

NRR Action Plan

August 2, 1979

by

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I. INTRODUCTION

II. SUMMARY AND CONCLUSIONS

III. NRR RESPONSIBILITIES RELATIVE TO EMERGENCY PREPAREDNESS

NRR reviews the emergency plans submitted by the licensees according to the requirements of Appendix E to 10 CFR 50. The Accident Analysis Branch, DSE, performs a review of the licensees' plans prior to issuance of an OL. The Environmental Evaluation Branch, DOR, reviews any modifications to the emergency plans of operating reactors. Currently two professionals in AAB and one in EEB are assigned to these tasks.

IV. CURRENT NRR PROGRAM AND CAPABILITIES

In order to upgrade the emergency plans for all operating reactors and near term OL applications, DOR has established a task force consisting of a NRR team leader, a member of the technical staff of LASL, who will provide technical assistance to NRC, and in IE member. These teams will review the licensee's emergency plans for compliance with Regulatory Guide 1.101 and the recommendations of the NRC/EPA task force NUREG-0357. The review will include an on-site evaluation of the licensee's emergency planning provisions, including his interaction and coordination with local and state authorities. The schedule for these reviews will assure completion of the review of all operating power reactors by July 1980.

V. NRR REQUIREMENTS AND NEEDS

A. Program Deficiencies

The primary program deficiencies are related to a lack of resources applied to the emergency preparedness area. The principal program deficiencies identified are as follows:

1. Existing guidance for power reactors licensee emergency plans (R.G. 1.01) has not been applied to most operating nuclear power plants.

In addition, uniform action levels and related terminology have not been required and these have not been adequately related to plant effluent and process parameters.
2. Instrumentation to follow the course of an accident, including wide range effluent monitors (R.G. 1.97) has not been required at all operating plants.
3. Requirements for Emergency Operations Center with direct information from the plant control room and adequate facilities for licensee local, State and Federal representatives have not been defined and applied.
4. Offsite monitoring required of the licensee and local and State authorities has not been defined and required.
5. The relationship between offsite agency emergency plan and licensee-emergency plans has not been developed in terms of minimum requirements for licensing.
6. While some limited exercising of individual licensee has been required and exercising of State plans has been encouraged through the Office of State Programs activities, joint exercises of licensee, local, State and Federal plans have not been required and the extent of resource mobilization required in these exercises has not been defined.
7. A number of regulation and regulatory guide changes have been identified as necessary and desirable which relate to the above deficiencies. In addition, additional efforts are needed to improve NRC's information gathering capabilities during an accident including implementation of the items identified in the paper "Incident Response Center," Draft 2, July 23, 1976.

B. Resource Deficiencies

Implementation of the NRR Short Term action plan will require about one million dollars in contract assistance and reassignment of several person to act as team leaders for the team described in Section VI. Development of long term resource requirements will await experience with the review teams but it is expected that a permanent NRR staff of 8 to 15 people will be required to review new application, keep operationg plant plans current, support standard activities, develop NRC response capabilities and participate in joint test excercises. The size of the permanent staff will depend on the continuing funding level for contractor activities.

VI. NRR Action Plan

POOR ORIGINAL

A. Immediate Action Plan

The NRR immediate action plan is described in SECY-79-450 dated July 23, 1979 which is attached for convenient reference.

B. Development of Long Range Action Plan

NRR will need to budget resources to support the following activities:

1. Regulation and Regulatory Guide changes (SD Lead)

- a. Revision to 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 plant 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 the 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. Criteria for assessment of offsite capabilities (SP lead).
3. NRC information gathering capability (IE lead). NRR needs to develop lists of parameters and work with IE in determining extent of real-time information display.

PROBLEM TOPICS WITH NRR LEAD AND THEIR RELATION TO NRR ACTION PLAN

A-5 Lack of licensee authority over off-site agencies

No legislative fix to give NRC or licensee authority over off-site agencies is likely. All concerned will have to make the best of the current division of powers. The problems arising out of the split responsibility/authority situation will be partially solved by NRR/SP team interaction during upcoming reviews and by increased public pressures on State/local authorities to have good plans. This area is not to be specifically addressed in the NRR action plan.

