

SD EMERGENCY PLANNING ACTION PLAN

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SD ACTION PLAN FOR EMERGENCY PREPAREDNESS

I. INTRODUCTION

Purpose

This plan was developed to provide SD coordination with other NRC office activities identified as "problem topics" by the NRC Task Force on Emergency Planning.

Need

Because of the fragmentation within NRC of various emergency planning activities, such a plan is necessary to identify clearly areas of Office responsibility, and more appropriately, assure that no aspect of the "problem topics" is excluded.

Scope

This Action Plan addresses only those "problem topics" identified originally by the Working Group and later modified by the Task Force, for which SD is the lead office.

II. SUMMARY AND CONCLUSIONS

The Action Plan basically calls for revisions and additions to existing emergency planning regulations, regulatory guides, NUREGs and ANSI standards, as well as our coordination with other Federal agencies.

Long-term success of the plan hinges on the explicit definition of NRC's role in responding to an incident.

III. SD RESPONSIBILITIES RELATIVE TO EMERGENCY PREPAREDNESS

- Write, revise, and keep current emergency planning regulations, regulatory guides, NUREG reports, and ANSI standards.
- Provide input for NRC Incident Response Program.
- Provide input for the NRC Operations Center.
- Coordinate with other Federal agencies in support of NRC emergency planning activities.

IV. CURRENT SD PROGRAM AND CAPABILITIES

SD emergency planning activities are basically programmatic, which include:

- Writing, revising, and keeping current emergency planning regulations, regulatory guides, NUREG reports, and ANSI standards.
- Coordination of NRC planning activities for NRC Incident Response Program.
- Liaison with other Federal agencies, particularly through SP.

V. OFFICE REQUIREMENTS AND NEEDS

As a result of TMI and the formation of the Emergency Planning Task Force, SD has modified its current Emergency Planning program and made plans to accomplish in FY 80 tasks delineated in our assigned problem areas. Successful completion of these tasks is, of course, dependent on cooperation and support by the offices of NRR, SP, IE, ELD, RES, and NMSS. Likewise, SD has requested additional resources in the FY 80 supplemental budget. If the supplemental budget is granted, SD will be able to accomplish additional identified tasks in FY 80 and carry out the FY 81 program as outlined. If the supplemental budget is not granted, SD priorities as previously outlined will require reexamination.

VI. SD ACTION PLAN

Outline

Problem Topic

- Statement of "Problem Topic" from Task Force report

Details of Problem

- A statement or statements of specific problems that are contained in the problem topic

Planning Basis for Correcting Problem

- A corresponding statement outlining the philosophy that is believed will lead to an adequate solution of the problem and thus forms the basis for taking the corrective action listed below.

Action Plan

1. Short Range Action - description

- a. Discussion
- b. Schedule
- c. Budget/resource impact

2. Long Range Action - description
 - a. Discussion
 - b. Schedule
 - c. Budget/resource impact

PROBLEM

C-2 - Regulations have voids or inconsistencies related to emergency planning.

Planning Basis

Part 50, Appendix E, requirements have not been applied to research reactors licensed prior to its adoption.

Part 30 does not require emergency plans or procedures.

Part 40 does not require emergency plans.

Part 70 does not require all licensees to have approved emergency response plans.

Action Plan

Short Term - SECY 79-367 will require Part 50 and Part 70 licensees to maintain emergency plans up to date and require research reactors to submit an emergency plan for NRC review and approval.

Long Term - Evaluate the need for an "Appendix E" for Part 30 and Part 40 licensees.

PROBLEM

D-4 - Due to the lack of a generic treatment of emergency planning issues in public hearings, the same contentions repeatedly occur in public proceedings and place an undue burden on the staff.

Planning Basis

Possibly due to a lack of earlier research in the emergency planning and response area, or due to other causes, a generic focus of the issues for use in rulemaking proceedings does not exist. Because of this lack, the staff finds itself going over the same items time after time, which is wasteful of scarce resources as well as distracting to the long-term effort.

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Action Plan

Short Term - SD has budgeted resources to support the following activities in order to ensure as much generic treatment of emergency planning issues as possible.

