 Apr	Frankfort, KY	800					
May	Okanogan Co., WA	1,240		1.25	PU		
21 Jun	Isleton, CA	1,200		11	PU		
23 Jun	Wilkes Barre, PA	75,000	78,000	5	PU		
1973							
3 Feb	Florence Co., SC	100		8	PU		
23 Apr	Quincy, IL	3,800					
23 Apr	Erie, IL	1,500					
23 Apr	Rockford, IL	300					
24 Apr	No. Coast, Puerto Rico	310					
24 Apr	St. Louis, MO	10,000					
24 Apr	Keithsburg, IL	700	700				
24 Apr	Rolling Fork, MS	200					
25 Apr	No. Little Rock, AR	350					
25 Apr	Arozelles Par., LA	1,110					
25 Apr	Broindette, LA	350					
25 Apr	Bordelonville, LA	210					
26 Apr	St. Charles Co., MO	7,000					
26 Apr	Boskatown, MO	600					
27 Apr	Livingston, LA	880					
27 Apr	Des Allemands, LA	320					
27 Apr	Point Coupee Par., LA	310					
27 Apr	Ascension Par., LA	700					
1 May	Jonesville, LA	2,500					
1 May	Hannibal, MO	35,000					
4 May	Penobscot & Aroostock, ME	1,200					
10 May	Wiggins, CO	450					
10 May	Atwood, CO	280					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Flood

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
15 Jun	Houston Area, TX	700					
18 Jun	Toledo, OH	400					
3 Jul	Delaware Co., NY	500					
1 Aug	No. New Jersey Area	800					
28 Sep	New Cambria, KS	280					
21 Oct	Graffon Cheshire Cos., NH	200					
27 Nov	Overton Co., TN	200					
1974							
13 Jan	Libby, MT	1,300					
15 Jan	Siskiyou, CA	250					
15 Jan	Ferndale Valley, CA	425					
17 Jan	St. Maries, ID	200					
17 Jan	Kellogg, ID	2,800					
17 Jan	Mossy Brae, OR	200					
17 Jan	White Swan, WA	3,500					
17 Jan	Ebey Island, WA	520					
17 Jan	Klickatal, WA	280					
21 Jan	Kankakee Co., IL	120					
8 Apr	Monroe Co., LA	700					
12 Apr	Hattiesburg, MS	10,000					
19 Apr	Minot, ND	950					
19 Apr	Kaloa & Lani, HI	360					
15 May	Phillips Co., OK	420					
18 May	Platte & Clay Cos., MO	1,000					
22 May	Henry Co., IL	170					
22 May	Kane Co., IL	150					
22 May	Kendall Co., IL	120					
2 Sep	Prichardsville, KY	180					
1 Nov	Oklahoma City, OK	10,000					
2 Nov	Yukon, OK	200					
4 Nov	Tulsa, OK	630					
1975							
12 Jan	Nome	100					
14 Mar	W. Memphis, AR	700					
23 Mar	Rockford, IL	2,000					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Flood

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
25 Mar	Paducah & McCracken Cos., KY	700					
31 Mar	Warren Co., MS	2,000			PU		
19 Apr	Lansing, MI	1,800			PU	Yes	
29 Apr	Minot, ND	4,200					
8 May	Minot, ND	250					
18 Jun	W. Great Falls, MT	4,000		18			

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event Hurricane

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1959							
19 Sep	Seabrook Is., SC	210		4	PU		
1961							
11 Sep	Plaquemines Par., LA	21,000	22,000	2			
11 Sep	Lafourche Par., LA	23,000	37,000	9	PU		
11 Sep	Grand Isle, LA	2,100	2,200	3.5	NP		
11 Sep	Cameron Par., LA	5,700	6,000		PU		
11 Sep	Biloxi, MS	15,000	20,000	5	PU		
11 Sep	Jefferson Co., TX	108,600	113,600	7.5	PU	Yes	
11 Sep	Chambers Co., TX	10,000	10,200	7.5	PU		
11 Sep	Galveston Co., TX	95,000	140,000	23	P		
11 Sep	Calhoun Co., TX	15,100	16,600		PU		
11 Sep	Port Aransas, TX	3,900	4,000	2	PU		
1964							
28 Mar	Shoreline, WA	900		1	PU		
28 Mar	Cannon Beach, OR	3,100	3,700	1.5			
27 Aug	Duval Co., FL	12,500			PU	Yes	
Sep	St. Marys Par., LA	40,500	45,000	8	PU		
1965							
7 Sep	Florida Keys	8,300		25	PU		
8 Sep	Par. near New Orleans	250,000	290,000				
8 Sep	Pascagoula & Jackson Cos., MS	21,000					
1969							
17 Aug	Coastal Areas, LA & MS	100,000	110,000	12	PU		
Aug	Gulfport, MS	10,000	15,000	7.5	PU		
9 Sep	Cape Cod, MA	250			PU		
20 Sep	Corpus Christi, TX	135,000			PU		
1970							
3 Jul	Robestown, TX	450		1.5	PU		
1974							
8 Sep	Plaquemine & Cameron Pars, LA	200,000			PU		
8 Sep	Coastal Areas, MS	45,000			PU		
1 Dec	Wildwood, NJ	200					
1 Dec	Beach Areas, DL	500					

HISTORICAL INCIDENTS OF PRE-DISASTER EVACUATIONS

Type of Event: Hurricane

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1975							
15 Sep	Puerto Rico	7,000					
22 Sep	Coastal Areas, LA	32,000			PU		

APPENDIX B

CIVIL DEFENSE EVACUATION TESTS

In the early 1950s, when tactical evacuation was first being considered as an optional measure for defending against enemy attack, a number of public-participation tests were run to obtain research data to improve the character of evacuation planning. Those of these tests that could be identified are listed in the following table including two for which no data could be found.

Column headings have the same meaning as those in Appendix A. Blanks indicate that data were not found.

DATE	PLACE	NUMBER EVAC	POPULAT	EVAC TIME	PLAN	GOVERN EXER	PUBLIC DRILL
1954							
26 Apr	Spokane, WA	11,000		1	PU		
24 Jun	Bremerton, WA	8,000	28,000	1	PU		
Oct	Erie Co., NY						
Nov	Albany, NY						
23 Nov	Philadelphia, PA	25,000			PU		
1955							
15 Mar	Mobile, AL	37,300			PU		
13 Jun	Bangor, ME	22,000	32,000		PU		
29 Jun	South Bend, IN	50,000			PU		
27 Sep	Portland, OR	101,000	372,000	3	PU		
1957							
5 May	Binghamton Deposit, NY	1,500		2.5	PU		

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of	)	
	)	
PUBLIC INTEREST RESEARCH GROUP, et al.	)	Docket No. PRM-50-14
	)	
(Petition for Rulemaking)	)	

COMMENTS OF WALMER E. STROPE, JOHN F. DEVANEY AND JIRI NEHNEVAJSA ON BEHALF OF THE CLEVELAND ELECTRIC ILLUMINATING COMPANY, DUQUESNE LIGHT COMPANY, INDIANA & MICHIGAN POWER COMPANY, KANSAS GAS AND ELECTRIC COMPANY, NORTHERN STATES POWER COMPANY, OHIO EDISON COMPANY, TOLEDO EDISON COMPANY, UNION ELECTRIC COMPANY AND WISCONSIN ELECTRIC POWER COMPANY

The Petitioners have asked the United States Nuclear Regulatory Commission ("NRC") to amend its regulations to require nuclear facility licensees and license applicants to instruct citizens in public evacuation procedures in case of a major nuclear incident and to test public evacuation plans with civilian participation drills. It is our belief that while evacuation planning and command personnel exercises are useful measures for insuring the success of actual emergency evacuations; that instructing citizens regarding evacuation procedures is at best only marginally useful, not clearly cost-effective and possibly counterproductive if response flexibility is restricted; and that drills of evacuation plans involving civilian participation are unnecessary and most likely counterproductive. Furthermore, we believe that federal requirements and programs currently in force and operating represent a well-thought-out effort at inter-agency coordination which is fully adequate in its response to the need for nuclear disaster preparedness, including evacuation preparedness.

These conclusions are based on our expert technical evaluation of the Petitioners' request in light of current practices and on our research concerning the importance of preparatory measures in disaster evacuations (Stanford Research Institute Project 4688), a report of which is attached.

Summaries of our professional background and qualifications are also attached.

Current Practice

The NRC's rules currently require an applicant for a construction permit to include in its preliminary safety analysis report a discussion of preliminary plans for coping with emergencies (10 CFR §50.34(a)). An applicant for an operating license is required to include emergency plans in its final safety analysis report (10 CFR §50.34(b)). Appendix E of 10 CFR Part 50 establishes minimum requirements for these emergency planning efforts. These minimum requirements include the specification and description of the

organizational structure, including inter-agency coordination, for responding to a radiation emergency; the precise identification of specialized experts, within and outside of the licensee's organization, who might be needed in order to properly respond to a radiation emergency; specification of physical and organizational means for monitoring radioactive releases during an emergency; procedures for notifying local, state, and federal agencies for the timely warning of the public and for public evacuation or other protective measures involving civilian actions; the establishment of emergency first aid and personnel decontamination facilities including arrangements for the transportation and treatment of injured or contaminated individuals, and provisions for training of employees of the licensee and other persons whose help might be needed in the event of an emergency (10 CFR 50, App. E IV). The licensee's emergency plans must also contain

> Provisions for testing, by periodic drills, of radiation emergency plans to assure that employees of the licensee are familiar with their specific duties, and provisions for participation in the drills by other persons whose assistance may be needed in the event of a radiation emergency. (10 CFR 50, App. E IV.1.)

Thus, the NRC's current requirements for evacuation planning fully address the preparedness needs identified by our research findings which stress the importance of evacuation planning and exercises of operating personnel. On-site exercises and verifications of coordination with off-site personnel are periodically conducted at nuclear facilities in compliance with the above regulations.

Other federal and state agencies have also expressed concern regarding nuclear disaster planning. In January, 1973, the United States Office of Emergency Preparedness assigned responsibilities related to preparedness for nuclear incidents to various federal agencies (38 Fed. Reg. 2356, January 24, 1973) pursuant to Executive Order 11051 (27 Fed. Reg. 9683, October 2, 1962, as amended). The response of these agencies has included the issuance of the following documents:

- Nuclear Regulatory Commission: WASH-1293, Guide for Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities, December, 1974.
- Environmental Protection Agency: Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, September, 1975.
- Defense Civil Preparedness Agency: Change 1 to CPG1-6, Checklist for Planning for Nuclear Facility Accidents.

These coordinated guidance documents provide practical guidance to state and local government officials and planners charged with assessing the need for protective actions, selecting appropriate actions, and planning their implementation as well as criteria for reviewers of emergency plans developed pursuant to the documents' guidance.

In 1974, a task force was convened by the Interagency Central Coordinating Committee to study training and operations

requirements for responding to emergencies related to fixed nuclear facilities. This task force produced two reports. The first, in May, 1974, recommended training courses in planning; the second, in July, 1974, recommended training courses in operations. As a result of these recommendations, four courses have been conducted at the Defense Civil Preparedness Agency Staff College and others are currently planned.

These courses are given to civil defense and health personnel in State and local governments in those localities that have, or are about to have, fixed nuclear facilities located in them. Nominations to participate in these courses are made by the appropriate governmental unit at the invitation of the NRC. The courses are taught by professionals from the various responsible federal agencies and their costs are borne jointly by the federal agencies involved.

In these courses, the participants review the background of the problem and then intensively study the provisions and requirements of WASH-1293. In a workshop, each group evaluates its State or local radiological response plan, analyzing its strengths and weaknesses and considering the steps necessary to improve it. The participants also study the use of exercises to test their plans.

Since 1972, the Defense Civil Preparedness Agency has stressed the dual purpose of civil preparedness: to protect the people from the disaster emergencies of both peacetime and wartime. This dual purpose has been effected through the

Defense Civil Preparedness Agency's guidance to state and local governments, training of their personnel, and on-site assistance to increase their operating capabilities and in its public information efforts. This effort results from a recognition that organization for emergency operations is essentially the same no matter what the nature of the emergency and that many, if not most, of the available emergency actions are applicable and effective responses for a variety of emergencies. It is also a recognition that planning, and organization and training of operating personnel for emergency operations, are effective preparations for coping with a wide spectrum of emergencies even where a particular threat has not been foreseen or articulated. None of these documents or deliberations has indicated a need for civilian participation in evacuation exercises. Such participation has been viewed as costly and of little potential benefit. Furthermore, civilian involvement in drills and the transmittal of detailed disaster response instructions prior to the development of a specific disaster situation has been viewed as unwise because such measures can markedly detract from response flexibility while offering only minimal offsetting advantages.

The capability of local governments to respond to emergency situations and accomplish evacuations when people are faced with a real hazard is demonstrated continually. Hardly a week goes by without an evacuation of people somewhere in the United States. Most of these evacuations are relatively small but some of them are substantial (e.g.,

the evacuation of 75,000 people from Wilkes-Barre, Pennsylvania in 1972). Many of the larger movements are the result of slowly-developing threats, such as hurricanes and floods on major rivers. However, this is not always the case as evidenced by the Wilkes-Barre evacuation which was made in the face of rapidly-rising waters. It was ordered at 4:20 A.M. and successfully completed in five hours.

The experience gained in these numerous day-to-day evacuations has resulted in improved planning, including more exercises of the emergency organizations, and the deployment of new and improved equipment and systems, particularly for warning and communications. Experience also indicates that a major emphasis in modern disaster planning should be flexibility -- giving the emergency organizations alternatives from which to choose in responding to an emergency. The underlying idea is to avoid being "locked in" to one response which may not be desirable or effective in the particular circumstances. Thus, in their report on training for emergency response operations, the task force said, "... since each emergency would have its unique characteristics because of geography and other factors, the need for flexibility should be stressed."

In summary, it has been found that although disaster evacuations are surprisingly successful even when virtually no prior planning has been done, planning and exercises of operating personnel have paid off and are considered an important ingredient in evacuation success. However, planning

and exercises must be carefully conceived in order to avoid being overly rigid; these measures must be designed to afford a capability for flexible response to whatever emergency situation is actually encountered. Flexibility has emerged as a central need which should not be compromised by instituting civilian drills which are at best ineffective and possibly counterproductive or civilian information programs which are at best only marginally effective and could inhibit the availability of desired flexibility in coping with emergency situations.

Consideration of Additional Requirements

Petitioners request that licensees be required to periodically distribute evacuation instructions to all persons within a 40-mile radius of the plant and that periodic evacuation drills with public participation be conducted from a 7-degree sector to a radius of 40 miles. We do not see that these requirements, if established and implemented, would contribute to the safety of the people in the vicinity of the plant and, in the case of the second suggested requirement, implementation might well be significantly counterproductive.

Intensive public information campaigns intended to instruct the public in the proper response to a specific event have failed. This was found in Cameron Parish, Louisiana. There, after a disastrous experience in 1957, a hurricane evacuation plan was made and intensively publicized in 1958. After Hurricane Carla in 1961, it was found that 40 percent

of the population of Cameron Parish had not known that a plan had been made. People are selective in what they learn and retain. Events that seem to them to be of low-probability or unpredictable are not salient and people have little motivation to acquire and retain much information about them.

Evacuation drills intended to inform and train the general population have not been conducted nor have they been found necessary or recommended by anyone who was responsible for the safety of the people. Evacuations of sizable populations -- for example, 99 percent of over 80,000 below the Van Norman Dam in Los Angles -- were accomplished quite rapidly without benefit of prior public drills and without specific prior plans.

Experience in conducting civil defense evacuation tests in the mid-1950's showed that public response is low. Observers noted that traffic on the streets just before these tests was one-half or less than normally experienced at that time of day. People stayed home rather than become involved. Then, as now, the probability of enemy attack appeared low and the people had other more salient concerns. As a result, many of them were not interested in civil defense or in evacuation. There is no reason to expect that people today would be any more interested in learning about evacuating the vicinity of a nuclear facility, at least not to the extent of participating in public drills. Furthermore, evacuation drills, which presuppose evacuation plans, may be actually counterproductive in several important ways.

First, if carried out in accordance with the Petitioner: recommendations, civilian drills would result in defining particular residential sectors (whether the 7-degree - 10 mile area or some other area is used) as perceived as being subject to significantly greater risk than the population outside any such sector. Whether an actual evacuation, should it ever be called for, would be optimally carried out with respect to such a sector to a preestablished radius remains clearly questionable. Time-specific or incident-specific circumstances may warrant an altogether differently configured designation of the population at risk than that which may have undergone evacuation drilling.

Apart from the arbitrariness of boundaries within which evacuation drills are proposed, efforts to carry out such drills are likely to have the initial effect of over-stimulating public concern with potential nuclear hazards. After several such drills, a large segment of the public will have become conditioned and, should a real emergency come about, may interpret the warning as just another drill.

Third, public drills must be voluntary and past experience with research-oriented drills in the civil defense system suggests high avoidance, thus a relatively low participation. If at best, half of the potential evacuees were drilled as a result of their voluntary participation in the activity, they would find that the situation in an actual emergency -- with its need for as close to 100 percent evacuation as possible -- would be very different from that encountered during the drill.

very high or, for the most part, not non-recoverable) loom significant and render such drills also economically unjustifiable.

Comments on Petitioners' Arguments

Three of the Petitioners' key arguments should be briefly addressed:

1. That "public education is essential to making evacuation plans effective";
2. That "public discussion of evacuation plans and full-scale public drills are necessary to assure the soundness of emergency plans"; and
3. That the Nuclear Regulatory "Commission has a special duty to minimize the damage wrought by a nuclear incident."

(Petition at pp. 7-8).

Role of Public Education

To the extent to which public participation, at least at the level of minimal compliance with instructions, is an essential aspect of the success of evacuation, public awareness is, of course, important. Yet, the success of an effort to enlighten the public tends to depend on the situation itself. Under normal conditions, in the absence of a disaster threat or even a reasonable anticipation of an emergency in the immediate future, informational and educational efforts are generally quite ineffective.

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This suggests that under conditions of normalcy, evacuation plans generated by professionals in consultation with community leaders, may be effectively communicated to the general public in only rather general terms: that reasonable, if not perfect, plans exist; that they exist for a variety of unlikely contingencies, of which incidents involving fixed nuclear facilities are only one (along with more probable natural or man-made hazards); that such plans, as one of their major options, may involve the evacuation of the portion of the population under risk; that the actual population under risk would be determined in light of threat-specific and time-specific circumstances; and that detailed instructions will be provided to the public when necessary.

Such a statement regarding plan availability and basic characteristics, issued by a credible and authoritative source (say the mayor of a city or a city manager, the Governor of a State and the like) under normal conditions, would be satisfactory as a vehicle of public education. The public education dimension of evacuation planning (and other relevant countermeasures) also calls for a capability to respond, at whatever level of detail, to questions which members of the public, or media commentators, may raise concerning the details of the plans.

In the face of an actual disaster situation, the public proves to be highly receptive to unambiguous communications. Thus, there is a need to develop a capability to inform and instruct the public rapidly and reliably when circumstances of

impending disaster make such information highly salient and when the public is highly attuned to learning as much as possible about the nature of the threat and about effective ways for coping with it. Educational and instructional materials, under this modality, need to be prepared as an integral aspect of evacuation planning -- and, indeed, of planning of countermeasures other than evacuation in the context of natural and man-made hazards of all important types.

The key question thus seems to be not whether to disseminate plan information to the public, but when, relative to the period that stretches between "normalcy" and "impact", to disseminate what type of information, and at what level of detail, so that the public's capability to cope with an emergency is optimally enhanced and the impact of the disaster can be minimized.

Role of Public Discussion and Full Scale Public Drills

Petitioners' second argument is that public discussion of evacuation plans and full scale public drills are necessary to the soundness of emergency planning.

Evacuation is but one of several possible responses to a radiation emergency at a fixed nuclear facility. Public discussion of evacuation plans and public participation in evacuation drills would -- even if they could be effective -- result in limiting the flexibility of an emergency organization in responding to unlikely contingent events which cannot be accurately foretold.

Discussion of plans can be of assistance in assuring their soundness if those participating in such discussions are qualified by training or experience to recognize defects and suggest improvements. Such discussions normally follow exercises of emergency organizations whether to train their personnel or to test their plans. Typical of such exercises are those conducted by the emergency organizations who would respond to a radiation emergency at a fixed nuclear facility. A number of such exercises have been conducted recently in conjunction with local emergency organizations: two in Florida and one each in Minnesota, Oregon and Vermont. These exercises were followed by critical evaluations which included comments by NRC-led Federal Evaluation Teams after the Trojan Plant (Prescott, Oregon) and Monticello Plant (Monticello, Minnesota) exercises. It is highly unlikely that discussion of plans by unqualified people would serve to improve the planning.

The main arguments presented by Petitioners as supporting the need for public drills turn out to be arguments in favor of evacuation planning and with this we take no issue. But these arguments are distinctly not arguments which would attest to the need for public participation in drills. William Kerr's concern is quite obviously with the need for improved planning (letter from Kerr to Wm. A. Anders, Chairman, U.S.N.R.C., April 8, 1975, included as "Appendix A" to Petitioners' request). Likewise, Collins' response in the October, 1974 ACRS Environmental Subcommittee hearings quoted

by Petitioner at pp. 10-11 of its request, has to do with "100 percent totally acceptable radiological emergency response plans"; but not with availability of the best possible plans arrived at, tested and improved, by real individuals and organizations dealing with complex contingencies. In any event, this discussion also concerns plans and not public drills.

The example of the Minnesota situation (as described by the Minneapolis Star article which appears as Petitioners' "Appendix B") presents still another problem: in our terminology, the Minnesota test was a system exercise and not a civilian drill. Only the latter involves the participation of the public. Furthermore, it was a test. In the context of a test, it would seem particularly important that weaknesses in the emergency operating system were uncovered, and that, one should hope and expect, the system has effectively learned from the exercise. Since the test was carried out precisely to identify problem areas and specific operating problems, one might be as inclined to call the test a "success" (relative to its objectives) as one might be willing to accede to the main thrust of the Petitioners' argument about the low level of disaster preparedness.

Finally, Petitioners rely on an example in which the United States Court of Appeals for the Seventh Circuit voiced concern not only for the (7500 or so) employees at a Bethlehem Steel plant near the proposed Rally, Indiana, site, but also for the possible fate of some 37,000 daily visitors

to the Dunes National Lakeshore and State Park (Petition at p. 12).

> What would occur if a large but unknown number of campers and visitors unfamiliar with the area and within nearby homes in which to take shelter, heard a public address announcement to evacuate the area due to a nuclear accident?

Porter County Chapter, Izaak Walton League of America, Inc. v. A.E.C., 515 F.2d 513, 530 (7th Cir., 1975).* Considerations involved in this case, once again, do not argue in favor of evacuation drills: how, in fact, would visitors to State Parks benefit unless a substantial proportion of the 87,000 people who were involved in a hypothetical antecedent drill also happened to turn out to be at the park if and when a disaster struck? The example suggests, indeed, the need for instructional and informational preparedness so that in the event of a disaster, campers and visitors could obtain authoritative and clear guidance as to the best actions to take given their location, given their particular circumstance, and given their probable unfamiliarity with the area.

Role of the Commission

In the third argument, Petitioners argue that the Commission has a special duty to minimize the damage wrought by a nuclear incident. In this we agree. But we believe that the Commission, in its own actions and in its coordinated leadership of the other federal agencies also having responsibilities in this matter has been responding adequately to this duty. We recommend that the Commission and the other agencies continue their efforts to the end that the safety of the public will be assured in the unlikely event of an incident in a fixed nuclear facility.

Conclusion

The NRC, through its regulations and coordinated interagency efforts, is adequately responding to the need for disaster preparedness associated with fixed nuclear facilities. The compliance of licensees and applicants with the requirements of 10 CFR Part 50 Appendix E assure that, in the unlikely event of a radiation emergency at a fixed nuclear facility, adequate plans and training will be available to minimize public impact. Petitioners' request seeks the establishment of rules which, in our judgment, are unnecessary and counterproductive. Therefore, we feel acceptance of Petitioners' suggested regulation amendments and additions would be ill-advised and that the Commission should dismiss the proceeding.

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* On November 11, 1975, the United States Supreme Court in a Per Curiam opinion reversed and remanded this case to the NRC (44 LW 3176). The Court based its reversal on the fact that the Court of Appeals erred in rejecting the NRC's interpretation of its own regulations concerning population densities in areas surrounding nuclear power facilities.

PROFESSIONAL BACKGROUND AND QUALIFICATIONS

of

WALMER E. STROPE

JOHN F. DEVANEY

JIRI NEHNEVAJSA

WALMER E. STROPE, SENIOR OPERATIONS ANALYST
OPERATIONS EVALUATION DEPARTMENT
ENGINEERING SYSTEMS DIVISION

Specialized Professional Competence

- Research program planning; systems analysis; operations research; operations planning; strategic studies; Delphi techniques.

Professional Experience

- Director of Research, Defense Civil Preparedness Agency and predecessor agency; formulated and administered broad mission-oriented contract research program dealing with federal laboratories, universities, and private research organizations; principal technical advisor to head of agency.

- Associate scientific director, U.S. Naval Radiological Defense Lab; directed execution of multidisciplinary research and development program involving 250 professionals.

Academic Background

B.S. in naval architecture and marine engineering (1942), Webb Institute of Naval Architecture; graduate work in operations research (1960-61), University of California (Berkeley).

Publications

- Author of DCPA Attack Environment Manual and numerous classified and unclassified federal in-house research reports.

- Coauthor with Kendall D. Moll of Protective Action Guides and Protective Measures for Nuclear Incidents, prepared for U.S. Environmental Protection Agency, Office of Radiation Programs Field Operations Division (1974).

Professional Associations and Honors

American Association for the Advancement of Science; American Strategic Defense Association (executive secretary); Operations Research Society of America.

Army Meritorious Civilian Service Award (twice); Department of Defense Meritorious Civilian Service Award; Navy Distinguished Civilian Service Award; Navy Nominee for Arthur Fleming Award; Defense Civil Preparedness Agency Distinguished Service Citation.

JOHN F. DEVANEY
CONSULTANT

Professional Experience

Systems Analyst, URS Corp., RPH-70, 1968-1973

Deputy Director of Research, OCD, Department of Army, 1966-1968.

Director, Systems Analysis Division, OCD-OEP-OCDM-FCDA, 1957-1966.

General Engineer, FCDA, 1955-1957

Academic Background

Worcester Polytechnic Institute, B.S. in Civil Engineering, 1933.

La Salle Extension University, Industrial Management, 1948.

Industrial College of the Armed Forces, Emergency Management of the National Economy, 1953.

Publications

A Preliminary Analysis of Nonmilitary Defense, OCDM, 1959.

Information for Operations, OCDM, 1960.

Operations in Fallout, OCDM, 1961.

Systems Analysis in Civil Defense, OCD, 1963.

Civil Defense Research Analysis, OCD 1967.

The Use of Systems Analysis Techniques in Civil Defense, URS Corp., 1970.

Organizing the Locality for Emergency Operations, RPH-70, 1972.

Professional Associations

Operations Research Society of America

Honors

Commendation, Corps of Engineers, 1954.

Sustained Superior Accomplishment Award, OCDM, 1958.

Certificate of Achievement, OCD, 1966.

Who's Who in the South and Southwest.

JIRI NEHNEVAJSA, SOCIOLOGIST
CONSULTANT

Specialized Professional Competence

- Public perceptions of cold war, crisis, and civil defense issues and programs; psychological and sociological factors affecting credibility and reliability of evacuation and shelter systems.

Professional Experience

- Director, University Center for Urban Research, Professor of Sociology, Professor of Social and Economic Development, University of Pittsburgh, formerly chairman, Department of Sociology; developer of national data bank on civil defense public attitude surveys.
- Acting dean, Faculty of Commerce and Social Sciences, Chinese University of Hong Kong.
- Fulbright professor, University of Heidelberg.
- Principal research scientist, System Development Corp.
- Consultant and lecturer in field.

Academic Background

- Masaryk University (Brno, Czechoslovakia), 1945-48; University of Lausanne, 1948-49; Ph.D. (1953), University of Zurich.

Publications

- Coauthor, Sociometry Reader (1961); coauthor Message Diffusion (1959); numerous articles, chapters in books, and research reports for government and industry clients.

Professional Associations

- Advisory Committee on Civil Defense; Air Force Association; American Association of Public Opinion Research; American Institute of Aeroscience and Astronautics; American Ordnance Association; American Sociology Association; Czechoslovak Academy of Arts and Sciences in America.

DAMES & MOORE

(82) DOCKET NUMBER PROPOSED RULE PR-50 (44 FR 44489)

August 28, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sirs:

The following comments are offered in response to your request which appeared in the July 17, 1979 Federal Register.

Sincerely yours

Peter Gottlieb

Acknowledged by card. 9-6-79

Comments on the Adequacy of Emergency Response Planning Around Nuclear Facilities

by Peter Gottlieb
Dames & Moore
Los Angeles, California
August 28, 1979

(These comments reflect the personal views of the author, and not necessarily the views of the firm with which he is associated.)

The following critique is organized according to the specific items mentioned in the request for comments published in the July 17, 1979 issue of the Federal Register. These comments are directed to a changed view of emergency response planning. Prior to the Three Mile Island accident, the conventional wisdom dictated a low profile for emergency response planning, to avoid alarming a public which generally accepted nuclear reactor safety. Now, public concerns are aroused, and emergency response plans must be developed and publicized in such a way as to allay any unjustified fears.

1. The basic objective of emergency response planning should be to minimize public radiation exposure. This minimization must, obviously, be balanced against cost and inconvenience to the public.

   Emergency planning cannot prevent public radiation exposure; a very small amount of radiation release is even permitted under normal operation, because it is far less than natural background and because its prevention would be quite expensive.

   Evacuation of the public is part of the basic objectives, but by itself can be quite misleading. For highly transient contaminations, certain population groups might be better off simply taking shelter or warned to avoid high-risk areas.

2. What constitutes an effective emergency response plan for state and local agencies? The requirements and guidance specified in 10 CFR 50, Appendix E, and NUREG-75/111 (together with the March

1977 supplement) clearly identify the ingredients of an acceptable plan, but do not specify criteria or standards for determining the acceptability of the individual plan elements, or the level of detail to which they must be considered. We recognize that many of the details of any plan are site-specific and cannot be developed directly from nationwide standards and criteria. However, average exposures, total exposures, and number of individuals receiving above a certain threshold are typical of parameters which can be specified by nationwide regulatory requirements. Further details of the plan can then be developed from these "performance" standards. In general, there should be as much specific regulatory requirement as possible, in order to avoid excessive delays from subtle interpretations in the regulatory review process. Nationwide requirements will lead naturally to the open review of the emergency plan criteria on a generic basis, so that individual emergency plans are not subject to lengthy public debate.

3 & 4. The post-Three Mile Island climate of public opinion concerning nuclear safety can only be satisfied if all nuclear power plants, both operating and under construction, are required to develop appropriate emergency response plans. These plans should follow a nationwide technical consensus of NRC specifications and requirements. The plans should be developed and implemented as soon as possible, and no later than one year after the NRC rules have been formally approved and promulgated.

5. The primary assistance provided by NRC to state and local governments should be technical advice, review, and evaluation. As part of this program, federal financial assistance might be provided for hiring of expert consultants serving the state and local governments to perform independent evaluations.

6. Emergency response drills and training should be required, but primarily for those officials who will have responsibilities for various functions during any emergency. These would include offi-

cials and employees of federal, state, and local governments, together with responsible officials of the licensee and, possibly, the reactor manufacturer. Some of these exercises would require actual movements over various alternative evacuation routes, but other, decision-type exercises, could be carried out through computer simulation.

It is probably unwise to have actual public participation in any drills, because there would always be a significant number who would not take the matter seriously (particularly if they had important personal requirements to attend to). Furthermore, we know that emergency evacuations of as many as 100,000 people have been quite successful without any prior public indoctrination or drill (Evacuation Risks - An Evaluation, EPA-520/6-74-002). The public should certainly be informed of which officials will be responsible for decision-making and carrying out special functions during an emergency. They should also be informed of specific exercises which have been conducted to verify the adequacy of the plans, together with some experience of actual historic evacuations from disaster threats such as hurricanes, floods, or toxic chemical releases.

8. The joint NRC/EPA Task Force Report presented four general recommendations. The following comments are offered for the indicated recommendations:

   a. A spectrum of accidents should be considered. This is certainly true, and, in addition, the public must be made to understand that the range of possibilities considered is sufficiently large and flexible to include any possible accident (even though the extremely unlikely accidents will not generally be represented by very detailed planning). It is important that the spectrum of accidents used for developing emergency response plans be distinct from those used for the power plant siting and safety analysis, although there could be considerable commonality. The siting and safety analysis

is concerned with only a few "worst case" accident types. The emergency response plan must cover a broader spectrum, ranging from the less serious (which could still result in increased public exposure) to those more serious than the "worst case" (including the class 9 accident).

It is most important to recognize the difference in basic philosophy. The siting and safety analysis accidents must be entirely prevented or compensated for by the plant location and/or design. The emergency response accidents need only be mitigated to an acceptable degree.

   b. The establishment of emergency planning zone radii (10 miles for plume exposure pathway and 50 miles for the ingestion pathway) is all right for scoping the magnitude of the problem, but the final analysis should involve more directly relevant criteria, such as expected exposure (both average and total) or the number of individuals receiving more than some specified threshold dose. In any specific situation, the actual zone boundary will depend upon land use patterns and meteorological conditions. Procedures might be similar to those presently used to determine the low population zone (which is specified in terms of the total exposure from the worst possible radioactivity release).

The 10- and 50-mile zone radii appear to be based on zone analysis using the protective action guide (PAG) of 25 rem to the thyroid and/or five rem to the whole body. Even the alternative PAG of 5 rem thyroid and 1 rem whole body is probably too large to be generally acceptable to a now skeptical public. It should be noted that these figures can represent averages for identifiable geographical locations or population groups. There will always be a possibility that some individuals will be missed by an evacuation (or other emergency response), so we cannot specify "worst case" anyway.

c. Evacuation plans should certainly be geared to radiological release characteristics and transport time tables (which are, in turn, based upon metarological conditions). The responses to the release and transport scenarios should be based upon such items as available emergency vehicles, traffic patterns and route capacities, and available emergency food and shelter (which may be stockpiled as part of response plans for more general types of emergencies than nuclear power plant accidents).

d. The establishment of emergency planning zones may not require large incremental increases in planning and preparedness efforts, but we should recognize that since little detailed planning has been done thus far, significant additional expenditures may be required in some areas. Any such efforts should be quite small when compared with the cost of the plant, but may be larger than the small amounts spent for planning and preparedness thus far.

9. The NRC should be notified immediately of any nuclear power plant incident threatening radiation exposure to the public. At the same time, the appropriate state and local governmental agencies should also be informed of the problem and its status. Any of these agencies should be in a position to recommend implementation of appropriate portions of the emergency response plan (including possible evacuation). However, the final decision should rest with one agency having overall jurisdiction. This should be the USNRC, because of their overwhelming technical expertise and their independance of any economic concerns. Specification of the conditions requiring notification should result from a consensus and review process involving appropriate NRC staff, the ACRS, and outside reviewers from industry and academia. At the very least, the list of incident types requiring immediate notification should include any rapid shutdown (SCRAM).

Each individual emergency plan must specify the responsibilities for communications concerning the reactor status and the responsibilities for making decisions based on that information. These plans must represent some agreement among all the responsible organizations, which will include the licensee, the state, and one or more local governments. In the post-Three Mile Island skepticism, however, these parties recognize the need for a strong NRC role in the decision process. This role must be written into the emergency plans, preferably in a nationwide standard form. This would also have the beneficial side effect of encouraging further standardization among emergency plans.

The public need not be informed until some decision has been made to implement portions of the emergency response plan which might affect them. Any premature actions might lead to panic which could seriously impede any subsequently required emergency responses. Regardless of any efforts to inform or prevent information, the news media will quickly report something to the public. The NRC must have appropriate responses established for any news media or public inquiries. Prior to Three Mile Island, the USNRC had little exposure to the news media limelight, but there we saw the strong necessity for adequate preparation in dealing with political controversy.

10. The state and local governments should have concerns which are quite similar to those of the USNRC. The NRC, with its overwhelming technical superiority, should respond to any legitimate concerns which state and local governments feel the need to express. Some of these may ultimately prove valuable, identifying problems which the commission's staff might have neglected or treated with insufficient concern. This is particularly true if the state and local governments have their own expert reviewers (who might be staff or special consultants).

12. Special training for state and local government personnel falls into two categories: (1) general emergency responses which could be

appropriate for non-nuclear accidents or threats, and (2) specific needs for understanding of particular characteristics of nuclear hazards. The cost of the first category should certainly be borne by the appropriate state and local governments. The second category should be the responsibility of the NRC, once again because of their vastly superior technical resources. They are also the only ones in a position to assure that reasonably uniform standards can be applied throughout the country.

13. Assessment of the actual consequences of any accident is primarily the responsibility of the licensee. Insofar as other agencies, particularly the NRC, may have radiological and other monitoring equipment available, their input would also be appropriate. The assessment of potential consequences and the decision regarding the need for protective action should become the responsibility of the NRC as soon as they are notified of the incident. As long as the licensee remains in control of the reactor itself, this dual responsibility should be workable. If it is found necessary for the NRC to take over operation of the reactor itself, as was finally the case at Three Mile Island, they would then become responsible for the actual consequence assessment as well.

14. The proper role of public participation in emergency response planning and drills has been discussed in comment number 7 above.

University of Cincinnati Medical Center
Eugene L. Saenger Radioisotope Laboratory
Cincinnati General Hospital
234 Goodman Street
Cincinnati, Ohio 45267
TELEPHONE (513) 872-4282

(83) PROPOSED RULE PR-50 (44 FR 41983)

August 29, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir,

The attached communication is in response to the notice in the Federal Register of Tuesday, July 17, 1979.

Sincerely,

Eugene L. Saenger

Eugene L. Saenger, M.D.

ELS/swh

enclosure

Acknowledged by card 9-6-79

DOCKET NUMBER
PROPOSED RULE PR-50
(44 FR 44473)

Question:

1. What should be the basic objectives of emergency planning?
   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be abla to evacuate the public?
   To what extent should these objectives be quantified?

Answer:

General principles and organization of 10 CFR Part 50 Appendix E and Regulatory Guide 1.101 seem adequate.

a) Onsite emergency plans should be the total responsibility of the licensee - i.e. care of personnel, environment, facilities.

b) Notification of outside authorities including assays of activity. In the event of an incident - based on predetermined levels of activity - levels of notification should be implemented utilizing a joint program of licensee and public agencies. Better correlation of offsite monitoring stations depending on local topography and geography are needed. Data must be reported to the licensee promptly to permit proper evaluation of the emergency.

c) Objectives of items a-c good but a major concern is omitted.
PREVENTION OF PUBLIC PANIC.

By appropriate plant and environmental monitoring the magnitude of the hazard and its rate of change both in space and time can and should be quantified over the period of emergency.

The levels of radiation exposure to be tolerated are at three levels:

a. 0.5 rem - cf ICRP-26* "Recommendations of the International Commission on Radiological Protection" and NCRP** Report #39 "Basic Radiation Protection Criteria"
b. 0.017 rem - cf NCRP Report #39 (see above)
c. Background - about 0.1 rem

Prevention of public exposure is really a function first of the inplant program and second the extent of releases outside the fence line.

Quantitation of prevention is a function of:

a. in plant program
b. sheltering and evacuation plans
c. prophylaxis by ^{127}I (see NCRP Report #55 "Protection of the Thyroid Gland in the Event of Releases of Radioiodine") or other compounds as may be developed in the future.

Each of these plans requires a risk-cost benefit analysis based on exposure levels defined above.

Estimates of the time sequences, rates of spread of contamination, possible dose levels as a function of distance from the reactor and

*International Commission on Radiological Protection (ICRP)
**National Council on Radiation Protection and Measurements (NCRP)

protective actions - sheltering, evacuation and/or blocking drugs for the thyroid - are readily available ("Tenth Annual Conference on Radiation Control: A Decade of Progress, Federal Activities in Radiological Emergency Response Preparedness" FDA 79-8054, June 1979; NCRP Report #55 "Protection of the Thyroid Gland in the Event of Releases of Radioiodine"; and "Accidental Radioactive Contamination of Human and Animal Feeds and Potassium Iodide as a Thyroid-Blocking Agent in a Radiation Emergency" Federal Register Vol.43, No. 242, Friday, December 15, 1978, pp 58790-58800). These sources provide extensive data for additional planning, training and for operational phases. Relatively little use has been made of such information to date.

Question:

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees and guidance for States lack any of these essential elements?

Answer:

The entire emergency response plan designed via States and then to local agencies needs re-evaluation. This question as affecting the Tristate-Kentucky, Indiana, Ohio region-is being approached by a plan, a preliminary draft of which is appended.