B-3 Licensee planning now based primarily on design basis accidents

Need revision of August 16, 1978 proposed changes to Appendix E to reflect NUREG-0396 guidance (SD lead). Need backfitting of Regulatory Guide 1.97 (with any necessary revisions from TMI lessons learned and the current short term effort to revise Regulatory Guide 1.97). This will be done for high priority items during NRR emergency preparedness team effort and by implementation of lessons learned short term actions. Will also need longer term effort on instrumentation to follow the course of an accident in support of OSD revisions of Regulatory Guide 1.97.

C-1.a Improve NRC guidance to licensees

Need to elaborate on areas in Regulatory Guide 1.101, especially with respect to uniform action level criteria. This will be partly done by NRR/SP action teams as indicated in current action plan. Some followup may be needed by SD.

D-1 Assessment of offsite capabilities in licensing process

This will be done by NRR/SP teams in cooperation with Regional Advisory Committees. Long term means will await experience with teams.

E-2 Expansion of emergency planning resources

Short term solved by teams, long term by routine budget process.

E-3 Operating plants need to be evaluated against current criteria

This will be done by team efforts under current action plan.

E-7 NRC information gathering capability needs improvement

NRR needs to develop lists of parameters needed. First cut in July 23, 1976 Incident response paper. Lessons learned task force has preliminary list for onsite technical center. Short term effort (NRR/SD) to revise Regulatory Guide 1.97 and specify specific instruments to follow the course of an accident will lay useful groundwork. IE would take lead on communications and physical facilities.

F-2 Evaluation criteria for drills/exercises

Will be developed by NRR/SP teams for joint exercises using any Sandia/SAI work available.

July 23, 1979

SECY-79-450

POOR ORIGINAL

For: The Commissioners
Thru: Executive Director for Operations *YAR for L.V.G*
From: Harold R. Denton, Director, Office of Nuclear Reactor Regulation

Subject: ACTION PLAN FOR PROMPTLY IMPROVING EMERGENCY PREPAREDNESS

Purpose: To inform the Commission of the staff's plans to take immediate steps to improve licensee preparedness at all operating power plants and for near-term OL's.

Discussion: While the emergency plans of all power reactor licensees have been reviewed by the staff in the past for conformance to the general provisions of Appendix E to 10 CFR Part 50, the most recent guidance on emergency planning, primarily that given in Regulatory Guide 1.101 "Emergency Planning for Nuclear Power Plants", has not yet been fully implemented by most reactor licensees. Further, there are some additional areas where improvements in emergency planning have been highlighted as particularly significant by the Three Mile Island accident.

The NRR staff plans to undertake an intensive effort over about the next year to improve licensee preparedness at all operating power reactors and those reactors scheduled for an operating license decision within the next year. This effort will be closely coordinated with a similar effort by the Office of State Programs to improve State and local response plans through the concurrence process and Office of Inspection and Enforcement efforts to verify proper implementation of licensee emergency preparedness activities.

The main elements of the staff effort, as listed in Enclosure 1, are as follows:

- (1) Upgrade licensee emergency plans to satisfy Regulatory Guide 1.101, with special attention to the development of uniform action level criteria based on plant parameters.

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- (2) Assure the implementation of the related recommendations of the NRR Lessons Learned Task Force involving instrumentation to follow the course of an accident and relate the information provided by this instrumentation to the emergency plan action levels. This will include instrumentation for post-accident sampling, high range radioactivity monitors, and improved in-plant radioiodine instrumentation. The implementation of the Lessons Learned recommendation on instrumentation for detection of inadequate core cooling will also be factored into the emergency plan action level criteria.
- (3) Determine that an Emergency Operations Center for Federal, State and local personnel has been established with suitable communications to the plant, and that upgrading of the facility in accordance with the Lessons Learned recommendation for an in-plant technical support center is underway.
- (4) Assure that improved licensee offsite monitoring capabilities (including additional TLD's or equivalent) have been provided for all sites.
- (5) Assess the relationship of State/local plans to the licensee's and Federal plans so as to assure the capability to take appropriate emergency actions. Assure that this capability will be extended to a distance of 10 miles as soon as practical, but not later than January 1, 1981. This item will be performed in conjunction with the Office of State Programs and the Office of Inspection and Enforcement.
- (6) Require test exercises of approved Emergency Plans (Federal, State, local, licensees), review plans for such exercises, and participate in a limited number of joint exercises. Tests of licensee plans will be required to be conducted as soon as practical for all facilities and before reactor startup for new licensees. Exercises of State plans will be performed