1. Regulation and Regulatory Guide changes (SD lead, NRR/SP support)
 - a. Revision to the August 16, 1978, proposed changes to Appendix E to reflect NUREG-0396 guidance.
 - b. Revision of Appendix E to provide more specifics (parts of Regulatory Guide 1.101) in the regulations.
 - c. Revision of Regulatory Guide 1.101 (and perhaps Appendix E) to provide for specific, uniform action levels based on specified plans parameters (to be developed by NRR teams).
 - d. Revision of Regulatory Guide 1.97 to reflect current efforts and experience gained in upcoming implementation.
 - e. Preparation of a proposed regulation requiring concurrence in State/local plans as a condition for power reactor licenses (including criteria for granting and withdrawing licenses and any grace periods or hearing opportunities afforded licensees/States when licenses are threatened because of State plan problems). (SP will provide the main input to SD in this area.)
 - f. Preparation of a proposed regulation requiring joint test exercises once each five years and within one year of initial plant operation.
 - g. Issuance of Revision 2 of Regulatory Guide 1.89 on qualification of equipment (has been held pending determination of whether ECCS equipment should be qualified to TID type source term or something less).
 - h. Issuance of a proposed rule or policy statement indicating what role emergency planning feasibility is to play in the consideration of alternative sites in the licensing process.
2. If SD supplemental budget is approved, the following tasks can be accomplished in FY 80:
 - a. Resolution of Critical Mass Petition for Rulemaking.
 - b. Revision of Regulatory Guides 1.101, 3.42, 2.6.
3. In FY 81, SD plans to develop emergency planning regulations for research reactors as well as to reassess regulations for Part 70 and Part 30 licensees.

PROBLEM:

E-4 - The incident response criteria for timely notification of the NRC need to be tightened.

Planning Basis

Some basic development of methods for triggering licensee notification procedures and of ensuring NRC recognition of the significance information passed is required. Setting of criteria for notification and predetermined action is a delicate process of balancing the expense of notification/shutdown/response to some nonemergency against the need to ensure early detection of developing emergencies.

Action Plan

Broadly interpreted, this problem could require immediate notification of NRC and designated State agencies by all licensees whenever radioactive products are released to air or water. Narrower interpretations are that immediate notice is to be required only for unscheduled releases of radioactive materials to the air or water; and that a proposed amendment would only apply to incidents at nuclear power plants. The other technical alternatives to be considered in this assessment, which will be conducted in the context of the CURE petition, address the specification of the following technical parameters concerning NRC requirements of licensees for notification of incidents:

1. type of licensees;
2. scheduled vs. unscheduled events;
3. quantities of radioactive materials released;
4. time period within which notification is required;
5. type of agencies to be designated for notification; and
6. geographical relation between location of release and agencies to be designated.

The SD staff will review and analyze several pertinent areas in NRC's current rules and practices that apply to the petitioner's considerations:

1. Radioactivity in effluents to unrestricted areas (§20.106).
2. Notifications of incidents (§20.403).
3. Emergency plans for production and utilization facilities (§50.34(b)(6)(v)).
4. Emergency plans for Part 70 licensees (§70.22(i) and §70.23(a)(11)).

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5. Requirements for the above emergency plans (Part 50, Appendix E).
6. Regulatory Guide 1.101, "Emergency Planning for Nuclear Power Plants."
7. Regulatory Guide 1.16, "Reporting of Operating Information - Appendix A Technical Specifications."

The staff will also review NRC records and additional information.

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Enclosure 4

DRAFT PROPOSED AMENDMENTS TO 10 CFR PART 50

(see tabs)

- Proposed Amendment to 10 CFR 50.33
- Proposed Amendment to 10 CFR 50.54
- Proposed Amendment to 10 CFR Part 50, Appendix E

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10 CFR Part 50, §50.33

Section 50.33, §50.33(g), is amended by deleting the word "[Reserved]" and by replacing it with three sentences that read as follows:

§50.33 Contents of applications; general information.

* * * * *

(g) The State and local government emergency response plans of all governmental entities wholly or partially within the Emergency Planning Zones (EPZ) that have been reviewed and concurred in by NRC shall be submitted prior to the issuance of an operating license. Generally, the EPZ for plume exposure pathway for light water nuclear power plants shall consist of an area approximately 10 miles in radius, and an area approximately 50 miles in radius for the EPZ ingestion pathway. In determining the size and configuration of the EPZs surrounding a particular nuclear power plant, consideration shall be given to such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries.

Section 50.54 is amended by adding two new paragraphs, (s) and (t), that read as follows:

§50.54 Conditions of licenses

* * * * *

(s) Each licensee who is authorized to possess and/or operate a nuclear power facility shall submit the State and local government emergency response plans of all governmental entities wholly or partially within the Emergency Planning Zones (EPZ) that have been reviewed and concurred in by NRC within 180 days from the effective date of this amendment.¹ Generally, the EPZ for plume exposure pathway for light water nuclear power plants shall consist of an area approximately 10 miles in radius, and an area approximately 50 miles in radius for the EPZ for ingestion pathway. In determining the size and configuration of the EPZs for a particular nuclear power plant, consideration shall be given to such local conditions as demography, topography, and land characteristics, access routes, and local jurisdictional boundaries.