It appears unlikely that each of three states potentially involved in a radiation emergency could possibly act effectively alone - in planning, training or operation - unless as at Three Mile Island the likelihood of involvement of bordering states is extremely unlikely. Therefore these programs must evolve on a regional rather than a State basis. If the siting concepts recommending fewer large concentrated sites for power reactors (Burwell, C.C. et al. A Siting Policy for an Acceptable Nuclear Future. Science 204: 1043-1051, June 8, 1979) is considered favorably, this regional concept becomes even more important.

There are examples of interstate cooperation in all phases of other emergencies. Thus a pattern for regional handling of radiation problems exists.

Question:

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

Answer:

Assuming a regional requirement for emergency plans and operations is developed, then NRC concurrence would be helpful especially in that it would delineate assistance of Federal Government via Federal Emergency Management Administration (FEMA), Interagency Radiological Assistance Plan (IRAP), etc. Coordination of NRC programs with FEMA is especially important.

Effective emergency plans should not only be the responsibility of the local utility. If the utility is solely responsible, it then becomes responsible for the costs of such a program. The utility has no

real experience, personnel or facilities for doing such work. It would be necessary for the utility to hire a staff or to contract for these efforts and the costs of such programs would then be added to the charges made to the consumer.

Various governmental entities have more experience in these kinds of situations, can do this kind of planning more effectively and at less cost and the expenses of such programs are more easily identified e.g. budgets of civil defense agencies, fire and police departments, volunteer agencies.

For these reasons emergency planning transcends the responsibility of the licensee, and NRC concurrence for existing facilities should not be arbitrarily imposed. Rather, the relationships and specific responsibilities of each entity including NRC need to be precisely categorized initially. At the current level of Federal planning of NRC and FEMA such a requirement would be logical with a lead time of about two years.

Question:
4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Answer:
The same considerations apply to licensing of a new plant depending on its stage of development. If operation is planned within one year then an additional two years should be allowed.

For plants under construction for completion at a later time, this requirement can be added to the Final Safety Analysis Report (FSAR).

Question:
5. Should financial assistance be provided to State and local governments for radiological emergency planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Answer:
The Critical Mass Energy Project (Federal Register Vol. 44, No. 110, Wednesday, June 6, 1979, pp 32486-32467) raises an interesting question - to what extent should responsibility and cost be borne by the licensee. From the Three Mile Island experience and the escalation of costs of power reactors as a result of prolongation of completion of reactors by quasi-judicial hearings, petitions and rule making, it should now be obvious that the increase in the expense to the utilities is calculated per unit cost of energy from existing sources and passed on to the consumer. There is little, if any, evidence that the escalations in costs are charged directly or solely to stockholders as compared to consumers.

It would seem more logical to provide financial assistance from clearly identified public funds ideally via Congress and local jurisdictions. In this way the costs can be more easily identified. Assuming adoption of regional plans, NRC, FEMA, DOE, HEW and EPA could serve

as a major planning group and to some extent simplify interstate programs.

Question:
6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State and local governments, and licensees be required to participate?

Answer:
Emergency drills should be held at appropriate intervals under the jurisdiction of local governments. State, Federal and licensee participation should be required at an operational level. Costs of such drills should be borne in large part by State and Federal agencies (see item #12).

Two levels of training are proposed:

a) Drills involving all levels of personnel involved in a mass emergency should be held at intervals of one to two years. Careful training programs for the conduct of such exercises should be developed well ahead of the exercise. These kinds of drills have been held at various times over the past 3-4 decades and this recorded experience should be utilized as well as data from WASH-1400 to provide realistic scenarios (see item #14).

b) A second level of training in emergency situations should be provided to the relatively small group in each region who have decision making responsibilities. This training should be designed to prevent under or over reaction. It should involve licensee personnel, responsible local, State and Federal government personnel and the voluntary agencies as appropriate.

Training courses of several weeks with careful and necessarily elaborate scenarios are required for this training. A special school for beginning and advanced training should be organized. Courses for physicians and health physicists have been given for about three decades - e.g. REAC/TS courses at Oak Ridge Associated Universities and could serve as a pattern.

Question:
7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Answer:
This question is the most vexing of the issues raised in this notice. In the Three Mile Island incident in spite of the information supplied by the plant, its consultants and others, the Federal Government - chiefly NRC - reacted to the entire situation in a knee-jerk response. Only the inherent stability of the public prevented a totally unwarranted mass panic.

Both from data continuously available from March 26 and from the report "Population Dose and Health Impact of the Accident at the Three Mile Island Nuclear Station (A preliminary assessment for the period March 28 through April 7, 1979)" of May 10, 1979, at no time was there

evidence of release of mixed fission products to the environment or other untoward events involving the public. There have been no real clarifications of this aspect of Three Mile Island - it would appear as if NRC behaved responsibly.

Pages 11-15 of NUREG-0396 "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants" illustrate the scenario to which the agency seemed unfamiliar in regard to operations.

A set of rules is needed to protect the public from inappropriate acts by Government especially in this emotionally highly charged sphere.

Proper planning at a local and Federal level would prevent such occurrences especially with rigorous special training programs for responsible individuals (see proposals for item #6).

Question:
8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report?

Answer:
Other than the regional concept of NUREG-0396 as gradually developed and to include other agencies seems adequate. The document should be more widely read.

Question:
9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, and to what extent, and by whom should the public be notified of these incidents?

Answer:
Present criteria for notification seem adequate. The public should be notified promptly when agreed upon limits for operation are exceeded.

As emphasized above a most important aspect of information is to avoid panic. In the opinion of many experienced persons, the TMI incident presented all of the possibilities with no probabilities. In some statements the possibilities of explosion, melt down and massive contamination seemed to become highly probable events as demonstrated by the fact that the Governor of Pennsylvania ordered evacuation of a certain segment of the population. Since I was being consulted by persons in the Department of Health of Pennsylvania and persons in FDA and was also receiving fragmentary data from a local television station, the basis for this decision and many other statements seemed at the time and in retrospect to be unfounded.

If NRC is to have a consultant or other role in suspected or actual emergencies, a more appropriate response becomes essential. If every patient seen by a physician were informed that there was a high possibility of immediate or early death in situations of serious disease, the response of patients in time would be such that physicians would lose credibility by equating the eventual fact of death, always a possibility, with its very low probability at any moment in life, even in the face of serious illness.

Notification and all public releases should be restricted to those agencies, local, State, regional or Federal, having the authority to institute countermeasures, if and when indicated. The public should be given factual information through a properly structured and well trained public information source (see item #6 above).

In a recent press interview I indicated that the media had behaved irresponsibly at TMI. A young lady reporter challenged me saying that no one had the right to interfere with the free flow of news access to which is the right of our society. Although I agreed to her statement in principle, I simply inquired whether she thought the TMI story was well-handled if her grandmother aged 87 being alone at home immobilized by a stroke saw or heard an order to evacuate based on the quality of information having been received. The discussion terminated.

Question:
10 and 11. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning? How should Federal agencies interface with State and local governments and the licensee during emergencies?

Answer:
Local and State programs should be incorporated with available Federal aid via IRAP, DOE, DOD, FEMA, NRC, EPA, DOT or whatever actual help is thought to be available at the time of planning.

It is hoped that NRC recognizes the almost yearly fluctuations in the positions of the various Departments, Agencies, Administrations and Commissions of the Executive Branch in regard to the subject of this Federal Register notice. Some taxpayers find these changes bewildering.

From an operational viewpoint the Brookhaven team had an entirely different viewpoint and attitude concerning TMI than NRC seemed to present. Along with comments made previously I reiterate the need for training sessions for Federal agencies to prepare for proper response to emergencies of this kind.

Question:
12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Answer:
If the cost of training local and State government personnel is charged to the licensee it should be made clear to the public that this cost will be passed on to the consumer. Training of government personnel is not charged to other industries specifically - e.g. training for fire fighting, railroad collisions, trucking accidents - except through property and use taxes. Licensees should not be treated differently.

Some portion of the cost (1/4 - 1/2) should be borne by the Federal Government mostly to assure appropriate response by its own personnel and facilities during training periods so as to be adequately prepared for emergencies.

Question:
13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Answer:
Licensees should provide all possible data to the agency having responsibility for emergency operations. Methods for receiving, processing and analyzing these data rapidly and correctly should be developed both by planning and practice drills.

Handling of the data supplied by the licensee is the responsibility of government as noted above.

Question:
14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Answer:
Some drills by the public should be tried in several areas - at levels of 1000, 10,000, 50,000, and 100,000 persons - to determine whether such drills are practical. A subsequent policy could then be considered.

These comments are based in large part on three decades of training physicians, nurses, physicists, military and public health personnel, police, firemen and civil defense personnel in radiological emergencies.

In addition attached is a proposed plan for a radiological emergency program for the Greater Cincinnati area. There are two power reactors being constructed on the Ohio River. The Zimmer plant is about 30 miles east of the city and the Marble Hill plant about 60 miles downstream and west. Three states are involved as can be seen on the attached map on which 10 and 50 mile radii for each plant is indicated. The many planning procedures are being considered by the Disaster Council of Hamilton County, Inc. This organization includes the Civil Defense Agency, Red Cross, Academy of Medicine, Hamilton County Fire Chiefs Association and others. The attached outline is the first phase of a program to be submitted to many jurisdictions and agencies within the areas indicated on the map. The first group to be contacted is the I-275 Association including relevant organizations contiguous to the circumferential highway about our Tristate area. This focus seems the most practical in view of the many considerations of local population distribution and terrain. This plan is the basis for proposals in response to the fourteen questions in the Federal Register notice.

I should be pleased to offer further information upon request.

Sincerely,

Eugene L. Saenger

Eugene L. Saenger, M.D.

ELS/swh

DRAFT
August 29, 1979

TRISTATE* RADIOLOGICAL EMERGENCY RESPONSE PLAN

PLANNING PHASE

1. Since nuclear radiation does not stop at political boundaries, be they local, State or Federal, contingency planning for nuclear power plant accidents ideally should be on a coordinated, regional basis. The region should reflect not only the possible zone of influence of the radioactivity, but also the location and interdependence of the facilities to cope with nuclear problems, such as laboratories, hospitals and congregate care centers.

a. The population at risk conforms roughly to the Cincinnati Standard Metropolitan Statistical Area (SMSA) which consists of the counties of Hamilton, Clermont, and Warren in Ohio, Boone, Campbell and Kenton in Kentucky and Dearborn in Indiana, representing a population of nearly 1.5 million people.

b. The Ohio River with its surrounding hills and tributary streams is the major topographic feature of the Greater Cincinnati area. The river forms a natural link between the Zimmer nuclear power plant 22 air miles southeast of downtown Cincinnati and the Marble Hill plant 60 air miles southwest. The recently completed Interstate Highway, especially circumferential I-275, facilitates travel in the region and tends to bond it together.

c. It appears that there is a strong need for a focal point in planning for and handling of possible nuclear power plant accidents. Expert advice from recognized authorities, such as Environmental Protection Agency (EPA) designated State Medical Liaison Officers, and study of past experiences, such as Three Mile Island accident, should be considered in the planning process. To minimize jurisdictional problems and to achieve implementation of plans in time of stress or disaster, an inventory should be made of existing civil authorities, including local governments, and of their roles and responsibilities. Governmental agencies known to be involved in hazardous materials, including nuclear are: U.S. Coast Guard (10 miles either side of the Ohio River and 25 miles from downtown Cincinnati), EPA (national and state), Federal Emergency Management Administration (FEMA) which includes Civil Defense (Defense Civil Preparedness Agency), and the Nuclear Regulatory Commission. Also included in concerns and responsibilities for hazardous materials are State planning services of Ohio, Kentucky and Indiana and local counties, towns and other jurisdictions. Supportive non-governmental services include American Red Cross (ARC), Emergency Medical Services (EMS) and the Ohio River Valley Water Sanitation Commission (ORSANCO) and local and regional hospitals. Involved utilities include the Cincinnati Gas and Electric Company (CG & E) and Public Service Company of Indiana. Planning commissions and councils which might become active in hazardous materials are the Ohio River Basin Commission (ORBC) and the Ohio-Kentucky-Indiana Council of Governments (OKI).

2. Plan Basis is severalfold, involving the following items, if not more:

a. The most immediate responsibility is the Zimmer nuclear power plant of CG & E company now under construction near Moscow, Ohio at Ohio River mile 443 below Pittsburgh. Present date for start of operation is 1981. There has been a history of contingency planning for this site at least since 1969. Known recent activity in this field is a Clermont County Radiological Emergency Plan and planning by the Northern Kentucky counties of Campbell and Pendleton. The City of Cincinnati (mile 470) is monitoring both air and water. CG & E has prepared emergency plans as part of its Final Safety Analysis Report and supports decontamination and related medical care services and facilities at Cincinnati General Hospital.

b. More distant is the Marble Hill Nuclear Power Station of Public Service of Indiana, downstream at Ohio River mile 570. Present dates for start of operations are: Unit 1, 1982 and Unit 2, 1984. The threat to Greater Cincinnati is by air or through the food chain.

c. There are no other additional power reactors that might be considered in the range of Cincinnati, although some concern has been expressed about possible river water pollution from the nuclear plant at Shippingport, Pennsylvania. While the possibility of downwind contamination from more distant reactors as for example in St. Louis, Missouri, Chicago, Illinois and in Tennessee at about 300 miles away or further is extremely unlikely, it is recommended that formal communication be set up with the states involved so that this area will be advised on untoward incidents in those areas. Such communication will provide appropriate public information. However, with the continuing need for more electrical energy in the industrialized Ohio River Valley and its neighbors in power pools, and in the ready availability of copious cooling water, it seems reasonable to expect more nuclear plants in these environs in the future. This trend may become more important if new plants are concentrated near existing ones for purposes of simplification of management and nuclear waste disposal.

d. Consideration of hydrologic and meteorological parameters, both historical and forecast. The primary source of operational weather and river forecasts is the National Weather Service at the Greater Cincinnati International Airport. Important background data is available from the U.S. Corps of Engineers, Ohio River Division, and the U.S. Geological Survey and its state counterparts.

e. Advice from Federal and State Departments of Agriculture and Health Departments on possible food chain effects. Aid from U.S. Soil Conservation Service on contaminated soil loss is available to evaluate possible threat to streams and potable water supplies. Consultation will be available in an emergency.

3. Planning

a. Air and water monitoring, both routinely for background and at time of accident to assess what happened and the extent of radioactivity releases. Intensified monitoring following nuclear

accident, broadening program to include soil, water supply and food testing. Use to be made of Civil Defense Air Patrol Radiological Monitoring Teams and of all existing utility and agency monitoring. Monitoring programs will be inventoried and data therefrom currently analyzed and made readily available to those governmental units responsible for direction and control of populace and environment during an emergency.

b. Public warnings and notification of proper authorities at local, State and Federal levels, with priority to primary response agencies, such as fire, police and rescue teams. Use will be made of existing emergency communication networks and warning systems already set up, well-maintained, regularly tested and known to operate well under emergency situations. Available communications will be listed and suitable message formats, transmission time reservations and priorities established. Actual configurations will be tailored to the power plant site involved. Procedures for updating and testing will be established.

c. Evacuation, population movement and control. Questions to be considered include: is evacuation needed and in what direction (may depend on existing plume of contamination, wind and atmospheric stability forecast)?; would evacuation interfere with medical emergency vehicles?; by whose authority would evacuation be ordered?; what is the financial liability for so ordering?; what host areas are available, what transportation means and routes can reasonably be relied upon (how do you get across the river)?; what food and lodging facilities could be furnished in the host area?; how does all this fit in with Crisis Relocation Plans (CRP)?

d. Plans for thyroid blocking, in case in situ treatment seems more prudent than evacuation, or for other medical reasons. Availability of potassium iodide.

e. A central information center to provide advice on food and water to the public and news, radio and TV media will be provided. Other pertinent information to help prevent panic and public unrest. Plans will be formulated to set up a means of controlling food and water if necessary.

f. Medical Emergencies and Protective Response. Triage, first aid, decontamination and transportation to hospitals, and other related activities.

g. Site decontamination, re-entry and rehabilitation.

4. Training

a. Preparatory training especially in the radiological and medical problems unique to nuclear accidents.

b. Training and drills for future based on debriefings and review of accident.

I-275 Plans:

1. The Radiological Emergency Response Plan will be submitted to each jurisdiction for comment and needed changes and eventual

approval.

2. Coordination and Training

a. Be responsibility of local area

b. Local areas would work together for benefit of affected portion.

Eugene L. Saenger, M.D.

C. Relya

ELS/swh

3-284

Georgia Power Company
230 Peachtree Street
Post Office Box 4545
Atlanta, Georgia 30302
Telephone 404 522-6060

R. J. Kelly
Vice President and General Manager
Power Generation

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

Georgia Power
the southern electric system

August 27, 1979

Secretary of the Commission
ATTN: Docketing and Service Branch
United States Nuclear Regulatory Commission
Washington, D. C. 20555

NRC DOCKET NO. 79-122
CONSIDERATION OF ADDITIONAL REGULATIONS ON EMERGENCY PLANS

Gentlemen:

Attached is Georgia Power Company's response to your advance notice of proposed rulemaking regarding the adequacy and acceptance of emergency planning around nuclear facilities (44 Federal Register 41483).

Such additional regulations would potentially involve Federal, State, and local organizations in addition to the licensee. We would stress the importance of separating any concurrence review of associated State and local plans from the licensee's review process and schedule. Additionally, we would caution against regulations governing the development of State and local plans which encompass factors which are not site or area specific.

Very truly yours,

R. J. Kelly

RSA/mb

Attachment

xc: Ruble A. Thomas
George F. Trowbridge, Esquire

Acknowledged by card. 9-6-79

Georgia Power Company's Comments on NRC Docket No. 79-122

Our comments on the specific subjects delineated in the Federal Register notice are as follows:

Question (1): What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public? To what extent should these objectives be quantified?

Response: The basic objectives of emergency planning should be to reduce public radiation exposure through either protective measures or, in more extreme situations where such protective measures would not be sufficient, through the capability to evacuate the public. The basic objective of reducing through plant design and operational factors the potential exposures to the public under both normal and accident situations is presently quantified in existing sections of 10 CFR 20, 50, and 100.

Question (2): What constitutes an effective emergency response plan for State and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements?

Response: The development of the licensee's emergency response plan to the existing requirements of 10 CFR 50 Appendix E constitutes an effective emergency response plan from the licensee's standpoint. An effective plan in the areas which would most appropriately be developed and administered by State and local organizations should encompass areas of: communication and coordination with the licensee; development of appropriate plans and procedures for determining the need for and implementing protective measures or evacuation measures; and the development and implementation of an effective means whereby the public can be adequately involved in development and periodic simulated demonstration of effective State and local communication, protection, or evacuation capabilities.

3-285

The existing regulatory guidance in regard to the essential elements which should be included in the licensee's emergency response planning does not lack any of these appropriate aspects. The existing guidance in regard to State and local planning and in particular NUREG-0396/EPA 520/1-78-016 in several instances go into measures beyond what would be adequate to effectively prepare for and implement emergency response planning functions.

Question (3): Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any

and

nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

Question (4): Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

HSA/mb
8/27/79

Georgia Power Company's Comments on NRC Docket No. 79-122

Response: NRC concurrence in the associated State and local emergency response plans should not be a requirement for the issuance of a new operating license or for continued operation of a plant with an existing operating license. Any NRC concurrence review of associated State and local plans should be separate from the licensee's application review process and schedule.

Question (5): Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response: Financial assistance should not be provided by the Federal Government to the State and local organizations. The source of funds for planning and preparedness functions would most appropriately be from the particular State government and should be administered through the State's existing emergency preparedness and response networks. The extent of such assistance should be dependent solely on the particular functional requirements and present capabilities of the existing State and local organizations. A general overall assessment of the extent to which financial assistance should be provided would be inappropriate in view of the varying sophistication to which various State and associated local capabilities are presently developed.

Question (6): Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response: Radiological emergency response drills should be a requirement only for the licensee under the current requirements of the Federal Regulation. Although State and local organizations should be encouraged to participate in these drills, there should be no requirement to this effect. Federal participation would not be necessary, and State and local participation should be only to the extent that these organizations desire. State and local response drills could be conducted either in conjunction with the licensee's drill or separate from the licensee's drill. The only primary factor which would not be tested if the drills were conducted separately would be the communications between the licensee and these other organizations.

Question (7): How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response: The extent to which the public should be informed concerning emergency actions prior to any emergency should be left to the discretion of the State and local organizations. Such informational programs would most appropriately be implemented by the State and local organizations.

HSA/mb
8/27/79

Question (8): What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response: The recommendations of NUREG-0396/EPA 520/1-78-016 would most appropriately be addressed by the State and local organizations which these recommendations concern.

Question (9): Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Response: The existing circumstances and criteria under which Federal agencies are notified by the licensee of incidents are satisfactory. Notification to State agencies should be made in accordance with the appropriate State protective action guides. Where possible, notification to the local agencies and, where necessary, to the public should be coordinated by and through the appropriate State agency. Notification directly by the licensee to the local agencies or the public should be made only in instances where immediate action by or in behalf of the local agencies or the public is necessary.

Question (10): How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Response: State and local agency concerns should be incorporated into the overall radiological emergency response planning only to the extent that the individual State and local agency desire. Inasmuch as the planning and response functions in these areas can be separate from that of the licensee, it would serve no useful purpose in requiring under the auspices of the Federal response planning agencies that all State and local agency plans encompass factors which are not site or area specific.

Question (11): How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response: Federal agencies should interface with state and local governments and the licensee when and as requested by these entities. Direct Federal intervention should be restricted only to situations where it is evident that these entities are not capable of performing their necessary response functions.

Question (12): Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response: Neither the licensee nor the Federal government should be required to provide training to State and local government personnel. Such training would most appropriately be provided by the State agencies and should be made available to the extent that the State and local agencies desire.

Question (13): To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective actions? To what extent should this responsibility be borne by Federal, State and local governments?

Response: During the initial phase of an incident, reliance must be placed on the licensee in regard to assessment of the need for initiation of protective action in the absence of alternate concurrent assessment capability. Greater reliance should be placed in field measurements during the course of an incident which could be made by the licensee or by State and local agency personnel. The extent to which this responsibility would be borne and by whom would depend on the individual capabilities of these organizations.

Question (14): Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public's participation?

Response: The public should be advised of the conduct of response exercises. Participation of local organizations and the public should be to the extent they desire. Exercises short of actual evacuation, such as very limited evacuation of selected persons or verification of capabilities in mock evacuation of small areas, should be considered in lieu of the significant disruptive effects of an actual evacuation exercise.

DEPARTMENT OF
CIVIL DEFENSE AND EMERGENCY SERVICES

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 44483)
(85)

Thomas J. Gendron
DIRECTOR

MARICOPA COUNTY
2035 North 52nd Street, Phoenix, Ariz. 85008
Telephone 273-1411

27 August 1979

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Chief, Docketing and Service Branch

Dear Sir:

By circular V-4179 and Federal Registar notice, Volume 44, No. 138, dated 17 July, comments were requested on additional regulations for emergency plans for nuclear power plants and the surrounding areas. Within this County a nuclear power plant with three 1,270 megawatt (electrical) generating units is under construction, with commercial operation now scheduled for 1983, 1985, and 1986. The latest revision to the County Emergency Plan, dated 1977, contains a section on Nuclear Reactor Incidents. This plan has been developed in coordination with the plant operator, has been approved by the State Division of Emergency Services, and reviewed without comment by the Arizona Atomic Energy Commission - the agreement agency specified by Section 274 b of the Atomic Energy Act of 1954, as amended (73 Stat. 689).

With this background, the specific questions for comment posed by circular V-4179 may be answered as noted below.

1. What should be the basic objectives of emergency planning?

In general, the traditional emergency planning objectives are Planning and Warning, Preparedness, Response, Mitigation, and Short and Long-Term Recovery. Protective Action Guides, based on technical information such as Basic Radiation Protection Criteria, NCRP Report No. 39, should be used to trigger actions which will keep public exposure under that considered to pose a health hazard. Since this may involve actions which range from remaining indoors for a period of time through evacuation of those threatened, general principles and guidelines for execution should be included, but extreme detailing avoided. The jurisdiction's own resources and those available from other jurisdictions must be identified, responsibilities agreed upon and specified, and a concept of reaction provided.

Acknowledged by card. 9-6-79

Participating Cities:
Phoenix Scottsdale Glendale Mesa Tempe Chandler

3-287

2. What constitutes an effective emergency response plan for State and local agencies and for NRC licensees?

The legal responsibilities of each level of government will determine the limits each may encounter in responding to an off-site emergency. Cooperation between the licensee and the local officials is necessary, with cross-fertilization of procedures, information, etc. The plan should include elements which meet the objectives noted in the response to question No. 1. Planning should be integrated between the licensee, the local officials, and the state response organizations in order that the response will be a coordinated one in accord with the responsibilities and resources of each. Existing NRC requirements and guidance are sufficient for a professional staff, but more detailed sample/example plans would assist small or part-time planning staffs.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license?

No. Such a requirement would hold a plant hostage to local officials who may change in each election and, by cancelling or emasculating the plan, cause the plant to shut down. Local officials should be required to develop plans which meet minimum NRC standards, but the requirement may be difficult to enforce unless by threat of witholding of Federal funds.

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant?

No, for the same reasons given in response to question No. 3. The leverage of funds should be sufficient to overcome local inertia and incompetence, which is probably more a retarding factor than political pressure.

5. Should financial assistance be provided State and local governments for radiological emergency response planning and preparedness?

Under the federal form of government, each level of government is responsible for fulfilling its responsibilities to its citizens. However, if actions are mandated by law from a higher level of government which require the expenditure of funds, financial assistance is in order, for at least several budget cycles. An appropriate method would be via Federal Emergency Management Agency, with ear-marked amounts for each level of government.

6. Should radiological emergency response drills be a requirement?

Yes, conduct of such drills should be a condition for federal funding assistance. There is one question. Who can legally levy a requirement on a state, a county, a community to expend funds (and the time/pay of personnel) on a drill? Or at least without compensatory funding?

With either the carrot or the stick noted above, even the most reluctant organization should come to the realization that exercising their plan on the local level, then in coordination with a higher level exercise is desirable. The licensee should be required to participate in local drills, not to exceed some number per year that would avoid undue exhausting of plant resources.

7. How, and to what extent, should the public be informed prior to any emergency, concerning emergency actions it might be called upon to take?

General information should be made available through public relations releases giving the principles of plans. The evacuation planning may dictate other methods. For example, sheriff deputies surveying homes in two of our plan's eight sectors (the plant is in a desert) found that to avoid calls about half of the homes did not have telephones. We are now considering pre-placement of an emergency packet in each home (admittedly only 500 or so homes are located within ten miles of our plant), to give advice were a warning given by telephone, radio, plant whistle (sound travels best with the wind which might disperse any "cloud"), or by airborne or car siren. Routes to be preferred to pre-designated evacuation sites are designated, since for any given wind condition one general sector will be affected and its routes are a logical result.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report?

This report states that its "recommendations had not been formally adopted by the NRC or EPA and therefore represent only Task Force views." We have no information that the views have been accepted, and the validity of the recommendations are unclear. Either the blessings of the NRC and EPA should be bestowed on NUREG-0396 or the public notified of what planning guides should be used - and soon.

9. Under what circumstances, and using what criteria, should a licensee notify State, local, and Federal agencies of incidents?

Our plan includes, with the agreement of the plant operators (licensee), the provision that local authorities will be notified of an incident as elementary as a release of radioactive gasses within a single plant structure that does not exceed the accepted safety limits, and any incident more serious. In other words, any unusual incident will trigger alerting civil officials. This is a good procedure, and is recommended elsewhere. Besides a dedicated radio net to our sheriff, now in existence, we believe the concurrent use of RAWAS is desirable, at least in our county. Since any incident will eventuallybecome common knowledge, public release of the facts by informed sources will prevent alarm and enhance the public's trust. The public should be dealt with openly by all agencies, but information regarding an incident should be available and delivered from one designated source.

10. How, and to what extent, should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

The concern of (this) local government is for guidance, direction, and information on which they may more assuredly base their plans. This guidance should include the various types of releases and the optimum protective actions to be taken to mitigate the results. With knowledge, local personnel can make correct decisions. Because of the wide variations in local conditions, massive over-planning and over-detailing by Federal agencies is not desirable.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Decision making concerning the handling of the emergency is properly the responsibility of the licensee, on-site, and the local governmental agency off-site. The NRC should provide technical advice and assistance to the licensee and to the lead governmental agency as requested. It is essential that in the event of an incident the NRC work with and through the designated Public Information Officer in release of information, so that conflicting views/predictions are eliminated and the public will not become confused and further alarmed.

12. Should the licensees be required to provide radiological emergency response training for State and Local government personnel?

No. The NRC-sponsored Radiological Emergency Response Operations course conducted in Nevada is, and should be, the standard course. The present NRC requirement that the "student is, or will be, assigned to a State or local government radiological emergency response team" (emphasis added), should be waived so that local officials who may be charged with response, not on a team, may attend. The present method of NRC funding is considered appropriate.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action?

See the answers to questions 9 and 11. Prior to the arrival of NRC officials to provide technical guidance, reliance must be placed on the licensee's technical advice. A high level of mutual trust between the licensee and local authorities must be developed by constant contact and liaison to give the desired results.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose?

A logical sequence would seem to be drills by plant and local authorities, first command post and then field exercises, to refine procedures and train local authorities. During subsequent refresher/skill maintenance drills public and private participation may be worked in on a

voluntary (non-funded) basis. For instance, school drills (How long from initiation of warning until adequate transportation is assembled?), warning tests (How long did it take to warn residents in the affected sector? How many needed public transportation? Did the population know what to do, if evacuation was called for, where to go via what routes?) It is essential that prior notification to the news media of any drill be arranged, with a pre-exercise briefing for them, the exercise observed, and a post-exercise news washup conducted. Thus even if problems are found, the fact that local officials are honestly working on them will provide assurance to the population.

In summary, from this local jurisdiction level, we believe the local level is best able to plan for and conduct emergency operations, with NRC and state technical guidance and assistance desired in planning and available in case of emergency.

Sincerely,

Thomas J. Gendron
Director

HEP/bl

Copy to:

Director, Division of Emergency Services, State of Arizona
Mr. John Mann, Arizona Public Service
Mr. F. W. Hartley, Palo Verde Nuclear Generating Station

3-289

DOCKET NUMBER
PROPOSED RULE PR-50 (86) (44FR41483)

SEP 6 1979

Aug. 28, 1979

U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

RE: Fed. Reg. July 17
Emergency Plans - Comments

Attention: Docketing and Service Branch

The following are comments on Emergency Plans - NRC Rulemaking July 17, 1979.

1. The basic objectives of emergency planning should be to prevent public radiation exposure. To say "Reduce public radiation exposure" is ambiguous. What would radiation exposure be reduced to? 1/2 yearly estimated exposure from other sources, 1/4 the release of additional exposure from an accident, 1/5 the additional exposure from an "unplanned" release, or 1/2 a lethal dose? A definite object must be set and emergency planning tailored to achieve that objective.

2. The most effective emergency response plan would involve no additional radiation exposure (to background) to any member of the public. The most essential element of this objective would be immediate notification of a release of radiation to potentially affected population areas so protective measures can be taken. The existing NRC requirements do lack this essential element as the chain of command for notifying the potentially affected public is so long, from the time the release occurs, as with Three Mile Island, to the decision to evacuate or take other protective steps, either voluntary or mandatory, that by the time the news reaches the public, the release has dispersed. This was so in the case of Penna. area affected and for the North East from New York to Maine that received the initial release from TMI with the wind and rain that carried it NorthEast, contrary to the Van Der Hoven Wind Persistence Probability models (NUREG 0396). In fact, the local(New York State Health Dept.) radiation monitors told the news media that "Nuke Cloud Hangs around Plant). They did not either Know or Tell the public that the cloud passed over the Hudson Valley area the night of March 30th, and that the cesium and strontiur washed down with the rains this area had that night.

3. NRC concurrence in State & local emergency response plans must be a requirement for continued operation of any existing facilities. If existing facilities or power plants cannot meet NRC requirements for emergency planning, then they are blatantly a hazard to the public health and not in compliance with the AEC requirement of 1970 "Guide to Preparation of Emergency Plans for Production and Utilization Facilities" that require applicants for License to construct or operate nuclear facilities to prepare plans for coping with emergencies with off-site groups including traffic control, hospitals, etc.

Acknowledged by card. 9/6

US NRC

Aug. 28, 1979
RE: FED. Reg. July 17
Emergency Plans - Comments

5. I feel the financial responsibility for radiological emergency response planning and preparedness should be the responsibility of individual communities and municipalities, so that they can make their plans to conform to the size and special conditions of that community. Also, state and local financial responsibility for emergency planning and preparedness would assure more local input for funds spent. The funding should come from a fixed and broad base. In states where there is an income tax, that would be the vehicle, and it should be distributed on principal-residence basis to communities. The property tax is not a good basis for emergency planning funds, as areas of low population would be subsidizing high population areas. Nor should the sales tax, subject to economic ups and downs, be the basis. The states that presently do not have an income tax could allot funds from whatever their tax raising base is, and set aside funds on a per capita basis. This basic per capita allotment, in either revenue raising area, could be supplemented by local municipalities if they so desire, or the need exists.

6. Radiological emergency response drills should be a requirement, under Federal authority to assure compliance with NRC Guidelines. Federal government should supervise State and local governments and licensees, and all should be participants. Drills should take place periodically, so that updating and review of same will keep them fresh and timely in participants minds, and so that they can be adjusted to changing conditions.

7. The public must have access to evaluation plans well before an emergency. In fact, they should have access before drills, so that individuals may contribute to the successful plans and drills.

8. The licensee should notify Federal agencies immediately of incidents, including emergencies or potential emergencies, so the appropriate Federal agencies, with the expertise in health and technical matters, may notify state and local governments if appropriate. The same notification of State and local governments should also be given to the public, through their local officials, and such notification should be mandatory. The chain of notification now goes first through State officials, and since they are not necessarily qualified to assess a situation, the initial notification of incidents or emergencies should go immediately to the Federal Government, with NRC preferably as lead agency.

10. Right now, the concerns of State and local governments is not to rock the boat. This attitude was evident at Three Mile Island, where elected and appointed officials either do not know what is happening, or simply want to minimize problems because of economic considerations - days lost from work, etc. Public awareness and participation in emergency planning would rectify much of this attitude.

U.S. NRC

Aug. 28, 1979
RE: FED Reg. July 17
Emergency Plans - Comments

10. Cont'd. State and local concerns should be incorporated into Federal emergency response plans to the extent that they enhance such emergency response plans and the principal concern - to avoid radiation exposure to the public.

11. The Federal Government should issue emergency alerts, the State should provide funding, and the localities should carry out emergency response, with State and Federal backup in the event of a protracted state of emergency.

12. I do not believe the licensee should provide radiation training. For uniformity, the Federal Government could provide the training and all persons, in a given community, required to respond to a radiological emergency must be trained. It cannot be training on a voluntary basis, as is now the case.

13. Licensees must not be relied on to assess an actual or potential accident or incident. The unwillingness of a licensee to be completely forthright and/or prepared is doubtful. When a licensee is asked to police themselves, there is an inherent conflict of interest between the licensees monetary welfare and the health and welfare of the general public, as was evident at TMI and GPU's subsidiary Radiation Management Corporation, that was supposed to monitor radiological releases from Three Mile Island.

14. Public participation in emergency response plans would add both site specific knowledge to these plans, such as knowledge of road conditions, buildings that could house evacuees, etc., and such public participation would prepare the public for orderly evacuation in the event of a genuine emergency.

8. Recommendations of NUREG 0396

Page 8. Most important guidance for planning officials is distance from nuclear facility - this is nonsense. It is like planning to treat a cold when you don't know if you may not get a heart attack. All plans should be for a maximum accident or radiological exposure since the exposure is borne by wind and weather, and NO ONE can guarantee that a cloud released will not endanger people 100 miles away (the Chinese testing of 1976 is an example), nor is there any guarantee that a bomb loaded military plane will not crash anywhere, or a train or truck carrying nuclear materials will not crash and catch fire - dispersing radioactive materials even in a designated LPZ.

US NRC

Aug. 28,1979
RE: RED Reg. July 17
Emergency Plans - Comments

8. Recommendations of NUREG 0396

contd. Page 1-9 Reference probabilities of Reactor Safety Study. This Study has since been proven invalid both in a subsequent study of its methodology and in real life, at Harrisburg.

Safety

1-80 Even if the Rasmussen Reactor/Study were valid in method and/or conclusions of accident probability, the qualitative differences between a nuclear accident and floods, hurricanes, etc., are imcomparable, nor can one realisticibly average out a radioactive release over populations in a given radius and thus conclude each and every person has received only their apportioned share of "average" radiation.

III-1 "Class 9"events should be considered in developing emergency plans. Harrisburg is evidence enough that such emergency evacuation plans exist now only on paper or as figments of a planner's imagination.

III-3 There is a need to plan beyond LPZ - if for nothing else than to have a place to ship the bodies. The tradgedy at Guyana was mute evidence of this - the Fed. Gov. couldn't even find a cemetary to bury the bodies.

III-12 Emergency planning must be a part of siting consideration. If such had been the case, Indian Point, N.Y. would never have been built where it is a potential hazard to millions of people.

III-15 & 16 The events of July 13,1977 and th following three days in New York City are ample proof that local authorit es are not experienced in coping with emergencies, even in what might have been termed optimum conditions, that is,a temporary blackout, without contaminated air, water, and humans. Policemen stood stood by helpless while looting took place even though New York City had the best trained SWAT team in the country. Radiological hazards are like no other emergency and human response in such an event cannot be predicted. Uncomfortable evidence of this came from the Kemeny Commission investigating TMI, where the National Guard Commander advised his men, who would have been expected to respond to an evacuation, that they would not be exposed to dangerous levels of radiation.

15. I have responded to the questions you posed for comment and would add one more of my own.

Given that all the guidances, regs. and rules are followed, can an evacuation be carried out for a worst case nuclear accident even in an LPZ??

3-291

US NRC

Aug. 28,1979
RE: FED Reg. July 17
Emergency Plans - Comments

15. contd.

After decades of operating nuclear facilities, during which time the public has been assured they would be protected in the even of an accident, it is clear that there really are not any emergency response plans. Our local CD director, when I requested a copy for this county, said the emergency evacuation plans are 700 pages long and being revised, and so I could not have a copy. What would Ulstar County do if Indian Point had a meltdown? Wait for a copy of the plans to be printed in the local paper, as the CD Director said he would do in the event of an emergency? Can I expect that the Editor and staff will stay in town long enough to keep the presses running? The local Health Teacher, in his class, taught the children from a CD handbook, which said to minimize fallout exposure, cover the first floor in your home with 6 inches of dirt and stay in your basement. How could I be expected to get that much soil living on rocky ground? OR in a city? OR in the winter when the ground is frozen? How would the old or handicapped dig? What if you lived in a trailor without a basement? Who guarantees you would have time enough to dig soil? The release at Harrisburg came without warning. If the Russians are as clever and treacherous as the Defense Dept. would have us believe, then a nuclear attack would also come without warning. Hardly time to read a 700 page supplement to the local paper.

In addition, the entire concept of possible evacuation as envisioned by the experts of NRC, EPA. "Health" Depts., CD Planners, "Health" class teachers, or DOD, never consider that an emergency could take place in the Middle of a hurricane, tornado, or snow storm - with roads impassable,a nd NO WAY of evacuating. The plans are all for optimum weather conditions. What would you do in the middle of winter, with 10 foot snow drifts, and a gas shortage, to evacuate Ex New York City, or Chicago, if a meltdown occurred???

Wishing you sunny skies,

Anna E. Wasserbach

ANNA E. WASSERBACH, CHMN.
N.Y. FEDERATION FOR SAFE ENERGY
BOX 2308 W. SAUGERTIES RD.
SAUGERTIES, N.Y. 12477

DOCKET NUMBER
PROPOSED RULE PR-50 (44 FR 41483)

(87)

Aug 29, 1979

Secretary, NRC
Washington, D.C. 20555
Attn: Docketing and Service Branch

Comments on NRC Regulations Dealing with Emergency Planning Procedures for Nuclear Power Plants.

I am writing in reference to some of the questions raised by the N.R.C. press release dated July 20, 1979, seeking public comment. As a member of the Environmental Coalition on Nuclear Power, a state-wide anti-nuclear organization, I feel that radiation releases and exposure to the public must be kept at absolute zero! In light of the medical evidence directly linking radiation exposure with increased occurrences of cancers, leukemias and genetic defects — no amount of radiation exposure is acceptable. Whether exposure to amounts of radiation released due to 'accidental' or 'emergency' conditions, or those released during 'normal' operation of nuclear power plants should be permissable if the public health and safety are [illegible] at hand. The main objective, regardless of [illegible] must be to prevent public radiation [illegible]

In regard to NUREG 0396, I feel that the recommendations made were good ones, but they must go much further to assure that Pennsylvanians — or any Americans are never threatened again as they were (and are) during the Three Mile Island accident.

