ORG Action Plan

August 8, 1979

by

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NRC ACTION PLAN FOR EMERGENCY PREPAREDNESS

On July 17, 1979, the NRC published -- for 45 day public comment -- an advance notice of proposed rulemaking on emergency planning. This notice requested comment on fourteen specific issues developed by the Task Force and the staff. The Commission further stated that this expedited rulemaking was expected to be completed within six months.

Each of the fourteen issues is relevant to the ultimate decision of the Commission. The discussion of this paper, however, has concentrated on Issues 3 and 4, which seem most relevant to the near-term NRC decision on a final rule.

These issues are restated below:

"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 implications of these two issues, if they ~~be~~ are accepted as the bases for changes in 10 CFR 50, Appendix E, are these:

- What criteria will be required for concurrence?
- How will these criteria be evaluated?
- How will the concurrence process be integrated into the NRC licensing responsibility?
- What schedule for completion of the requirement is reasonable, equitable in application, and within the resources available or likely to become available to the NRC.
- How soon can NRC regulations be developed to provide equally stringent and equitable protection of public health and safety for nuclear facilities other than power plants, and what nonpower facilities should be included?

There are many levels of action associated with Issues 3 and 4, and each level of action will bear a corresponding cost. One could say, but with limited credibility, that revision of CFR Part 50, Appendix E will adequately address these two issues, and that the current organization can meet the new requirements by slight augmentation of the current NRC staff. On the other hand, one could cost out the most extreme recommendations for yearly full-scale evacuations and prove that such action is no more credible, because of high cost, and the basic truth that citizens have little tolerance for the inconvenience of drills designed to prepare for a low-likelihood disaster.

One must presume that the long-range action plan will steer between these two extremes. Above all, we should be reluctant to set deadlines which are too short, or to promise more than we can deliver. Any change in rules will have no real impact until regulations and guidance have been coupled with a trained staff capable of implementing the objectives of that rule.*

II. Summary and Conclusions

It is generally accepted that recommendations for short-run actions by the NRC to include final publication of a new rule, should be completed by the end of calendar year 1979. The duration of the period of long-term actions by which NRC will implement and enforce the new rule has not been set. It can be inferred, logically, from a review of current legislative proposals, that NRC will have to demonstrate an increased ability to evaluate the adequacy of State-local-licensee plans for emergency response by no later than June of 1980, and have a long-run action plan and schedule developed prior to that time.

Table 1 is a proposed schedule which generally describes the decision points and milestones which must be met if the Commission's intention for short-run action is to be met.**

Recommendations for development of a long-range plan of action are discussed in section VI. of this report.

TABLE 1

PROPOSED SCHEDULE FOR SHORT TERM EMERGENCY RESPONSE ACTIONS

17 July	Federal Register notice of proposed rulemaking.
10 August	Final report to the Commission by the Task Force on Emergency Planning. Task Force on Emergency Planning is dissolved.
31 August	End of public comment period on notice of proposed rulemaking.
15 October	SD forwards analysis of public comments on notice of rulemaking to include suggested modifications to Appendix E. (Commission briefing)
22 October	Commission completes review of draft rule.
25 October	Draft rule published for 45 day comment.
21 September to 31 October	SD initiates recommended revisions to Parts 30, 40, 50 and 70, and Regulatory Guides 1.101, 3.42 and 2.6. IE revises Manual Chapter 0502.
16 November	Comment period on rule closes.
14 December	SD completes analysis of comments and incorporates into a final rule. (Commission briefing)
17-31 December	Commission completes review of final rule.
15 January	Final rule published.

* See "National Planning for Peacetime Nuclear Emergencies (PNE) 1975-1979," submitted separately to the Commission July 17, 1979," for more on difficulties in emergency planning and preparedness.

** This schedule agrees with guidance in a memo, Chilk to Gossick, July 31, 1979, Subject: "Commission Guidance on Emergency Planning Rulemaking.

III. NRC Office Responsibilities and Current Capabilities For Emergency Preparedness

Figure 1 summarizes the emergency preparedness responsibilities of NRC at the time of TMI. The numbers of man years of staff support assigned by each office are included, in parentheses, for each office.