¹ If during the life of the nuclear power facility the Commission determines that the State and local government emergency response plan does not warrant continued NRC concurrence and the State fails to correct such deficiencies within 3 months of the date of notification of NRC concurrence withdrawal, the Commission shall cause such determination to be published in the newspaper of greatest circulation in such State, and shall order each such facility to terminate operations until a plan is submitted and receives NRC review and concurrence.

10 CFR Part 50, §50.54

(continued)

(t) If during the life of a licensed facility the Commission determines that the licensee has failed to maintain an adequate state of emergency preparedness through periodic evaluation of licensee drills, exercises, and procedures, the licensee shall review his program and provide, within ___ days, a report to the appropriate NRC Regional Office on all corrective action completed.

A license may be revoked, suspended, or modified for failure of the licensee to maintain an adequate emergency preparedness capability.

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10 CFR Part 50, Appendix E

10 CFR Part 50, Appendix E, is amended by replacing it with a new Appendix E, which reads as follows:

* * * * *

APPENDIX E--EMERGENCY PLANNING AND PREPAREDNESS [PLANS] FOR PRODUCTION AND UTILIZATION FACILITIES¹

I. Introduction

Each applicant for a construction permit is required by §50.34(a) to include in its 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. These plans shall be described in the preliminary safety analysis report and submitted as a part of the final safety analysis report. Planning information

¹The Commission 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." [a document entitled "Guide-to-the-Preparation-of-Emergency-Plans-for-Production-and-Utilization-Facilities"] to help applicants establish adequate plans required pursuant to §50.34 and this Appendix, for coping with emergencies. The guides is are available at the Commission's Public Document Room, 1717 H Street, N.W., and copies may be obtained by addressing a request to the Director of Nuclear Reactor Regulation or Director of Nuclear Material Safety and Safeguards, as appropriate, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

used in the detailed implementation of emergency plans; ~~need not~~ shall be ~~described~~ submitted in the [preliminary or] final safety analysis report, but should not include details that can reasonably be expected to change from time to time, e.g., names, telephone numbers, specific items of equipment and supplies.

II. The Preliminary Safety Analysis Report

The Preliminary Safety Analysis Report shall contain sufficient information to assure the compatibility of proposed emergency plans with facility design features, site layouts, and site location with respect to such considerations as access routes, surrounding population distributions, and land use for the Emergency Planning Zones².

As a minimum, the following items shall be described:

A. The 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, ~~or to be made,~~ with local, State, and Federal governmental agencies with responsibility for coping with emergencies, including identification of the principal agencies.

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²Generally, the EPZ for plume exposure pathway for light water nuclear power plants shall consist of an area approximately 10 miles in radius, and an area approximately 50 miles in radius for the EPZ for ingestion pathway. In determining the size and configuration of the EPZs for a particular nuclear power plant, consideration shall be given to such local conditions as demography, topography, land characteristics, access routes, and local jurisdictional boundaries.

C. 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;

D. Features of the facility to be provided for onsite emergency first aid and decontamination, and for emergency transportation of individuals to offsite treatment facilities;

E. Provisions to be made for emergency treatment at offsite facilities of individuals injured in support of licensed activities;

F. [~~The training program for employees and for other persons, not employees of the licensee, whose services may be required in coping with an emergency~~]; Provisions for a training program of employees of the licensee who are assigned specific authority and responsibility in the event of an emergency and of other persons whose assistance may be needed in the event of a radiation emergency;

G. Features of the facility to be provided to assure the capability for actuating onsite protective measures [~~plant evacuation~~] 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 shall be submitted 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 evacuation feasibility analysis shall also be submitted within the Emergency Planning Zone².

III. The Final Safety Analysis Report

The Final Safety Analysis Report shall contain plans and procedures for coping with emergencies. The plans and procedures shall be an expression of the overall concept of operation, which describes the essential elements of advance planning that have been considered and the provisions that have been made to cope with emergency situations. It should incorporate information about the emergency response roles of supporting organizations and offsite agencies. That information should be sufficient to ensure coordination among the supporting groups and between them and the licensee. The details of these plans and ~~[the details of]~~ their implementation procedures need ~~[not]~~ to be submitted. However, the submitted implementation procedures should not include details that can reasonably be expected to change from time to time, e.g., names, telephone numbers, specific items of equipment and supplies. 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 prevent damage to property for the Emergency Planning Zone (EPZ)².