Truly notification of public disaster, health and relief agencies is essential for effective protection of the citizenry. The Reactor Safety study, Wash 1400, noted that a major accidental release of radiation into the environment could occur as quickly as 30 minutes after the initiating event. The duration could continue several days; however, it was postulated that the largest release would be recorded on the first day.

If nuclear power plants are allowed to remain operating, all costs relating to monitoring and emergency action programs should be paid by the producers of nuclear energy, not the public. Also, responsibility for reporting radioactive releases, monitoring and emergency action requirements should not be left up to the utilities because of the obvious conflict of corporate interest and protection of the public's health and safety. This was demonstrated all too clearly at Three Mile Island.

It seems obvious to me, that the most important question facing us all at this point, should not concern evacuation plans or permissable amounts of radiation releases, but rather should be, "why: do we now have, and plan to expand, a nuclear

3-292

Acknowledged by card. 9/6

technology which so threatens our lives (physically, emotionally, and financially) and the lives of generations to come?

Very sincerely yours,
Lorraine A Kourey
Lorraine A. Kourey
Environmental Coalition on Nuclear Power.

3-293

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

DOCKET NUMBER (88)
PROPOSED RULE PR-50(44FR41483)

August 30, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

In response to the July 17, 1979, Federal Register notice (44 FR 41483-41484), the Tennessee Valley Authority (TVA) is pleased to provide comments on the advance notice of a proposed rulemaking on the subject of State and local emergency response plans and those of licensees.

We believe the rulemaking proceeding can be a useful forum to address the many questions on emergency planning and provide a common base of knowledge that will provide a uniform set of guidance for all parties involved.

We believe that emergency plans should provide reasonable assurance that appropriate measures to protect the health and safety of the public can and will be taken in the event of an accidental release of radioactive material from a nuclear power plant. To satisfy this basic objective, TVA is working with State and local governmental authorities and the NRC in the development of emergency plans. We have offered the States where we have nuclear plants some assistance in their development of emergency plans. In addition, TVA conducts for its operating nuclear plants an annual drill which involves the State and local authorities and is reviewed by the NRC.

We are concerned about the meaning of the proposed requirements of NRC concurrence of State and local emergency plans as a requirement for issuance of an operating license or for continued operation. We understand this proposed requirement is to address NRC approval of State and local emergency plans for responding to radiation hazards incidents and not a general review of all State or local emergency planning. Moreover, NRC concurrence should not be required in a State plan covering all nuclear facilities before licensing or continued operation of a particular plant so long as site specific emergency planning issues have been addressed. Presently, we believe this site specific review is being accomplished by the NRC by their

Acknowledged by card 9/7

An Equal Opportunity Employer

review of our radiological emergency plan (REP) which contains the applicable portions of the State and local plans. To do otherwise we run the risk of unwarranted and costly delays while essential irrelevant matters are being reviewed. If the NRC takes this approach, we recommend that some mechanism be developed to ensure the timely development and review of all plans.

Specific comments on the questions posed in the Federal Register notice are enclosed.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure
cc (Enclosure):
Executive Secretary
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
1717 H Street, NW
Washington, DC 20555

Mr. Fred Stetson
AIF, Inc.
7101 Wisconsin Avenue
Washington, DC 20555

ENCLOSURE

TVA Comments on Advance Notice
of Proposed Rulemaking to Emergency Plans

1. What should be the basic objective of emergency planning?

   a. To reduce public radiation exposure?

   b. To prevent public radiation exposure?

   c. To be able to evacuate the public?

   To what extent should these objectives be quantified?

Response

The basic objective of emergency planning is to provide reasonable assurance that appropriate measures to protect the health and safety of the public can and will be taken in the event of an accidental release of radioactive material from a nuclear power plant. The appropriate measures should balance all the risks involved to minimize the impact on the public. For example, large scale evacuation may be more hazardous than other protective measures, such as staying indoors. We believe the plans should cover all possible alternatives to provide protection to the public but each incident will have to be evaluated separately. Existing regulations provide adequate objective guidance as to dose limits to the public and more detailed quantification of objectives cannot be made except on a case-by-case basis depending on the actual incident.

2. What constitutes an effective emergency response plan for State and local agencies or for licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and

guidance for States (NUREG-75/111) lack any of these essential elements?

Response

To be effective, emergency planning must be able to address a wide variety of contingencies. While communications, housing, health care, traffic control, public notification, etc., are basic elements, we believe that properly organized and managed exercises of emergency response teams are the essential parameters in preparing for emergency responses. We believe that 10 CFR Part 50, Appendix E and NUREG-75/111 contain those elements which would lead to an effective emergency plan.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear plant with an existing operating license? If so, when should this general requirement become effective?

Response

See cover letter.

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response

See cover letter.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response

It is and has been the responsibility of the State and local governments to provide emergency planning for general emergencies (i.e., tornado, floods, etc.). Various Federal agencies have the responsibility to assist State and local governments in establishing basic plans for general emergencies. If these planning activities for general emergencies are completed, then we believe that limited additional financing should be necessary to update the existing general emergency plans to incorporate radiological emergencies. TVA has offered the States where we have nuclear plants some assistance in their development of emergency plans. We believe that the licensee should not be required to fund all aspects of emergency planning in areas where general emergency planning should have been completed.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State, or local government? To what extent should Federal, State, and local governments and licensees be required to participate?

Response

TVA conducts for its operating nuclear plants an annual drill which involves the State and local authorities and is reviewed by the NRC. We believe that this is an effective approach that involves all the appropriate parties.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency action it might be called upon to take?

Response

The potentially involved public should be fully informed as to their role in the event of an emergency. We believe the State and local governments and the licensee will have to work together to make the information available to the public through the various methods available.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response

The basic recommendations of NUREG-0396/EPA 520/1-78-016 concerning emergency planning zones appear viable but we are concerned about the definition and use of these planning zones. For

example, the proposed protective action zones concept (i.e., a 10-mile radius for the plume exposure pathway) has merit for planning purposes; however, during an actual emergency the use of site specific dose predictive models for determining the protective action to be taken is essential.

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

Response

TVA's policy is to make notification to the Federal, State, and local governments and the public concerning any unplanned or nonroutine release or potential release to the environs. The Federal, State, and local governments could make provisions for additional notifications as appropriate.

10. How, and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Response

Emergency planning is primarily oriented to State and local conditions. Specific Federal radiological planning (aside from

general emergency assistance now given] should be that of providing guidance. We believe that the process of meeting with State and local officials is a viable one for identifying and addressing specific concerns.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response

The best means of handling an emergency is by planning and utilizing resources effectively. Depending upon the nature of an incident, Federal agency resources may be required either for providing assistance to the licensee or to the State and/or local governments. The responsibility for making this determination would rest upon whichever organization was in need of this assistance. The State, local, and licensee emergency plans should have these resources identified in advance to ensure proper planning.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal Government provide such training? If so, to what extent?

Response

We do not believe the licensee should provide the training for State and local government personnel. However, the licensee should provide specific plant information on plant systems and potential releases. We believe the Federal Government should continue to provide training through existing agencies or contractors. Training should be provided to the extent necessary to ensure a competent and effective response in the event of an emergency.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State, or local governments?

Response

The licensee should assess radiological emergencies and provide sufficient information for the State to determine appropriate protective actions. The NRC should have the primary role in determining the adequacy of assessment capabilities.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response

We believe the public should be informed about exercises or drills but they should not be generally involved in the actual drills. Drills should include a simulated evacuation which verifies the ability to muster required transportation and manpower to handle the evacuation. We do not believe actual evacuation is warranted for a drill since this would unnecessarily discommode, if not endanger, the life and property of the people being evacuated in the drill situation. Historically, evacuations during real emergencies have been carried out successfully in most cases, with no previous evacuation drills.

Southern States Energy Board

(89)

DOCKET NUMBER
PROPOSED RULE PR - 50 44FR 41483

Members:

Alabama
Arkansas
Florida
Georgia
Kentucky
Louisiana
Maryland
Mississippi
Missouri
North Carolina
Oklahoma
Puerto Rico
South Carolina
Tennessee
Texas
Virginia
West Virginia

August 27, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Secretary,

Re: Advance Notice of Proposed Rulemaking on:
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities

On August 23 and 24, 1979, the Southern States Energy Board met in Nashville, Tennessee, to discuss energy issues of concern to member states. The Board considered the Advanced Notice of Proposed Rulemaking (F.R. 41463, July 17, 1979) regarding state and local emergency planning. As a result of the discussion, I am forwarding the comments of the Board. The following statement was passed unanimously by the Board at their August 23-24 meeting. We request that our comments be given due consideration in the rulemaking process. As you know, the Southern States Energy Board is composed of Governors' energy policy advisors from 17 states.

The Southern Governors have the following three major concerns over NRC's proposed rulemaking regarding the adequacy and acceptance of emergency planning around nuclear facilities.

First, there must be 100% federal funding of the state and local planning and implementation efforts. The funding should be at a sufficient level to provide full-time professional personnel and the necessary equipment to meet program needs.

Second, there should be state and local control of any and all response actions to emergencies around nuclear facilities with the NRC providing guidance and technical support.

Third, in the event that a contiguous state fails to adopt an adequate plan, the Nuclear Regulatory Commission will draft an interim plan. Failure of a contiguous state to adopt an approved plan should not jeopardize the continued operation of a nuclear power plant.

Acknowledged by card. 9/10.

One Exchange Place ■ 2300 Peachford Road ■ Suite 1230 ■ Atlanta, Georgia 30338 ■ (404) 455-8941

The Southern States Energy Board appreciated the opportunity to comment on the Nuclear Regulatory Commission's advance notice of rulemaking. We consider this rulemaking timely and important and look forward to the opportunity to provide additional comments on a proposed rule

Very truly yours,

Lamar E Priester/bcs

LEP:dw
cc: Ms. Patricia A. Comella,
NRC

Lamar E. Priester, Ph.D.
Chairman of the Board

DOCKET NUMBER (90)
PROPOSED RULE PR-50(44FR4185?)

Pemaquid Harbor
Maine 04560
August 21, 1979

Mr. Michael Jamgochian
Office of Standards Development
Site Designation Branch
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Nuclear Evacuation Plans

Mr. Jamgochian:

My family and I live 10 miles east of the Maine Yankee Nuclear Powerplant. We were surprised by the August 18 Portland Press Herald article indicating a lack of comment on Maine's evacuation plan for a radiological emergency. Here's ours.

There's been a lot of words but not much fact regarding the topic. To deal with it rationally we believe the "Nuclear Evacuation Plan" must address the following:

(1) What is the radiological emergency?
What kind of radiation are we dealing with? Is it carried by liquid, vapor, gas or particulate? Is it put into the air or the river? Will it be carried by the wind and how far? What is its life? What ill effects can it cause?

(2) How will it be determined that it has happened?
Will monitors sense radiation escape from all areas of Maine Yankee during all hours? Will wind direction and tide information be available to predict areas which will receive the radiation?

(3) Who will monitor the sensors?
These must be independent of the power company and respond instantly.

(4) How will the people be notified?
There must be a reliable method to inform people of the emergency and what they should do.

(5) What should people do?
This can vary according to the radiation type, the wind direction or the tide.

We do not believe that these questions have been answered.

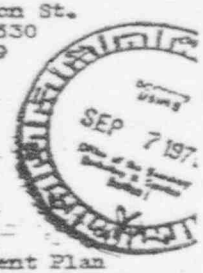
Yours truly,

Walter N. Johansson

Acknowledged by card 9/12

DOCKET NUMBER (91)
PROPOSED RULE PR-50(44FR4483)

1299 Washington St.
Bath, Maine 04530
August 21, 1979



Mr. Michael Jamgochian
NRC Site Designation Branch
Office of Standards Development
Washington D.C.

Dear Mr. Jamgochian:

I find the State of Maine Radiological Incident Plan for Maine Yankee Atomic Power Co. inadequate and a veritable 151-page catalogue of so many words! It does not address itself to the very real concerns of the people in this area as to where they could be housed in the event of an accident at the Power Plant. People on Westport Island could not possibly be evacuated safely since they must drive past the Plant in order to leave the area! Route 1 in any case would be tragically jammed and the traffic around the Bath Iron Works at certain times of the day is very bad.

I am so opposed to the very existence of the Nuclear Plant so close to our home in Bath and our summer camp on Montsweag Bay, that I am working on a Citizen's Referendum to put the question of closing Maine Yankee permanently on the 1980 ballot. To my mind, a so-called "Evacuation Plan" can only be an anomaly and a fraud. There is no way that people on the Westport Island can be evacuated safely! Because of the proximity of the Bath Iron Works (9 miles away) which is so important for the building and repairing of U.S. Navy ships, and the location of the Brunswick Naval Air Station, I believe it was a horrible mistake to locate a nuclear plant in Wiscasset.

The risks to all of us in this area around the plant are immense - the benefits few. Alternatives to its continued operation must be found.

My family and I cannot possibly find peace of mind or comfort in the bureaucracy's nebulous "Evacuation Plan". The whole idea of nuclear energy technology with its non-existent plan for safe and effective disposal of lethal wastes gives me nightmares for our society and environment and for future generations!

When will our leaders recognize this insanity?

Very sincerely,

Eleanor B. Warin

Let's be honest; it is NOT possible!

Acknowledged by card. 9/10

HUGH CHAPMAN CLOUGH
7 Kirk Street
Springvale, Maine 04083
207-636-4748

DOCKET NUMBER (92)
PROPOSED RULE PR-50(44FR4483)

18 August 1979

Mr. Michael Jamgochian
NRC Site Designation Branch
Office of Standards Development
Nuclear Regulatory Commission
Washington, D.C.

Mr. Jamgochian:

Re the article by staff writer John Lovell in today's Portland, Maine Press Herald: It would seem that the views of Maine residents would be redundant.

Perusal of an official AAA map of Maine would show that residents of the Harpswell, Georgetown, Five Island, Westport, Edgecomb, Boothby, Newagen, Ocean Point, Damariscotta, Bristol, Christmas Cove, Pemaquid Point - would be hopelessly trapped save for the few that might escape by sea.

Because of the water barriers inland from Wiscasset, Bath, Woolwich, Days Ferry would be in grave circumstances.

Granted that differing wind conditions migh. favor some locales and make apparently favorable locations hopeless.

"Plans" assume the acceptance of the continued operation of a known hazard. It would seem that the elimination of the hazard is the point of decision.

Hugh Clough

Acknowledged by card. 9/10

Mr. + Mrs. Reynolds C. Miller
Pershing Road
Dennysville Harbor, Maine 04630

SEP 7 1979

(93)
Docket Number
Proposed Rule PR-51 (44 FR 40453)

August 29, 1979.

Ms. Patricia A. Comella
Site Designation Branch
Office of Standards + Development
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Comella

Can you tell us why the N.R.C. permitted Maine Yankee to operate when we have no evacuation plan for the thousands of people here on the end of this 12 mile long peninsula?

Also please tell us what is to become of the waste [illegible]

We have written Messrs. Hendrie, Bradford et al with no satisfaction.

Trusting that you can help us, we remain

Sincerely
Reynolds + Eleanor Miller

Acknowledged by card 9/12

3-301

Monmouth Medical Center

DEPARTMENT OF RADIOLOGY
Marvin Brodie, M.D., Director

LONG BRANCH, NEW JERSEY

DIAGNOSTIC RADIOLOGY SECTION
Sidney Schulin, M.D., Director
Gordon B. Mansfield, M.D.
Walter S. Rose, M.D.
Evelio R. Bell, M.D.
Irving H. Stein, D.O.
Raymond E. Campbell, R.T., Adm. Asst.

THERAPEUTIC RADIOLOGY SECTION
Erwin Tepper, M.D., Director
Daniel Severo, M.D.
John R. Glover, Ph.D., Rad. Phys.

DOCKET NUMBER
PROPOSED RULE PR-50(44FR41483) (94)

August 31, 1979

Secretary of the Commission
USNRC
Washington D.C. 20555

Re: FR Docket #79-22078

Sirs:

We have two comments with respect to providing Adequate and Acceptable Emergency Planning Around Nuclear Facilities.

We are a 550 bed hospital with no close connection to a Nuclear Facility. However, prudence and the JCAH force us to prepare, at least minimally, for radiation emergencies. There have been at least two exposure incidents in NJ in the last several years (1) (2), both of which were not well responded to initially. NJ is in the process of making the transport of up to 20 curies of material legitimate without having to notify the Bureau of Radiation Protection or state police. Therefore it seems reasonable for us to prepare for a possible emergency.

In attempting to write up a response plan for the hospital, we found that there was little formal information except that provided by the AEC in 1974 (WASH-1321 thru 1325) and by ERDA (ERDA-20,-22,-75,-23).

The best information we could find was prepared by other hospitals.

We therefore urge that detailed, cost effective model plans be developed directed towards medical facilities with small likelihood for such emergencies.

The second comment relates to Item 5. Preparation for radiation accidents often entails the expenditure of time and money on a project that is quite expensive compared to its probable usefulness. It would seem appropriate that:

(1) industry directly pay for the care of patients exposed or contaminated "on-the-job".

and/or (2) licensing fees for industrial facilities be increased to cover these costs in some reimbursment scheme.

and/or (3) licensing fees extracted from hospitals be reduced if they provide such emergency response facilities.

(1)Health Physics Journal 1979,Vol.36, P 437

(2)Health Physics Journal 1976, Vol. 31, P 382

Sincerely,

John R. Glover
Radiation Safety Officer

Article 2 digest by card 9/11

3-302

POWER AUTHORITY OF THE STATE OF NEW YORK

10 COLUMBUS CIRCLE NEW YORK, N. Y. 10019
(212) 397-8200

DOCKET NUMBER
PROPOSED RULE PR-50(44FR41483) (95)

DOCKET NUMBER
PETITION RULE PRM-50-33(44FR32486) (25)

August 29, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Comments on Critical Mass Energy Project et al. Docket No. PRM-50-203 Petition for Rulemaking and NRC Advanced Notice of Proposed Rulemaking -- Emergency Planning

Dear Sir:

Enclosed are the Power Authority of the State of New York's ("Authority") comments on the petition for rulemaking filed by the Critical Mass Energy Project et al and published in the Federal Register on June 6, 1979, 44 Fed. Reg. 32486 and NRC's advanced notice of proposed rulemaking published in the Federal Register on July 17, 1979, 44 Fed. Reg. 41483.

Since the issues presented in the NRC advanced notice of proposed rulemaking encompass all the major issues raised in Critical Mass Energy Project's petition, the attached comments, pertaining to both notices, are structured in accordance with the outling of issues presented in NRC's advance notice. Duplicate copies are enclosed, one for each proceeding.

Very truly yours,

Vito J. Cassan
Assistant General Counsel
Power Authority of the State of New York

POWER AUTHORITY OF THE STATE
OF NEW YORK

Comments on NRC Advance Notice
of Proposed Rulemaking on Adequacy and Acceptance of Emergency
Planning Around Nuclear Facilities,
44 Fed. Reg. 41483.

Issues 1 and 14:

1. What should be the basic objectives of emergency planning?

   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?

   To what extent should these objectives be quantified?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

The basic objectives of nuclear emergency planning should be to reduce public radiation exposure through the implementation of the safest and most practical procedures available. The basic risks inherent in emergency procedures must be balanced against the risks of radiation exposure. While the NRC can develop guidelines for emergency planning, the emergency procedures used at the time of the accident will depend upon the nuclear facility site characteristics and the circumstances surrounding the specific accident.

A further objective of nuclear emergency planning should be the development of action guidelines which can be incorporated into overall state disaster preparedness programs. For practicality and economy, nuclear emergency programs should, to the maximum extent possible, draw upon existing disaster planning programs and resources and provide for integration of nuclear emergency planning with these programs and resources.

It is implied by the NRC and urged by Critical Mass Energy Project et al. ("Critical Mass") that evacuation be considered a basic objective of nuclear emergency planning. It is also suggested by Critical Mass that practice evacuations be mandated. While evacuation should be considered as one procedure among many by which public radiation exposure may be lessened, it should not be raised to the status of a basic objective. A program whose basic objective is evacuation overlooks many more feasible, reliable and safer emergency procedures including the simple expediency of taking shelter. Since the basic objective of any emergency planning is to provide the greatest safety to the public during an emergency, one must insure that the unintended adverse results of

emergency procedures do not outweigh the intended radiation protection. The Authority opposes the concept of full-scale practice public evacuations. To the Authority's knowledge, full-scale practice evacuations of the extent suggested have not previously been attempted for any disaster.

The Environmental Protection Agency ("EPA") in its report entitled "Evacuation Risks--An Evaluation" ("EPA Report") listed over 250 major disasters occurring between 1960 and 1973 which required evacuation. Such evacuations were due to natural disasters (hurricanes, floods, fire and wind) and man-made disasters (chemical spills and fire). Thirty-one of the events listed required the evacuation of 1000 or more individuals. Yet no indication appears that pre-practiced large-scale evacuations were performed or are being performed as part of emergency planning for such disasters. The risk of injury from practice evacuation has already been recognized by the Commission. As previously pointed out in the Commission's denial of the Public Interest Research Group et al. ("PIRG") petition, 40 Fed. Reg. 43779, on this issue, and the EPA's report, practice evacuations would expose the population to greater risks of personal injury, death and economic loss than the risk associated with the possibility of a nuclear accident.

The claim is made by Critical Mass that the Commission repudiated Wash 1400 (risk probability of nuclear accidents) by its statement of January 18, 1979, thus implying that the basis for the Commission's denial of PIRG's petition with respect to this issue is invalid. While the Commission repudiated the executive summary of that report, recognizing that the probabilities calculated and presented in Wash 1400 were subject to deviations, it also recognized that the report represented the best calculations of nuclear risks to date. Considered in light of the Commission's statement of January 18, 1979, no demonstration has been made that EPA's assessment of risks is not accurate nor that the Commission's finding on the issue is erroneous. Proponents of practice evacuations fail to evaluate the risks presented by practice evacuations against the alleged advantages. These proponents also fail to indicate how circumstances surrounding an actual accident would be incorporated into such practice evacuations. Nor do they consider the confusion which can arise due to differing circumstances existing at the time of actual evacuation, due to a nuclear or non-nuclear disaster, as compared to circumstances existing during practice evacuations.

If, for example, a flood, hurricane, tornado or chemical spill did occur in the "practice area" and evacuation was required, would the public reaction be to follow instructions at that time or follow a "pre-practiced" evacuation scheme which may dictate action for a different type of disaster? Alternately, would the public be directed to disregard information on nuclear emergency planning and practice evacuations in case of the more likely possibility of floods, hurricanes, blizzards, tornados, fires and chemical releases? Would the public be instructed that instead of relying on information concerning nuclear emergency measures, it must rely on official announcements and directions at the time if other disasters should be underway? The Authority agrees that the public should be made aware that emergencies may require evacuation and that State emergency agency directions should be followed during such an emergency. However, due to the risks inherent

in evacuation and the likely misapplication of practiced activities during both actual nuclear accidents and non-nuclear disasters, practice public evacuations will lessen public safety rather than promote it.

Issue 2:

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

The Authority believes that the basic elements of an effective emergency plan are:

(1) organization;

(2) information-gathering network;

(3) dissemination of information to responsible officials and the public; and

(4) governmental ability to coordinate the actions of the public in times of emergency.

With respect to the licensee's program, planning elements for nuclear emergencies involve methods to provide:

(1) off-site determinations, including timely, pertinent information regarding radiological release rates, concentration of selected nuclides in the effluent streams, and wind speed and direction for the duration of the accident, as part of the normal functions of the plant staff organization.

(2) continuously manned communication links to designated Federal, State, local and corporate office;

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State and local programs during such nuclear emergencies should involve methods to provide:

(1) trained manpower equipped with appropriate instruments for use on emergency radiation monitoring teams;

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4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response:

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Issue 5:

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

The Authority suggests that States could be encouraged to improve or establish emergency planning programs by implementation of a funding system similar to that established under the Coastal Zone Management Act. The funded program should incorporate emergency planning for the more likely natural and man-made disasters that occur frequently. Emergency planning programs encompassing these areas could lead to a substantial savings of life. It would also insure that emergency planning for nuclear disasters is compatible with the emergency response resources of the States.

Issues 6 and 14:

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State and local governments, and licensees be required to participate?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

State and local government agencies should be encouraged to participate in emergency drills. A funding program as advocated in response to Issue 5 (which should have to be implemented through legislation) could provide this encouragement.

Licensees are presently required by 10 C.F.R. 50 App. E to perform drills on a periodic basis. Proposed State drills should include the combined efforts of the Commission, State and local agency personnel and the licensee. Such drills could be performed on a semi-annual basis for the initial years of plant operation for familiarization of the agencies involved and thereafter annually.

Issue 7:

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

Public dissemination of information should be made in the context of overall State disaster planning. The focal point of emergency planning should be to inform local and state officials who will be responsible for emergency action. State and local actions, as embodied in the State emergency plan, are best presented to the general public by the State officials responsible for their preparation and implementation. The Commission, however, should be prepared to advise and assist the State in providing public information concerning the status of conditions during plant emergencies.

Critical Mass has suggested that detailed nuclear specific emergency action information be disseminated on an annual basis to the population within a 75,000 square mile area surrounding each plant. As indicated by the Commission, 40 Fed. Reg. 43779, the distribution of such information can only lead to confusion on the part of the public in the case of an actual emergency. Detailed information unrelated to actual conditions would severely handicap emergency response organizations in their efforts to direct the public in the event of an actual emergency. States, as part of their general disaster preparedness authority, should disseminate general information on public action during disasters, including nuclear emergencies. In this context, the Commission should cooperate with States by providing information and expertise on nuclear facility operation.

Issue 8:

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA520/1-78-016)?

Response:

The NRC/EPA joint task force recommends (NUREG-0396, EPA 520/1-78-016) ("NRC/EPA Report") two generic emergency planning zones around nuclear plants. The inner zone of 10 miles would be established for the direct exposure pathway and the outer zone of 50 miles would be established for the ingestion exposure pathway. The task force recommends that planning for predetermined protective actions is warranted within these zones since Protection Action Guides ("PAG") exposure limits could be exceeded in these areas in the event of a release comparable to a design-basis accident.

An effective emergency planning involves sound judgment, based on economic, societal and probabilistic considerations. The NRC/EPA report emphasized that current emergency practices are based upon public perceptions of the problem when it stated "...society tolerates much more probable non-nuclear events with similar consequence spectrums without any specific planning. Radiological emergency planning is not based upon probabilities, but on public perceptions of the problem and what could be done to protect health and safety. In essence, it is a matter of prudence rather than necessity". (NRC/EPA Report, Page I-2) While public perception must be accounted for in any emergency planning, the emphasis in emergency planning must be placed on the actual safety of the public.

The task force recommendation to increase the emergency planning zone for direct plume exposure to 10 miles has certain merit. This distance is based on site analyses performed by the task force. These analyses determined that the best estimate of releases following a loss of collant accident ("LOCA") would not cause PAGs to be exceeded beyond 10 miles for any site analyzed. Also determined was that even releases from the design basis accident (DBA-LOCA"), which the NRC/EPA report does not consider a realistic accident, and those from the less severe of the "Class 9" melt through accidents (involving releases of thousands of curies) would generally not cause even the most restrictive PAGs to be exceeded beyond about 10 miles from a power plant. Based on the results of these analyses, it appears that the use of a 10-mile nominal planning zone is a valid concept. However, it is recommended that the actual size of this zone should be determined on a site specific basis utilizing the topography, population distribution and meteorological conditions of the site. This would result in an emergency planning zone anywhere from a minimum of 5 miles to a maximum of 10 miles from the plant, based on site considerations.

The request of the Critical Mass to extend the area for planning for direct exposure to a radial distance of 50 miles represents a one hundredfold increase in area over present commonly used practices. This would likely entail similar increases in the effort, manpower, and cost of administering such a program. Critical Mass attempts justification based on information and graphs in the NRC/EPA report, which indicate that the PAGs could be exceeded beyond 50 miles. However, in reviewing the cited data and other information contained in the report, the following

two facts contradict Critical Mass: (1) the probability of large doses drops off substantially about ten miles from the reactor and (2) in the intervals beyond 10 miles, there is little apparent distinction between the effectiveness of comprehensive evacuation plans and generic strategies which require little, if any, specific planning, upon projected early fatalities or injuries. The graphs and information referenced by Critical Mass pertain to a "Class 9" reactor accident, which is categorized by a core meltdown in which the containment catastrophically fails and releases large quantities of radioactive material (tens of millions of curies) directly to the atmosphere. In comparison, the DBA-LOCA accident, which is not even considered a realistic accident scenario in the NRC/EPA report, would only involve the release of thousands of curies. In addition, the probability of a "Class 9" accident in any one State is approximately one in 10,000 per year (based on 6 reactors per State and 1.5x10-5 probability per reactor).

Given the small probability of occurrence for an accident of this severity and the fact that there is little apparent benefit to be derived from comprehensive evacuation planning past 10 miles, the request of Critical Mass is unwarranted and unreasonable. The socio-economic cost of such planning is by no means justified by the limited benefits derived therefrom.

Similar to the request of Critical Mass is the NRC/EPA task force recommendation of planning for the ingestion pathway out to 50 miles. Their basis for this planning distance is that the potential exposure from the ingestion pathway could greatly exceed that from exposure to the plume out to this distance. However, this distance is based on an expected revision of the milk pathway Protective Action Guides. In fact, the report states that, should the current guidelines be maintained, an Emergency Planning Zone ("EPZ") of about 25 miles would achieve the objectives of the task force. The expected revision would result in recommendations for certain limited types of preventive measures (such as putting cows on stored feed) at projected doses as low as 1.5 Rem, which is substantially below the current guidelines of 10 Rem. In addition, the NRC/EPA report seems to require the same extensive planning measures for the 50-mile ingestion pathway as those for the 10-mile direct exposure pathway This is corroborated by the following excerpts from that report: "Responsible government officials should apply the applicable planning items listed in NUREG-75/111 in the development of radiological emergency response plans... The EPZ guidance does not change the requirements for emergency planning; it only sets bounds on the planning problem." (NRC/EPA Report, Pages 11, 14).

Based on the seemingly extensive planning requirements and the weak methodology utilized in developing the 50-mile guidelines, the task force recommendations for the ingestion pathway are not feasible nor reasonable. It is, of course, recognized that exposure from the ingestion pathway can exceed that from the plume. However, exposure through the ingestion pathway is much more easily controlled, thus, precluding the need for comprehensive preplanning.

The major ingestion area of concern is the milk pathway. The necessary actions to mitigate exposure from this pathway would entail the following: (1) determine if milk or feed levels of radioactivity are excessive, (2) identify farms in the area and sample milk and feed, (3) put cows on stored feed and/or take milk off the market until levels are acceptable. It is, therefore, felt that the performance of an assessment of the ingestion pathway parameters would be adequate preparation to handle exposure from the ingestion pathway in lieu of specific planning past 10 miles.

In general, emergency planning for direct exposure beyond 10 miles would be required only for the more severe of the "Class 9" melt-through accidents. As was previously stated, the design-basis accident would be adequately handled with emergency planning out to a maximum of 10 miles. In view of the large number of plant safety systems and the low probability for a "Class 9" reactor accident, it is not reasonable to have comprehensive planning for this type of nuclear accident. The use of State plans during natural disasters has proven to be quite effective as is documented by events such as the evacuation of hundreds of thousands of people from Texas to Louisiana for hurricane Carla in 1961. It must be realized that, even without comprehensive emergency planning past 10 miles, there certainly would be significant reductions in the population dose by utilizing, on an ad hoc basis, the general State emergency plans and the same considerations that went into the 10-mile area initial planning determinations.

Issues 9, 11 and 13:

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

If an event occurs which could result in the possible release of radioactivity off site in quantities designated as harmful by the site emergency plan, the licensee and/or Commission resident inspector should notify the Commission office of emergency response and the State emergency response office. The Commission, with the aid of the licensee, should evaluate the occurrence and submit information and recommendations on emergency action to the State emergency response office. Based upon the information and recommendations received, the State office of emergency planning should have the final power to determine

whether emergency actions should be implemented.

Issues 10 and 11:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The focus for any emergency action plan for all types of possible disasters lies both legally and practically with the individual States. State agencies, in conjunction with local officials and with the aid of Federal agencies, are in the best position to coordinate disaster preparedness. Along with interstate action agreements, State plans could maximize the protection to its citizens from all forms of major disasters. By allocating manpower and money to generic emergency functions in a unified State emergency plan, considerable gains in public safety can be realized through the efficient use of manpower and monies available.

The Authority believes that the Commission should support local and State emergency planning by providing its expertise in the nuclear field to aid States in the development and application of general emergency response programs including nuclear facilities. In addition to developing additional guidelines which could be an aid to State emergency planning, the Commission should develop detailed information on nuclear emergency response prerogatives and measures which can be initiated in times of nuclear emergency. The Commission should also develop an emergency response group which will coordinate its efforts with local and State government officials to insure that information is efficiently accumulated and disseminated during an emergency and that actions based upon this information are taken. Such a group must not only be familiar with emergency planning for nuclear facilities but with the overall concept of disaster preparedness and the status and ability of local and State programs to initiate emergency actions. This would require close cooperation, on a continuing basis, with local and State officials. Such planning should, however, be made within the context of a unified State emergency planning program.

Issue 12:

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

Licensees in conjunction with the Commission should provide radiological emergency response seminars for State and local governmental personnel. On the local level, the licensee can familiarize local personnel with its facilities, its emergency response plan and the State-licensee emergency response plan interface.

On the State level, the licensee should familiarize State personnel with its facilities and provide seminars which will enable it to integrate its emergency plan and resources with that of the State. The NRC could also hold seminars for State personnel to explain the present state of emergency planning on a national level and integrate its resources with those of the State.

POWER AUTHORITY OF THE STATE
OF NEW YORK

Comments on NRC Advance Notice
of Proposed Rulemaking on Adequacy and Acceptance of Emergency
Planning Around Nuclear Facilities,
44 Fed. Reg. 41483.

Issues 1 and 14:

1. What should be the basic objectives of emergency planning?

   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?

   To what extent should these objectives be quantified?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

The basic objectives of nuclear emergency planning should be to reduce public radiation exposure through the implementation of the safest and most practical procedures available. The basic risks inherent in emergency procedures must be balanced against the risks of radiation exposure. While the NRC can develop guidelines for emergency planning, the emergency procedures used at the time of the accident will depend upon the nuclear facility site characteristics and the circumstances surrounding the specific accident.

A further objective of nuclear emergency planning should be the development of action guidelines which can be incorporated into overall state disaster preparedness programs. For practicality and economy, nuclear emergency programs should, to the maximum extent possible, draw upon existing disaster planning programs and resources and provide for integration of nuclear emergency planning with those programs and resources.

It is implied by the NRC and urged by Critical Mass Energy Project et al. ("Critical Mass") that evacuation be considered a basic objective of nuclear emergency planning. It is also suggested by Critical Mass that practice evacuations be mandated. While evacuation should be considered as one procedure among many by which public radiation exposure may be lessened, it should not be raised to the status of a basic objective. A program whose basic objective is evacuation overlooks many more feasible, reliable, and safer emergency procedures including the simple expediency of taking shelter. Since the basic objective of any emergency planning is to provide the greatest safety to the public during an emergency, one must insure that the unintended adverse results of

emergency procedures do not outweigh the intended radiation protection. The Authority opposes the concept of full-scale practice public evacuations. To the Authority's knowledge, full-scale practice evacuations of the extent suggested have not previously been attempted for any disaster.

The Environmental Protection Agency ("EPA") in its report entitled "Evacuation Risks--An Evaluation" ("EPA Report") listed over 250 major disasters occurring between 1960 and 1973 which required evacuation. Such evacuations were due to natural disasters (hurricanes, floods, fire and wind) and man-made disasters (chemical spills and fire). Thirty-one of the events listed required the evacuation of 1000 or more individuals. Yet no indication appears that pre-practiced large-scale evacuations were performed or are being performed as part of emergency planning for such disasters. The risk of injury from practice evacuation has already been recognized by the Commission. As previously pointed out in the Commission's denial of the Public Interest Research Group et al. ("PIRG") petition, 40 Fed. Reg. 43779, on this issue, and the EPA's report, practice evacuations would expose the population to greater risks of personal injury, death and economic loss than the risk associated with the possibility of a nuclear accident.

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The task force recommendation to increase the emergency planning zone for direct plume exposure to 10 miles has certain merit. This distance is based on site analyses performed by the task force. These analyses determined that the best estimate of releases following a loss of collant accident ("LOCA") would not cause PAGs to be exceeded beyond 10 miles for any site analyred. Also determined was that even releases from the design basis accident (DBA-LOCA"), which the NRC/EPA report does not consider a realistic accident, and those from the less severe of the "Class 9" melt through accidents (involving releases of thousands of curies) would generally not cause even the most restrictive PAGs to be exceeded beyond about 10 miles from a power plant. Based on the results of these analyses, it appears that the use of a 10-mile nominal planning zone is a valid concept. However, it is recommended that the actual size of this zone should be determined on a site specific basis utilizing the topography, population distribution and meteorological conditions of the site. This would result in an emergency planning zone anywhere from a minimum of 5 miles to a maximum of 10 miles from the plant, based on site considerations.

The request of the Critical Mass to extend the area for planning for direct exposure to a radial distance of 50 miles represents a one hundredfold increase in area over present commonly used practices. This would likely entail similar increases in the effort, manpower, and cost of administering such a program. Critical Mass attempts justification based on information and graphs in the NRC/EPA report, which indicate that the PAGs could be exceeded beyond 50 miles. However, in reviewing the cited data and other information contained in the report, the following

two facts contradict Critical Mass: (1) the probability of large doses drops off substantially about ten miles from the reactor and (2) in the intervals beyond 10 miles, there is little apparent distinction between the effectiveness of comprehensive evacuation plans and generic strategies which require little, if any, specific planning, upon projected early fatalities or injuries. The graphs and information referenced by Critical Mass pertain to a "Class 9" reactor accident, which is categorized by a core meltdown in which the containment catastrophically fails and releases large quantities of radioactive material (tens of millions of curies) directly to the atmosphere. In comparison, the DBA-LOCA accident, which is not even considered a realistic accident scenario in the NRC/EPA report, would only involve the release of thousands of curies. In addition, the probability of a "Class 9" accident in any one State is approximately one in 10,000 per year (based on 6 reactors per State and 1,5x10-5 probability per reactor).

Given the small probability of occurrence for an accident of this severity and the fact that there is little apparent benefit to be derived from comprehensive evacuation planning past 10 miles, the request of Critical Mass is unwarranted and unreasonable. The socio-economic cost of such planning is by no means justified by the limited benefits derived therefrom.

Similar to the request of Critical Mass is the NRC/EPA task force recommendation of planning for the ingestion pathway out to 50 miles. Their basis for this planning distance is that the potential exposure from the ingestion pathway could greatly exceed that from exposure to the plume out to this distance. However, this distance is based on an expected revision of the milk pathway Protective Action Guides. In fact, the report states that, should the current guidelines be maintained, an Emergency Planning Zone ("EPZ") of about 25 miles would achieve the objectives of the task force. The expected revision would result in recommendations for certain limited types of preventive measures (such as putting cows on stored feed) at projected doses as low as 1.5 Rem, which is substantially below the currect guidelines of 10 Rem. In addition, the NRC/EPA report seems to require the same extensive planning measures for the 50-mile ingestion pathway as those for the 10-mile direct exposure pathway This is corroborated by the following excerpts from that report: "Responsible government officials should apply the applicable planning items listed in NUREG-75/111 in the development of radiological emergency response plans... The EPZ guidance does not change the requirements for emergency planning; it only sets bounds on the planning problem." (NRC/EPA Report, Pages 11, 14).

Based on the seemingly extensive planning requirements and the weak methodology utilized in developing the 50-mile guidelines, the task force recommendations for the ingestion pathway are not feasible nor reasonable. It is, of course, recognized that exposure from the ingestion pathway can exceed that from the plume. However, exposure through the ingestion pathway is much more easily controlled, thus, precluding the need for comprehensive preplanning.

The major ingestion area of concern is the milk pathway. The necessary actions to mitigate exposure from this pathway would entail the following: (1) determine if milk or feed levels of radioactivity are excessive, (2) identify farms in the area and sample milk and feed, (3) put cows on stored feed and/or take milk off the market until levels are acceptable. It is, therefore, felt that the performance of an assessment of the ingestion pathway parameters would be adequate preparation to handle exposure from the ingestion pathway in lieu of specific planning past 10 miles.