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in conjunction with the concurrence reviews of the Office of State Programs. Joint test exercises involving Federal, State, local and licensees will be conducted at the rate of about 10 per year, which would result in all sites being exercised once each five years.

The staff review will be accomplished by about 6 review teams, similar to the concept used to assure suitable implementation of the physical security provisions of 10 CFR 73.55. As a minimum, the teams will consist of a team leader from NRR, a member from Los Alamos Scientific Lab (LASL) and, at least for field visits, a member from the IE Regional office. LASL will be used as the source of non-NRC team members because of the expertise gained and familiarity with the plants acquired during the physical security reviews. The Division of Operating Reactors will have the responsibility for completing these reviews for both operating reactors and near-term OL's. J. R. Miller, Assistant Director, DOR will be responsible for implementation of the program. General policy and technical direction will be provided by Brian Grimes, Assistant Director, DOR.

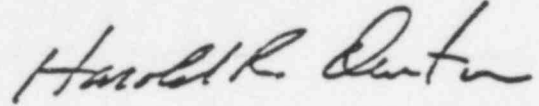
The first sites to be reviewed by the teams will be those scheduled for operating licenses within the next year and those sites in areas of relatively high population. Major milestones for the program are being developed and will include regional meetings with licensees to discuss the program, site visits by the review team, and meetings with local officials.

Coordination:

This action plan has been discussed with the Task Force on Emergency Planning and the Task Force Chairman, T. F. Carter, has advised that the Task Force deliberations to date have indicated no reason why NRR should not proceed. The Office of State Programs concurs in this plan. The Office of Inspection and Enforcement concurs in the plan.

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NRR expects to perform this task without augmentation of resources beyond those authorized for FY79 and FY80.



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosure:
Emergency Preparedness Improvements
for Operating Plants and Near
Term OL's

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EMERGENCY PREPAREDNESS IMPROVEMENTS
AND COMMITMENTS REQUIRED FOR OPERATING PLANTS AND NEAR TERM OL'S

<u>Item</u>	<u>Implementation Category^{1/}</u>
1. Upgrade emergency plans to Regulatory Guide 1.101 with special attention to action level criteria based on plant parameters.	A ¹
2. Implement certain short term actions recommended by Lessons Learned task force and use these in action level criteria. ^{2/}	
2.1.8(a) Post-accident sampling	
Design review complete	A
Preparation of revised procedures	A
Implement plant modifications	B
Description of proposed modification	A
2.1.8(b) High range radioactivity monitors	B
2.1.8(c) Improved in-plant iodine instrumentation	A
3. Establish Emergency Operations Center for Federal, State and Local Officials	
(a) Designate location and alternate location and provide communications to plant	A ¹
(b) Upgrade Emergency Operations Center in conjunction with in-plant technical support center	B

^{1/}
Category A: Implementation prior to OL or by January 1, 1980 (see NUREG-0578).
Category A¹: Implementation prior to OL or by mid-1980.
Category B: Implementation by January 1, 1981.

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^{2/}
The implementation of the Lessons Learned task force recommendation item 2.1.3(b) instrumentation for detection of inadequate core cooling, will also be factored into the action level criteria.

<u>Item</u>	<u>Implementation Category</u>
4. Improve offsite monitoring capability	A ¹
5. Assure adequacy of State/local plans	
(a) Against current criteria	A ¹
(b) Against upgraded criteria	B
6. Conduct test exercises (Federal, State, local, licensee)	
(a) Test of licensees emergency plan	A ¹
(b) Test of State emergency plans	A ¹
(c) Joint test exercise of emergency plans (Federal, State, local, licensee)	
New OL's	B
All operating plants	Within 5 years