IV. Content of Emergency Plans

The applicant's emergency plans³ shall contain, but not necessarily be limited to, the following elements:

A. ORGANIZATION

The organization for coping with radiation emergencies, in which specific authorities, responsibilities, and duties are defined and assigned, and the means of notification, in the event of an emergency, of:

- (1) persons assigned to the licensee's emergency organization, which will include detailed identification of
 - a. Normal plant operating organization
 - b. Onsite emergency organization - with a detailed discussion of
 - (1) the responsibilities and authorities of the individual(s) that will take charge during an emergency, and
 - (2) plant staff emergency assignments
 - c. Licensee headquarters augmentation of onsite emergency organization
 - d. Local services support of licensee emergency organization,
- (2) appropriate State, local and Federal agencies with responsibilities for coping with emergency, and

³Supporting offsite emergency response plans shall be submitted with the applicant's emergency plans.

- (3) written identification, by position or 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- and/or long-term emergencies shall also be identified. The special qualifications of these persons shall be described;

B. ASSESSMENT ACTIONS

Means for determining the magnitude and continued assessment of the release of radioactive materials, 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 [Atomic-Energy] Commission and other Federal agencies, and the emergency action levels that are to be used as criteria for determining when protective measures should be considered within and outside the site boundary to protect public health and safety and prevent damage to property. These emergency actions levels that are to be used as criteria for notification and action shall be based on in-plant conditions and instrumentation in addition to onsite and offsite monitoring;

C. ACTIVATION OF EMERGENCY ORGANIZATION

Describe the entire spectrum of emergency conditions which involve the alerting or activation of progressively larger segments of the total emergency organization. Describe the communication steps taken to alert or activate emergency personnel under each class of emergency. Emergency action levels

(based on readings from a number of sensors, such as the pressure in the containment, the response of the ECCS, etc.) 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. PROTECTIVE MEASURES

[Procedures] 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 such warning, evacuation, or other protective measures become necessary or desirable, including identification of the principal officials, by title and agencies; for the Emergency Planning Zones² (EPZ). Provisions shall be made for the periodic dissemination, to the occupants of the Emergency Planning Zones, of basic simplified emergency planning information.

Administrative and physical means, and the time required, for prompt alerting and providing instructions 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 such means.

[1--Provisions for maintaining up-to-date--1--The organization for coping with emergencies, 2--the procedures for use in emergencies, and 3--the lists of persons with special qualifications for coping with emergency conditions,

E. EMERGENCY FACILITIES AND EQUIPMENT

Provisions shall be made for emergency facilities, including:

- (1) Equipment at the site for personnel monitoring;
- (2) Facilities and supplies at the site for decontamination of personnel;
- (3) Facilities and medical supplies at the site for appropriate emergency first aid treatment;
- (4) Arrangements for the services of a physician and other medical personnel qualified to handle radiation emergencies;
- (5) Arrangements for transportation of injured or contaminated individuals to treatment facilities outside the site boundary;
- (6) Arrangements for treatment of individuals injured in support of licensed activities at treatment facilities outside the site boundary;
- (7) One onsite and one offsite Emergency Control Center;
- (8) At least one onsite and one offsite communications systems including redundant power sources.

F. TRAINING

A program shall be provided [Provisions] for (1) the training and testing, by periodic drills, of radiation emergency plans to assure that employees of the licensee are familiar with their specific emergency response duties, and [provisions] (2) the participation in the training and drills by other persons whose assistance may be needed in the event of a radiation emergency. 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:

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1. Directors or coordinators of the plant emergency organization.
2. Personnel responsible for accident assessment, including control room shift personnel.
3. Radiological monitoring teams.
4. Fire control teams (fire brigades).
5. Repair and damage control teams.
6. First aid and rescue teams.
7. Local services personnel, i.e., local Civil Defense director, local law enforcement personnel, etc.
8. Medical support personnel.
9. Licensee's headquarters support personnel.

The plan shall describe provisions for the conduct of periodic drills and exercises to test the adequacy of timing and content of implementing procedures and methods, to test emergency equipment, and to ensure that emergency organization personnel are familiar with their duties.

All training provisions shall include delineation of methods to evaluate its 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 plan, its implementing procedures and emergency equipment and supplies are maintained up to date, as well as (1) the organization for coping with emergencies, (2) the procedures for use in emergencies, and (3) the lists of persons with special qualifications for coping with short- and long-term emergency conditions.

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H. RECOVERY

Criteria to be used to determine when, following an accident, reentry of the facility is appropriate or when operation should be continued.

V. Implementing Procedures

Within 180 days prior to scheduled issuance of an Operating License and as necessary to maintain them up to date thereafter, controlled copies of emergency plan implementing procedures shall be submitted to the appropriate NRC Regional Office.

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