In general, emergency planning for direct exposure beyond 10 miles would be required only for the more severe of the "Class 9" melt-through accidents. As was previously stated, the design-basis accident would be adequately handled with emergency planning out to a maximum of 10 miles. In view of the large number of plant safety systems and the low probability for a "Class 9" reactor accident, it is not reasonable to have comprehensive planning for this type of nuclear accident. The use of State plans during natural disasters has proven to be quite effective as is documented by events such as the evacuation of hundreds of thousands of people from Texas to Louisiana for hurricane Carla in 1961. It must be realized that, even without comprehensive emergency planning past 10 miles, there certainly would be significant reductions in the population dose by utilizing, on an ad hoc basis, the general State emergency plans and the same considerations that went into the 10-mile area initial planning determinations.

Issues 9, 11 and 13:

9. Under what circumstances and using what criteria should a licensee notify State, local and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

If an event occurs which could result in the possible release of radioactivity off site in quantities designated as harmful by the site emergency plan, the licensee and/or Commission resident inspector should notify the Commission office of emergency response and the State emergency response office. The Commission, with the aid of the licensee, should evaluate the occurrence and submit information and recommendations on emergency action to the State emergency response office. Based upon the information and recommendations received, the State office of emergency planning should have the final power to determine

whether emergency actions should be implemented.

Issues 10 and 11:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The focus for any emergency action plan for all types of possible disasters lies both legally and practically with the individual States. State agencies, in conjunction with local officials and with the aid of Federal agencies, are in the best position to coordinate disaster preparedness. Along with interstate action agreements, State plans could maximize the protection to its citizens from all forms of major disasters. By allocating manpower and money to generic emergency functions in a unified State emergency plan, considerable gains in public safety can be realized through the efficient use of manpower and monies available.

The Authority believes that the Commission should support local and State emergency planning by providing its expertise in the nuclear field to aid States in the development and application of general emergency response programs including nuclear facilities. In addition to developing additional guidelines which could be an aid to State emergency planning, the Commission should develop detailed information on nuclear emergency response prerogatives and measures which can be initiated in times of nuclear emergency. The Commission should also develop an emergency response group which will coordinate its efforts with local and State government officials to insure that information is efficiently accumulated and disseminated during an emergency and that actions based upon this information are taken. Such a group must not only be familiar with emergency planning for nuclear facilities but with the overall concept of disaster preparedness and the status and ability of local and State programs to initiate emergency actions. This would require close cooperation, on a continuing basis, with local and State officials. Such planning should, however, be made within the context of a unified State emergency planning program.

Issue 12:

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

Licensees in conjunction with the Commission should provide radiological emergency response seminars for State and local governmental personnel. On the local level, the licensee can familiarize local personnel with its facilities, its emergency response plan and the State-licensee emergency response plan interface.

On the State level, the licensee should familiarize State personnel with its facilities and provide seminars which will enable it to integrate its emergency plan and resources with that of the State. The NRC could also hold seminars for State personnel to explain the present state of emergency planning on a national level and integrate its resources with those of the State.

COMMENTS ON ADDITIONAL REGULATIONS ON EMERGENCY PLANS BEING CONSIDERED BY NRC
September 4, 1979

PROPOSED RULE PR-50 (44FR41483) (96)

Questions included in July 17, 1979 U.S. NRC News Release:

1) What should be the basic objectives of emergency planning?

The basic objectives should be to reduce and prevent both short and long term radiation exposure to the public, including capability to evacuate or shelter the public, or use other interdiction such as protection of food and water, as necessary for the protection of their health and safety.
To be effective these objectives must be quantified. They should be specific to the site and environs of the site including transportation routes and means, and conditions at the time of the accident including especially weather-meteorological conditions, size and density of population included in type of population should be temporary, such as those at recreational facilities, and age, such as in schools. Also included should be emergency response teams available and special facilities needed, as well as size of area to be affected and/or evacuated and specifics of notification-communication procedures.

2) What constitutes an effective emergency response plan for State and local agencies and for NRC licensees? What are the essential elements and do existing NRC requirements and guidance lack any of these?

An effective emergency response plan should include factors mentioned in 1) and the following.
Licensees should:
take care of on site personnel and control radiation releases
monitor and promptly notify authorities when an accident occurs
coordinate with local and State agencies in developing plans
set up public education and practise evacuation sessions or other needed emergency response plans such as sheltering.
send notice of plans to customers with electric bills at least once a year.
State and local agencies should coordinate emergency response with licensee and add special training, drills, etc. needed for radiation emergencies. They should also do independent monitoring for radiation releases, including environmental monitoring, and they should make provision for periodic update and reviw of plans. They should also help set up public education efforts.

NRC existing requirements lack all of the following:
Public information and education and provision for practise for evacuation needed to insure adequate public participation and response in case of an accident. Licensees should be required to publicize plans.
Coordination of plans by many different emergency response agencies and licensees in local and State areas, including interstate areas.
Adequate procedures for notification of emergency to local authorities. Automatic alarm signals when radiation emissions exceed limits should be connected to local agencies, with back-up procedure in case of loss of power, phones, etc.
Set up of special facilities and radiation trained response personnel needed for care of radiation victims that local hospitals, etc. can't accept or care for.
Need to clarify with local agencies the amounts of radiation and the significance in releases and necessary responses, such as evacuation, sheltering, and other interdiction.

3) Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when?

Yes, because this would give some assurance of all areas meeting necessary requirements. This should become effective by January 1980 or as soon as possible.

4) Yes, and this should become effective immediately.

5) Should financial assistance be provided to State and local government for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be source of the funds?

The Licensee should pay any cost needed for added protection beyond that already provided for other emergencies by local and state agencies, i.e. effects of radiation, including education, special evacuation drills, special personnel and facilities. This cost should be figured in as a cost of producing electricity by using nuclear power and as such should be a part of the rate base for those using it. Financial assistance from the Federal government would pass this cost on to all those in the U. S. and so is unwarranted.
In Illinois Gov. Thompson has proposed a 3 year warning and disaster plan which incluc
a) Round the clock radiological monitoring of all Ill. Nuclear plants
b) A fee collection system from nuclear facilities by the legislature, including a $350,000 one-time charge to each station, a yearly fee of $75,000 from each operating reactor, a $25,000 annual fee from each away-from-reactor storage facility for spent fuel, and a $1,000 charge for each shipment of spent nuclear fuel.
c) A new Nuclear Safety emergency Preparedness Fund, administered by the Illinois Department of Public Health, to collect fees from the utilities. The money will finance the monitoring, part of the cost of developing the disaster plan, training of state and local emergency response teams, simulated accident exercises and special emergency response equipment.
d) Under Illinois Nuclear Safety Preparedness Act Thompson will ask the legislature for $1 million to launch the first phase of the monitoring program and to develop the disaster plan.

6) Should radiological emergency response drills be a requirement? If so, under whose authority: Fed., State, or local government? To what extent should Federal, State and local government and licensees be required to participate? Yes. There should be minimum essential requirements decided upon by Fed. government in cooperation with State, local and licensees. State and local governments should set plans which are site and area specific and which could be more restrictive than Federal requirements if needed and desired. It is important that evacuation area for drills be set uniformly at at least a 7 degree sector radiating from the facility for a distance of at least 40 miles, and that this area be interstate if the plant location requires it. All should be required to participate so that there can be developed an adequate plan.

7) How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Special automatic monitors, which put out warnings not just on site but also to local communities and emergency back ups for them should be put in place. There also needs to be better monitoring and notification of truck and rail transport accidents. A possibility that might facilitate this would be putting a special dye in the waste so leakage would be noticed if radiation monitors failed. According to level of release the public should know through education what prearranged and practised actions to take, including notification of state and Federal agencies concerned. In addition to better monitoring the public could be sent notices with their electric bills, informed through printed and electronic media, schools, etc. If the public is informed and made a part of the planning it will reduce fear and minimize confusion and hazards and maximize public participation and cooperation in case of accidents.

8) What actions should be taken in response to the recommendations of the joint NRC/ EPA Task Force Report (NUREG-0396/ EPA/520/1-78-016)?

I sent in comments on this to Mr. Collins in May 14, 1979, but will repeat some

these here. This is an excellant report and it's suggestions should be followed except in the following areas:

1) Recommendations should be revised because probability of accidents underlying much of the planning is based on the Rasmusson Reactor Safety Study, from which the Nuclear Regulatory Commission withdrew its support in January, 1979; it is considered not reliable because the margin of error was greater than thought, so that the chances of an accident could be greater or less than stated.

2) In light of the accident at 3-Mile Island Nuclear Plant the statement that"probability of accidents more serious than design base are low (p. II-6) should be changed to include Class 9 accidents, not considered in Safety Analysis of Plants' licenses. Also statement that it "does not recommend that massive emergency preparedness programs be established around all nuclear power stations" should be reevaluated.

3) The conclusion that emergency plans can include evacuation as in other disaster plans should be reevaluated. Radiation poses special problems with a possible need to go underground or stay indoors, and also contamination of usual facilities with radiation may make them unusable. Also the length of time water, food, soil,etc. may be contaminated is different than in other emergency plans.

9) Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies?
Any release of radiation above design base should be cause for notification, with type of response geared to amount and type and duration of release and ability of ligencee to control it.

When, how, to what extent and by whom should public be notified of these incidents? Automatic alarms and independent monitoring are necessary as licensees past records show a failure to take this responsibility in a prompt and responsible manner. The Emergency reponse plans should specify exactly who should be informed and how to notify the public. Plans should be site and area specific, i.e. in Rockford the County Radiological Defense Officer and possibly the Emergency Services and Disaster Agency would probably be notified.

Questions 10, 11, 12, see above answers.

Question 13. See 9 above. Also as evidenced by 3-Mile Island accident licensee can't probably be relied on alone, and there needs to be independent evaluation and monitoring and a carefully worked out emergency response plan which involves cooperation of licensee, and Federal, State and local government.

Question 14 Yes, especially if the public were involved in the planning for emergency response and drills, and these were a part of a total education plan.

Betty Johnson, chairperson of the
Natural Resources and Energy Committee of
the League of Women Voters of Rockford, Illinoi

3-315

PIRGIM

Public Interest Research Group in Michigan
590 Hollister Bldg. • 106 W. Allegan Street • Lansing, Michigan 48933 • 517/487-6001

30 August 1979

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483) (97)

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Comments on Regulations Covering Evacuations
in the Event of a Nuclear Power Plant Accident

To Whom it May Concern:

It is our position that the existing regulations fall far short of what is required to protect the public health and safety.

Enclosed are our comments which address in great detail the ways in which we believe the regulations can and should be improved.

Sincerely,

Tracy Dobson
Legal Director

PIRGIM
Public Interest Research Group in Michigan
590 Hollister Bldg. • 106 W. Allegan Street • Lansing, Michigan 48933 • 517/487-6001

RESPONSE OF THE PUBLIC INTEREST RESEARCH GROUP IN MICHIGAN TO THE NRC'S REQUEST FOR COMMENTS ON REGULATIONS COVERING EVACUATIONS IN THE EVENT OF A NUCLEAR POWER PLANT ACCIDENT

General Comments

The following is a summary of the recommendations contained in the response of the Public Interest Research Group in Michigan (PIRGIM) to the NRC's July 17, 1979 request for comments on regulations covering evacuations in the event of a nuclear power plant accident.

1. Regulations currently in force are weak in many areas. We urge the prompt promulgation of rules addressing the issues raised in the July 17, 1979 request for comments. Some of the most important areas needing attention are:

a. Emergency plans are currently developed for too small an area. There appears to be a substantial likelihood that protective actions will be needed within a 50 mile radius from the plant, and emergency planning should reflect this likelihood.

b. Currently, monitoring equipment in the area surrounding most plants is inadequate to cope with a serious accident.

c. There is a need for clear delineation of lines of communication between the licensee, and federal, state, and local agencies, and for close coordination of the activities of all of these entities in the development of emergency plans.

d. There is a need for annual drills, including evacuation of a sector of the general public.

e. There is a need for increased public education. This should include annual notification of the public by the licensee of the actions that they might be asked to take in the event of an accident, as well as public hearings during the development of the emergency plans.

f. Regulations need to be developed which define the types of dangerous, or potentially dangerous, situations which licensees must report to civil authorities. Civil authorities should bear the responsibility for deciding on appropriate protective actions.

2. A critical need exists for actions by the NRC to ensure the improvement of emergency plans at currently operating reactors, and to protect the public safety during the improvement of these plans.

3. The emergency planning process should be intimately tied to the siting of any future plants. A fully developed and tested emergency plan should be required before a construction permit is issued for any new plant. Licensees with plants under construction should immediately begin to work with the appropriate state, local, and federal authorities to develop plans for the area around the plant.

4. There is a critical need for more funding for emergency planning. Additionally, licensees should begin to bear a more equitable portion of the financial burden of emergency planning.

Response to Questions

1-2. The goals of effective emergency planning should be to create a set of procedures which, when followed, will maximally protect the public health and safety. The plan should ensure that information on appropriate actions to take reaches the public promptly, and should provide the infrastructure necessary for a successful evacuation (that is, clear and comprehensive instructions for evacuees, a system for housing, feeding, etc. evacuees, adequate medical facilities, adequate equipment and personnel to carry out an evacuation, and so on). The plan should also provide for drills, including sample evacuations of the public from representative sectors, to ensure that a plan which looks good on paper can actually be carried out.

Licensee response plans should include:

a. Clear identification of the responsibilities of the licensee for accident assessment.

b. Clear identification of their responsibilities for reporting accidents of varying types and varying severity to state and local authorities.

c. Clear identification of the methods by which communication between the licensee and civil authorities will be maintained as the emergency progresses.

d. Delineation of the responsibilities of the licensee to assist with protective actions offsite (warning notice to residents, evacuation, etc.).

e. Provisions to assemble, evacuate (if necessary), and to provide treatment for injured workers.

f. Clear delineation of authority lines within the plant staff.

g. Description of how plant staff will be organized to respond most efficiently to the emergency.

h. Licensee's responsibilities for training local and state agency staff.

State and local response plans should include many things. Essentially the plan must be detailed and comprehensive enough to accomplish the goals identified above, serving as a framework for an effective emergency response. Some general categories which need to be addressed include:

3-317

a. Relationships between federal, state, and local agencies, and relationships between these agencies and the licensee. Communication channels and areas of responsibility need to be clearly delineated.

b. Relationships with contiguous states which could be affected.

c. Medical care for plant workers, emergency workers, and affected citizens.

d. Equipment availability. The plan should ensure that adequate equipment for evacuation, etc. is available in the area, or can be brought to the area quickly.

e. Notification of public. Adequate methods must be developed to inform citizens of the actions they should take.

f. Evacuation provisions. Provisions must be made for routing evacuees, for housing them, feeding them, and so on; for evacuating those without cars or whose mobility is restricted for other reasons (prisoners, hospital patients, etc.), and for keeping track of those who have been exposed to a significant amount of radiation.

g. Emergency worker exposure. Provision must be made to keep track of and regulate the amount of radiation that emergency workers are exposed to.

h. Monitoring provisions. Provisions must be made for radiation monitoring in the area affected. This must include monitoring for possible contamination of food and water supplies. Additionally, there is a need for the installation of monitoring equipment around currently operating plants. The monitoring capacity to cope with a serious accident should be, to the extent possible, in place prior to an accident.

i. Scope of plan. Emergency and evacuation plans must encompass a realistic area. The necessity for extending evacuation planning beyond a ten mile radius from the plant is discussed further on.

j. Drill provisions. Provisions must be made for test drills of the plan. These drills should include a trial evacuation of a representative sector.

k. Public education. Plans should include provisions for educating the public before an emergency. People within the evacuation area must be informed of actions they may be called upon to take. However, education should not be limited to those living near the plant. The other residents of the state also need a general understanding of what will happen in the state in the event of an accident, and of the actions that they may be asked to take (housing, evacuees, etc.).

l. Review provisions. Provision should be made for regular review of the plan, and for regular public participation in public hearings to review the plan.

m. Training. The training responsibilities of the various agencies involved should be outlined.

Deficiencies in NRC guidelines and requirements include:

a. Inadequate drill requirements. Drills which test the actual feasibility of the plan by requiring test evacuations of a portion of the area near the plant are not required.

b. Inadequate scope of plans. Currently, evacuation planning is not required for a large enough area. In the NRC Checklist for State and Local Plans it is suggested that evacuation routes etc. be planned for the low population zone (LPZ), and for areas beyond "if necessary." It is clear that planning for up to a ten mile radius from the plant is always necessary. The March GAO Report recommended increasing the size of the planning zone to ten miles, as did a joint EPA/NRC report issued in December, 1978.[1] The recommendations of this report—that planning for direct exposure be carried out within a ten mile radius, and that planning for exposure through food ingestion be carried out within a fifty mile radius from the plant—represent the minimum acceptable standards. We favor planning for direct exposure within the entire fifty mile area. The state of Pennsylvania, for example, was told by NRC Chairperson Hendrie to be prepared to evacuate people from 20 to 25 miles from the reactor at on point in the TMI accident. Protective Action Guidelines (PAG's) prepared for the NRC/EPA report also support evacuation planning to 50 miles from the plant. Dose probability figures given for a core melt accident show a 10% chance of exceeding the PAG range for whole body exposure between 40 and 50 miles from the plant, and of exceeding the thyroid range between 28 and over 100 miles from the plant. Further calculations show the possibility of exceeding the PAG's 100 miles away to be between 15 and 70% for a core melt accident. It appears, then, that there is a substantial likelihood that EPA guidelines will require protective action within, and beyond, a 50 mile radius from the plant.

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[1] "Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies," EMD-78-110 (March 30, 1979).

c. Currently, the ability to develop an adequate emergency plan is not a criterion for site selection. This is discussed further in question 4.

d. Currently, there are inadequate provisions for educating the public about appropriate emergency actions prior to an accident, and for involving the public in review of the plan.

3. It is clear to PIRGIM that the public safety demands NRC concurrence in emergency plans of states with currently operating reactors. Emergency planning has been ignored by utility companies, and by government at all levels, because of the prevailing feeling--proven to be fallacious by the TMI accident—that an accident requiring evacuation could not happen. Such an accident did happen at TMI on March 28, 1979, and subsequent events showed clearly the necessity of prior emergency planning, and of prior communication and understanding between the state agencies and the NRC. In one example of the problems surrounding evacuation decisions at TMI, Governor Thornburgh testified on August 21 that he received a recommendation from the NRC staffperson Paul Collins to order evacuation of the area near the plant, but that, as he was personally unfamiliar with Mr. Collins he called NRC Chairperson Joseph Hendrie to confirm the recommendation. Mr. Hendrie had not been informed of the conclusion of the group of staff people Collins had met with, which included Harold Denton, that a general evacuation should be ordered, and so he counselled Thornburgh to wait. This type of confusion cannot be allowed to continue to characterize NRC-state relationships. More substantial NRC involvement in state and local planning efforts is evidently needed to clearly state and federal roles, and to ensure that state and federal agencies can work together more smoothly than they did at TMI.

Additionally, various examinations of state emergency plans have found them to be woefully inadequate. The March 30 GAO report found inadequacies in state planning. Six test runs for state plans observed by the NRC in 1977 revealed significant failures in execution of the plans. This is a more serious indictment when it is remembered that these drills involved only members of the official emergency response group, and consisted largely of verifying

the communications network between these officials. No actual public evacuation was conducted. Investigation of Michigan's emergency planning has revealed many of the common problems plaguing most plans—confused lines of communication, local resources which are inadequate to conduct an actual evacuation, inadequate medical planning, and so on.[2] Clearly, there is a need for NRC review of state plans, to ensure that they meet minimum reasonable standards.

In particular, PIRGIM emphasizes two points. First, we endorse the approach taken towards operating plants in the PIRG/Critical Mass petition for rulemaking.[3] Such an approach would require operating plants to develop, in cooperation with appropriate government officials, plans to protect the public in the event of an offsite accident. It would also require the NRC to immediately begin to analyze operating reactors to determine the ones which pose the greatest threat to the public safety. After determining the plants in need of most immediate attention, the NRC would take action to increase the plant's safety, and to improve the quality of emergency planning in the area. Appropriate steps could include ordering tests of the emergency plan, and de-rating, or temporarily closing the plant. To determine the order of priority for such actions, the NRC should examine factors including the past safety record of the plant (past radioactive releases, worker exposure, past violations of NRC rules, etc.), any design, construction, or operational deficiencies known to the NRC, and factors affecting the feasibility of evacuation (population density, quality of emergency planning, competency of state and local response agencies, etc.).

Secondly, PIRGIM is concerned that NRC review of state plans be based on standards which reflect the quality of plan needed to adequately protect the public safety. Current NRC standards are insufficient for this task. We urge

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[2]Study by PIRGIM, August 1979.

[3]Petition for Rulemaking, PIRG's Critical Mass; "In the Matter of Amending the Commission Regulation Pertaining of Offsite Emergency Response Plans for Nuclear Facilities."

the NRC to promulgate rules to address issues such as those raised by the July 17, 1979 Request for Comments, and to maintain an ongoing dialogue with the states to ensure that emergency plans are updated and improved as is necessary.

4. PIRGIM believes that NRC concurrence in local and state emergency plans is necessary, not only at the operating license review stage, but also before a construction permit is issued. Currently, only preliminary examination of emergency planning is required for issuance of a construction permit, and a complete emergency plan is not required until an operating license is issued. We advocate a reversal of this process, in which the ability of an area to develop an adequate emergency plan is considered as one of the determinants of its suitability as a reactor site. This approach would help to eliminate as potential sites areas which are inherently difficult to evacuate. The Fermi II plant in Monroe, Michigan, located approximately 35 miles south of the Detroit-Windsor area and about 35 miles north of Toledo is an outstanding example of such a poorly chosen site. Integrating the proof of adequate emergency planning into the site selection process could avoid the selection of unsuitable sites such as Monroe, Michigan. Prior to issuance of a construction permit, licensees should be required to demonstrate the following:

a. That a complete emergency plan meeting all NRC criteria has been developed for the area.

b. That the plan has been tested for feasibility in at least one drill. This drill should have included participation of affected state and local agencies as well as evacuation of a representative sector of the area surrounding the plant.

c. That the contents of the emergency plan have been disseminated to the affected population, and that public hearings have been held for comment on the contents of the plan.

Plants which are currently under construction should immediately begin to work towards meeting these criteria, and no further construction permits should be issued for new plants until they have met these requirements.

5. The first thing that becomes evident in an investigation of the financing of emergency plans is that funding at the state and local level is prohibitively low. Investigation of planning in Michigan revealed that local officials were almost universally frustrated with the low level of resources allocated to them. One such official alleged that it was "impossible" to meet even present NRC guidelines, given the resources available to him. The emergency preparedness program has received low priority from the NRC as well. A memo from Robert Ryan, director of the NRC Office of State Programs stated that the Fiscal Year 1978 NRC expenditures for the emergency preparedness program involving state and local officials would equal $250,000--15% (.0015) of the NRC's total FY 1978 budget.

It is clear that the majority of funding for emergency planning has come, historically, from state and local governments. This is well within the American tradition which views the provision of services to business as an important function of government. Many areas of policy and law have reflected this emphasis, and special tax provisions, direct and indirect subsidies, and many other such "utilities" have abounded. However, the nuclear industry has been the recipient of an almost mind-boggling number of such "utilities" and has surely reached the stage at which it should begin to pay more of its own way. It seems ironic that residents of the area around the plant should be compelled to pay for emergency planning to protect themselves from the plant. Rather, it is clear that the utility company should accept the costs which are necessary for it to be a safe neighbor, including the costs of emergency planning. Just as technological safety devices within the plant are viewed as a cost of business necessary to make the plant as safe a neighbor as is possible, so should evacuation planning be viewed.

However, ratepayers of nuclear utilities are already burdened with rates higher than those of ratepayers of non-nuclear utilities. (Between 1973 and 1977, nuclear utilities received rate increases that were 27.3% higher than those received by non-nuclear utilities, according to 1978 report by Environmental

Action Foundation and Critical Mass Energy Project.)[4] Clearly, requiring nuclear utilities to take on all costs of emergency planning will further burden these ratepayers. This, however, does not affect the conclusion that companies building new plants should be required to absorb the costs of providing adequate emergency planning to the areas surrounding the plant.

Several approaches are possible for already operating plants. One possible remedy is to assess utilities for a percentage of the costs of bringing emergency plans up to an acceptable level, while providing some federal funding as well. A system of grants could also be developed, under which a larger percentage of the cost of planning could be borne by the federal government, upon a showing by the company, ratepayers, or other interested groups that the company's nuclear investment had already placed an unusually heavy burden on the ratepayers. Additionally, the NRC budget should be increased to allow it to better perform its functions of reviewing plans, and to allow it to better provide technical assistance to states in planning, as well as increasing its regular communications with state emergency planning agencies.

7. It is imperative that the public be informed in advance of the emergency actions that it might be called upon to take. The March 30 GAO report also expressed this conviction:

> (The NRC should) require that the people living near nuclear facilities be provided with information about the potential hazard, the emergency actions planned, and what to do in the event of an accidental radiological release. (p. 35)

It appears to us that this information distribution should be accomplished in several complementary ways:

a. Public distribution of emergency plans, and public hearings on these plans. It is important that the people whose health and safety the plans are designed to protect have the opportunity to participate in the development of these plans. A public hearing process also allows for debate on alternative measures, and thus, possibly improves the plan.

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[4] "Nuclear Power & Utility Rate Increases," Critical Mass Energy Project and Environmental Action Foundation, June 30, 1978.

b. Similar, periodic hearings to ensure that plans are up-to-date, and that the provisions in them are still workable, and acceptable to the community.

c. Annual distribution of basic information on emergency actions by the utility company to all affected populations. Such a mailing could include information concerning what types of actions people may be required to take (remain indoors, evacuate, etc.), where they can obtain official information about the accident, and so forth.

9. It is clear that, in Michigan at least, adequate rules governing licensee contact with state and local civil authorities do not exist. Until circumstances which make it advisable to recommend evacuation of the LPZ occur, there is no provision for licensee notification of authorities. Such notification is at the discretion of the licensee. What is required is a categorization of varying types of accidents of varying severities, with specific provisions for which public authorities should be notified in each category of accident. In developing such categories, it is important to recognize that public authorities should not be notified only with the occurrence of an accident which will inevitably affect the public health. They should also be notified promptly of any occurrence at the plant which may require them to act. This "stand-by" notification allows authorities the maximum possible time to prepare to take action.

Primary responsibility for public notification should rest with civil authorities. The public should be notified of any occurrence at the plant which could endanger their health. It is important that this notification be prompt, that it be conducted so as to reach all of the affected population, and that it provide people with concrete information on actions that they should take.

10. Generally speaking, local and state authorities should have the best grasp on local emergency planning needs. They should, then, have primary responsibility for developing emergency plans which effectively meet local conditions. The participation and cooperation of the licensees is also important

in this process. The federal role should be primarily one of oversight and review, and of provision of technical assistance. Past experience has shown that states often have not developed sufficient plans when left to their own devices. It is the responsibility of the NRC to ensure that state plans meet reasonable federal criteria. Another important federal role is the provision of resources (techincal assistance, funding, etc.) in the planning process. State and local emergency planning efforts are often underfunded and understaffed. This condition needs to be ameliorated before these efforts can produce adequate emergency plans.

13. It is evident that for the very brief time following the discovery of a dangerous, or potentially dangerous, situation, the licensee bears the responsibility for the notification of civil authorities, and for recommending to them any protective actions which should be initiated immediately. This is no small responsibility. It is our feeling that utilities have too often adopted a "wait and see" attitude, assuming that protective actions will not be necessary because things will not get any worse. This is a dangerous gambling game to play with the public health, and the fact that a few times in the past the utility company has won its gamble makes it no more justifiable. The lack of notification and of protective and preparatory measures during the Brown's Ferry accident, for example, was totally irresponsible. To facilitate the notification process we would recommend, as mentioned in our response to question 9, the development of guidelines for licensees which would outline circumstances under which civil authorities must be notified of existing or potential dangers as well as the circumstances under which protective actions of various types must be recommended.

Once civil authorities have been notified of the existing or potential danger, all authority for instituting protective actions should pass to them. We would generally assume that state officials would possess the knowledge of the area needed to implement effective protective actions. However, in cases in which state agencies recommend actions (or inaction) which are clearly not in the best interests of the populace it may be appropriate for the NRC to have

the authority to overrule state decisions. In general, it should be expected that state and federal agencies can work together to arrive at an appropriate course of action. As has been mentioned previously, prior contact between the NRC and state agencies is an important way to iron out differences in state and federal approaches to emergency situations before an emergency actually occurs.

14. As has been mentioned previously, drills involving evacuation of a sample population are necessary. Such drills are the best way of determining if a proposed plan is actually workable. Past drills, which have been largely preannounced and confined to testing the communications channels between affected agencies, have revealed numerous and unexpected problems. In order to help iron out such problems, drills should be conducted annually. Drills should test communications channels, availability of equipment and medical facilities, radiation monitoring, and should include an evacuation of a representative sector (an angular width of 7° is often proposed), containing a significant and diverse population to a significant distance away from the plant. In addition, if any significant special populations exist within a 50 mile radius of the plant (large hospitals, prisons, large parks, etc.), some type of appropriate annual test should be made of the effectiveness of the plan for dealing with these populations.

3-322

Date: 30 August 1979

STATE OF NEW YORK
DEPARTMENT OF HEALTH
ALBANY

DAVID AXELROD, M.D.
COMMISSIONER

(98)
PR-50(44FR41483)

September 6, 1979

Dear Mr. Chilk:

The State of New York has developed its review of the Advance Notice of Proposed Rulemaking on Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities. Our attached comments include the views and concerns of various New York State agencies on the specific issues listed in the July 17, 1979 issue of the Federal Register (Vol. 44, No. 138, pages 41483 and 41484) as well as general comments on apparent inadequacies in the scientific bases for present emergency planning.

We appreciate the opportunity to provide our comments and request that they be given your careful consideration.

Sincerely yours,

David Axelrod, M.D.
Commissioner of Health

Attachment

Mr. Samuel J. Chilk
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

New York State Comments
on the
U.S. Nuclear Regulatory Commission's Advance
Notice of Proposed Rulemaking Concerning
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities

Federal Register, Vol 44, No 138, July 17, 1979

A. The numbers of the following comments correspond to the NRC questions in the Federal Register Notice:

1. The primary objective of emergency planning should be to minimize the total health impact on the population at risk. Concern with evacuation or other actions designed to prevent or reduce radiation exposure must be tempered with considerations of the health effects which might result from those actions.

The basic objectives of preventing or reducing radiation exposure should be quantified to the extent possible. We do not live in a risk-free world. As increasing resources are being committed to the radiation emergency planning process, eventually the point of diminishing return will be reached. Definitive Federal guidance is needed on numerical radiation exposure projections which would trigger appropriate response actions. It is understood that following the Three Mile Island accident the NRC recommended protective actions to State officials at levels well below the Federal Protective Action Guides.

2. An effective emergency plan for State and local agencies must provide for:

a. timely notification of the responsible agencies that an accident has occurred;

b. an effective mechanism for rapid continuous evaluation of a developing situation; and

c. implementation of protective actions to safeguard the public.

This planning must also provide for reliable communications between response organizations as well as with the NRC and the licensee. A coordinated radiological monitoring program with the licensee, the NRC and others with provisions for rapid collection and evaluation of all data is required. While initial protective response actions may be directed from a central State Location, plans should provide for rapid establishment of a local command center from which long term response action can be directed and coordinated.

The existing guidance to States (NUREG-75/111) lacks needed interpretative material that provides for consistent interpretation by users of the guidance and will lead to uniformity in the planning efforts in the environs of nuclear power plants. Specific interpretation of the elements in the guidance will permit State and local agencies to "speed up" the concurrance review process.

-Continued-

Present planning guidance for the licensee, and State and local agencies does not adequately address required planning elements to protect the population from ingestion of contaminated milk, food and water following an accidental release of radioactive material.

3. Yes, NRC concurrence with a State plan is a reasonable condition so long as it is reasonably applied. NRC must provide detailed interpretative guidance of NUREG-75/111 and draft NUREG-0396 and any other requirements for concurrence, clearly communicate these requirements and give adequate time and assistance to the States to meet the requirements before concurrence can be a requirement for continued operation of an existing licensee. We also believe that at this time the NRC should not have to review all local plans for concurrence. This would totally tie up NRC efforts on State plans and not be an efficient or useful effort. The NRC should review local plans for one fixed facility site together with the appropriate State plan. The State should be given the primary responsibility for review of other local plans when more than one reactor site exists in the State.

4. Please refer to comments for question 3 above. Discussion of local plans should be in the operating license hearings. At the construction permit stage, the applicant should be required to provide a conceptual description of the emergency response plan for the proposed facility. This conceptual description should identify any problems that may be encountered--such as transportation bottle necks.

In the State of New York, a separate law exists which requires a certificate of Environmental Compatibility and Public Need from a State Board on Electric Generation Siting and the Environment for all power plants. While this law does not require presentation of evidence on emergency plans, it appears that such evidence will be included in hearing records in the future, based upon recent events in the nuclear industry. Thus it is important that Federal guidance be developed in the emergency planning requirements at the construction permit or siting stages.

5. We strongly recommend Federal financial assistance to State and local governments for development of radiological emergency plans in accordance with requirements by the Federal Government. This funding is particularly important in light of increasing demands placed upon State and local agencies: For example, question numbers 6 and 7 concerning exercises and public information imply substantial effort that should receive appropriate funding. The funds should be allocated to each State and should be dependent on the number of reactors licensed to operate or with construction permits. A specific amount should be designated for local governments in the vicinity of each nuclear plant and be administered by the State. Radiological response planning requires more technical knowledge than is generally available on the local government level. A suggested level of support includes funding for at least one full time technical person for local government at each reactor site. The funds could come from either NRC (DOE or DOD for facilities under their control) or FEMA (Federal Emergency Management Agency). This funding should be specifically designated for radiological emergency planning.

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The licensee should provide financial assistance to State and local agencies in the form of monitoring instrumentation and equipment to be installed with data links to appropriate State and/or local agencies.

6. The NRC in granting concurrence in a State's plan should approve the State's proposed drill schedule. The State and local governments, under State authority, should have periodic drills with the licensee and occasionally conduct drills of selected elements of the response plans and procedures. The NRC should require an unannounced drill involving all response agencies from licensee through Federal involvement. These exercises should not be frequent, but should involve a site in a State possibly once every 5 years.

7. The public should be fully informed, prior to any emergency, of emergency response actions that may be required through availability of planning documents, local informational meetings, educational programs, radio and television public affairs programs and inserts distributed with the utility bills. The notices included with the electric bill should be distributed to all customers residing within the appropriate planning zone and should notify residents of the existence of State and local plans and include a concise discussion of possible actions that might be requested if there were an accident.

8. The NRC previously requested comments concerning recommendations of the NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016). Attached is a copy of the April 13, 1979 letter from Doctor Axelrod to Mr. Collins providing specific comments on this report.

9. A licensee should notify the State and local response agencies immediately whenever a plant, site or general emergency as defined in Regulatory Guide 1.101 is declared or whenever there is a significant release of radioactive material off site or a potential exists for such a release.

10. The concerns of the State and local government are significant since they are responsible for implementing any protective actions. A paper plan could be developed that might satisfy NRC, but if it is not consistent with the normal State and local governmental functions, it might be worse than having no plan at all. The Federal staff developing emergency planning requirements should meet with selected State and local representatives to discuss requirements with the emphasis on workability.

11. It had long been anticipated that Federal agencies would provide assistance and technical support to the State during emergencies. At times during the Three Mile Island response, it appeared that the Federal agencies, particularly NRC, virtually took control of the emergency response. The NRC certainly took over completely the public information role.

    It is proper for the NRC to work closely with the licensee and to advise and assist the State and local efforts; however, this appears to be primarily a State and local response effort under the authority of the State. The specifics of the Federal-State-local interaction must be resolved to allow incorporation in State and local response plans.

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Development of a Federal radiological emergency response plan is suggested that clearly identifies the role of the appropriate Federal agencies and the assistance and technical support that is available. This Federal plan should include the Federal-State-local role to deal with interstate shipments of contaminated food and milk and the waterway contamination with radioactive material across State lines.

12. A combined effort of training by the licensee and Federal government would be effective. The Federal government should provide the basic emergency response training for State and local personnel. Training allotments should be apportioned to the various States based on the number of plants operating or with construction permits. In addition, the licensee should be required to provide training for State and local personnel. The rapport which will be established between the respective staff members would prove invaluable during an actual emergency. Onsite training would allow State and local agencies to better understand the sequence of events as directives are issued during an actual emergency.

13. The initial reporting and assessment of the potential offsite consequences of an accident at a nuclear facility must be made promptly and as accurately as possible. In general, only the licensee has personnel onsite at the time of an accident with the qualifications to make the evaluations and notifications. Nuclear power facilities are usually located some distance from available State expertise. Most local agencies do not have the technical personnel or equipment to provide the initial assessment. Therefore, the initial reliance should be placed upon licensees with a clear understanding of their role and responsibility. Following this early assessment, as qualified State, NRC and other Federal representatives arrive at the scene, their assessments should be utilized to provide a more complete picture of the incident.

    The possibility of installing real-time, onsite instrumentation linked to the State emergency center that would provide a rapid and meaningful indication of the severity of the accident should be considered.

14. General public participation in drills, including evacuation will not serve a useful purpose and could result in unnecessary injuries or casualties.

B. In addition to comments on the specific questions raised by NRC, the following general comments are provided on the scientific bases used by NRC, EPA and others in radiological response planning guidance.

1. Inadequacies in Plume Transport Calculations

The potential offsite accident consequences for each facility are based on plume dispersion calculations originally developed in the U.S. Atomic Energy Commission Regulatory Guides 1.3 and 1.4, which use a Gaussian plume dispersion model. The scientific bases for plume dispersion calculations have not been changed over the several intervening years, despite reorganization of the Commission and publication of many new regulatory guides. The simple plume dispersion model may be conservative with regard to setting radiological protective action guides for routine emissions, though even this premise lacks experimental proof. Accidental atmospheric releases of noble fission-gases and ^{131}I from a nuclear power reactor would require increasingly difficult decisions on the part of State officials as the plume spread beyond the low-

-Continued-

population zone into more populated areas. Under such conditions, radiological conservatism may be overridden by evacuation risks. Hence, predictions of off-site radiobiological effects and the choice of off-site countermeasures to minimize these effects depend on accurate site-specific estimates of radionuclide concentration.

An ill-conceived decision to evacuate even a moderately-large population group following a reactor incident could result in the loss of lives due to the evacuation process and might likely lead to an even greater loss of life due to public panic in areas bordering on the evacuation zone. Dispersion of gaseous materials must therefore be calculated to a degree of accuracy hitherto uncalled for.

Most Northeastern State residents live on terrain which has far different roughness parameters than those considered in plume dispersion calculations for offsite consequences of the DBA calculated to date. Therefore, the risk values used in recommending protective action by State officials may not be applicable to reactors currently operating in the Northeastern States. The above factors point us the need for better experimental data with which existing models can be improved or new models developed. Present guidance available from the NRC is still deficient.

2. Inadequacies in Radiodine Dose Evaluation

The offsite calculated consequences of the DBA also depend critically on the assumption that the radioiodine species released and transported following a major radiation accident will be in the elemental form - I_2. Studies by the Radiological Sciences Laboratory, New York State Department of Health and the U.S. Nuclear Regulatory Commission have indicated that the radioiodine species available for release are predominantly HOI and CH_3I, along with several others. Preliminary field data from the TMI-2 accident support the conclusions achieved from the earlier studies. The assumption now made for emergency planning is that all releases will be in the form of I_2, which by being radiologically conservative may cause unnecessary evacuation following a reactor accident. However, broad dispersion and subsequent catalyzed chemical reactivity of HOI and CH_3I with air constituents may create significant doses to people at distances much greater than those predicted by current protective action guides.

Again, increasingly difficult decisions concerning evacuation would be imposed on State officials as the plume spread beyond the low-population zone into more populated areas. Hence, predictions of off-site radiobiological effects from radioiodine and the choice of off-site countermeasures to minimize these effects depend on more precise knowledge of the dispersion and deposition of the several radioiodine species released during the accident.

3. Laboratory Emergency Response Plans and Training

A complex mixture of radionuclides may be emitted during any accidental release. Analytical requirements will therefore be far more complex than those necessary for the routine surveillance programs.

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Radioiodines will be the primary radionuclides of concern for both inhalation and ingestion pathways. Whereas routine surveillance requires only that ^{131}I be analyzed in a relatively uncomplicated mixture of radio nuclides, emergency analyses will require resolution of $^{131,132,133,134,135}I$ from each other and from a complex and changing mixture of other radionuclides, which may include $^{91,92}Sr$, $^{92,93}Y$, ^{99m}Tc, $^{103,105,106}Ru$, ^{129,129m}, ^{131,131m}, ^{132}Te, ^{135}Xe, $^{134,135,137,138}Cs$, $^{139,140,142}Ba$, $^{140,141,142}La$.

In addition to the need to measure various radioiodines in milk and agricultural products, other radionuclides of radiobiological significance such as the radiostrontiums, radiobariums and radiocesiums may require resolution.

Measurement systems presently used by environmental measurements laboratories in several States (including New York) can provide the instrumental capability necessary to meet the analytical needs of an emergency response plan. However, the instruments must be calibrated for measurement of the many radionuclides emitted following an accident. Many of the necessary standards are not available from the National Bureau of Standards or from commercial suppliers. The instruments must be calibrated using as many standards as can be procured or by using secondary standards produced by the laboratory staffs.

Current routine surveillance programs require that most laboratory technicians perform sample preparations and radiochemical separations. Usually, only about 20% of the laboratory staff is involved in radionuclide counting or data processing. In an emergency situation, the staff ratio will be inverted, with less than 20% of the staff performing sample preparation and 80% or more performing counting or data processing operations. The changes in staff distribution require training a large portion of the laboratory staff to handle emergency samples in a manner outside their normal experience. Because the emergency duties of the laboratory staff will not be continued during their normal day-to-day routine, the employees' capabilities must be maintained by periodic retraining on a continuing basis.

A final consideration is the need for training field and laboratory staff obtained from other groups who may be required to complement the radiological laboratory or field staff during an emergency situation. Following an accident at a nuclear facility, it is highly likely that the surveillance and radioanalytical programs will be conducted for three shifts daily, including weekends, over an extended period. Supplemental staff must therefore be drawn from other groups within State and local agencies. The supplemental staff must be trained and the training maintained by periodic work experience in the field and at the laboratory.

ds
Attachment

August 28, 1979

cc: Dr. Axelrod - (6 copies) - Executive Office
Ms. Watkins - 14th Floor
Mr. Leavy - Local Health Management - 4th Floor
Dr. Hotling - Division of Environmental Health - 4th Floor
Dr. Stasiuk - " " " " - 4th Floor
Mr. Davies - Bureau of Radiological Health - Rm. 359
Ms. Adams - 14th Floor

David Axelrod, M.D.

April 13, 1979

Dear Mr. Collins:

The State of New York has developed its review of the proposed "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants," NUREG-0396. The December 15, 1978 issue of the Federal Register (Vol. 43, No. 242, page 58789) solicited comments. Our attached comments include the views and concerns of various New York State agencies as well as the preparedness/civil defense officials in the Counties of Suffolk and Westchester and the City of Peekskill.

State and local emergency planners need guidance on the extent of planning required for fixed nuclear facilities. The attachment indicates needed revisions and expansion of NUREG-0396 to make this a more useful guide for planners.

The guidance in NUREG-0396 is predominantly general in nature and subject to diverse interpretation. Depending on its interpretation, the impact in terms of manpower and funding required by state and local planning agencies may be considerable. Your consideration of these recommendations would provide needed guidance to states. This would permit our assessment of the costs and/or difficulty in implementation.

There is also need to develop consistent Federal guidance on emergency planning and a uniform Federal policy for emergency plan review. The proposed guidance on EPZs for use by state and local planners is apparently inconsistent with NRC staff review on adequacy of emergency procedures and the low population zone concept in the nuclear facility siting and operating license process. The differences in Protective Action Guides for public exposure developed by the Environmental Protection Agency, the Federal Radiation Council and in the projected radiation doses defining an extraordinary nuclear occurrence in 10 NRC 10 CFR Part 140 should be resolved.

3-326

We understand that the NRC/EPA Task Force members were actively involved in Federal response activities during the Three Mile Island crisis. We recommend that the Task Force review the proposed guidance in light of the Three Mile Island experience including response by State and local officials in Pennsylvania as well as by the contiguous states.

We appreciate the opportunity to provide our comments and request that they be given your careful consideration.

Sincerely yours,

David Axelrod, M.D.
Commissioner of Health

DA:[illegible]
Attachment

Mr. Harold E. Collins
Assistant Director for Emergency Preparedness
Office of State Programs
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

NEW YORK STATE COMMENTS
on the
PROPOSED PLANNING BASIS FOR THE DEVELOPMENT OF STATE AND LOCAL GOVERNMENT RADIOLOGICAL RESPONSE PLANS IN SUPPORT OF LIGHT WATER NUCLEAR POWER PLANTS
NUREG-0396, EPA 520/1-78-016

1. General Comments

State and local emergency planners need guidance on the extent of the radiological response planning effort required in support of nuclear power plants. Since a series of accident sequences are possible, the joint NRC/EPA Task Force's attempt to identify the bounds of the parameters for planning and the proposed use of Emergency Planning Zones (EPZ) appears to be a reasonable approach.

2. General Comment

The NRC/EPA Task Force apparently developed the size of the EPZs based upon a review of the design basis accident (DBA) for siting purposes for approximately sixty-seven reactors. We believe that the EPZs should not be based exclusively on a generic approach. Additional guidance is needed on modifying the size and shape of the EPZs to make them site specific, such as considering plant safeguards and site meteorology.

3. General Comment

The relationship of the planning guidance in NUREG-0396 to the emergency planning requirements in 10 CFR Parts 50 and 100 and planning guidance in Regulatory Guides 1.70 and 1.101 needs clarification. To date, emphasis has been on plans and procedures to cope with plant related emergencies outside the site boundary with particular emphasis on the low population zone (LPZ) or to a distance of approximately four to five miles from the site whichever is greater. At the operating license stage, determination of the required response planning area is based upon offsite accident consequences using site specific parameters. Consideration of specific site related information is recommended for emergency planning development and review as opposed to the generic approach in NUREG-0396.

4. III, A, Emergency Planning Zones

The following statements needs clarification - "Responsible government officials should apply the applicable planning items listed in NUREG-75/111 in development of a radiological emergency response plan." The application of the planning elements considered "essential" in NUREG-75/111 to both the ten and fifty mile EPZs should be addressed in NUREG-0396.

5. III, A, Emergency Planning Zones

On page 11-13, the Task Force lists eight planning elements considered appropriate for the EPZs. These planning elements refer only in a general way to such elements as "developing procedures for use by emergency workers", "implement training programs", and "establish effective communication networks." State and local agencies need more specific

guidance. The extent to which these elements must be considered impact directly on the financial and manpower requirements for emergency planning. This section should be expanded to provide specific guidance on appropriate planning elements for use in both the ten mile plume EPZ and the fifty mile ingestion EPZ.

6. III, A, Emergency Planning Zones

The report indicates that emergency planners can determine the specific size and shape of EPZs considering local conditions such as demography, topography and access routes. Specific guidance for considering "local" conditions and thus determining the appropriate bounds of the EPZs is needed. The plant and site specific conditions including engineered plant safeguards, containment systems, site meteorology, and type and size of reactor may be equally or of greater importance than demography, topography and access routes. This should be considered and guidance provided by the Task Force.

7. III, A, Emergency Planning Zones

The examples on setting the bounds on the planning problem provided on pages 14 and 15 are explicit and provide specific guidance to emergency planners. It is recommended that other sections in the planning document provide similar definitive guidance.

8. III, C, Time Factors Associated with Releases

Practical suggestions are needed on applying the information on time factors associated with releases and offsite consequences. It is not clear how the guidance is to be used for initiation and/or duration of releases.

9. III, D, Radiological Characteristics of Releases

The statement is made that "consideration of particulate materials should not be completely neglected." This section needs expansion to provide practical guidance to states on the offsite consequences and characteristics of anticipated particulate releases, and response action to be considered.

10. Appendix I, Rationale for the Planning Basis

The selection of ten and fifty miles for planning distances appears to be arbitrary. Sound technical justification is not presented for those specific distances. Equally impressive statistics could have been developed for distances of seven miles, twelve miles, etc. The report indicates that judgment should be used in determining the precise size and shape of the planning zones. Specific guidance as to what should be the minimum acceptable planning distance is recommended.

11. Appendix I. Rationale for the Planning Basis

More specific detail such as that provided on pages 14-15 would be helpful. For example, State and local agencies are advised to plan for an accident that may impact on food and milk pathway fifty miles or more from the reactor site. State and local planners are confronted with such questions as extent of contamination, degree of contamination, response time to protect the public, sampling techniques, laboratory resources needed and available, enforcement procedures, and methodology for evaluating the radiological impact on milk, food and water sources.

12. Appendix I. Rationale for the Planning Basis

This report indicates that the following information is required:

> The kinds of radioactive materials that can potentially be released to the environment.
>
> The distance from the nuclear facility which defines the area over which planning for predetermined actions should be carried out.

These parameters are developed using transport codes and information on the chemical makeup of the radioactive species for which further research is recommended. The transport codes are based upon a Gaussian plume dispersion model. The terrain in the Northeast has far different roughness parameters than those considered in this simple plume dispersion model.

13. Appendix I, B, Consequence Considerations

The lower range of the EPA PAGs for thyroid and whole body exposure were apparently used in calculating the distances of ten and fifty miles for the EPZs. If the upper range of the PAGs were applied, the EPZ for the plume exposure pathway would be more consistent with planning guidance in Regulatory Guides 1.70 and 1.101. This should be clarified.

14. Appendix III, Related Issues Considered by the Task Force

The use of realistic class 9 accident consequences is appropriate for the development of emergency plans which have the flexibility to provide for effective response to any accident situation. While emergency planning efforts must be concentrated on the more likely emergencies, the plans must be continually evaluated relative to their rapid and effective utilization in the event of a much more serious accident, when an effective plan would be most needed.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR44483) (99)

SEP 07 1979

Ms. Jane F. Doughty
Box 3634 Philbrook
UNH
Durham, New Hampshire 03824

Dear Ms. Doughty:

Thank you very much for your letter of August 8, 1979, in which you sent to me comments on the NRC's proposals for additional regulations in the area of emergency planning.

I regret that you did not determine from the last paragraph of the news announcement that you received that the proper place to send your comments was to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch and that you had 45 days from July 20 to do so.

Because of the misaddressing of your letter, I am going to forward your letter to that address and I believe that it is within the discretion of the Secretariat to accept late filings for good cause, and as this letter has been in my office for some days, I am asking on your behalf that the possibility of receiving it after the completion of the 45 day period for comment be considered by the Docketing and Service Branch. You need take no further action in connection with this matter.

Sincerely,

Karl Abraham

Karl Abraham
Public Affairs Officer

9/3/79

Karl Abraham
United States Nuclear Regulatory Commission
Office of Public Affairs, Region I
631 Park Avenue
King of Prussia, Pa. 19406

Dear Mr. Abraham;

The Nuclear Regulatory Commission must certainly adopt measures which will ensure that there be the capability of immediate and complete evacuation of all the areas of the United States in which there is the possibility that they might be affected in the event of a nuclear meltdown.

My comments in response to your questions in document No. I-79-101 follow in numerical sequence.

1. The basic objective of emergency planning must be to prevent public radiation exposure and also to ensure the capability to evacuate should such prevention measures prove inadequate. The objectives should be inventoried such that no individual whatsoever be exposed to even the smallest amount of radiation above what was the background level of radiation prior to 1945.

2. An effective emergency response plan is one that can ensure complete and total evacuation from an area prior to any level of radiation exposure to the public. Emergency medical services, shelters and medical care must be provided for. Existing NRC requirements and guidance are blatantly lacking. But is a force to believe that a truly effective and necessary responsible evacuation plan is possible to effect in every area of the United States which might be affected by a nuclear meltdown.

3) Yes, the NRC must concur with the associated State and local emergency response plans and concurrence should be a requirement for continued operation of all plants, even those with existing operating licenses. This general requirement should become effective immediately.

4) Yes, NRC concurrence should be a requirement for the issuance of new operating licenses and this general requirement should become effective immediately.

5) Yes, financial assistance should be provided to State and local governments for radiological emergency response planning and preparedness. I believe that 75% of the costs should be provided and that the source of the funds should be the electrical utilities financing the construction and operation of the plants.

6) Yes, drills should be a requirement and they should involve the combined authority of Federal, State & local governments i.

believe that the governments and licensees must be required to participate to the fullest degree possible to ensure that there would be a faultless and flawless evacuation of every man, woman and child from any effected area in the event of an accident.

7) There must be a total media blitz (radio, television, newspaper, instructional units in schools, etc.) to ensure that the public be completely informed about actions it might be called upon to take.

8) I don't know. Please send me their recommendations.

9) The licensee should notify the State, local and Federal agencies of all incidents by keeping a daily log and every such incidents as are logged to the appropriate agencies immediately. The public should have access to the log in the local newspapers. Whenever there is any release of radiation into the environment, the public must be immediately notified via the media (radio, television, newspaper) by the licensee with corroboration of the licensee's report by the government agencies.

2) The concerns of State and local governments should be given very seriously in the Federal government's radiological emergency response planning. If the State and local governments find that total evacuation would not be possible in

case, it would make people prepare what they actually would do, make them realize the magnitude of the problem and help them be less likely to panic in the event of the real thing occurring. Full public participation (every man, woman and child) should be required.

Yours for a safe energy future,

Jane F. Doughty

the time frame necessary to prevent radiation exposure to the public, the NRC must suspend the nuclear power plant operating licenses immediately.

11) This interface certainly could not be described adequately here and I don't have a full enough picture of the organizational structure and personnel at each level to begin to detail how they could synergistically combine efforts in dealing with an emergency. I believe that governmental agencies must not rely on licensees for radiation monitoring in times of emergency; they must have their own capabilities for performing such monitoring. I guess I can say in general that licensees should be very carefully watched by the governmental agencies, especially in times of emergency.

12) Yes, licensees should provide such training to a very thorough extent and the quality of the training should be watched over by the Federal government. The local government should have as its role the monitoring of quality of training and in addition provide some training of its own people to a lesser extent.

13) I would recommend that very little reliance be placed on the assessments of licensees. I believe that federal, state and local governments must share in the assessment equally.

3-331

27 August, 1979
12 Shawmut St.
Lewiston, Maine 04240

Secretary
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Sir:

According to the August 17 issue of the Maine Times, your agency is soliciting public comments on evacuation planning for areas near nuclear reactors in the event of an accident. I would like to make my comments known, particularly as to how this issue relates to the Maine Yankee Atomic Power Plant in Wiscasset, Maine. I have a particular interest in this area of the Maine coast as my family owns a summer cottage nearby.

1) I believe that emergency drills should be an annual requirement, should include all areas within a 10-mile radius of any nuclear facility, and should preferably be funded by the utility (not by its ratepayers or by the federal government-taxpayers). I believe the utilities should be required to take moral and financial responsibility for their decision to use nuclear energy. I feel that emergency drills should be required to inform and protect the public, and information concerning the mechanics of evacuation should be provided to all citizens of any state with a nuclear power plant, not just those within the 10-mile radius.

2) The public should be fully, completely, and continually informed as to emergency actions it might be required to take. This information should be available in plain and understandable language and should be printed regularly in local papers, telephone books, and a mailing sent to each household, as well as radio and television spots. In a state like Maine, where much of the population spends time outdoors in the fishing and logging industries, it is vital that this information be available to every person (including children) before an emergency situation exists. In addition, since Maine is such a rural area and the 10-mile radius includes areas not quickly accessible, I would also think some kind of a warning system within each home in the area would be a prudent decision. Information provided to the public should include not only possible evacuation procedures, but also state clearly why these procedures might have to take place and what the dangers of radiation are.

3) A nuclear power plant should be required to immediately notify all state, local, and federal agencies of all incidents, including emergencies. This information should also be easily available to

the public. Last spring when Maine Yankee was shut down, information concerning radioactive emissions greater than usually allowed was inconspicuously written up and sent to appropriate agencies, including members of the legislature. About three weeks after this occurred, a legislator read the report and eventually the information got to the public via the newspapers. People in the Wiscasset area should have had an opportunity, at the time the emissions were taking place, to choose whether to remain in the area or not, regardless of what government agencies felt was a low enough level of radiation. People should have the right to information such as this that affects their own lives.

4) I feel that the experience of the accident at Three Mile Island proves that most utilities are more interested in profits and their image than in the well being of the people they are supposed to serve. Therefore, I do not feel it should be left to the utilities to assess "the actual or potential consequences of an accident". NRC inspectors should be permanently posted at every nuclear facility, and should be accountable to the local, state, and federal governments, and (by corallary) to the people of the United States.

Central Maine Power Company's vice president John Randazza recently told a Rotary Club audience during a debate that "the waste problem should not be a factor in the nuclear question". (Bangor Daily News, Sat.-Sun., August 25-26, 1979, p. 31). This is exactly the kind of statement I feel shows that the utilities should not be given very much autonomy in the use of nuclear energy. His statement ignores a problem which is both real and valid. One of your own commissioners, Peter Bradford, states that ". . . the federal government has just spent two years reviewing and revamping the fundamental basis for its approach to the waste question in the form of President Carter's Interagency Review Group on Waste Management. Furthermore, the U.S. Court of Appeals has recently concluded that it would like the Nuclear Regulatory Commission to conduct a proceeding into some aspects of its confidence that wastes can be safely handled at and away from reactor sites at the point in time in which the reactors themselves begin to be decommissioned." (NRC news releases, vol.5, no. 29, p. 9.) Under the circumstances, I feel Mr. Randazza's statement demonstrates a certain amount of irresponsibility, especially since he is a vice-president of Central Maine Power Company.

Please excuse the length of this letter, but I felt it was important to comment as clearly as possible on the questions you had asked. I would appreciate any response you might wish to make.

Thank you very much.

Sincerely,

Katheryn Kearney

Environmental Policy Institute
317 Pennsylvania Ave. S.E. Washington, D.C. 20003
202/544-8200

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

August 31, 1979

COMMENTS ON ADVANCED NOTICE OF PROPOSED RULEMAKING REGARDING "ADEQUACY AND ACCEPTANCE OF EMERGENCY PLANNING AROUND NUCLEAR FACILITIES," FR, 44, NO. 138, JULY 17, 1979:

The Environmental Policy Institute is a public interest research and citizen information organization specializing in energy and natural resource public policy issues. One of the Institute's major concerns has been to encourage the NRC to establish stronger standards for the protection of the public and workers in the nuclear industry from the hazardous effects of radiation. We urge the NRC to exercise its full authority in establishing guidelines and criteria for State and local emergency preparedness plans, and to make the licensing of new powerplants conditional upon NRC approval of State and local emergency response plans. Our comments on the Commission's specific questions follow.

(1) Research has shown that exposure to radiation doses as low as one rem can have a harmful effect on health. Thus we feel that emergency preparedness plans should not only reduce public radiation exposure during an accident, but should attempt to prevent radiation exposure altogether. In order to accomplish this objective, the NRC should require emergency evacuation plans as part of the licensing procedure.

(3) We feel that the entire responsibility for emergency response plans should not be on the licensee, and that NRC concurrence in the associated State and local response plans should be a requirement for continued operation of any nuclear powerplant with an existing operating license. This general requirement should become effective as soon as possible.

(4) Furthermore, NRC concurrence should be a requirement for the issuance of any new operating license for a nuclear powerplant. The requirement should become effective immediately, or as soon as State and local governments have had a reasonable time period for compliance.

(5) The Federal government should provide financial assistance to State and local governments for radiological emergency response planning and preparedness. The cost of this assistance could be covered by adjusting NRC licensa fees to pay for these additional federal license approval functions.

(6) The NRC should exercise its authority to require emergency response drills involving the participation of the appropriate officials from Federal, state, and local emergency planning offices. As the Three Mile Island accident and other incidents within the nuclear industry have shown, the NRC should not assume that adequate emergency preparedness plans have been made by the licensee.

(7) The NRC should take extraordinary steps to involve the public in emergency planning. (See response to question 13.)

(9) The present NRC approach to license event reporting should be restructured, since at present little follow-up occurs from the business event reports. We recommend two stages of reports -- all of which should be transmitted to State, local, and federal officials: 1) degraded safety conditions potentially affecting safe operation and 2) genuine abnormal occurence reports where plant operation itself is demoted. There should be an ongoing update of plant operating status to these officials. The public should be notified by the NRC, acting in cooperation with State and local governments, that emergency plans are in progress.

(10) The NRC should establish a separate adjudicatory proceeding involving the State and local governments responsible to the licensee to resolve the question of how State and local government concerns should be incorporated into radiological emergency response planning. (See response to question 13.)

(11) During emergencies the NRC should assert active control over the operation of the plant. Either the State or the NRC should be able to order an evacuation.

(12) Licensees should not be required to provide radiological emergency response training for State and local government personnel, because there is little evidence that licensees are qualified to provide such training. The responsibility for emergency preparedness training should be assumed by the U.S. Office of Emergency Preparedness.

(13) Responsibility for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action should not be placed entirely on the licensee. This responsibility should be borne by the Federal government, in cooperation with State and local governments. The NRC should establish a separate adjudicatory proceeding involving the State and local governments responsible and the licensee to resolve the question of reliance and approval.

(14) Public participation in radiological emergency response drills, including evacuation, would alert the public to the dangers involved in the production and consumption of nuclear power, and would provide extra protection against hazards to the public health during an emergency.

Respectfully,

David Berick

cc: P.A. Comella

DOCKET NUMBER (102)
PROPOSED RULE PR-50 (44FR41483)

12 Sept 1979

Dear Mr. Samgochian -

The enclosed represent detailed commentary on the evacuation plans for Point Beach Atomic Power Station, Wisconsin. Mainly with general comments on the basic state plan and more specific comments on the plan for Newport Beach. I feel quite certain that the problems (absurdities and ineffectualities) with the state and Newport plans exist in every plan for every nuclear plant in the country. These comments are submitted to indicate these problems and to underscore the need for careful and thorough NRC attention to the preparation of evacuation plans, and the need for an NRC requirement that intelligible, intelligent and effective plans be required before any plant can commence or continue operation.

I would like to be kept advised of NRC efforts and progress on this

Acknowledged by card. 9/26

issue. Please put
my name on the
distribution list
for all information.

Yours,
Kay R. H. Evans
RFD 2 Box 295
Westport Island
Me. 04578

Leslie Higgins,
Acting Director,
Bureau of Civil Emergency Preparedness
State House
Augusta, Maine 04333

Dear Mr. Higgins:

We are a group of residents of Westport, Maine. We understand that your office is assuming responsibility for revising the so-called Maine Yankee Radiological Incident Plan, commonly known as the evacuation plan. As you know, Westport is probably the closest community to the plant, being just across the river from it, and therefore is the one most heavily impacted by the plant. Because of the keen interest and concern which we share in all matters related to plant safety, we have extensively reviewed the plan as it affects Westport and offer the enclosed comments.

While we have detailed our comments on the attached, we are briefly summarizing our major points below:

1) There is a need for public information about the plan and about those measures which should be taken in the event of an accident at Maine Yankee causing off-site radiation exposure;

2) There should be a public alarm system designed to quickly and effectively alert the public to the existence or threat of a radiation hazard;

3) There should be detailed, analyzed and tested evacuation plans based upon known capabilities and various likely contingencies;

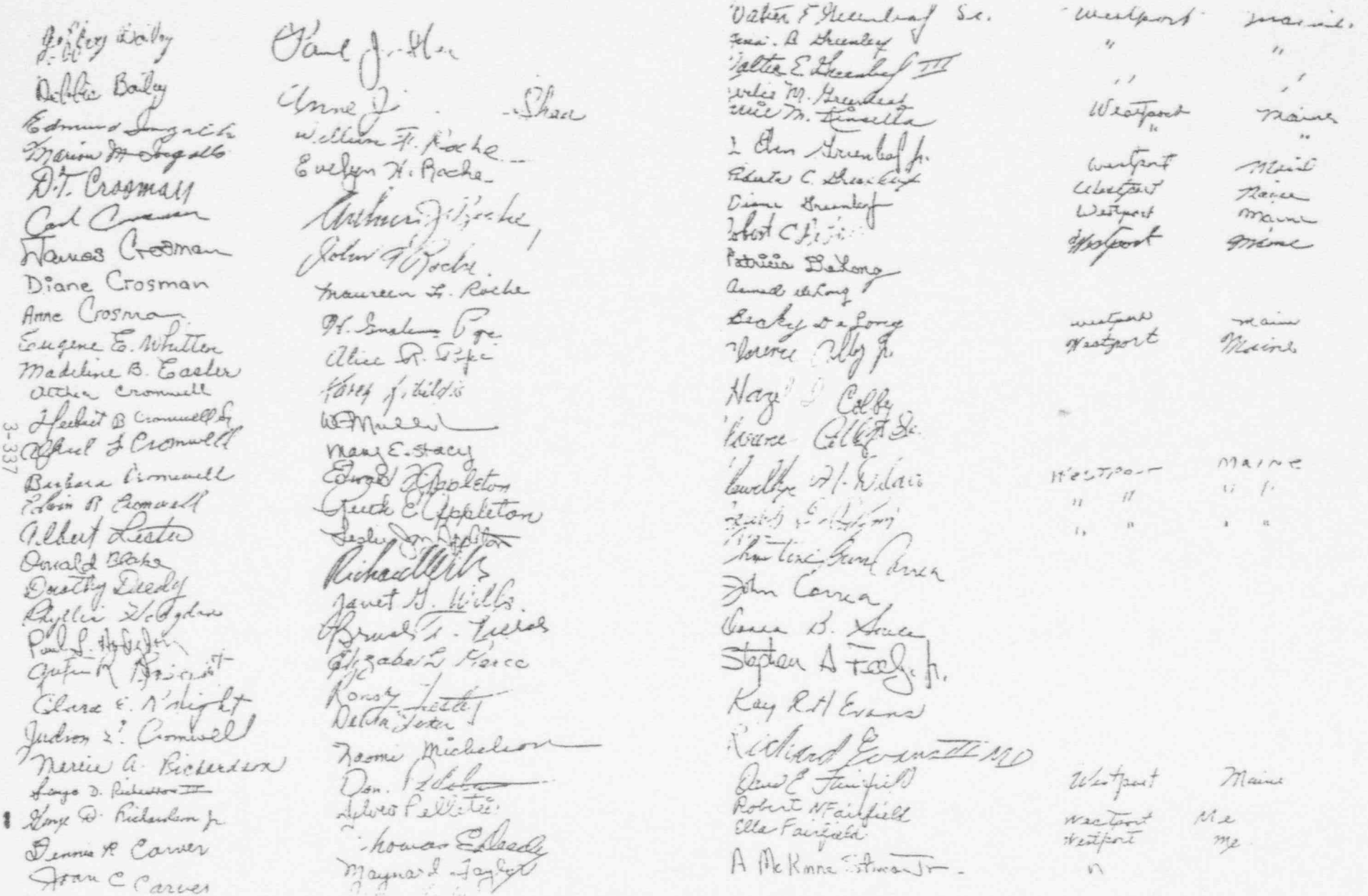
4) All accidental discharges of radiation should be immediately revealed to the public;

5) As the effectiveness of any plan is dependent upon the accuracy and use of monitoring equipment, there is a serious need for the installation of a greater number of sensitive off-site monitoring devices which are either manned on a reasonably constant basis (as with a mobile monitoring unit) or are designed to automatically trigger an alarm if radiation is detected above a certain low threshold.

We ask that you keep us informed concerning any hearings or public meetings which may be held in connection with proposed revisions to the plan and that you advise us specifically as to what action your office intends to take with respect to the enclosed recommendations and suggestions.

If you have any questions or wish to correspond with us, you may do so through Jeffrey Pidot, RFD 2, Westport Island, Wiscassset P.O. Maine 04578. Telephone no. 882-7001.

Thank you for your consideration. We wish you success in this difficult but important work.



3-337

COMMENTS ON RADIOLOGICAL INCIDENT PLAN
MAINE YANKEE ATOMIC POWER COMPANY

While our comments on this plan are many and varied, they are designed where possible to offer constructive approaches which will result in a plan in which we, as affected citizens, can have confidence. Our comments are specifically addressed to various aspects of the plan as they impact our community of Westport (located just across the river from Maine Yankee). However, many of these suggestions are equally applicable to the plan as a whole. We have assessed the plan in terms of the following overriding purposes and goals which we believe it should, but does not presently, envision:

___ The plan must be effective; that is, it must provide for a set of practical, well-defined and speedy responses from public and private officials which result in prompt notification and instruction of all of the citizens who may be at risk;

___ The plan must be flexible; that is, it must contemplate a variety of different, concrete responses tailored to a variety of possible contingencies;

___ As a corollary to the above purposes, the plan must be one about which affected members of the public are informed, a plan with respect to which they have had considerable input and in which they can place their faith and confidence.

One last general observation is in order:

3-338

Louis J. Dawn
Patricia M. Bowes
Dorothy Brightbill
Susan Smith
Ronald J. Smith
Barbara Roth
Ginny Pickett
Jeffrey R. Pike

cc: Governor Joseph E. Brennan
Elwin Thurlow, President
Central Maine Power Company
Peter Bradford, Commissioner, Nuclear Regulatory Commission
Ralph Calder, Public Utilities Commission
Senator Edmund Muskie
Senator William Cohen
Senator Gary Hart
Representative David Emery
Representative Olympia Snowe
Senator John Chapman
Representative Rufus Stetson
Representative John Martin
Representative William Garsoe
Senator Joseph Sewall
Senator Gerard Conley
Representative Richard Davies
Representative Sherry Huber
Mr. Edward Stritzsky
Selectman Richard Malone

addition, by means of a handy informational booklet, which should be disseminated to all households in the affected areas, the public should be made aware of what to do in the case of a radiological emergency (i.e., stay indoors; close windows; tune in to a particular radio station; call the local police - or, in certain situations, avoid use of the telephone). The public should regularly (at least once a year) be reminded of such information so that new and old community members will become familiar with it.

2. Need for an Effective Public Alert System

While the plan deals with how State and local officials will receive information in the event of an emergency, it does not adequately describe how affected members of the public will be alerted. We understand that such communication will take place largely by telephone and by word of mouth, through various chains of command, but this scheme poses substantial and perhaps insurmountable technical problems and inherent delays. Unless there is developed and set in place a system of contacting simultaneously every telephone in an entire area (a possibility which should be considered), ultimate notification by telephone of what may be several hundreds or even thousands of households is going to be a slow and haphazard process. Particularly following disturbances such as the recent earthquake, telephone communication has become impossible due to overburdening or available telephone circuits. Perhaps more importantly, many residents in the affected communities work and/or recreate outdoors beyond the reach of a telephone or

addition, by means of a handy informational booklet, which should be disseminated to all households in the affected areas, the public should be made aware of what to do in the case of a radiological emergency (i.e., stay indoors; close windows; tune in to a particular radio station; call the local police - or, in certain situations, avoid use of the telephone). The public should regularly (at least once a year) be reminded of such information so that new and old community members will become familiar with it.

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have households which do not contain a telephone. Communication by radio poses many of the same problems.

We strongly recommend the installation of a clearly audible and highly distinctive system of strategically placed sirens to alert citizens to the need to tune to a local radio station for instructions or, at the least, to come indoors and take other precautionary measures. Such sirens could be set off by the plant operators themselves or by others in authority, upon occurrence of an incident having certain defined radiological or other significance or potential significance. Better yet, an alarm system should be developed which is triggered automatically by the detection by off-site monitors of a specified low level of radiation. The use of such a siren system would result in instantaneous communication to the largest possible number of people.

We do note that the plan calls for the Westport fire siren, currently located near the fire station, to be used for just this purpose. However, that siren is not clearly audible to large portions of the island's population. Moreover, as that siren is presently used for purposes of signaling fires, we believe that few, if any, of those to whom it is audible would know its special significance in the event of a radiological incident. Finally, it is important to note that the fire station is normally unmanned and just starting the fire siren may be possible only after delays which may be significant in the event of a true emergency.

In response to our suggestions that new and distinctive siren systems be installed, we have heard the criticism that use of such a siren system would result in unnecessary public panic and would be subject to the "Chicken Little" or, oppositely, the "boy who cried wolf" syndromes. We do not see how either of these situations could possibly apply when, according to Central Maine Power Company, there have been but two incidents of accidental discharges of radiation during the plant's 7 year history. Moreover, we find such observations to be condescending and patronizing of the local citizenry. We have heard no such criticisms of the use of sirens to warn of military attack or fire. Here, the risk to our families could be great in a radiological emergency, and we find unacceptable a public notification scheme which has as its only justification the possibility that it will keep panic to a minimum. In fact, it is fair to say that the true reason why the telephonic and word of mouth alert system might minimize public panic is that it is so slow that large numbers of the public would probably not know of an emergency until it was over and the damage had already been done.

3. Need for Detailed Public Action and Evacuation Options

As has become apparent from the recent accident at Three Mile Island in Pennsylvania, the variation of potential nuclear incidents and the types of public actions necessitated thereby are not simply categorized as either requiring total evacuation or not requiring such action. There may be incidents which justify immediate public notification and awareness but that people may

simply stay indoors and take other precautions or may decide to voluntarily leave their homes for the time being); there may be those situations requiring evacuation of certain persons who are particularly sensitive to radiological hazard (such as young children and pregnant women); there may be sicuations justifying complete evacuation. The current plan seems to be founded on the assumption that only the last of these actions will ever be contemplated and that, unless the need arises for such a total evacuation, the population need not be involved or aware of the situation. This is an extremely serious flaw in the plan, in our judgment.

On the other hand, while flexible approaches to public notification and action are required in any practical plan of this order, there is an important distinction between the need for flexibility and the creation (as in this plan) of vague and illusory options which offer little or no practical guidance in the event of real emergency. Thus, at a minimum the plan should be revised to specifically contemplate the various types of contingencies which may exist and to formulate concrete responses for public action in the event of each such contingency. For instance, in the event of an accident which results or is likely to result in low level discharges of radiation or radioactive materials, there should be a defined plan of action for public notification and instruction as to the areas and activities to be avoided until further notice. Where the triggering event is more significant (but does not justify complete evacuation), again there should be a clear contingency

plan for prompt public notification and partial or voluntary evacuation or merely standby alert, as the case may be. Where evacuation is needed, the plan should clearly delineate the manner in which it will be carried out. It is simply inadequate to allude generally to the fact that the choice of routes and assembly points will depend upon wind direction. After all, the wind only blows in so many directions, and there are few possible evacuation routes or means available to us (in fact, there is only one route available by car). While particular wind conditions and accident severity may dictate an evacuation for some by helicopter or boat from the south end of the island (in the direction opposite from the only automobile route), these conditions, as well as the capability for sea or air evacuation, should be reasonably known and planned for in advance. Moreover, it is an astoundingly ill-conceived plan that calls for the possibility (as this one does) of evacuation of the entire island's population by boat from the south end when a good part of that population lives near the bridge exiting the island on the north end, and departure for them via the south end would require first driving several miles south and right to the east of the plant.

More specifically, we recommend that the plan, as it relates to Westport, develop different contingency plans for different areas of the island, different levels of radiation hazard, and different wind directions and seasons. Thus, while those who live north of the plant would seem to invariably evacuate the island by the bridge (which also lies north of the plant), those who live south of the plant would, depending upon the above variables, either evacuate

by car via the north and bridge (even though this course would require driving very close to the plant in order to get away from it) or evacuate by boat or helicopter (assuming such capabilities in fact exist) from prearranged locations at the south end. Perhaps the plan should contemplate only car or helicopter evacuation in the winter, and perhaps only car evacuation at night.

In sum, we believe that the plan should thoroughly explore and define the various options for evacuation or other public notification and action which may be required, the known capabilities for each such option and the various conditions which may dictate the choice of option which is preferred in a given emergency. The population in each area of the island should be made aware in advance of what the likely evacuation routes and assembly points may be for their area.

4. Need for Adequate Testing of Public Notification Systems and Evacuation Plans.

While we understand that the current plan is occasionally "tested" by alerting some of the state and local officials who are responsible for carrying it out, we believe that accurate appraisal of an evacuation plan requires at a minimum a test of the effectiveness of the public notification system, which is the keystone of such a plan. Such a test should involve attempts to actually notify the public by the fastest means possible. In order to eliminate the possibility of unnecessary public concern,

the public could be informed in advance of plans for the test. Afterwards, a survey could be made to determine how many people actually received the alert, by what means they received it and at what time. Only in this manner can an accurate assessment be made of the feasibility of the plan's notification system.

Of course, the best way to test the effectiveness of the evacuation plan itself is to hold a full scale plan drill with public participation. While we recognize that such a drill might be a rather major undertaking, we do believe that it is particularly important to develop a scheme for testing the effectiveness of those elements of the evacuation plan which require large scale use of boats and helicopters. We are frankly very skeptical about the capability for a sea or air evacuation, particularly in the absence of testing and drill.

5. Need for Adequate Monitoring

Of course, any evacuation plan is only as good as the monitoring equipment and personnel who trigger it. Unfortunately, this plan does not even address the issue of monitoring. Our concern is that there are currently in place insufficient radiation air monitoring devices and that those which do exist are read only sporadically and usually by company personnel. In addition, these devices are not sufficiently sensitive to register low level doses of radiation. These same problems have plagued various governmental agencies in assessing and dealing with the emergency situation which recently befell Three Mile Island in

Pennsylvania. We highly recommend deployment and use of more air monitoring devices (or perhaps roving mobile units) having greater sensitivity to low level radiation. We suggest that such monitoring devices be manned by other than company personnel or be designed to automatically trigger a public alarm or at least immediate notification to public officials.

Further, we believe that monitoring devices of sufficient sensitivity should be distributed to each affected town, with officials and citizens therein taking responsibility for regular readings (at least once a day). The costs of such monitoring devices, as with the costs of initiating the other precautionary measures suggested here (which costs are trivial when compared to the costs and benefits of operating the plant), should be paid by Maine Yankee which is the source of the need for such precautions.

6. Plan Organization

A final general observation is that the plan seems to be disjointed and to lack any comprehensible organization. While this problem should not be too difficult to resolve, it is worthy of mention here because in its present state the plan is extremely hard to follow -- a quality which is at best disturbing in an emergency action plan.

SPECIFIC COMMENTS

The following are observations and suggestions addressed to certain specific elements of the plan, with references made to the paragraphs and pages where such elements appear:

1. Page 6 - first paragraph: Although unclear, this paragraph seems to indicate that the company will notify government officials only if a radiation level of 10 mrem per hour is reached. This seems far too high, as 10 mrem per hour would indicate a whole body exposure amounting to one x-ray every 2 to 4 hours. Is the implication here that an accident resulting in radiation levels of 9 mrem per hour for extended periods will not result in notification of the public or even of state officials? We strongly recommend that the company be required to immediately notify state and local officials in the event of any actual or potential abnormal release of radiation. Following such notification, the state, guided by the plan, can then assess the need for and course of notification and evacuation of the public. In addition, we believe that prompt public notification is essential in all incidents involving abnormal releases of radiation from the plant, whether or not evacuation is appropriate.

2. Page 6 - paragraph numbered 4: This paragraph is vague and its subject matter should be more fully developed. Particularly it is important that various courses of public notification and action (including alert or total or partial evacuation) be assessed and the various conditions triggering each such action be defined.

3. Page 7 - first paragraph numbered 1: The manner and capability of available Coast Guard assistance should be detailed. It is simply inadequate to allude generally to dispatching patrol boats to the area unless it is known exactly what boats are available and how quickly they can be made available.

4. Page 7 - second paragraph numbered 1: The capability of Human Services to dispatch trained radiological health personnel should be detailed. See comment 3 above. In addition, there is no present capability, described in the plan, for contacting such state officials except during office hours.

5. Page 7 - paragraph related to Inland Fisheries and Wildlife. See comments 3 and 4 above.

6. Pages 8 and 9 - paragraph C: The differentiation between local, site and general emergencies here seems to be wholly artificial and not to be a proper basis for the choices of public action options which must be made. Who is to determine what type of emergency applies - and by what standards? All radiological emergencies will undoubtedly stem from problems in and around the reactor, but any such emergency is likely to have the potential for impact upon the entire surrounding community. Therefore, any "emergency" relating to the plant is an emergency having the potential to affect the community and should be addressed as such. After all, the preferred time to initiate an evacuation plan, if one is necessary, is presumably before an existing "emergency" in the reactor results in a release of radiation into the community.

Furthermore, this section C contains vague references to procedures that personnel "may be alerted to condition status and initiate standby operations", that "radio communications be established and monitored", and that the National Guard shall consider "the possibility of the situation being upgraded to a General Emergency". These strike us as meaningless jargon which needs refinement and definition.

7. Page 10 - Paragraph 2(b): The implication here is that the "site emergency director" at Maine Yankee will determine whether a "local emergency" in the reactor should be upgraded to a "site or general emergency". Even if such categories of emergencies made sense (and they do not to us), such decisions should best be made by, or at least in concert with, a governmental representative. We note with concern the fact that, unless Maine Yankee determines that a local emergency should be upgraded, the plan does not seem to call for immediate notification of the Governor, any officials of the NRC, Department of Human Services or various local governments in the vicinity.

8. Pages 13-15: These pages relate to the so-called general emergency plan, which is triggered only if a radiation level of 10 mrem per hour is recorded. We have already commented on the validity of the 10 mrem standard and about the fact that the plan is silent on the need for monitoring lower levels of radiation and for public action and notification in the event of such low level releases. In short, there is much more attention paid by the plan to the relatively easy task of notification of government officials than there is to the difficult task of alerting the public. In fact, the only reference here to possible public notification appears in paragraph D at the bottom of page 13: "Institute any protective measures for the public as deemed necessary by the emergency coordinator". This type of statement is symptomatic of many of the plan's shortcomings.

9. Page 16: The terms of this roadblock plan need refinement. A number of possible roadblock conditions are described,

appended by the following language: "All of which can and will vary from time to time and which prevent the establishment of positive action, prearranged". This sentence indicates that planning for such emergencies is not possible. We do not agree. We believe that such planning requires consideration of various possible contingencies and establishment in advance of various roadblock and other traffic measures which may be necessitated to respond to each such contingency.

10. Page 18 - paragraph numbered 1: This paragraph is loaded with terms which require definition or refinement, i.e., what is a "radiological incident"? Who are "civil authorities"? Wh[illegible] are the "areas involved"? What is "proper action"? What constitutes "notification of personnel"?

11. Page 19: The references here to boat and aircraft capabilities are without context. The reference to "aircraft from Cape Cod" is not only meaningless but indicates the probability of serious delay.

12. Page 20. The statement here that local radio stations will be issued prepared releases for broadcast is curious. If such releases are to be prepared in advance of an incident, our checking has indicated that at least some of these stations do not have any prepared material on this subject. If such releases are to be prepared after an incident, the obvious delays involved negate the val[illegible] of this means of communication. All of the radio stations involved as well as all television stations which broadcast into the area should be issued prepared statements in advance and details should be supplied following an incident by the fastest means possible.

13. Page 22: The details of the role which the National Guar may play in an emergency, together with their capability to do so, should be spelled out.

14. Page 23: This page sets forth vague descriptions of the role to be played by sheriffs' departments in the area and is subject to the same comment as that in 4 above.

15. Pages 24-26: While these pages contain a list of local area hospitals, there is little or no indication of which, if any, of these facilities possess the necessary equipment and medicines to detect and treat persons exposed to radiation. Further, it is unclear whether these hospitals are aware of the role which they may be asked to play in an emergency. We would recommend that several regional hospitals be provided the necessary equipment and training to cope with a radiological emergency.

16. Page 27: We recommend that the public be notified, before an emergency arises, that Brunswick Naval Air Station is the likely location of emergency quartering. We also recommend that alternative quarters be considered, for instance in the event of winds during an emergency which are blowing in the general direction of Wiscasset to Brunswick. While we recognize that this is not the typical prevailing wind direction, it does occasionally occur.

17. Page 29: These procedures, to be followed by DOT in the event of an emergency, are ill-defined and confusing.

18. Page 31 - end of first full paragraph: While we have not measured it, we would estimate that the plant is located

closer to the shore of Westport than the 2,000 feet suggested her This same comment applies to the last paragraph on page 8 of the plan.

19. Page 31 - second paragraph: The first sentence here seems to imply that people living on the north end of the island (near the only bridge to the mainland) could or would be evacuate to the south end, which is a wholly illogical proposition.

20. Page 32 - first paragraph: There are a number of references here to facilities on the island where people could be sheltered or fed in a radiological emergency. It is clear that, in the event of an emergency which requires people to leave their own homes, an evacuation of the entire island would be appropriate For instance, it is unimaginable that, in the event of an emergenc island residents would need to avail themselves of feeding facilities at Oaks, which is only a small fraction of a mile away from the plant. The other facilities listed are also within close rang (3 miles).

21. Page 32 - middle paragraph: While there is a descriptio here of school buses available on the island, there is no indicati in the plan of what use these buses should be put to in event of an evacuation.

22. Page 32 - next paragraph: There are indeed cattle and local milk suppliers on the island.

23. Page 32 - remaining paragraph: There are here references to locations of docks and helicopter landing areas on the island. Has the Coast Guard been notified as to their whereabouts

Do the island's population know how to reach these locations? Who will provide helicopters? Does the Coast Guard have the capability to provide sufficient boats to evacuate the island from the south end, even in summer months when there is an influx of summer residents?

24. Page 34 - first paragraph: By what standards will a decision to initiate an evacuation of Westport be assessed? What about the possibility of partial evacuation?

25. Page 34 - paragraphs 3(a) and (c): What are the bases for these conclusory statements? If an emergency occurs during a weekday, significant numbers of mothers with children will be at home without an automobile. Therefore, the conclusion in 3(a) is suspect. Further, we are convinced that the conclusion in 3(c) (to the effect that there now are adequate mechanisms to notify all the public) is unjustified and incorrect.

26. Pages 34-35 - paragraph 3(f): This paragraph suggests that information provided by Maine Yankee may trigger either a public evacuation or merely increased official readiness (the latter where an accident at the plant has occurred with than unknown dangers). We believe that any accident resulting in offsite radiation exposure should result in <u>public</u> notification and <u>public</u> readiness. The plan is ambiguous at best in establishing the conditions under which an evacuation or a public alert should be initiated.

27. Page 36 - paragraph 2: This section requires that, in the event of a radiological incident, the selectmen will notify all the other town officials and all will assemble at the fire

station. At best, in practice this procedure will take significant time, particularly in winter. We also inquire whether all of the selectman and officials will be at home near their telephones should an emergency occur during a workday. Moreover, we question the prudence of having all the town's officials assemble at a place which has but one (or possibly two) telephones, when much of what must then be done involves use of a telephone. Perhaps, it would be appropriate for all the officials involved to be provided with radios in advance, and in the event of an emergency, to communicate with them. It may also be prudent to have more telephones installed at the fire house, if it must be used as a base of operations. However, the fact remains that it is unwise to create a public notification scheme which depends upon the presence and action of a few geographically dispersed individuals. For this reason, we can only reiterate the pressing need for an effective public alarm system.

28. Page 37: At the risk of repeating ourselves, we highly recommend use of a distinctive and audible siren system in the event of an alert. The town's fire alarm will fail to alert the majority of citizens to the existence of a radiological incident. Moreover, we are concerned about an emergency action plan which responds as follows to the central issue of how to notify the public in the event of an emergency:

> "Those citizens unable to hear a fire alarm to be notified by other means determined by the Fire Chief". (From page 37)

We believe that this plan cannot be considered as fulfilling its purpose unless it describes in detail the mechanisms by which the public will be promptly and effectively alerted in the event of a radiological emergency.

29. Page 39: While the plan assigns to the various officials of the town certain responsibilities in the event of an accident, it does not provide for back-up personnel in the event of the unavailability of one or more of these persons.

Moreover, it is well known that the telephone at the fire house listed here is usually not manned.

30. Page 40 - Evacuation Routes: Plan options B and C, as stated earlier, are preposterously ill-conceived insofar as residents of the island living north of the plant and close to the bridge are concerned. If such plan options were utilized, such residents would be asked to forego a speedy exit from the island and directly away from the plant and instead to drive south and right by the plant to a slow evacuation by uncertain means. Moreover, such north end residents would constitute an unnecessary added burden on whatever boat and air evacuation capabilities exist.

An equally serious failure here is that none of these options is fully detailed or scrutinized. Thus, option B calls merely for all island residents to assemble at the Town Hall. Is that the complete plan of action contemplated under this option? Under option C, how would evacuation be achieved by air or water? These issues are at the very crux of the evacuation plan itself, and they require something more than the brief and broad generalizations stated here.

31. Page 41 - last paragraph: There is a reference here to the fact that invalids will be "directed to area hospitals". This almost comic instruction cannot be considered an honest effort to plan evacuation for the area's disabled.

32. Page 43 - last paragraph: The statements here that the population of the town is 225 and that there are few summer residents are most curious to us. We would expect that the island's population is far more than this and we know that there are significant numbers of summer residents. For comparison purposes, there were, at the last Town Meeting, approximately 200 voters present, out of approximately 350 registered, neither of which figures include children or summer residents.

33. Page 44 - paragraph headed "Training Exercises": See our general comment number 4.

34. Page 45 - middle of the page: We ask how these various officials will be notified and whether substitute individuals should be designated in advance in the event these officials are not available. See also comment 26 above.

35. Page 46 through 48: This section generally describes implementation of the plan for the island. It summarizes many of the other sections of the plan, and is subject to many of our comments set forth elsewhere, which will not be repeated here.

36. Page 49 - first paragraph: The second sentence refers to the possibility of an evacuation by water off the "east end" of the island. Westport is a long and slender island running entirely north-south, and it is hard to visualize where or what the "east end" may be. Perhaps the plan is intended here to refer to a south end evacuation (as it seems to elsewhere).

37. Page 50 - second paragraph: The sites and capabilities for air or water evacuation should be clearly established.

38. Page 51 - first paragraph: See comment 15 above.

39. Page 51 - second to last paragraph: See comment 20 above.

40. Page 51 - last paragraph: "The resources of the various Governmental, State and County agencies, as the situation demands". What specifically, does this mean?

41. Page 52: These protective action guidelines are, according to this section, to be transmitted to the public by a notifier following an emergency. The public should be educated concerning them in advance of an emergency.

42. Page 54: The list of town officials printed here is woefully out of date.

If any of these comments require further explanation, please communicate with Jeffrey Pidot, RFD 2, Westport Island, Wiscasset, Maine 04578. Telephone - home: 882-7001; office: 289-3051.

Thank you for the opportunity to comment.

TOWN OF WATERFORD

300 BOSTON POST ROAD - WATERFORD, CONNECTICUT 06385

FIRST SELECTMAN
LAWRENCE J. BETTENCOURT

August 31,1979

Mr. Samuel H. Chilk
Office of the Secretary
United States Nuclear Regulatory Commission
Mail Stop - 1137 -B-
Washington, D. C. 20555

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR 41483) (103)

Dear Mr. Chilk:

In reply to your United States Nuclear Regulatory Commission bulletin No. 1-79-101, I submit the following answers to the fourteen questions posed; and offer these comments:

As you may be aware, the Town of Waterford is the site of two nuclear power plants, with a third facility under consideration, for operation in the immediate future.

We have a completed Emergency Operations Plan as prepared by the Tri-town Committee of Waterford, East Lyme and New London, with the assistance of Northeast Utilities. In addition to the plan we have a supplement which contains all of the necessary information on resources and personnel, to handle matters such as evacuation of the residents. The complete plan was tested on June 15,1978, with the scenario including hurricane winds and high tide, followed by a train derailment (we have a railway network through our community) of cars filled with chemicals. During that exercise we were able to test our medical assistance program defined in the plan; and received full support of the local hospital where they in turn had the opportunity of testing their wash-down treatment room at that facility. From the train derailment we went into a simulated nuclear incident, wherein as a result of a school being located in the immediate area of the power plants, we evacuated students, teaching staff and parents, to an assembly area; from there to a holding area to be fed and transported back to Waterford once the drill was over.

In view of the above, I address the following items:

1. All of your questions under No.1, are important; reduction of radiation exposure comes with education of personnel and education of the public. People must be taught the precautions to reduce possible radiation in their homes; people must be taught how to prevent exposure to radiation by themselves and their families. There should be an

Acknowledged by card 9/26

3-349

Mr. Samuel H. Chilk
Secretary, NRC
Washington,D.C.
Page II
August 31,1979

ongoing educational program of essential information being continually updated through the mechanics and technology provided by the Nuclear Regulatory Commission and the Utilities Companies; in our case the Northeast Utilities. The capability to evacuate the masses is a must; and should be clearly defined with documentation by the State and Federal Governments. Such an evacuation plan would meet the needs of both man-made and natural incidents. I make note that our Community has had difficulty in obtaining this type of information; our evacuation plan has been completed by the tri-town committee only. Evacuation signs and other materials, although promised by the State and Federal agencies never materialized. I repeat, this is a must; proper evacuation plans should be documented to insure safe passage of the populace from a critical area.

2. The main ingredient is testing; without testing you cannot know the so-called bugs or loopholes. An essential element in a plan is one of local or area resources; but over and above all else, is the evacuation plan. With regard to the State of Connecticut and the Town of Waterford, I feel the plan is adequate, but does need constant updating and revising as situations change in the State and the Community.

3. Yes, there should be concurrence in associated state and local emergency response plans and this requirement should be prior to the licensing of the facility for operation.

4. Again my answer is yes; there should be concurrence in associated state and local emergency response plans for any new operating licenses for nuclear power facilities; and it should be done prior to licensing of the facility for operation.

5. My answer to this question is a definite yes; there must be financial assistance provided to the state and local governments; primarily to the local governments who have the direct responsibility for providing radiological and emergency response teams. The Town of Waterford has thirty-five qualified radiological personnel who have been trained and certified; however, this should go one step further, to include additional funds provided to the local level for radiological-monitoring equipment. At present this is non-existent, as the plans are set up by the Federal Government. No community can afford to pay for radiological-monitoring equipment in the amount required by any community with a nuclear facility within its

boundaries. The state is hard-pressed for this kind of funding, also. The only answer to the source of funding is the federal government.

6. This is a definite responsibility, first and foremost of the local community to prepare response drills and such drills should be a requirement. The drills should not be limited to nuclear incidents, but should also include plans for natural disasters for which a community should always be prepared. The federal government and state agencies should be a part of any emergency response drills to the extent that they should energize and exercise their own plans for effectiveness; and where the state is required to provide support to the local government as far as resources, resource materials; and to energize their own plans in order that the plans intermash with those of the local community. There should be a requirement also for the licensee to participate in drills, conducting the drills jointly with the communities, with state participation when and where necessary and appropriate.

7. This item gives the greatest amount of concern in relation to incidents which occurred at Three-Mile Island. Public information must be provided; however, only the most accurate and precise information should be disseminated. Personnel who are familiar with the technical aspects of the problem should address those items only; and not try to address local issues. Local issues on the other hand should only be addressed by the responsible party; the Chief Administrator of a community is the knowledgeable source. My deepest concern is for those persons who are not informed or in a position to speak intelligently, find themselves exposed to the news media, and feel compelled to speak; expounding on unfamiliar material; thus leaving open the possibility of inaccurate information being given out to the public. On the local level the Chief Administrator is the one to advise the community. During our exercise in June of '78, we advised the residents of the date of our planned exercise; however, we left open the time and the events planned; allowing some element of surprise, in order to test our communications, in-house capabilities, and to test our routes of evacuation.

8. It is my feeling that all participants should respond to the

recommendations of the NRC and EPA taskforce reports.

9. In any event of public interest, right up to and including general emergencies, the public should be notified. The public should be notified at the discretion of the local officials.

10. State and local governments must be incorporated into the federal radiological emergency response planning. There are many concerns which only a municipality has, and many on the state level, but the concerns should be made known to the federal government. One of the major concerns is financing; which necessitates, and I repeat the urgency, of a fulltime individual on the payroll, assigned to a community which is a site of a newclear facility (s). It is foolhearty to expect a community to pay for such a service; no community can afford it; the service to be concentrated on the aspects of preparing and maintaining an emergency response plan. No community could support that requirement; and parttime personnel, no matter how dedicated, no matter how knowledgeable of his field, can devote the time required to oversee such precautionary measures. Daily contact with situations within the community, are not possible on a parttime basis; and the need to continually update the procedures, must not be overlooked. Supportive funding by the federal government is a requisite, to insure that emergency preparedness plans are always available and serviceable.

11. This can be done by prior proper planning of emergency response plans of state, local and licensees. This has been done in the Town of Waterford and has proved effective on every occasion of testing of our plan. We have found that proper communication among the three agencies of federal, state and local governments proper notification and proper execution, can be accomplished and the total program monitored effectively.

12. The federal government should provide radiological response training, to both state and local governments; this has been done in the past through Civil Preparedness Programs, and has proved beneficial. People in our community have been trained and are qualified to respond in cases of decontamination, etc. We have found that the program does work when it is funded by

the federal government and monitored by the state agency.

13. This responsibility should be the responsibility of the federal government. Upon notification of an actual or potential incident, the federal government and the NRC coordinator or technician at the site, should immediately be involved in advising the state and local government what action or precaution should be taken.

14. The participation of the public in radiological response drills including evacuation, serves a very useful purpose. In Waterford all of our volunteers (of the most part) are residents who know their community well; and are very responsible citizens. This proved true in our exercise of June 1978. Public participation and the wealth of knowledge gleaned from the exercise convinced me that it is vital to the success of the operation, to have interested and concerned residents participate; and I encourage you to pursue this thought.

In view of the interest generated by this subject matter, it is my further recommendation that it is crucial to have a news media center established in any community which is the site of a nuclear facility. Personnel from the federal, state and local governments along with the spokesmen for the nuclear power company involved, should be stationed at the center in time of actual or potential crisis, to dispense immediate, accurate information. The individuals as spokesmen should be totally knowledgeable of their subject matter, familiar with the news media, and authorized to represent that particular agency. It is vital to have all of the personnel located at the one site, for spontaneous releases; however, this in no way would usurp the duties of any federal or NRC news center; which should be a totally separate unit. The purpose of the local center would be to alert the public immediately, and keep the public updated on occurrences, by responsible representatives of each agency.

For your further convenience, I have enclosed copies of correspondence previously forwarded to the various departments of federal and state government, referring to certain of the subjects addressed in this letter. If I may be of any further assistance, I am at your service.

Sincerely yours,

Lawrence J. Pettencourt,
First Selectman

LJP/lca
enclosures

3-351

July 12,1979

Mr. John Kemeny
Chairman
Kemeny Commission
2100 M. Street Northwest
Washington,D.C. 20007

Dear Mr. Kemeny:

As First Selectman of the Town of Waterford,Connecticut, where we have two nuclear power plants and a third plant under construction, I am very much concerned and involved in the emergency operations plans as such pertain to the Town, and also the emergency plans as such pertain to the Federal and State Governments.

I have extremely deep interest in providing the residents of Waterford with a workable plan; and as a result of hard work, our plan has been termed by the Nuclear Regulatory Commission and other Federal/State Agencies as a model plan for the whole Country.

For your convenience and information, I have enclosed a copy of a recent publication (The Norwich Bulletin-Courier) and note particularly, P.10-11, pertaining to the Town of Waterford.

The Town of Waterford Emergency Operations Plan has been offered to the Federal and State Agencies, as a completed and tested, workable document; complete with evacuation procedures.

To date we have heard nothing from any branch of Federal or State Government, as to their interest.

This plan took three-and-one-half years to complete; with an additional year to incorporate the Tri-Town Emergency Operations Plan which has proven noteworthy by Federal and State Agencies.

It would be my pleasure to discuss this plan, or any aspect thereof, and offer it as a possible basic plan for those communities you are aware of, who do not have any yet on paper; as I feel that this is a matter which demands the attention of the Federal Government as a whole; and the individual State Governments.

I am sure you are aware that most Communities do not have the financial

Mr. John Ahearne
Chairman, Nuclear Commission
Washington, D. C. 20007
Page II
May 12,1979

capabilities to fund such programs of Civil Preparedness, And I am strongly urging to the Federal Government, that wherever nuclear power plants are located, that the position of Civil Preparedness Director, be federally funded to insure that vital emergency operations plans are prepared, and operational.

My concern is a sincere concern; and I have expressed these sentiments to the Nuclear Regulatory Commission and to my own representatives in Congress; as well as to our State officials.

As stated previously, I would be happy to meet with you to discuss this matter in depth, and to share what we consider a completely workable emergency operations plan.

Sincerely yours,

Lawrence J. Bettencourt,
First Selectman

LJB/ltz
enclosures

3-352

TOWN OF WATERFORD

200 BOSTON POST ROAD • WATERFORD, CONNECTICUT 06385

LAWRENCE J. BETTENCOURT

May 14,1979

Mr. Richard Pollack
133 C. Street S/E
Washington, D. C. 20003

Dear Mr. Pollack:

Thank you for your telephone call on Friday, May 11,1979, with reference to the Emergency Operations Plan of the Town of Waterford.

As you are aware, this plan took six months of preparation, and is fully tested to include registration of evacuees and evacuation. It should be noted also, this plan was devised in such a manner and the exercise was conducted in such a way that it can be used by any municipality for any natural disaster such as hurricane, ice storm, snow storm, flood, etc., as well as for nuclear incidents.

Along with this plan I have available a 16mm sound and color film of the completed Emergency Operations Evacuation Drill which was conducted here in Waterford in June, 1978. Along with the film, are slides which I have used in presentations to other municipalities who have requested information on this subject.

Since the Three-Mile Island incident, I have received inquiries from all over the country, regarding the availability of the Plan of the Town of Waterford, for use by other communities. Because of the voluminous amount of material in the Plan, I find it financially impossible to meet the demands, and have only been able to provide [illegible] to satisfy part of the requests.

I am sure you are aware of my deep concern that all communities where nuclear generating facilities are located, have such a required Plan, for the safety and welfare of the residents.

In view of this concern on my part, and because of the effectiveness of the Emergency Operations Plan of the Town of Waterford, I would be willing to make this Plan available to any federal agency for review and possible use as a "model plan" for other communities. I would be willing to appear before any agency to discuss this in detail, as I feel the workings of the Plan can be used as a "model plan" for

Mr. Richard Pollack

any municipality by deleting the name of the Town of Waterford and inserting the name of another Community, along with basic information pretinent to each individual Community.

I hope this is not considered presumptious of me to imply that other agencies could not prepare such a plan as Waterford has already completed; but in view of the short time frame imposed on municipalities with nuclear generating plants, I feel that within a relatively short period (two or three weeks) our Plan could be adopted to meet any Community's requirements.

This matter has been discussed at length with Mr. Douglas Peabody, Fire Marshal and Deputy Director of Civil Preparedness for the Town of Waterford. Mr. Peabody has indicated that he would be willing to accompany me to Washington or wherever you may designate, if the need arises. As you know Doug has been a great asset in the development of this Plan and I am proud to have him speak on behalf of the Town of Waterford and our emergency operations.

Please advise me if I may be of any assistance to you and your agency.

Sincerely yours,

Lawrence J. Bettencourt,
First Selectman

LJB/Eta

cc: The Honorable Ella Grasso, Governor, State of Connecticut
The Honorable Abraham Ribicoff, United States Senator
The Honorable Lowell Weicker, Jr., United States Senator
The Honorable Christopher Dodd, United States Representative
The Honorable Anthony (Toby) Moffett, United States Representative
Mr. Frank Mancuso, Director, Civil Preparedness, State of Connecticut
Mr. Douglas Peabody, Fire Marshal/Deputy Director, Civil Preparedness Town of Waterford

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TOWN OF WATERFORD CT L APPLEBY
200 BOSTON POST RD HALL OF RECORDS
WATERFORD CT 06385

RECEIVED
MAY 1 1979

THIS MAILGRAM IS A CONFIRMATION COPY OF THE FOLLOWING MESSAGE:

2039429089 NL TDNT WATERFORD CT 292 05-03 1056P EST
PMS HONORABLE ABRAHAM RIBICOFF UNITED STATES SENATOR
CAPITOL ONE
WASHINGTON DC 20510
DEAR CONGRESSMAN DODD IN VIEW OF THE INCIDENT WHICH HAVE RECENTLY UNFOLDED IN MIDDLETOWN PA AT THREE MILE ISLAND IT WOULD INDICATE THAT IMMEDIATE ACTION SHOULD BE TAKEN BY THE FEDERAL GOVERNMENT TO INSURE THAT PROPER CIVIL PREPAREDNESS PLANS BE INSTITUTED IN CITIES AND TOWNS WHERE NUCLEAR GENERATING FACILITIES ARE SITUATED. AS A RESULT OF THE THREAT POSED BY THE POSSIBLE RELEASE OF RADIATION IT IS IMPERATIVE THAT THE POSITION OF CIVIL PREPAREDNESS DIRECTOR BE ESTABLISHED IN EVERY COMMUNITY WHERE SUCH PLANTS ARE LOCATED AND THAT THE POSITIONS BE FUNDED BY THE FEDERAL GOVERNMENT IN ORDER TO DETERMINE THAT A PLAN OF EMERGENCY PREPAREDNESS BE AVAILABLE FOR PUBLIC PROTECTION. ALSO AS A RESULT OF THE NUCLEAR ACCIDENT IT WAS BEEN LEARNED THAT MOST COMMUNITIES WHICH ARE SITES OF SUCH NUCLEAR POWER PLANTS ARE SMALL IN SIZE AND ARE NOT IN FINANCIAL POSITIONS TO FUND SUCH DEPARTMENTS NOR DO THE COMMUNITIES HAVE EMERGENCY OPERATIONS PLANS OF ANY SUBSTANCE. HERE IN WATERFORD CT WE ARE FORTUNATE TO HAVE EMERGENCY OPERATIONS PLANS WHICH HAS BEEN RECOGNIZED AND ACCEPTED BY UNITED STATES NUCLEAR REGULATORY COMMISSION. I AM LEAD TO BELIEVE THAT THIS PLAN IS ONE OF VERY FEW (IF NOT THE ONLY PLANT) IN UNITED STATES WHICH HAS BEEN TESTED AND FOUND ACCEPTABLE. THEREFORE I AM RESPECTFULLY REQUESTING AND STRONGLY URGING THAT YOU INITIATE AND SUPPORT SUCH LEGISLATION. THIS ACTION ON YOUR PART AND ON THE PART OF THE FEDERAL GOVERNMENT WILL INSURE THAT THE PLANS OF THE EMERGENCIES OPERATIONS WILL BE PREPARED KEPT CURRENT AND TESTED PERIODICALLY TO PROTECT THE PUBLIC NOT ONLY IN NUCLEAR INCIDENCE BUT IN ANY NATURAL OR INDUSTRIAL DISASTERS
LAWRENCE BETTENCOURT FIRST SELECT MAN TOWN OF WATERFORD CT

2215e EST

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MIDDLE SOUTH SERVICES, INC./ BOX 61000/NEW ORLEANS, LA. 70161/(504) 529-5262

D. CLARK DIBBS
DIRECTOR - NUCLEAR ACTIVITIES

(109)

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR 41483)

September 12, 1979

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Sir:

Middle South Services, Inc. would like to take this opportunity to comment on the Nuclear Regulatory Commission's Advance Notice of Proposed Rulemaking - 10CFR50 - Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities. These comments also apply to the issues raised in the Petition for Rulemaking recently filed by the Critical Mass Energy Project which appeared in the Federal Register on June 6, 1979.

General Comment

We feel that the off site emergency planning around nuclear facilities is a very important aspect of protecting the health and safety of the general public, however, we feel that emergency planning for hurricanes, floods, toxic chemical spills, etc are also as important if not more important. This is based on the likelihood of events. Therefore our recommendations are based on the NRC participating as an advisor to the Federal Emergency Management Agency (FEMA) to encourge comprehensive emergency plans rather than specific radiological emergency response plans.

Comments on Issues Raised in Advance Notice of Proposed Rulemaking

1. What should be the basic objectives of emergency planning?
   a. To reduce public radiation exposure?
   b. To prevent public radiation exposure?
   c. To be able to evacuate the public?
   To what extent should these objectives be quantified?

Response:

The basic objective of any emergency plan whether it is related to nuclear power or a hurricane is to protect the health and safety of the general public.

Concerning the quantification of the three objectives listed, they can be quantified on paper but not in the public's mind. The first problem is if the public believes what you tell them and the second is to predict how the public will react to what you tell them.

Acknowledged by card. 9/26

It is recommended that advisories be used in dealings with the general public rather than quantified numbers which have no meaning to them. The individual would then be able to make up his own mind on what actions he should take. The advisories would be based on such things as a plant radiological emergency or weapons testing fallout approaching the area as a "Radiation Alert", a "Radiation Warning" would coincide with the lowest level of the Environmental Protection Agency's Protective Action Guides and the levels and titles would progress. The advisories would also include recommended actions such as, stay in doors, don't eat any leafy vegetables without throughly washing, evacuate, etc.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

An effective emergency plan whether it is a state, local, or licensee plan, is one that works when needed. A plan is only effective if it protects the health and safety of the general public. A fine plan on paper is not very good if it is ineffectively executed by unskilled people. Additionally, a large staff of well trained personnel would not be effective if they are not well organized and dispatched to the areas where their expertise is needed.

Therefore it can be seen there are two essential elements to emergency response planning, first a well written and organized plan and second a trained staff to respond to the emergency.

The key areas in the plan must include provisions for organization, communications, and availability of skilled people. The plan should be general as no two emergencies are identical and after the initial establishment of the emergency organization, the emergency will dictate what actions should be taken. However, people must be in place and ready to react as the emergency dictates.

The NRC requirements for licensees and states cover these essential elements, but a problem exists at the local levels. In most remote locations, where nuclear plants are located by decree, the local populous can develop good emergency plans and have available reasonable communications, generally supplied by the nuclear plant, however, they do not have the skilled people necessary to handle large emergencies. Therefore they must wait until help arrives from the state and federal agencies. The local skills available are usually limited to a few trained police, fire, and medical personnel.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continuing operation of any nuclear power plant with an existing operation license? If so, when should this general requirement become effective?

Response:

NRC concurrence in state and local emergency response plans should not be a requirement for continuing operation of any nuclear power plant. The NRC has no legal authority to require States or localities to develop emergency plans. Therefore, the NRC should not link emergency planning and nuclear powerplant licensing in such a way which would penalize consumers for the failure or unwillingness of States or localities to develop emergency plans. The NRC should continued to work with states and local agencies on a priority basis to establish effective emergency plans.

4. Should prior NRC concurrance in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response:

NRC concurrence in the associated State or local emergency response plans should not be a requirement before an operating license for a nuclear power plant can be issued. The NRC has no legal authority to require States or localities to develop emergency plans. Therefore, the NRC should not link emergency planning and nuclear powerplant licensing in such a way which would penalize consumers for the failure or unwillingness of States or localities to develop emergency plans. The NRC should continue to work with states and local agencies as well as other federal agencies in order to establish an effective emergency plan as soon as possible.

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

Federal funds should be made available to States and local agencies for establishing emergency response plans. However, these plans should be developed to handle any type of emergency rather than developed specifically for radiological emergencies. The funds can be provided on a matching basis or as grants on an as need basis. The funds would be made available through the Federal Emergency Management Agency to which the NRC would act as an advisor on radiological matters. The NRC would also provide some funds for local agencies around nuclear facilities through the FEMA.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response:

Drills are currently required by licensees through 10CFR50 Appendix E, however, there is no incentive or legal requirement for local or state agencies to participate. The NRC through the FEMA could encourage state and local agencies to participate in drills by demonstrating the benefits of participation and provide incentive by reimbursing the agencies for their expenses to participate.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

The public should be provided a list of the various advisories (see response to question 1) and how the advisory will be made, channel 3 on television or station 87 on the radio. The list would also include the recommended actions to be taken for each advisory classification. The list would be mailed to each household in the area and would be available in public places such as the post office. The lists would be comprehensive as it would also include the advisories and recommendations for hurricanes, tornadoes, floods, etc. besides the radiological warnings.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response:

Planning efforts should include both plume exposure and ingestion exposure pathways. However, the exposure pathways should be site specific rather than on a fixed radius requirements.

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, and to what extent, and by whom should the public be notified of these incidents?

Response:

The licensee would notify the state, local and federal agencies based on the advisor list discussed in response to question 1. The state and local agencies would verify the information and then notify the public by means of the radio and television advisory system. If the state or local agencies monitoring indicates higher levels of warning are necessary they can raise the warning to a higher classification, however in no case should the state or local agency lower the advisory below what the site recommends. It is also recommended the advisory include an effective time. An example would be; radio announcement: "Radiation Warning will be in effect from 10:32 a.m. to 3:30 p.m. today for the countries of ..."

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response plans?

Response:

Federal emergency response plans should supplement the site, local, and state plans. The site would request federal assistance when it is determined that special equipment or personnel is available in federal agencies which is not readily available in the local or state agencies.

The local agencies rely on the state for additional support and the state would expect the federal agencies to supply support to them.

Therefore, the federal emergency response plan would be twofold. One part to supply additional support to the licensee as requested by the licensee and the other part to supply backup support to the state and local agencies as requested.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

Communications should be established when an incident is identified and support should be provided as discussed in the previous question.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

The licensee should not be required to provide general radiological emergency response training to state and local agency personnel. The NRC can provide this training or funding for this training through FEMA. However, the training should include participation by the licensee in areas of uniqueness of the plant, such as methods of ingress and egress, physical layout, locations of emergency equipment, etc. to assure good coordination between the plant and the off site agencies.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extend should this responsibility be borne by Federal, State or local governments?

Response:

The licensee must provide the initial assessment of the hazard, as well as ongoing status of the conditions. These include increase or decrease in release rate, expected duration of conditions, and any other information effecting the health and safety of the general public. Once the initial notification has been made to the state and local agencies it is their decision on what warning level to broadcast to the general public. As discussed earlier the state and local agencies can always broadcast a higher classification but they should never broadcast a classification lower than is recommended by the site. The state, and in some cases local agencies, have their own monitoring equipment, therefore, once they have been alerted of a problem they can made an independent determination of the classification of the warning.

14. Would public participation in radiological emergency drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

Public participation in radiological emergency drills, including evacuations should not be encouraged. Drills would serve no useful purpose, and if the public was required to participate, it would create unnecessary risks, and could be counter-productive. The public should be made aware of the drills conducted by the licensee, state, and local officials but should not be required to participate.

If you wish to discuss any of our comments or would like clarification on any comment feel free to contact Mr. Felix M. Killar at (504) 529-5261.

Sincerely,

D. C. Cook III

DCG:edp

cc: L. F. Dale
D. A. Ruster
R. W. Prados

File: 041-01
047-11

Portland General Electric
121 S.W. Salmon Street
Portland, Oregon 97204

September 14, 1979

(105)

DOCKET NUMBER
PROPOSED RULE PR - 50 (44FR41483)

NRC Regulations on Emergency Plans

JWL-282-79

Secretary of the Commission
Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

We have reviewed the list of subjects proposed by the NRC for possible inclusion in additional regulations on emergency plans that were published on July 17, 1979. Specific comments on Subjects 1, 5, 10, 11, 12, 13 and 14 are forwarded for your consideration. The remaining subjects encompass areas in which the NRC has apparently already decided upon regulatory requirements for utilities, in the form of NUREG-0578; the latest revision to 10 CFR 50, Appendix E; Regulatory Guide 1.101; and the Acceptance Criteria for utility emergency plans recently distributed by the NRC at regional meetings with licensees.

Our comments on the remaining subjects are as follows:

Subject 1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public? To what extent should these objectives be quantified?

Comment: The latest revision of 10 CFR 50, Appendix E, clearly states that emergency plans should describe:

> "Protective measures to be taken in the event of an accident within and outside the site boundary to protect public health and safety; corrective measures to prevent damage to property; and the expected response in the event of an emergency of offsite agencies."

These measures include both reduction and prevention of public radiation exposure. No further quantification is needed.

Acknowledged by card. 9/26

Subject 5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Comment: We believe that financial assistance should be provided to State and local governments for radiological emergency response planning and preparedness. The licensees can provide (and in Oregon are required to provide) some financial assistance, but it is unreasonable to expect licensees to pick up the entire cost for State and local planning. In addition, an accident at a plant in one state could affect people in an adjacent state; there is no mechanism on the State level to require a licensee to pay for emergency planning in an adjacent state.

Federal aid should take the form of supplemental funding in addition to funds already provided by licensees, up to a maximum amount per site, dependent on the extent of planning required. The funds should be considered comparable to other Federal disaster or civil defense funding.

Subject 10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

Comment: State and local concerns should be factored into Federal radiological emergency response planning. Concerns over such matters as the ability of Federal agencies to respond promptly and effectively to emergencies at nuclear power plants and the assurance of effective Federal regulations governing emergency plans at nuclear sites are legitimate and should be addressed. However, it should be recognized that the Federal agencies have greater resources, including personnel, material and financial resources, in the field of emergency planning than State and local governments. Therefore, concerns of State and local governments should be evaluated critically.

Subject 11: How should Federal agencies interface with State and local governments and the licensee during emergencies?

Comment: It should be recognized that State and local governments must bear the primary responsibility for short-term emergency response during an emergency. Federal agencies should supply any assistance requested by State and local governments, such as NEST or IRAP teams, sampling and analysis of foodstuffs by the FDA, and advice on evacuation procedures. The Federal agencies should not preempt emergency response decision-making by State and local governments and the licensees.

Subject 12. Should licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Comment: Licensees should be responsible for a limited amount of radiological emergency response training for State and local government personnel. This training could include briefings on plant operations and emergency procedures and basic training in radiation monitoring and decontamination procedures for hospital staffs, ambulance personnel, and local government personnel. Licensees should not be required to provide detailed training to State government personnel. Detailed training of State and local government personnel should be funded by the Federal government when such training is mandated by Federal regulations.

Subject 13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Comment: Given the suddenness with which an accident situation can develop, the licensee must be relied upon to provide the initial assessment

of the actual or potential consequences of an accident with regard to initiation of protective action. The plant operators are closest to the action, and have the best information (at least in the short term) on the condition of the plant and the magnitude of affluent releases. In addition, some time will elapse before the Federal, State and local authorities can activate their respective emergency plans to the extent that they can take over the responsibility for assessing accident consequences and making decisions with regard to protective actions. Control of protective action decisions should be transferred to Federal, State and local authorities in the long term.

Subject 14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Comment: The extent of public participation should be carefully controlled to prevent either (1) disruption of transportation and/or business activities in the affected area, or (2) public complacency due to too-frequent drills. Public participation should be on a volunteer basis only.

We hope that these comments will be of use to you.

Sincerely,

Jack W. Lentsch

J. W. Lentsch
Manager of Generation Licensing & Analysis
Generation Engineering-Construction Division

JWL/GAE/SCC/4kk6A9
Attachment

UNITED STATES
NUCLEAR REGULATORY COMMISSION

OFFICE OF PUBLIC AFFAIRS, REGION V
1990 N. California Boulevard, Suite 202, Walnut Creek, Ca. 94596

NRC:V-4179
Contact: Frank L. Ingram
Bus: (301) 492-7715

FOR IMMEDIATE RELEASE
(Mailed - July 17, 1979)

NRC CONSIDERING ADDITIONAL REGULATIONS ON EMERGENCY PLANS

The Nuclear Regulatory Commission is considering the adoption of additional regulations which would establish, as a condition of power reactor operation, increased emergency readiness for public protection in the vicinity of these facilities; such regulations would involve utility licensees as well as State and local authorities and the NRC.

The action is one of many being taken by the Commission in response to the March 28 accident at the Three Mile Island Nuclear Power Station and also is responsive to recommendations from the General Accounting Office and requests from a number of organizations including renewed and supplemental petitions for rulemaking from Critical Mass and Public Interest Research Groups.

The Commission is seeking public comment on the following subjects:

1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public? To what extent should these objectives be quantified?

2. What constitutes an effective emergency response plan for State and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements?

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Editors/News Directors:

PLEASE UPDATE YOUR TELEPHONE CALL LISTS WITH OUR NEW TELEPHONE NUMBERS:

(415) 944-9385 NRC Region V Public Affairs Office
(415) 944-9005 Recorded NRC news announcements (as available)

(415) 820-3840 Jim Hanchett, NRC Public Affairs Officer, at home
(415) 932-8300 NRC Duty Officer (evenings and weekends)

3-359

JUL 19 1979

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The comments received will be collected and evaluated by the NRC staff, which will, in turn, submit recommendations on proposed rules to the Commission. Based on the comments it receives from the public and the analysis of the problem presented by the NRC staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rule immediately effective. The Commission anticipates completion of this expedited rulemaking in approximately six months.

The NRC staff is presently conducting a comprehensive review of all aspects of the NRC emergency planning and preparedness program. Therefore, the Commission is also interested in receiving comments on all other aspects of emergency planning, including issues raised in the Critical Mass/PIRG petition for rulemaking and questions such as the following:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

"more"

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Comments should be addressed to the Secretary of the Commission, Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch within 45 days of publication in the Federal Register on July 17.

# # #

3-360

STATE OF ILLINOIS
Illinois Commerce Commission
527 EAST CAPITOL AVENUE
SPRINGFIELD, ILLINOIS 62706

August 30, 1979

DOCKET NUMBER (106)
PROPOSED RULE PR - 50 (44FR 41483)

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Secretary:

On behalf of the Illinois Commerce Commission, I submit the enclosed responses to questions regarding nuclear emergency preparedness raised by the Nuclear Regulatory Commission. Our position is based on extensive experience in regulating nuclear power plants within the State of Illinois.

In addition, these responses reflect the thinking of the Illinois Emergency Services and Disaster Agency which is charged with developing and maintaining emergency evacuation plans for nuclear power plants operating within the state.

Sincerely,

Michael V. Hasten
Chairman

Enclosure

Acknowledged by card. 9/26

1. What should be the basic objectives of emergency planning? Reduce public radiation exposure? Prevent public radiation exposure? Capability to evacuate the public? To what extent should these objectives be quantified?

Any responsible planning for nuclear safety must include all three of these objectives. To the degree to which these objectives can be quantified, first priority should be given to the prevention of a nuclear incident. This objective is achieved through the use of good design, quality construction, and the meticulous operation of the plant through the continuous use of monitoring devices, the implementation of strong maintenance programs, the provision of thorough operator training programs, and the exercise of regular review programs which include the simulation of accidents and emergency drills.

This allocation of top priority to accident prevention, however, must not diminish the level of effort extended to prevent or reduce the danger of public radiation exposure if there should be an accident. Planning for this objective should include the development of a graduated set of measures to be taken depending upon the seriousness of the threat to the public well being. These measures should culminate in a fully developed emergency plan which is regulaly updated to ensure that public evacuation is a viable option if and when the need should arise.

2. What constitutes an effective emergency response plan for state and local agencies and for NRC licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements and guidance lack any of these essential elements?

Each state should have a single emergency response plan with thoroughly integrated components for each reactor in the state designed to accomodate the NRC licensee and the affected local governments. The unity of decision and the clarity of communication among all parties are vital to the smooth implementation of the plan.

This plan should contain five basic elements as reflected in NUREG 75/111. These are: accident assessment, notification and communication, command and coordination, protective actions and the corresponding parallel actions. A plan designed in this manner, with adequate detail, and coupled with plan maintenance, upgrading and testing should constitute an effective emergency response plan. While NUREG 75/111 does contain each of these elements they are suggestive and could be given greater emphasis.

3. Should NRC concurrence in the associated state and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

As stated in response to question number one, all nuclear power plants should be covered by a fully developed emergency response plan. This plan should be subject to NRC concurrence to guarantee that it satisfies minimal safety requirements and to assure that it is compatible with federal emergency plans. However, the manner in which those safety requirements are met should be left to the discretion of state officials who can best assess the capabilities of government agencies and individual officials in the affected areas. The state should also have the authority to determine which factors are important in planning for each plant and should have latitude to modify safety objectives, within reason, in order to meet local conditions. Congressional action to require NRC approval of such plans appears to be reasonable although the deadline for existing licensees should be extended if it is demonstrated that a plan is being developed with all deliberate speed even though concurrence has not yet been granted.

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

In keeping with our position stated above, all new nuclear power plants should be covered by emergency response plans. This general requirement should be effective immediately and NRC concurrence on the plans for individual plants should be required at the time the license is granted.

5. Should financial assistance be provided to state and local governments for radiological emergency response, planning and preparedness? If so, to what extent and by what means? What should be the source of funds?

To the extent radiological emergency response planning and preparedness is part of the cost of providing energy through nuclear power the cost should be paid by the utilities. The Illinois General Assembly has passed legislation assessing those utilities with operating nuclear power plants to finance state preparedness efforts. The reimbursement of costs incurred in the actual implementation of a plan is a matter that requires further study and a possible refinement of the provisions of the Price/Anderson Act.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: federal, state or local governments, and should licensees be required to participate?

Simulated drills should be conducted for all plants on a regular basis. All parties to the plan should participate in these drills and the authority for the drill, as for the plan itself should rest primarily with the state.

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

The public should be informed at all times about the comparative dangers they could face in the event of an accident. They should have confidence in the state's management of the emergency response plan and they should be fully aware of the steps they must take to protect themselves when required. The methods employed to inform the public would vary depending upon local conditions.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA TAsk Force Report?

The NUREG 0396 report has been the subject of comment for quite some time. There has already been a request for comment in the Federal Register plus there has been substantial comment from representatives of the Inter-organizational Committee which has been reviewing the report. It seems redundant to request additional comment at this time.

3-392

Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies? When, how, to what extent and by whom should the public be notified of these incidents?

This question deals with the interfacing of a state and local response plan with an operating station's emergency plan. Therefore the primary concern in addressing this question must depend upon the creation of an overall working plan for response to an incident. Surely, incidents and/or emergencies which will require implementation of any portion of the plan must require timely notification by the operating station to individuals responsible for implementing that portion of the plan. Outside this initial concern, further notification must take into account the trade-off creating undue anxiety versus maintaining the confidence of the public in general. This implies the existence of a collection of minor incidents to which the utility will have discretion in notifying the public.

During an actual incident, two primary concerns are operative. First, all releases of information to the public should be coordinated to prevent contradictory statements which will lead to further public anxiety. Second, releases of information should be made in a timely fashion, perhaps with an update of the incident being made at regular intervals in order to allay fears that bad news is being suppressed.

10. How and to what extent should the concerns of state and local governments be incorporated into federal radiological emergency response planning?

The purpose of radiological emergency response planning is to minimize the risk of radiological exposure in line with overall public health and safety consideration. This can be effected only through rapid and effective response by local and state agencies. Therefore, federal plans should be designed with maximum flexibility to reflect these concerns and to ensure that maximum support can be provided to these agencies when called upon.

11. How should federal agencies interface with state and local governments and the licensee during emergencies?

Federal agencies with radiological emergency response capabilities should be available to support any state upon request for assistance. This should be clearly delineated in the respective plans. The plans should also identify the type and degree of support which is available as well as the means for acquiring it. A complementary agreement should be worked out with the licensee to ensure that there is no possibility of conflict during an emergency situation.

12. Should the licensees be required to provide radiological emergency response training for state and local government personnel? If so, to what extent? Should the federal government provide such training. If so, to what extent?

The licensee should provide whatever training is needed to local support agencies, such as the local fire department, so that they will be able to respond to a request for assistance on site. This training is already being provided in Illinois.

All other training should be conducted through a joint federal/state program. The federal portion should be under the new FEMA. The FEMA should provide the courses and resources and the states should be responsible for administering the courses. NRC should participate where appropriate.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action. To what extent should this responsibility be borne by federal, state or local governments?

The licensee is in the best position to provide the initial assessment of the actual or potential consequences of an accident. It should be prepared to quickly communicate with the agencies responsible for taking protective action. Follow up or on-going assessment, if warranted, should then be accomplished jointly utilizing the expertise of the licensee, state, and federal

governments. Again, the responsibility and the areas of response should be clearly delineated in the individual radiological response plans.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

A drill including evacuation is not necessary to test the effectiveness of an emergency plan. The exercising of all emergency forces necessary to respond to an accident is sufficient. The public would, however, be informed on the drill's details through the media and could provide valuable feedback.

COLORADO DEPARTMENT OF HEALTH

4210 EAST 11th AVENUE·DENVER, COLORADO 80220·PHONE 320-8333

September 24, 1979

Secretary of the Commission
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Gentlemen:

The following comments are submitted concerning proposed rulemaking for 10 CFR Part 50, Appendix E.

1. Basic Objectives of Emergency Planning

   a. Reduce Exposures - Should be a prime objective
   b. Prevent Public Exposure - Should be judged on a risk-cost vs benefit. If there is a release it would be unlikely to eliminate all exposures. (If there were to be no release or public exposure in the event of a release, there would be no need for a plan).
   c. Evacuate public - This should be part of a plan; should be done when the benefit gained can be justified; should be based on actual and projected exposures - not arbitrary distances based on an analysis of one type of facility.

2. What constitutes an effective plan

   A plan cannot be considered effective merely because all items are addressed on paper. Of course, all essential items must be covered, however, (1) if the plan is too large and/or detailed it becomes too cumbersome to be effective in times of emergency and stress; and (2) the only way to determine if a plan is effective is to test it with all parties involved.

3. Should NRC - State concurrence be required for existing facilities -

   Yes, however, instead of just approving the state plan, the State and facility plans should be approved or rejected as a single unified plan. When - States should be given at least one year to gain concurrance.

   NOTE: Provisions should be made if a state or local government refuses to work towards concurrence. One alternative might be to have the

Acknowledged by card. 10/2 Stan

facility and/or NRC take over as many of the local and state responsibilities as is legally possible.

4. Should concurrence be obtained prior to licensing new facilities -

Yes. See 3 above.

5. $ to State and local governments -

Actual State and Local ERP expenses should be paid by the utility and/or federal government. An increase in license fees to cover this would be appropriate.

6. Require Drills - Yes

Authority - Joint agreement between Federal, State, local, and facility.

To what extent - Up to and including a "Class 9" accident scenario.

7. Public Informed prior - Local meetings, mailouts, notices given when property is bought.

8. The 10 and 50 mile emergency planning zones are appropriate. However, for some reactors under more severe accident conditions the zones may be too small. There should be some flexibility to allow adjustments of the zones as necessary.

3-364

9. Facility to notify state - If any event which could lead to a release or which could worry the public, the public should be notified at the discretion of the state unless time is critical in which case the facility may also start notification.

10. Local concerns incorporated into Federal planning -

Since it's the local area that is involved, every reasonable concern from state and local government should be addressed.

11. Federal - State - local facility interface during emergency

Provide technical advice and manpower.

12. Should facility provide training -

No. The licensee must concentrate on training his own personnel. The Federal government must continue to provide training assistance to state and local governments;

13. Accident assessment -

Initially this will have to be done by the facility. As soon as possible

both state and NRC should also be able to perform their own assessments.

14. Public participation in drills -

Encourage as much as possible. This will benefit both public and response agency. Cannot force public participation.

These comments will not reach your office by the August 31, 1979 deadline.

The comment period for such major and important questions is far too brief.

If you have questions concerning our comments, please advise.

Sincerely,

James L. Montgomery

James L. Montgomery, Section Chief
Radiation and Hazardous
Wastes Control Division

JLM:er

cc: Robert G. Ryan, Director
Office of State Programs
U.S. NRC

DOCKET NUMBER (108)
PROPOSED RULE PR-50 (44FR41483)

Aug 17 1979

To whom it may concern,

i have become aware, through a newspaper article, that the NRC wants citizen input regarding "adequacy and acceptance of emergency planning around nuclear facilities".

i would very much like to receive this NRC document and respond to the questions. In addition, i would like to receive 5 more copies that i may distribute to other concerned citizens.

From what i understand this document has been placed on the Federal Register with a deadline for response to the questions occurring very shortly. In conjunction, i would like this letter to be viewed as my personal petition to have this said document deadline be increased to an additional 60 days that others may be informed of its existence and the need for public response.

Thankyou & Sincerely,

Charles N. Tenerowicz III

Acknowledged by card. 9/19/79

Charles Tenerowicz III
RFD 365
Brunswick, Maine
04011

DOCKET NUMBER (109)
PROPOSED RULE PR-50 (44FR41483)

[illegible] the article in The Times Record dated 8-9-79 entitled "Federal Regulators Seek Public Opinion on Nuclear Plant Safety" [illegible] public regarding emergency preparedness and the [illegible] that are possible near the Brunswick Steam Electric Plant if [illegible] should occur. [illegible] notification [illegible] and the plans of evacuation are nothing short of ridiculous -full of unrealistic and ill planned procedures.

As regards to the 14 points:

1 The basic objective of emergency planning should be to be able to evacuate all the public. There should be a notification system about the amount of radiation that is released at all times.

2 I do not know NRC existing requirements for licensees and guidance for the States, but the fact that Maine Yankee was able to be built where it is demonstrates a lack of emergency planning requirements. All the people within a 5 mile radius at minimum should be able to evacuate with minimal geographical complication

Acknowledged by card. 10/18/79

3-4 The NRC concurrence in emergency planning definitely should be a requirement for

continued operation of any nuclear plant with existing license and for issuance of any new operating license. This requirement should take place immediately.

Financial assistance should be provided to state + local governments for emergency procedures so that a realistic, workable, tested notification and evacuation system exists. This must be distinct from the source of the problem - the nuclear plant operation - from the profits and not the consumer pocketbook.

Drills should be a requirement under the authority of the state and local governments. Local governments and licensees should be required to organize themselves with the state to execute the organization in the most feasible way I have heard to date is to institute as through individual claims instituted in courtrooms.

There should be independent sensors that should notify local / state + federal agencies in that order of incidents. A daily report of radiation levels along with the weather should be required so people could make their own predictions of when to evacuate (eg. pregnant women would want to be out of the area on a shut down day)

State and local governments should be primarily involved in emergency planning.

- Federal agencies should interface with state and local governments and licensee during emergency

- Licensee should be required to provide training for state and local personal with federal government providing regulations

- the responsibility for assessment of radiation releases + warning of accidents should be done primarily by state governments with licensee should have only back up with monitoring their plants.

Public participation is absolutely necessary in emergency response drills.

Sincerely

Barbara Miller

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISION

Oct. 4, 1979

In the Matter of
Emergency Planning for Nuclear Power Plants

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR43783) (110)

EMERGENCY PLANNING FOR TMI - I IN ACCORDANCE WITH THE NRC ACTION PLAN FOR UPGRADING EMERGENCY PLANNING AT LICENSED FACILITIES.

The outcome of the recent three-day meeting of the Utilities Service Corp., Metropolitan Edison Company and the public held At Middletown's Liberty Fire Hall on September 24 through September 28 and sponsored by the NRC was published in our local paper and was translated as follows:

1. "Personnel Emergency"
   a) A notification of unusual event would be declared whenever the safety of the plant might be compromised. Triggering events would include the activation of the reactor emergency core cooling system, attempted sabotage or indications of high fuel or coolant temperatures.
   b) Such a declaration would not signal the possibility of radiation releases to areas beyond the plant.

2. "Plant Emergency"
   a) An alert would be declared whenever the plant's safety actually is threatened. Triggering events would include damage to reactor fuel accompanied by radiation releases, steam line breaks, terrorist attacks and aircraft crashes on site.
   b) Such a declaration would signal the potential release of radioactive idoine 131, xenon 133 or other fission products. Emergency operations centers would be activated both on and off site and radiation monitoring teams would be dispatched.

Acknowledged by card. 10/12

3. "Site Emergency":
   a) A site emergency would be declared whenever major plant safety systems fail causing damage to the reactor core short of a meltdown. Releases of moderate amounts of radiation would be expected.
   b) In addition to all of the steps that are followed for lesser declarations, the utility would be required to bring its technical and management staff to the plant for consultation with the NRC and state and provide estimates of the amount of radiation received beyond the plant borders.
   c) In a Site Emergency, state and local officials would notify the public, activate emergency command posts near the site, dispatch radiation monitoring and communications teams and recommend that milk-producing animals within two miles of the plant be sheltered.

4. "A General Emergency":
   a. A General Emergency would be declared whenever the reactor core begins to melt and the possibility arises that the containment building might rupture.

COMMENTS:

If the above descriptions for NRC "action levels" are correct, may I submit that they are much too ambiguous. The notification of the public to any danger should have specific guidelines. The "action levels" all suggest problems that could deteriorate too rapidly to allow the public to evacuate quickly, orderly and safely.

In view of the many recent accidents at numerous nuclear plants, may I urge the NRC to activate the installation of communication lines from every nuclear plant to the NRC with either a red signal or warning signal that would indicate all of the above conditions. Time simply does not permit the gathering of officials and/or utility administrative personnel when a situation becomes critical.

May I recommend the installation of auditory signals for those who live in rural areas. Many farmers, especially the Amish, have no electricity. They could go for hours or even a day before someone would notify them. It is vital that signals are installed before TMI is permitted to resume operation, if, indeed it ever does. Notification via police car loudspeakers is dubious and its effectiveness questionable.

At the present time there are no off-site monitors. The need for such monitoring is vital to the public's right-to-know and their best interests.

Because the U.S. Government has licensed these plants, it should be the direct responsibility of the government to provide the funds for the equipment and installation of monitors and signals.

Mrs. Jane Lee
Box 3331, R. D. 3
Elverta, Pennsylvania
17319

Respectfully,

Jane Lee

Jane Lee

3-368

ROBERT J. LAGOMARSINO
19TH DISTRICT, CALIFORNIA

1117 LONGWORTH BUILDING
WASHINGTON, D.C. 20515
202-225-3601

ASSISTANT REGIONAL WHIP
FOREIGN POLICY TASK FORCE
CHAIRMAN

Congress of the United States
House of Representatives
Washington, D.C. 20515

COMMITTEE ON
FOREIGN AFFAIRS

INTERNATIONAL ECONOMIC POLICY
AND TRADE

INTER-AMERICAN AFFAIRS

COMMITTEE ON
INTERIOR AND INSULAR
AFFAIRS

PACIFIC AFFAIRS

NATIONAL PARKS AND INSULAR AFFAIRS
OVERSIGHT AND SPECIAL
INVESTIGATIONS

(111)

DOCKET NUMBER
PROPOSED RULE PR-50 (44FR41483)

September 28, 1979

Joseph Hendrie, Chairman
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Hendrie:

Enclosed is a self-explanatory communication I received from my constitutent, Louise Radcliffe, including the San Luis Obispo League of Women Voter's comments on the NRC's proposed regulations for nuclear emergency plans.

I would greatly appreciate your comments on this matter.

Sincerely,

ROBERT J. LAGOMARSINO
Member of Congress

RJL:sad

Enclosure

LEAGUE OF WOMEN VOTERS

OF SAN LUIS OBISPO, CALIFORNIA

September 20, 1979

Robert J. Lagomarsino
House of Representatives
Washington, D.C. 20515

Dear Representative Lagomarsino:

We are enclosing for your information a copy of responses the League of Women Voters of San Luis Obispo sent to the Nuclear Regulatory Commission concerning nuclear power plant emergency planning. Many of the answers reflect specific concerns we have about emergency planning and the Diablo Canyon Nuclear Power Plant.

Sincerely yours,

Louise Radcliffe

Louise Radcliffe, President
2570 Bay Vista Lane
Los Osos, Ca.

3-369

LEAGUE OF WOMEN VOTERS

OF SAN LUIS OBISPO, CALIFORNIA

August 27, 1979

RESPONSE TO TOPICS PUBLISHED IN THE FEDERAL REGISTER, JULY 17, 1979, CONCERNING NRC REGULATIONS TO BE ADOPTED FOR NUCLEAR EMERGENCY PLANS.

1. What should be the basic objectives of emergency planning ? Reduce public radiation exposure ? Prevent public radiation exposure ? Capability to evacuate the public ? To what extent should these objectives by quantified ?

The League of Women Voters advocates that all energy facilities, including nuclear plants, be operated in a manner that protects the public's health and safety. Based on this position, the League urges that nuclear emergency planning emphasize the prevention of public radiation exposure. Should the public be exposed, such exposure should be as minimal as possible.

Thus, emergency planning should provide for evacuating the public since evacuation may be the only way to protect the public during a serious nuclear event. Evacuation plans should be prepared based on several realistic scenarios.

2. What constitutes an effective emergency response plan for state and local agencies and for NRC licenses ? What are the essential elements that must be included in an effective plan ? Do existing NRC requirements and guidance lack any of these essential elements ?

An effective emergency plan should be proven capable of evacuating the public and should be demonstrated to be "operational".
The San Luis Obispo County Administrative Office has stated that "It must be recognized that these documents (the county emergency plans) in themselves do not represent a comprehensive emergency response system".
(1) The statement lists necessary implementation procedures as follows:

a) Coordination of emergency procedures with other governmental levels and agencies.
b) Training of personnel.
c) Instruction and education of the public.
d) The availability of special equipment, and
e) Conducting effective exercises to test the plans.

We feel these are reasonable requirements.

Footnote(1). Ltr., May 1979, County Admin., San Luis Obispo to the Cal State Energy Commission.

In addition, emergency planning should give special consideration to the following elements:

a) Emergency operations centers should meet NRC safety guidelines and be included in plans;

b) Local decontamination facilities for the general public and emergency personnel should be provided. Protective clothing for emergency rescue workers (firemen, policemen, etc.) should be readily available;

c) (1) Reassessment of the concept of the Low Population Zone (LPZ) in evacuation and monitoring programs is needed. Several recent reports have suggested that the existing (2) 3 to 5 mile area should be increased upwards to 50 miles for evacuation planning in a serious event (core melt).

(2) Special attention should be given to possible future growth and siting of hazardous facilities in the Low Population Zone since development controls lie with local and state agencies, not with the NRC. Currently, extensive residential, commercial and recreational plans have been proposed in the Avila and Pismo Beach areas within 8 miles of the Diablo Canyon Nuclear plant site.

d) Evacuation and protection of large seasonal populations, such as those at Avila Beach near Diablo Canyon, should be included;

e) Fully operational communication systems which do not depend on public telephones should be established;

f) There should be training for all local agency personnel who will be used in an emergency. These people may be the only officials available during the initial hours of an emergency, particularly in relatively isolated areas, such as San Luis Obispo.

g) A radiation monitoring system independent of the licensee should be established to gather background data and monitor radiation releases.

Furthermore, creative thought must be given to public participation in drills. Actual evacuations of public may be unnecessary and counter-productive. On the other hand, limited run-throughs by government officials may be so far from reality as to be misleading in a real situation.

Drills should be performed that simulate reality as closely as possible. For instance:

a) School buses could be sent from the schools to evacuation centers, testing equipment, capacities, travel times, etc., without actually moving students;

Footnote (2) "Radioactive Materials in California", Report of the Secretary for Resources, State Task Force on Nuclear Emergency and Radioactive Materials, April, 1979.

b) Hospital personnel could perform realistic exercises moving gurneys to exits, etc., without moving patients. Other institutions such as nursing homes and jails could work out similarly realistic drills;

c) Residential populations could be informed of the test drill and given instructions on actions to take in a real emergency;

d) Rural populations must be included.

At least one successful exercise should be conducted and should precede licensing of any nuclear power plant.

4. Should prior NRC concurrence in the associated state and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant ? If so, when should this general requirement become effective ?

Based on our League's position that the protection of the public's health and safety is paramount in operating energy facilities and that efficient government requires clear assignment of responsibility and coordination among different agencies of government, we support prior NRC concurrence in response plans as a requirement for issuance of a new license.

Such NRC concurrence would help to provide coordination of all public action at all levels, and to recognize that NRC guidelines are in fact often used as standards in emergency planning by other public agencies. For instance, during the investigation of emergency planning for the Diablo Canyon plant by the committee of the League of Voters, we were told by local officials that the state is responsible for population decontamination facilities. However, French Hospital, the only decontamination center in San Luis Obispo, has facilities for only six patients, and a contract to care for Diablo Canyon employees as required by NRC guidelines. We are left with the impression that many agencies feel that their responsibilities in terms of public decontamination have been met because the NRC requirement has been met, although there are no decontamination facilities for the general public.

Further, we are concerned about the need for sophisticated technical knowledge about nuclear facilities and radiation exposure which may not be affordable by lower levels of government during the planning process but which is available to the NRC.

5. Should financial assistance be provided to state and local governments for radiological emergency response planning and preparedness ? If so, to what extent and by what means ? What should be the source of the funds ?

The League of Women Voters of San Luis Obispo believes that efficient government requires adequate financing and coordination among the different agencies and levels of government. Since the benefits of nuclear power plants will be felt primarily outside the local area, the costs should not fall solely on local governments. Funds must be sought from every available source.

6. Should radiological emergency response drills be a requirement ? If so, under whose authority: Federal, State or local government ? To what extent should Federal, State and local governments and licensees be required to participate ?

The League of Women Voters of San Luis Obispo supports realistic evacuation exercises involving the network of emergency services and testing all necessary equipment for proper functioning (i.e.: buses, radios, etc.)

Our League has no position concerning who should have ultimate authority for holding such a drill. In an actual event, all levels of government would respond, therefore they should all be involved in the drill. Also, Federal and State agencies and the licensee should assist the local governments by providing expert guidance during and after the exercises.

Based on our local investigation of Diablo Canyon emergency planning, we recommend that an emergency response drill should:

a) Involve the public as much as possible and be subject to public review and input;

b) The exercises should be conducted periodically and be based on different scenarios using varying time of day, weather conditions and type of accident;

c) Give special attention to a simultaneous earthquake and nuclear emergency;

d) Cover the full range of possible number of people hurt and contaminated;

e) Include a final report on evacuation/emergency exercises, which should be subject to public review and comment at an open hearing.

3-371

7. How and to what extent should the public be informed prior to any emergency concerning emergency actions it might be called upon to take ?

The public must be informed of measures to prevent or cope with emergencies, and plans and procedures should be subject to citizen review and comment. The public needs to be given full information concerning its responsibilities in such an emergency. The public should be involved as actively as possible in all evacuation planning, drills, and plan evaluations.

The public also needs to be educated and instructed about personal and public health measures, such as "do you drink the water?". Perhaps such information could be included with property tax statements, city notices, newsletters, utility bills, etc.

9. Under what circumstances and using what criteria should a licensee notify state, local and federal agencies of incidents, including emergencies ?

We recognize that timely notification is essential as well as the fact that there may well be technical and political differences of opinion as to the meaning of "timely". From the experience of Three Mile Island and the resulting confusion between levels of government, it appears that specific levels of command must be established as well as specific criteria defining degrees of emergency and corresponding population protection procedures. Without such procedures an unnecessary burden may be placed on "lay" decision-makers.

Consideration should be given to mechanical means of notification as an adjunct system. Consideration should also be given to a hot line in addition to radio control between the licensee and the responsible public agencies in case the public telephone system is over-loaded or damaged in a serious event.

12. Should the licensee be required to provide radiological emergency response training for State and local government personnel ? If so, to what extent ? Should the Federal government provide such training ? If so, to what extent ?

See Question 2, part f in answer on page 2.

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose ? If so, what should be the extent of the public participation ?

See Question 2 for response.

Respectfully submitted,
Louise Radcliffe

Louise Radcliffe, President
League of Women Voters of
San Luis Obispo
2570 Bay Vista Lane
Los Osos, CA 93402

DOCKET NUMBER
PROPOSED RULE PR-50 (112) (44FR41483)

Babcock & Wilcox

Research and Development Division

P.O. Box 1260, Lynchburg, Va. 24505
Telephone: (804) 384-5111

October 9, 1979

Mr. Samuel J. Chilk, Secretary
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Subject: Comments on Proposed 10CFR50.34(r)

Gentlemen:

Many of the licensees possessing research reactors with power levels greater than 500kw also possess special nuclear material in connection with other research or training projects pursuant to 10 CFR 70.

The proposed paragraph (r) to 10CFR50.34 requires licensees to submit plans as described in 50.34(b)(6)(v). Paragraph 50.34(b)(6)(v) requires that the emergency plans shall include the items in Appendix E. The proposed paragraph 10 CFR 70.32(i) requires the emergency plans to be developed to meet the requirements of section IV of Appendix E of 10 CFR 50.

This deference in wording will cause the licensees described in my first paragraph to either develop two emergency plans or require them to negotiate with two branches of the NRC for approval of a single plan. This unfortunate situation is not new to this small segment of the industry, the segment with the least staff to deal with it.

I suggest that the wording of the proposed 10 CFR 50.34(r) be changed by replacing the references to 10 CFR 50.34(b)(6)(v) with "Appendix E, Section IV". This change in my opinion would not reduce the effectiveness or intent of the regulation but would permit the use of similar review plans to eliminate administrative duplication.

Yours very truly,

Babcock & Wilcox Company
Lynchburg Research Center

Acknowledged by card 10/17/79

Arne F. Olsen
License Administrator

AFO:ccf

3-372

THE STATE OF NEW HAMPSHIRE

DOCKET NUMBER
PROPOSED RULE PR-50 (113) (44FR41483)

THE ATTORNEY GENERAL

STATE HOUSE ANNEX, ROOM 36
25 CAPITOL STREET
CONCORD, NEW HAMPSHIRE 03301

October 11, 1979

Samuel J. Chilk, Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Public Service Company of New Hampshire, et al.
Seabrook Station, Units 1 and 2 Dockets Nos. 50-443, 50-444

Dear Mr. Chilk:

Enclosed is a copy of the position the Attorney General's Office has submitted in connection with a Request for Show Cause Order filed by the Seacoast Anti-Pollution League. It is being submitted to Mr. Denton's office inasmuch as the Nuclear Regulatory Commission is treating the matter under 10 CFR 2.206, but it is also appropriate to submit it to you in connection with the Advance Notice of Proposed Rulemaking concerning the "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" described in 44 FR 41483 (July 17, 1979). Although the position concentrates on the matter of evacuation and does not exhaustively detail all the necessary elements of emergency planning, it is relevant to the request for comments contained in the Advance Notice.

Sincerely yours,

Edward N. Damon
Assistant Attorney General
Environmental Protection Division

END/md
enc.

score the point that emergency planning for both onsite and offsite areas can never be treated as windowdressing for the degree of protection of public health and safety which is afforded by engineered safeguards.

2. Consequently, firm and effective emergency plans, including sufficiently detailed evacuation plans, for responding to nuclear accidents at Seabrook must be prepared and tested by the applicant and State and local governmental authorities before the Seabrook units are placed in operation. Because such plans do not presently exist and because preparation of such plans is a large undertaking in any case, but perhaps especially so at Seabrook because of the particular characteristics of the site's environs, this matter deserves immediate attention.

3. Before effective emergency plans can be drafted, certain decisions have to be made concerning the standards to be achieved. Under present practice, the Nuclear Regulatory Commission (NRC) has established a checklist of necessary elements of State emergency plans (see NUREG 75/111) against which the NRC judges whether specific emergency plans qualify for NRC "concurrence." In addition, however, the NRC, under the proposed amendment to Appendix E to 10 CFR Part 50 (see 43 FR 37475 (August 23, 1978)), must determine: (a) the "emergency protective action criteria" it intends to apply with respect to a particular site, (b) the features of emergency planning measures considered necessary, and (c) the area for which emergency planning measures, including evacuation must be considered. In the case of the Seabrook nuclear power plant, determination of these particular matters at the earliest possible date is necessary for all parties and

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

TO: DIRECTOR OF NUCLEAR REACTOR REGULATION

RE: CONSTRUCTION PERMITS CPPR-135
CPPR-136

In the Matter of	
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE, et al.	Dockets Nos. 50-443 50-444
(Seabrook Station, Units 1 and 2)	

STATEMENT OF POSITION WITH RESPECT TO THE SEACOAST ANTI-POLLUTION LEAGUE'S REQUEST FOR SHOW CAUSE ORDER DATED MAY 2, 1979

1. The Office of the Attorney General of the State of New Hampshire has participated in past NRC Licensing Board and Appeals Board proceedings respecting the issue of evacuation and emergency planning which the Seacoast Anti-Pollution League (SAPL) raises in support of its "Request for an Order to Show Cause Why Construction Permits for the Proposed Nuclear Power Plant at Seabrook Should Not Be Suspended or Revoked," dated May 2, 1979. The Office continues to be very much concerned about the issue because the matter of evacuation, and emergency planning in general, respecting the Seabrook nuclear power plant site is as important and serious now as it was during the hearings respecting the applications for construction permits. Recent events, such as the Lewis critique of the Rasmussen findings on reactor safety and the accident at Three Mile Island, under-

particularly for the State, both in the context of the licensing process and in the governmental efforts to prepare emergency plans.

The emergency planning area at Seabrook for evacuation purposes should have a radius of at least ten (10) miles unless it is determined that a greater distance is warranted. This radius is consistent with Governor Gallen's request that the State Civil Defense Agency assist local communities within a ten-mile radius of the Seabrook site in updating their emergency plans and developing plans for evacuation in the event of an accident at Seabrook and is consistent with the recommendations in NUREG 0396, "Planning Bases for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants."

5. In view of the results of the past administrative and judicial proceedings and decisions in the Seabrook case regarding the site suitability question, we do not see, in general, that determination of these matters raise any questions concerning the validity of the construction permits. However, it is important to provide a forum for consideration and determination of these matters. If such determinations can be made within a reasonable time by addressing them immediately upon the applicant's filing of an application for an operating license, then the operating permit proceedings are the proper forum. If not, then the NRC should provide an alternative forum.

5. Although Appendix E to Part 50 in its present form does not require the applicant for an operating permit to include as part of the Final Safety Analysis Report (FSAR) the "details" of the

emergency plans and their implementation, the applicant must, of course, submit sufficient information "to demonstrate that the plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and prevent damage to property," including agreements reached with governmental agencies for early warning of the public and protective measures such as evacuation. See 10 CFR Part 50, Appendix E, III, IV-D. For this standard to be satisfied in the case of Seabrook, NRC "concurrence" in the State emergency plan should at least be obtained and the applicant should at least be required to demonstrate a method of evacuation of the area within the 10 mile radius suggested above which will most effectively minimize the potential radiation exposures from an accident and ensure that such exposures are within acceptable protective action criteria should evacuation become necessary.

7. If the NRC does not agree that under present regulations Appendix E to Part 50 establishes such a standard, such regulations as would establish such a standard for Seabrook should be made in accordance with the Advance Notice of Proposed Rulemaking concerning the "Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities" described in 44 FR 41483 (July 17, 1979). Although the applicant has already presented in connection with its application for construction permits a "Roadway Network and Evacuation Study" dated December 6, 1974 and prepared by Wilbur Smith & Associates (Applicant's Ex. #6, Licensing Board Transcript, June 5, 1975, pp. 2483-39) dealing with evacuation within a five-mile radius of the Seabrook site, we believe that additional analysis of evacuation methods beyond the five-mile area, and a detailed

description of the assumptions on which the study is based, is necessary for an operating permit to be granted. Not only would such further analysis seem to be a benefit to the applicant, but also the results of such further analysis will provide important assistance to State and local emergency planners engaged in an effort which, although independent in some respects of the applicant's responsibilities in the licensing process under current regulation, is essential if the government's emergency plans and the applicant's FSAR, taken together, are to provide the degree of assurance that Appendix E demands.

8. In summary, this Office requests that the NRC:

A. Make the determinations required under the proposed amendment to Appendix E, 10 CFR Part 50 (see 43 Federal Register 37475 (August 23, 1978)) as described in Paragraphs 2, 3 and 4 above, as soon as possible;

B. Require the preparation and testing of emergency plans, including evacuation plans, for both onsite and offsite areas at Seabrook as more fully described in Paragraphs 2, 6 and 7 hereof, before either of the Seabrook units are placed in operation; and

C. Make such other orders as may be appropriate to fulfill the NRC's responsibility of protecting the health and safety of the public against radiation hazards (42 USC 2012; 2021).

Respectfully submitted,

STATE OF NEW HAMPSHIRE

Thomas D. Rath, Attorney General

Date: Oct. 11, 1979

By: Edward N. Damon
Edward N. Damon
Assistant Attorney General
Environmental Protection Division

3-375

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Statement of Position with Respect to the Seacoast Anti-Pollution League's Request for Show Cause Order Dated May 2, 1979, was mailed on October 12, 1979, postage prepaid, first class, to the following:

Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Lawrence Brenner, Esquire
Office of the Executive Legal Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Karin P. Sheldon, Esquire
Sheldon, Harmon, Roisman & Weiss
Suite 500
1025 15th Street, N. W.
Washington, D. C. 20005

Laurie Burt, Esquire
Assistant Attorney General
One Ashburton Place
Boston, Massachusetts 02108

Thomas G. Dignan, Jr., Esquire
Ropes & Gray
225 Franklin Street
Boston, Massachusetts 02110

Robert A. Backus, Esquire
O'Neill Backus Spielman
116 Lowell Street
Manchester, New Hampshire 03105

Docket and Service Station
U. S. Nuclear Regulatory Commission
Office of the Secretary
Washington, D. C. 20555

Edward N. Damon
Edward N. Damon

4. ADVANCE NOTICE OF PROPOSED RULEMAKING

Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

[10 CFR Part 50]

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Advance Notice of Proposed Rulemaking.

SUMMARY: The Nuclear Regulatory Commission is considering the adoption of additional regulations which will establish as conditions of power reactor operation increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both the licensee and local and state authorities. The Commission is interested in receiving public comment on objectives for effective plans, acceptance criteria for State/local emergency plans, NRC concurrence in State and local plans as a requirement for issuance of an operating license or for continued operation of a nuclear facility, and coordination between the licensee plan and State and local plans. The Commission seeks written comments on what items should be included in the rule.

DATES: Comments are due no later than August 31, 1979.

ADDRESSES: Written comments concerning these issues should be submitted to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

FOR FURTHER INFORMATION CONTACT: Patricia A. Comella, Site Designation Branch, Office of Standards Development, Nuclear Regulatory Commission, Washington, DC 20555, 301-443-5981.

SUPPLEMENTARY INFORMATION: The NRC requires that power reactor license applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. In this way off-site emergency planning has been related to the nuclear licensing process. *See* 10 CFR Part 50, Appendix E (1979), *see also* additional guidance in U.S. NRC, Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," (Rev. 1, 1977).

To aid State and local governments in the development and implementation of adequate emergency plans, the NRC, in conjunction with seven other Federal agencies, has attempted, on a cooperative and voluntary basis, to provide for training and instruction of State and local government personnel and to establish criteria to guide the preparation of emergency plans. However, the NRC has not made NRC approval of State and local emergency plans a condition of nuclear power plant operation.

The accident at Three Mile Island has raised a number of questions about the adequacy of radiological emergency response plans. Even before the accident the GAO had recommended that NRC not license new power plants for operation unless off-site emergency plans have been approved by the NRC. GAO, Report to the Congress, "Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies," March 30, 1979. The Commission is also considering new guidance to State and local governments on emergency planning, based on an analysis of a joint NRC-EPA Task Force Report, "Planning Basis for 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, December 1978. *See* 43 Fed. Reg. 58858 (December 15, 1978), *see also* 44 Fed. Reg. 23137 (April 18, 1979). Furthermore, a number of organizations, including Critical Mass and Public Interest Research Groups, have renewed and supplemented a petition for rulemaking, previously denied by the Commission, concerning the operational details of evacuation planning. *See* 44 FR 32486 (June 6, 1979).

The Commission has decided to initiate an expedited rulemaking procedure on the subject of State and local emergency response plans and those of licensees. The Commission is soliciting public comments in this area, particularly on the following issues:

1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?

b. To prevent public radiation exposure?

c. To be able to evacuate the public?

To what extent should these objectives be quantified?

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

7. How and to what extent should the public be informed, prior to any

emergency, concerning emergency actions it might be called upon to take?

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG–0396/EPA 520/1–78–016)?

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The comments received will be collected and evaluated by the NRC staff, which will, in turn, submit recommendations on proposed rules to the Commission. Based on the comments it receives from the public and the analysis of the problem presented by the NRC Staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rule immediately effective. The Commission anticipates completion of this expedited rulemaking in approximately six months.

The NRC staff is presently conducting a comprehensive review of all aspects of the NRC emergency planning and preparedness program. Therefore, the Commission is also interested in receiving comments on all other aspects of emergency planning, including issues raised in the Critical Mass/PIRG petition for rulemaking and questions such as the following:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Dated at Washington, D.C., this 12th day of July, 1979.

For the Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 79-23073 Filed 7-16-79; 8:45 am]

BILLING CODE 7590-01-M

5. PROPOSED RULE

Proposed Rules

Federal Register
Vol. 44, No. 245
Wednesday, December 19, 1979

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Emergency Planning

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Proposed Rule.

SUMMARY: The Nuclear Regulatory Commission, after considering the public record available concerning licensee, State and local government emergency preparedness, and the need to enhance protection of the public health and safety, is proposing to amend its regulations to provide an interim upgrade of NRC emergency planning regulations. In a few areas of the proposed amendments, the Commission has identified two alternatives which it is considering. In each instance both alternatives are presented in the following summary of the proposed changes and in the specific proposed rule changes presented in this notice. The final rule will not necessarily incorporate all of the first alternatives or all of the second alternatives. That is, in some instances the first alternative may be adopted and in others, the second alternative may be adopted. Further alternatives may be adopted as a result of consideration of public comments.

In one alternative (Alternative A), the proposed rule change would not automatically require suspension of operations for lack of concurrence in appropriate State and local government emergency response plans on the date specified in the rule, even if the Commission by that date has not yet determined whether the reactor should be allowed to continue to operate. It would:

1. Require NRC concurrence in the appropriate State and local government emergency response plans prior to operating license issuance, unless the applicant can demonstrate to the satisfaction of the Commission that deficiencies in the plans are not significant for the nuclear power plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for license issuance.

2. For nuclear power reactors already licensed to operate, if appropriate State and local emergency response plans have not received NRC concurrence within 180 days after the effective date of this amendment or by January 1, 1981, whichever is sooner, require the Commission to determine whether to require the licensee to shut down the reactor. If at the time the Commission finds that the licensee has demonstrated that the deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation, then the licensee may continue operation.

If at that time the Commission cannot make such a finding, then the Commission will order the licensee to show cause why the plant should not be shut down. In cases of serious deficiencies, the order to show cause will be made immediately effective and the licensee would be required to shut down the reactor.

3. For nuclear power reactors already licensed to operate, if appropriate State and local emergency response plans do not warrant continued NRC concurrence and the State or locality do not correct the deficiencies within 4 months of notification by the NRC of withdrawal of its concurrence, require the Commission to determine whether to require the licensee to shut down the reactor. Shut down may not be required if the Commission finds that the licensee has demonstrated that the deficiencies in the plan are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation.

If at this time the Commission cannot make such a finding, then the Commission will order the licensee to show cause why the plant should not be shut down. In cases of serious deficiencies, the order to show cause will be made immediately effective and the licensee would be required to shut down the reactor.

In the other alternative (Alternative B), the proposed rule change would automatically require nuclear power plant shutdown for lack of concurrence in appropriate State and local government emergency response plans on the date specified in the rule unless an exemption is granted by that date. It would:

1. Requre NRC concurrence in the appropriate State and local government emergency response plans prior to operating license issuance. However, the Commission can grant an exemption from this requirement if the applicant can demonstrate to the satisfaction of the Commission that deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for license issuance. No such operating license will be issued unless NRC finds that appropriate protective actions, including evacuation when necessary, can be taken for any reasonably anticipated population within the plume exposure EPZ.

2. For nuclear power reactors already licensed to operate, require a licensee to shut down a reactor immediately if appropriate State or local emergency response plans have not received NRC concurrence within 180 days of the effective date of the final amendments or by January 1, 1981, whichever is sooner. However, the Commission may grant an exemption from this requirement if the licensee can demonstrate to the satisfaction of the Commission that the deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation. If there is no concurrence, and the plant is shut down, then it must remain shut down until such an exemption is granted or until concurrence is obtained.

3. For nuclear power reactors already licensed to operate, require a license to shut down a reactor if appropriate State or local emergency response plans do not warrant continued NRC concurrence and the State or locality does not correct the deficiencies within 4 months of notification by the NRC of withdrawal of its concurrence. However, the Commission can grant an exemption to this requirement if the licensee can demonstrate to the satisfaction of the Commission that the deficiencies in the

plan are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation. If there is no concurrence and the plant is shut down, then it must remain shut down until such an exemption is granted or until concurrence is regained.

In both alternatives the proposed rule would:

4. Require that emergency planning considerations be extended to "Emergency Planning Zones."

5. Require that applicants' and licensees' detailed emergency planning implementing procedures be submitted for NRC review.

6. Clarify and expand 10 CFR Part 50, Appendix E, "Emergency Plans for Production and Utilization Facilities."

DATES: Comments should be submitted on or before February 19, 1980.

ADDRESSES: Interested persons are invited to submit written comments and suggestions on the proposed rule changes and/or the supporting value/impact analysis to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch. Copies of the value/impact analysis and of comments received by the Commission may be examined in the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C. and at local Public Document Rooms. Single copies of the value/impact analysis, related regulatory guides, and the NRC staff analysis of the public comments received on the Advance Notice of Proposed Rulemaking may be obtained on request.

FOR FURTHER INFORMATION CONTACT: Mr. Michael T. Jamgochian, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 (Telephone: 301–443–5966).

SUPPLEMENTARY INFORMATION: In June 1979, the Nuclear Regulatory Commission began a formal reconsideration of the role of emergency planning in assuring the continued protection of the public health and safety in areas around nuclear power facilities. The Commission had begun this reconsideration in recognition of the need for more effective emergency planning and in response to reports issued by responsible offices of government and its Congressional oversight committees.

By memorandum dated July 31, 1979, the Commission requested that the NRC staff undertake expedited rulemaking on the subject of State, local, and licensee emergency response plans. The proposed rulemaking described in this notice responds to that request, and has been prepared on an expedited basis. Consequently, considerations related to the workability of the proposed rule may have been overlooked and significant impacts to NRC, applicants, licensees, and State and local governments may not have been identified. Therefore, the NRC particularly seeks comments addressed to these points and intends to hold workshops prior to preparing a final rule to (a) present the proposed rule changes to State and local governments, utilities, and other interested parties and (b) obtain comments concerning the costs, impacts, and practicality of the proposed rule.

The Nuclear Regulatory Commission is considering the adoption of amendments to its regulation, "Domestic Licensing of Production and Utilization Facilities," 10 CFR Part 50, that would require that emergency response planning considerations be extended to Emergency Planning Zones (discussed in NUREG–0396, EPA 520/1–78–016, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants"). Both the Commission and EPA have formally endorsed the concepts in that EPA/NRC Report, 44 FR 61123 (October 28, 1979). In addition, the Nuclear Regulatory Commission is considering revising 10 CFR Part 50, Appendix E, "Emergency Plans for Production and Utilization Facilities," in order to clarify, expand, and upgrade the Commission's emergency planning regulations.[1] Prior to the conclusion of this rulemaking proceeding, the Commission will give special attention to emergency planning matters, including the need for concurred-in plans, on a case-by-case basis in accordance with the modified adjudicatory procedures of 10 CFR Part 2, Appendix B. Under that Appendix, no new license, construction permit, or limited work authorization may be issued without Commission consideration of issues such as this.[2] Both versions of the proposed amendments call for State and local government emergency response plans to be submitted to and concurred in by the NRC as a condition of operating license issuance.

Under one alternative being considered, the proposed rule would require a determination on continued operation of plants where relevant State and local emergency response plans have not received NRC concurrence. Shutdown of a reactor would not follow automatically in every case. Under the other alternative proposal, shutdown of the reactor would be required automatically where the appropriate State and local emergency response plans have not received NRC concurrence within the prescribed time periods. However, the Commission could grant an exemption to this requirement if the licensee can demonstrate to the satisfaction of the Commission that the deficiencies in the plan are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons. If there is no concurrence and the plant is shut down, then the plant must remain shut down until such an exemption is granted or until concurrence is obtained.

The NRC presently requires that power reactor licensees and applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. In this way, offsite emergency response planning has been related to the nuclear licensing process.

To aid State and local governments in the development and implementation of adequate emergency response plans, the NRC, in conjunction with several other Federal agencies, has attempted, on a cooperative and voluntary basis, to provide for training and instruction of State and local government personnel and to establish criteria to guide the preparation of emergency response plans.[3] However, in the past, the NRC has not made NRC concurrence in State and local emergency response plans a condition of operation for a nuclear powerplant; the proposed rule would do so, as explained above.

[1] Two NRC staff guidance documents are related to this proposed rule change. "Draft Emergency Action Level Guidelines for Nuclear Power Plants," NUREG–0610 was published for interim use and comment on September 19, 1979. It is expected that a final version of the action level guidelines, based on the public comments received, will be issued in early 1980. In addition, in early 1980 upgraded and revised acceptance criteria for evaluating emergency preparedness plans will be issued for comment and may be included in the Commission's regulations.

[2] 44 FR 65049 (November 8, 1979).

[3] NRC staff guidance for the preparation and evaluation of State and local emergency response plans leading to NRC concurrence is contained in NUREG 75/111, "Guide and Checklist for Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities" (December 1, 1974) and Supplement 1 thereto dated March 15, 1977. The adequacy of this guidance is being reevaluated by the staff and the Commission will consider codification of the upgraded criteria in 1980.

In issuing this rule, NRC recognizes the significant responsibilities assigned to the Federal Emergency Management Agency (FEMA) by Executive Order 12148 on July 15, 1979, to coordinate the emergency planning functions of executive agencies. In view of FEMA's new role, NRC agreed on September 11, 1979, that FEMA should henceforth chair the Federal Interagency Central Coordinating Committee for Radiological Emergency Response Planning and Preparedness (FICCC). In addition, NRC and FEMA have agreed to exercise joint responsibility for concurring in State emergency response plans prior to NRC issuance of operating licenses. During the next few months NRC and FEMA will continue to reexamine intra-federal relationships and responsibilities regarding radiological emergency response planning. However, the Commission does not believe that the reexamination should serve as a basis for delay in the proposed rule change.

At several places in the proposed amendments, the Commission refers to the roles of State and local governments. Indeed the main thrust of the proposed rule is that prior concurrence in State and local emergency response plans will be a condition for licensing and operation of a nuclear powerplant. The Commission recognizes that it cannot direct any governmental unit to prepare a plan, much less compel its adequacy. However, the NRC can condition a license on the existence of adequate plans.

While the State and local governments have the primary responsibility under their constitutional police powers to protect their public, the Commission, under authority granted to it by the Congress, also has an important responsibility to protect the public in matters of radiological health and safety. Accordingly, with an understanding of its limitations and with a sensitivity to the importance of all levels of governments working together, the Commission will commit to seek and apply the necessary resources to make its part in this venture work.

Rationale for Change

The proposed rule is predicated on the Commission's considered judgment in the aftermath of the accident at Three Mile Island that safe siting and design-engineered features alone do not optimize protection of the public health and safety. Before the accident it was thought that adequate siting in accordance with existing staff guidance coupled with the defense-in-depth approach to design would be the primary public protection. Emergency planning was conceived as a secondary but additional measure to be exercised in the unlikely event that an accident would happen. The Commission's perspective was severely altered by the unexpected sequence of events that occurred at Three Mile Island. The accident showed clearly that the protection provided by siting and engineered safety features must be bolstered by the ability to take protective measures during the course of an accident. The accident also showed clearly that on-site conditions and actions, even if they do not cause significant off-site radiological consequences, will affect the way the various State and local entities react to protect the public from dangers, real or imagined, associated with the accident. A conclusion the Commission draws from this is that in carrying out its statutory mandate to protect the public health and safety, the Commission must be in a position to know that off-site governmental plans have been reviewed and found adequate. The Commission finds that the public can be protected within the framework of the Atomic Energy Act only if additional attention is given to emergency response planning. The Commission recognizes that the increment of risk involved in operation of reactors over the prescribed times in the implementation of this rule does not constitute an unacceptable risk to the public health and safety.

The Commission recognizes that this proposal, to view emergency planning as equivalent to, rather than as secondary to, siting and design in public protection, departs from its prior regulatory approach to emergency planning. The Commission has studied the various proposals and believes that this course is the best available choice. In reaching this determination, the Commission is guided by the findings of its Emergency Planning Task Force which found the need for intensive effort by NRC over the next few years to upgrade the regulatory program in this area. The Commission has also endorsed the findings of the EPA-NRC Joint Task Force for policy development in this area. Implementation of these reports by the NRC in its staff guidance is necessary for the NRC to be as effective as possible in assisting those governmental units and those utilities responsible for execution of the plans.

The Commission acknowledges the input of over one hundred commenters to date on the proposal to adopt new regulations. The staff evaluation of these comments is incorporated by reference herein as part of the record in this rulemaking proceeding.

In addition, the Commission acknowledges the important contributions made this year by various official commenters on the state of emergency planning around nuclear facilities, whose views are included as part of the basis for these reguations. The first of these was the report of the General Accounting Office issued coincident with the TMI accident which explicitly recommended that no new nuclear power plants be permitted to operate "unless offsite emergency plans have been concurred in by the NRC," as a way to insure better emergency protection. GAO Report, EMD-78-110, "Areas Around Nuclear Facilities Should Be Better Prepared for Radiological Emergencies" (March 30, 1979). In addition, the NRC Authorization Bill for FY 1980 (S. 562) would amend the Atomic Energy Act to require a concurred-in State plan as a condition of operation. The policy consideration that underlies this provision would be consistent with the Commission's views of the health and safety significance of emergency planning. One of the Commission's House Oversight Subcommittees developed a comprehensive document on the status of emergency planning which recommended that NRC, in a leadership capacity, undertake efforts to upgrade its licensees' emergency plans and State and local plans. House Report No. 96-413, "Emergency Planning Around U.S. Nuclear Power Plants," 96th Cong., 1st Sess. (August 8, 1979). The Report's recommendations were significant and its findings about the need for improved emergency preparedness lend support to the NRC's own efforts to assure that the public is protected. Finally, the President's Commission on the Accident at Three Mile Island has recently recommended approved State and local plans as a condition for resuming licensing. This Commission's Report and its supporting Staff Reports on emergency responses and preparedness are indicative of many of the problems which the NRC would address in this rule. In this regard the Commission notes that the already extensive record made on emergency planning improvements will be supplemented by the report of its own Special Inquiry Group and other ongoing investigations, by any requirements of the NRC Authorization Act, and by the public comments solicited by this proposed rule.

The proposed rule meets many of the concerns discussed in the above mentioned reports and publications. However, the Commission notes that the proposed rule is considered as an

interim upgrade of NRC emergency planning regulations and, in essence, clarifies and expands areas that have been perceived to be deficient as a result of past experiences. Because the Commission anticipates that further changes in the emergency planning regulations may be proposed as more experience is gained with implementing these revised regulations, as the various Three Mile Island investigations are concluded, and as the results become available from efforts in such areas as instrumentation and monitoring and generic studies of accident models, these proposed rules may require further modifications. Thus the proposed rule changes should be viewed as a first step in improving emergency planning.

Publication of these proposed rule changes in the Federal Register supersedes and thus eliminates the need to continue development of the proposed rule change to 10 CFR Part 50, Appendix E (43 FR 37473), published on August 23, 1978, regarding Emergency Planning considerations outside the Low Population Zone (LPZ).

The Commission is considering whether construction permits which have already been issued should be reconsidered because of the emergency planning considerations of this rule. For plants in operation, NRC teams are now meeting with licensees to upgrade licensee, State and local emergency plans and implementing procedures.

In developing these proposed rule changes, the Commission has considered the potential consequences, social and economic, as well as safety, of the shutdown of an operating nuclear power plant. Under both alternatives, the substantive criteria to be applied in evaluating whether or not a licensee should be allowed to continue to operate the reactor are the same. Thus, both alternatives reflect the view that, while emergency planning is important for public health and safety, the increment of risk involve in permitting operation for a limited time in the absence of concurred-in plans may not be undue in every case.

However, the alternative rule changes differ primarily in the course of action that would follow either non-concurrence, lack of concurrence, or withdrawal of concurrence in relevant State or local emergency plans. Under one alternative (Alternative A) an order to show cause why the licensee should not shut down the plant may be issued in this circumstance, but the order to show cause would not be made immediately effective unless the Commission decided in the particular cases that the safety risks were sufficiently serious to warrant such immediate action. Under the other alternative (Alternative B), the licensee would be required to shut down the plant immediately in this circumstance. Unless and until an exemption is granted, the licensee will not be allowed to operate the reactor.

The NRC contemplates that under Alternative A initial concurrence and subsequent withdrawal, if necessary, would be noted in local newspapers. Under Alternative B, public notice of any initial concurrence or withdrawal of concurrence would be made both in the Federal Register and in local newspapers. Notice in the Federal Register and in local newspapers will also be provided of any required suspension of operation, any request for an exemption from this requirement, and any request that an operating license be exempt from the requirement for concurred-in plans. Public comments will be welcomed, if significant interest in meeting with the staff is expressed, the staff may hold public meetings in the vicinity of the site to receive and discuss comments and to answer questions.

Accordingly, in the discharge of its duties to assure the adequate protection of the public health and safety, the Commission has decided to issue proposed rules for public comment. The proposed changes to 10 CFR 50.33, 50.47, and 50.54 apply to nuclear power reactors only. However, the proposed Appendix E to 10 CFR Part 50 applies to production and utilization facilites in general except as noted in the proposed Appendix E. These proposals, comments, other official reports, and views expressed at the public workshops will be factored into the final rule, which the NRC now anticipates will be published in early 1980.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, and section 553 of title 5 of the United States Code, notice is hereby given that adoption of the following amendments to 10 CFR Part 50 and Appendix E to 10 CFR Part 50 is contemplated.

Copies of comments received on the proposed amendments may be examined in the Commission's Public Document Room at 1717 H Street, NW., Washington, DC, and at local Public Document Rooms.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. Paragraph (g) of § 50.33 is revised to read as follows:

§ 50.33 Contents of applications; general information.

* * * * *

(g) If the application is for an operating license for a nuclear power reactor, the applicant shall submit radiological emergency response plans of State and local governmental entities in the United States that are wholly or partially within the plume exposure pathway Emergency Planning Zone (EPZ), as well as the plans of State governments wholly or partially within the ingestion pathway EPZ.[1] Generally, the plume exposure pathway EPZ for nuclear power reactors shall consist of an area about 10 miles in radius and the ingestion pathway EPZ shall consist of an area about 50 miles in radius. The exact size and configuration of the EPZs surrounding a particular nuclear power reactor shall be determined in relation to the emergency response needs and capabilities as they are affected by such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries. The plans for the ingestion pathway shall focus on such less immediate actions as are appropriate to protect the food ingestion pathway.

2. A new § 50.47 is added. Alternative versions of the first paragraph are presented.

§ 50.47 Emergency plans.

[Alternative A: (a) No operating license for a nuclear power reactor will be issued unless the emergency response plans submitted by the applicant in accordance with § 50.33(g) have been reviewed and concurred in by the NRC.[2] In the absence of one or more concurred-in plans, the applicant will have an opportunity to demonstrate to the satisfaction of the Commission that deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons to permit operation.] OR

[Alternative B: (a) No operating license for a nuclear power reactor will be issued unless the emergency response plans submitted by the applicant in accordance with § 50.33(g) have been reviewed and concurred in by the NRC.[2] An applicant may request an exemption from this requirement based

[1] Emergency Planning Zones (EPZs) are discussed in NUREG-0396, "Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants."

[2] NRC staff guidance for the preparation and evaluation of State and local emergency response plans leading to NRC concurrence is contained in NUREG 75/111, "Guide and Checklist for Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities" (December 1, 1974) and Supplement 1 thereto dated March 15, 1977.

upon a demonstration by the applicant that any deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons to permit operation. No such operating license will be issued unless NRC finds that appropriate protective actions, including evacuation when necessary, can be taken for any reasonably anticipated population within the plume exposure EPZ.]

(b) Generally, the plume exposure pathway EPZ for nuclear power plants shall consist of an area about 10 miles in radius and the ingestion pathway EPZ shall consist of an area about 50 miles in radius. The exact size and configuration of the EPZs surrounding a particular nuclear power reactor shall be determined in relation to the emergency response needs and capabilities as they are affected by such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries. The plans for the ingestion pathway shall focus on such less immediate actions as are appropriate to protect the food ingestion pathway.

3. Section 50.54 is amended by adding four new paragraphs, (s), (t), (u) and (v). Alternative passages for paragraphs (s) and (t) are provided:

§ 50.54 Conditions of licenses.

* * * * *

(s) Each licensee who is authorized to possess and/or operate a nuclear power reactor shall submit within 60 days of the effective date of this amendment the radiological emergency response plans of State and local governmental entities in the United States that are wholly or partially within the plume exposure pathway EPZ, as well as the plans of State governments wholly or partially within the ingestion pathway EPZ.[1] Generally, the plume exposure pathway EPZ for nuclear power reactors shall consist of an area about 10 miles in radius and the ingestion pathway EPZ shall consist of an area about 50 miles in radius. The exact size and configuration of the EPZs for a particular nuclear power reactor shall be determined in relation to the emergency response needs and capabilities as they are affected by such local conditions as demography, topography, and land characteristics, access routes, and local jurisdictional boundaries. The plans for the ingestion pathway shall focus on such less immediate actions as are appropriate to protect the food ingestion pathway. [Alternative A: If the appropriate State and local government emergency response plans have not been concurred in [1] within 180 days of the effective date of the final amendments or by January 1, 1981, whichever is sooner, the Commission will make a determination whether the reactor should be shut down. The reactor need not be shut down if the licensee can demonstrate to the Commission's satisfaction that the deficiencies in the plan are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation.] OR [Alternative B: If the plans submitted by the licensee in accordance with the subsection have not been concurred in by NRC within 180 days of the effective date of this amendment or by January 1, 1981, whichever is sooner, the reactor in question will be shut down until the concurrences have been obtained. The licensee may request an exemption from this requirement based upon a demonstration that any deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation. However, unless and until this exemption has been granted by the Commission, the plant shall be maintained in the shutdown condition.]

[Alternative A: (t) If, after 180 days following the effective date of these amendments or January 1, 1981, whichever is sooner, and during the operating license period of a nuclear power reactor the Commission determines that the appropriate State and local government emergency response plans do not warrant continued NRC concurrence and such State or local government fails to correct such deficiencies within 4 months of the date of notification of the defects, the Commission will make a determination whether the reactor shall be shut down until the plan is submitted and has again received NRC review and concurrence. The reactor need not be shut down if the licensee can demonstrate to the Commission's satisfaction that the deficiencies in the plan are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation.] OR

[Alternative B: (t) If, after 180 days following the effective date of these amendments or after January 1, 1981, whichever is sooner, and during the operating license period of a nuclear power reactor, the Commission determines that the appropriate State or local government emergency response plans do not warrant continued NRC concurrence and such State or local government fails to correct such deficiencies within 4 months of the date of notification of the defects, the reactor in question will be shut down. The licensee may request an exemption from this requirement based upon a demonstration that any deficiencies in the plans are not significant for the plant in question, that alternative compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation. However, unless and until this exemption has been granted by the Commission, the plant shall be maintained in the shutdown condition.]

(u) The licensee of a nuclear power reactor shall provide for the development, revision, implementation and maintenance of its emergency preparedness program. To this end, the licensee shall provide for an independent review of its emergency preparedness program at least every 12 months by licensee, employees, contractors, or other persons who have no direct responsibility for implementation of the emergency preparedness program. The review shall include a review and audit of licensee drills, exercises, capabilities, and procedures. The results of the review and audit, along with recommendations for improvements, shall be documented, reported to the licensee's corporate and plant management, and kept available at the plant for inspection for a period of five years.

(v) Within 180 days after the effective date of the final rules or by January 1, 1981, whichever is sooner, each licensee who is authorized to possess and/or operate a production or utilization facility shall have plans for coping with emergencies which meet the requirements of Appendix E of this Chapter.

4. 10 CFR Part 50, Appendix E, is amended as follows:

* * * * *

Appendix E—Emergency Planning and Preparedness for Production and Utilization Facilities[1]

I. Introduction

Each applicant for a construction permit is required by § 50.34(a) to include in its

[1] NRC staff has developed three regulatory guides: 1.101, "Emergency Planning for Nuclear Power Plants," 2.6, "Emergency Planning for Research Reactors," and 3.42, "Emergency Planning in Fuel Cycle Facilities and Plants Licensed Under 10 CFR Parts 50 and 70"; and NUREG-0610, "Draft Emergency Level Action Guidelines for Nuclear Power Plants" (September 1979) to help applicants establish adequate plans required pursuant to

Footnotes continued on next page

preliminary safety analysis report a discussion of preliminary plans for coping with emergencies. Each applicant for an operating license is required by § 50.34(b) to include in its final safety analysis report plans for coping with emergencies.

This appendix establishes minimum requirements for emergency plans for use in attaining a state of emergency preparedness. These plans shall be described in the preliminary safety analysis report and submitted as a part of the final safety analysis report. The potential radiological hazards to the public associated with the operation of research and test reactors are considerably less than those involved with nuclear power reactor. Consequently, the size of the EPZs for Research and Test reactors and the degree to which compliance with the requirements of this section and sections II, III, IV and V is necessary will be determined on a case-by-case basis using Regulatory Guide 2.6 as a standard for acceptance. State and local government emergency response plans, which may include the plans of offsite support organizations, shall be submitted with the applicant's emergency plans.

II. The Preliminary Safety Analysis Report

The Preliminary Safety Analysis Report shall contain sufficient information to ensure the compatibility of proposed emergency plans both for onsite areas and the EPZs with facility design features, site layout, and site location with respect to such considerations as access routes, surrounding population distributions, and land use for the Emergency Planning Zones [1] (EPZs).

As a minimum, the following items shall be described:

A. Onsite and offsite organizations for coping with emergencies, and the means for notification, in the event of an emergency, of persons assigned to the emergency organizations;

B. Contacts and arrangements made and documented with local, State, and Federal governmental agencies with responsibility for coping with emergencies, including identification of the principal agencies.

[Alternative A: C. Protective measures to be taken in the event of an accident within the site boundary and within each EPZ to protect health and safety; corrective measures to prevent damage to onsite and offsite property; and the expected response, in the event of an emergency, of offsite agencies] OR

[Alternative B: C. Protective measure to be taken in the event of an accident within the site boundary and within each EPZ to protect health and safety; procedures by which these measures are to be carried out (*e.g.*, in the case of an evacuation, who authorizes the evacuation, how the public is to be notified and instructed, how the evacuation is to be carried out); and the expected response, in the event of an emergency, of offsite agencies];

D. Features of the facility to be provided for onsite emergency first aid and decontamination, and for emergency transportation of onsite individuals to offsite treatment facilities;

E. Provisions to be made for emergency treatment at offsite facilities of individuals injured as a result of licensed activities;

F. Provisions for a training program for employees of the licensee, including those who are assigned specific authority and responsibility in the event of an emergency, and for other persons not employees of the licensee whose assistance may be needed in the event of a radiological emergency;

G. Features of the facility to be provided to ensure the capability for actuating onsite protective measures and the capability for facility reentry in order to mitigate the consequences of an accident or, if appropriate, to continue operation;

H. A preliminary analysis which projects the time and means to be employed in the notification of State and local governments and the public in the event of an emergency. A preliminary analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations.

III. The Final Safety Analysis Report

The Final Safety Analysis Report shall contain the emergency plans for coping with emergencies. The plans shall be an expression of the overall concept of operation, which describe the essential elements of advance planning that have been considered and the provisions that have been made to cope with emergency situations. The plans shall incorporate information about the emergency response roles of supporting organizations and offsite agencies. That information shall be sufficient to provide assurance of coordination among the supporting groups and between them and the licensee.

[Alternative A: The plans submitted must include a description of the elements set out in Section IV to an extent sufficient to demonstrate that the plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety and minimize damage to property within the Emergency Planning Zones (EPZs).] OR

[Alternative B: The plans submitted must include a description of the elements set out in Section IV to an extent sufficient to demonstrate that the plans provide reasonable assurance that appropriate measures can and will be taken in the event of an emergency to protect public health and safety within the Emergency Planning Zones (EPZs).]

IV. Content of Emergency Plans

The applicant's emergency plans shall contain, but not necessarily be limited to, the following elements: organization for coping with radiation emergencies, assessment action, activation of emergency organization, notification procedures, emergency facilities and equipment, training, maintaining emergency preparedness, and recovery. The applicant shall also provide an analysis of the time required to evacuate various sectors and distances within the plume exposure pathway EPZ for transient and permanent populations.

A. Organization

The organization for coping with radiological emergencies shall be described including definitions of authorities, responsibilities and duties of individuals assigned to licensee's emergency organization, and the means of notification of such individuals in the event of an emergency. Specifically, the following shall be included:

1. A description of the normal plant operating organization.

2. A description of the onsite emergency response organization with a detailed discussion of:

a. Authorities, responsibilities and duties of the individual(s) who will take charge during an emergency;

b. Plant staff emergency assignments;

c. Authorities, responsibilities, and duties of an onsite emergency coordinator who shall be in charge of the exchange of information with offsite authorities responsible for coordinating and impelementing offsite emergency measures.

3. A description of the licensee headquarters personnel that will be sent to the plant site to provide augmentation of the onsite emergency organization.

4. Identification, by position, of persons within the licensee organization who will be responsible for making offsite dose projections and a description of how these projections will be made and the results transmitted to State and local authorities, NRC, FEMA and other appropriate governmental entities.

5. Identification, by position and function, of other employees of the licensee with special qualifications for coping with emergency conditions which may arise. Other persons with special qualifications, such as consultants, who are not employees of the licensee and who may be called upon for assistance for short- or long-term emergencies shall also be identified. The special qualifications of these persons shall be described.

6. A description of the local offsite services to be provided in support of the licensee emergency organization.

7. Identification of and expected assistance from appropriate State, local, and Federal agencies with responsibilities for coping with emergencies.

8. Identification of the State and/or local officials responsible for planning for, ordering, notification of, and controlling

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Footnotes continued from last page
§ 50.34 and this Appendix for coping with emergencies. Copies of the guides are available at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. 20555. Copies of guides may be purchased from the Government Printing Office. Information on current prices may be obtained by writing the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Publications Sales Manager.

[1] The size of the EPZs for a nuclear power plant shall be determined in relation to the emergency response needs and capabilities as they are affected by such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries. Generally, the plume exposure pathway EPZ for light water nuclear power plants shall consist of an area about 10 miles radius and the ingestion pathway EPZ an area about 50 miles in radius. EPZs are discussed in NUREG–0396. The size of the EPZ's for non-power reactors shall be determined on a case-by-case basis.

appropriate protective actions, including evacuations when necessary.

B. Assessment Actions

The means to be provided for determining the magnitude and continued assessment of the release of radioactive materials shall be described including emergency action levels that are to be used as criteria for determining the need for notification and participation of local and State agencies and the Commission and other Federal agencies, and the emergency action levels that are to be used as criteria along with appropriate meteorological information for determining when protective measures should be considered within the outside the site boundary to protect health and safety and prevent damage to property. The emergency action levels shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring. These emergency action levels shall be discussed and agreed upon by the applicant and State and local governmental authorities and approved by NRC. They shall also be reviewed with the State and local governmental authorities on an annual basis.

C. Activation of Emergency Organization

The entire spectrum of emergency conditions which involve the alerting or activation of progressively larger segments of the total emergency organization shall be described. The communication steps taken to alert or activate emergency personnel under each class of emergency shall be described. Emergency action levels (based not only on onsite and offsite radiation monitoring information but also on readings from a number of sensors that indicate a potential emergency such as the pressure in containment and the response of the Emergency Core Cooling System) for notification of offsite agencies shall be described. The existence, but not the details, of a message authentication scheme shall be noted for such agencies.

D. Notification Procedures

1. Administrative and physical means for notifying, and agreements reached with, local, State, and Federal officials and agencies for the early warning of the public and for public evacuation or other protective measures, should they become necessary, shall be described. This description shall include identification of the principal officials, by title and agencies, for the Emergency Planning Zones [3] (EPZs).

2. Provisions shall be described for the yearly dissemination to the public within the plume exposure pathway EPZ of basic emergency planning information such as the possibility of nuclear accidents, the potential human health effects of such accidents and their causes, methods of notification, and the protective actions planned if an accident occurs, as well as a listing of local broadcast network that will be used for dissemination of information during an emergency.

3. Administrative and physical means, and the time required, shall be described for alerting and providing prompt instructions [3] to the public within the plume exposure pathway Emergency Planning Zone. It is the applicant's responsibility to ensure that such means exist, regardless of who implements this requirement.

E. Emergency Facilities and Equipment

Provisions shall be made and described for emergency facilities and equipment, including:

1. Equipment at the site for personnel monitoring;

2. Equipment for determining the magnitude of and for continuously assessing the release of radioactive materials to the environment;

3. Facilities and supplies at the site for decontamination of onsite individuals;

4. Facilities and medical supplies at the site for appropriate emergency first aid treatment;

5. Arrangements for the services of a physician and other medical personnel qualified to handle radiation emergencies;

6. Arrangements for transportation of injured or contaminated individuals from the site to treatment facilities outside the site boundary;

7. Arrangements for treatment of individuals injured in support of licensed activities on the site at treatment facilities outside the site boundary;

8. One onsite technical support center and one near-site emergency operation center from which effective direction can be given and effective control can be exercised during an emergency;

9. At least one onsite and one offsite communications system, including redundant power sources. This will include the communication arrangements for emergencies, including titles and alternates for those in charge at both ends of the communication links and the primary and backup means of communication. Where consistent with function of the governmental agency, these arrangements will include:

a. Provision for communications with contiguous State/local governments within the plume exposure pathway Emergency Planning Zone. Such communications shall be tested monthly.

b. Provision for communications with Federal emergency response organizations. Such communications systems shall be tested annually.

c. Provision for communications between the nuclear facility, State and/or local emergency operations centers, and field assessment teams. Such communications systems shall be tested annually.

F. Training

The program to provide for (1) the training of employees and exercising, by periodic drills, of radiation emergency plans to ensure that employees of the licensee are familiar with their specific emergency response duties, and (2) the participation in the training and drills by other persons whose assistance may be needed in the event of a radiation emergency shall be described. This shall include a description of specialized initial training and periodic retraining programs to be provided to each of the following categories of emergency personnel:

a. Directors or coordinators of the plant emergency organization.

b. Personnel responsible for accident assessment, including control room shift personnel.

c. Radiological monitoring teams.

d. Fire control teams (fire brigades).

e. Repair and damage control teams.

f. First aid and rescue teams.

g. Local services personnel, *e.g.*, local Civil Defense, local law enforcement personnel, and local news media persons.

h. Medical support personnel.

i. Licensee's headquarters support personnel.

j. Security personnel.

The plan shall describe provisions for the conduct of yearly drills and exercises to test the adequacy of timing and content of implementing procedures and methods, to test emergency equipment and communication networks, and to ensure that emergency organization personnel are familiar with their duties. Such provisions shall specifically include participation by offsite personnel as described above as well as other State and local governmental agencies. The plan shall also describe provisions for a joint exercise involving the Federal, State, and local response organizations. The scope of such an exercise should test as much of the emergency plans as is reasonably achievable without involving full public participation. Definitive performance criteria shall be established for all levels of participation to ensure an objective evaluation. This joint Federal, State, and local exercise shall be:

1. For presently operating plants, initially within one year of the effective date of this amendment and once every [Alternative A: three years] or [Alternative B: five years] thereafter.

3. For a plant for which an operating license is issued after the effective date of this amendment, initially within one year of the issuance of the operating license and once every [Alternative A: three years] or [Alternative B: five years] thereafter.

All training provisions shall provide for formal critiques in order to evaluate the emergency plan's effectiveness and to correct weak areas through feedback with emphasis on schedules, lesson plans, practical training, and periodic examinations.

G. Maintaining Emergency Preparedness

Provisions to be employed to ensure that the emergency plan, its implementing procedures and emergency equipment and supplies are maintained up to date shall be described.

H. Recovery

Criteria to be used to determine when to the extent possible, following an accident, reentry of the facility is appropriate or when operation should be continued.

V. Implementing Procedures

No less than 180 days prior to scheduled issuance of an operating license, 10 copies each of the applicant's detailed implementing procedures for its emergency plan shall be submitted to NRC Headquarters and to the appropriate NRC Regional Office: Provided that, in cases where the operating license is

[3] It is expected that the capability will be provided to essentially complete alerting of the public within the plume exposure pathway EPZ within 15 minutes of the notification by the licensee of local and State officials.

scheduled to be issued less than 180 days after the effective date of this rule, such implementing procedures shall be submitted as soon as practicable. Within 60 days after the effective date for compliance under § 50.54(v) with the revised Appendix E, licensees who are authorized to operate a nuclear power facility shall submit 10 copies each of the licensee's emergency plan implementing procedures to NRC Headquarters and to the appropriate NRC Regional Office. As necessary to maintain them up to date thereafter, 10 copies each of any changes to these implementing procedures shall be submitted to NRC Headquarters and to the same NRC Regional Office within 30 days of such changes.

(Sec. 161, Pub. L. 83-703, 68 Stat. 948 (42 U.S.C. 2201); Sec. 201, as amended, Pub. L. 93-438, 88 Stat. 1242, Pub. L. 94-79, 89 Stat. 413 (42 U.S.C. 5841).)

Dated at Washington, D.C. this 13th day of December 1979.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 79-38905 Filed 12-18-79; 8:45 am]

BILLING CODE 7590-01-M

Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

[10 CFR Part 50]

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Advance Notice of Proposed Rulemaking.

SUMMARY: The Nuclear Regulatory Commission is considering the adoption of additional regulations which will establish as conditions of power reactor operation increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both the licensee and local and state authorities. The Commission is interested in receiving public comment on objectives for effective plans, acceptance criteria for State/local emergency plans, NRC concurrence in State and local plans as a requirement for issuance of an operating license or for continued operation of a nuclear facility, and coordination between the licensee plan and State and local plans. The Commission seeks written comments on what items should be included in the rule.

DATES: Comments are due no later than August 31, 1979.

ADDRESSES: Written comments concerning these issues should be submitted to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555.

FOR FURTHER INFORMATION CONTACT: Patricia A. Comella, Site Designation Branch, Office of Standards Development, Nuclear Regulatory Commission, Washington, DC 20555, 301-443-5981.

SUPPLEMENTARY INFORMATION: The NRC requires that power reactor license applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. In this way off-site emergency planning has been related to the nuclear licensing process. *See* 10 CFR Part 50, Appendix E (1979), *see also* additional guidance in U.S. NRC, Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants," (Rev. 1, 1977).

To aid State and local governments in the development and implementation of adequate emergency plans, the NRC, in conjunction with seven other Federal agencies, has attempted, on a cooperative and voluntary basis, to provide for training and instruction of State and local government personnel and to establish criteria to guide the preparation of emergency plans. However, the NRC has not made NRC approval of State and local emergency plans a condition of nuclear power plant operation.

The accident at Three Mile Island has raised a number of questions about the adequacy of radiological emergency response plans. Even before the accident the GAO had recommended that NRC not license new power plants for operation unless off-site emergency plans have been approved by the NRC. GAO, Report to the Congress, "Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies," March 30, 1979. The Commission is also considering new guidance to State and local governments on emergency planning, based on an analysis of a joint NRC-EPA Task Force Report, "Planning Basis for 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, December 1978. *See* 43 Fed. Reg. 58658 (December 15, 1978), *see also* 44 Fed. Reg. 23137 (April 18, 1979). Furthermore, a number of organizations, including Critical Mass and Public Interest Research Groups, have renewed and supplemented a petition for rulemaking, previously denied by the Commission, concerning the operational details of evacuation planning. *See* 44 FR 32486 (June 6, 1979).

The Commission has decided to initiate an expedited rulemaking procedure on the subject of State and local emergency response plans and those of licensees. The Commission is soliciting public comments in this area, particularly on the following issues:

1. What should be the basic objectives of emergency planning?

a. To reduce public radiation exposure?

b. To prevent public radiation exposure?

c. To be able to evacuate the public?

To what extent should these objectives be quantified?

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 CFR Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continued operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?

4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

7. How and to what extent should the public be informed, prior to any

emergency, concerning emergency actions it might be called upon to take?

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG–0396/EPA 520/1–78–016)?

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, to what extent, and by whom should the public be notified of these incidents?

The comments received will be collected and evaluated by the NRC staff, which will, in turn, submit recommendations on proposed rules to the Commission. Based on the comments it receives from the public and the analysis of the problem presented by the NRC Staff, the Commission will determine whether to proceed with a proposed rule for notice and comment and/or whether to make such rule immediately effective. The Commission anticipates completion of this expedited rulemaking in approximately six months.

The NRC staff is presently conducting a comprehensive review of all aspects of the NRC emergency planning and preparedness program. Therefore, the Commission is also interested in receiving comments on all other aspects of emergency planning, including issues raised in the Critical Mass/PIRG petition for rulemaking and questions such as the following:

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response planning?

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

14. Would public participation in radiological emergency response drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Dated at Washington, D.C., this 12th day of July, 1979.

For the Commission.

Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 79-22073 Filed 7-16-79; 8:45 am]

BILLING CODE 7590-01-M

NRC FORM 335 (7-77)

U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

1. REPORT NUMBER *(Assigned by DDC)*
NUREG-0628

4. TITLE AND SUBTITLE *(Add Volume No., if appropriate)*
NRC Staff Analysis of Public Comments on Advance Notice of Proposed Rulemaking on Emergency Planning

2. *(Leave blank)*

3. RECIPIENT'S ACCESSION NO.

7. AUTHOR(S)
Carol A. Peabody and John W. Hickey, editors

5. DATE REPORT COMPLETED
MONTH: November YEAR: 1979

9. PERFORMING ORGANIZATION NAME AND MAILING ADDRESS *(Include Zip Code)*
Environmental Protection Standards Branch
Division of Siting, Health and Safeguards Standards
Office of Standards Development
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

DATE REPORT ISSUED
MONTH: January YEAR: 1980

6. *(Leave blank)*

8. *(Leave blank)*

12. SPONSORING ORGANIZATION NAME AND MAILING ADDRESS *(Include Zip Code)*
Same as 9

10. PROJECT/TASK/WORK UNIT NO.

11. CONTRACT NO.
N/A

13. TYPE OF REPORT
Technical Report

PERIOD COVERED *(Inclusive dates)*
N/A

15. SUPPLEMENTARY NOTES
N/A

14. *(Leave blank)*

16. ABSTRACT *(200 words or less)*

On July 17, 1979, the Nuclear Regulatory Commission (NRC) published an advance notice of proposed rulemaking on emergency planning around nuclear facilities (44 FR 41483). The advance notice announced that NRC was considering adoption of additional regulations which would require increased emergency readiness for public protection on the part of both power reactor licensees and local and State authorities. The notice requested comments on emergency planning matters, including 14 specific issues. Over 100 public comment letters were received. The NRC staff prepared a preliminary analysis of the public comments received and submitted the analysis to the Commission on November 13, 1979. This report consists of the preliminary staff analysis and copies of the public comment letters.

17. KEY WORDS AND DOCUMENT ANALYSIS

17a. DESCRIPTORS

17b. IDENTIFIERS/OPEN-ENDED TERMS
N/A

18. AVAILABILITY STATEMENT
Unlimited

19. SECURITY CLASS *(This report)*
None

21. NO. OF PAGES

20. SECURITY CLASS *(This page)*

22. PRICE
$

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