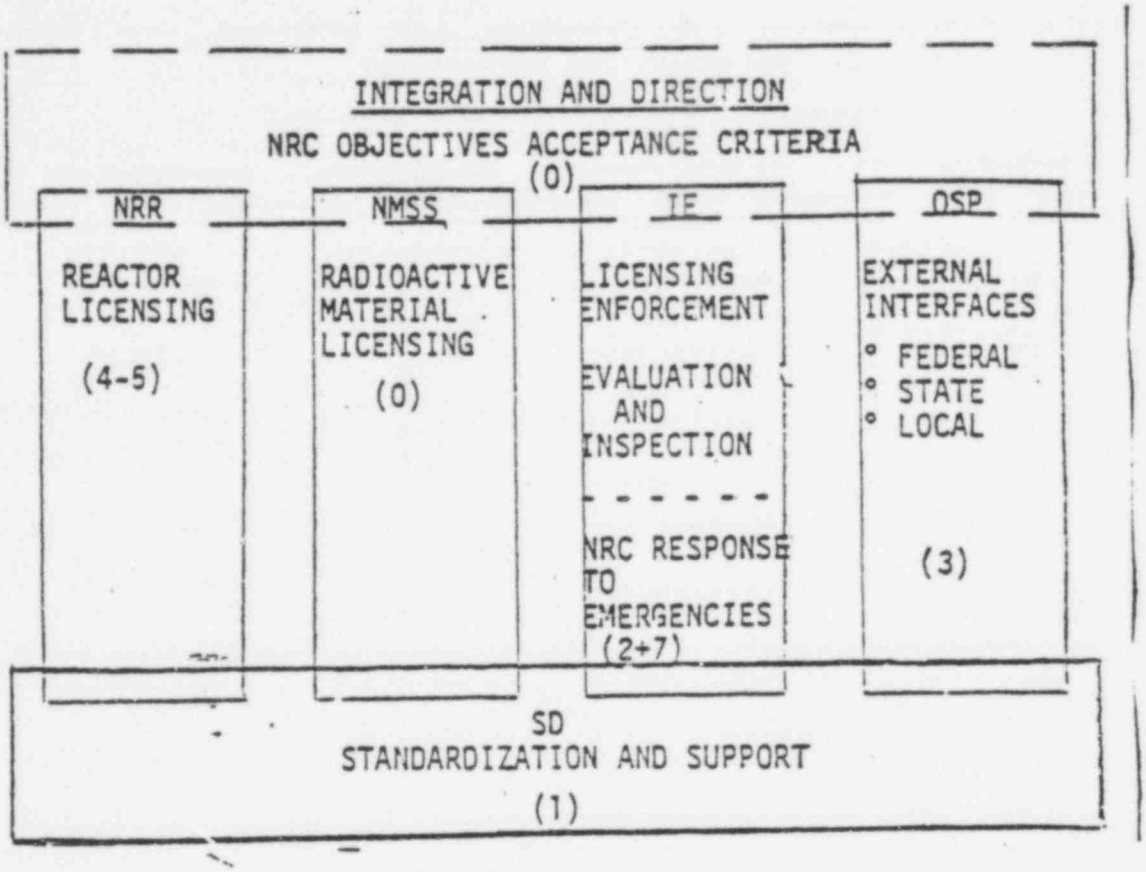


Figure 1

NRC EMERGENCY RESPONSE (March '79)

At the time of TMI, Office of Nuclear Reactor Regulation devoted four to five man years to emergency planning and licensing. Although Office of Nuclear Material Safety and Safeguards had no staff assigned on a primary basis, the licensing staff devoted some effort as a part of licensing functions primarily in evaluation of plans responsive to 10 CFR Part 70.22.* Office of Inspection and Enforcement estimates that two man years were applied at the headquarters level for emergency planning and for maintaining the Incident Response Center, and the equivalent of seven of the regional staff assisted Office of State Programs' field effort to aid state and local planning. Regional inspectors also made limited evaluations of emergency

* At the request of Office of Nuclear Material Safety and Safeguards, the Office of Nuclear Reactor Regulation provided limited assistance in these pre-licensing reviews.

plans, as part of the inspection program. Office of State Programs had a staff of three, one of whom was engaged full-time in field assistance. Additionally, two Office of State Programs' liaison officers, assigned full-time to Regions I and V, spent about one quarter of their time on emergency preparedness. Office of Standards Development had one man to perform the total function of standardization and support of regulation and guidance development.

In summary, about sixteen staff years were devoted to emergency planning. Supporting funds, most of which were administered by Office of State Programs, were less than one million dollars annually. No full-time staff was identified as primarily responsible for integration and direction of NRC policy, but it was generally accepted that Office of State Programs and Office of Nuclear Reactor Regulation shared lead responsibility for this function.

IV. NRC Requirements and Needs

The action plans which each office submitted to the Task Force estimated that a total of at least forty five additional man years of effort will be required to perform the NRC mission effectively, if the new rule requires NRC approved plans before licensing and periodic follow-on tests, drills or evaluations, as a condition of authority to operate.*

Figure 2 shows the additional staff** which Office plans project as needed.

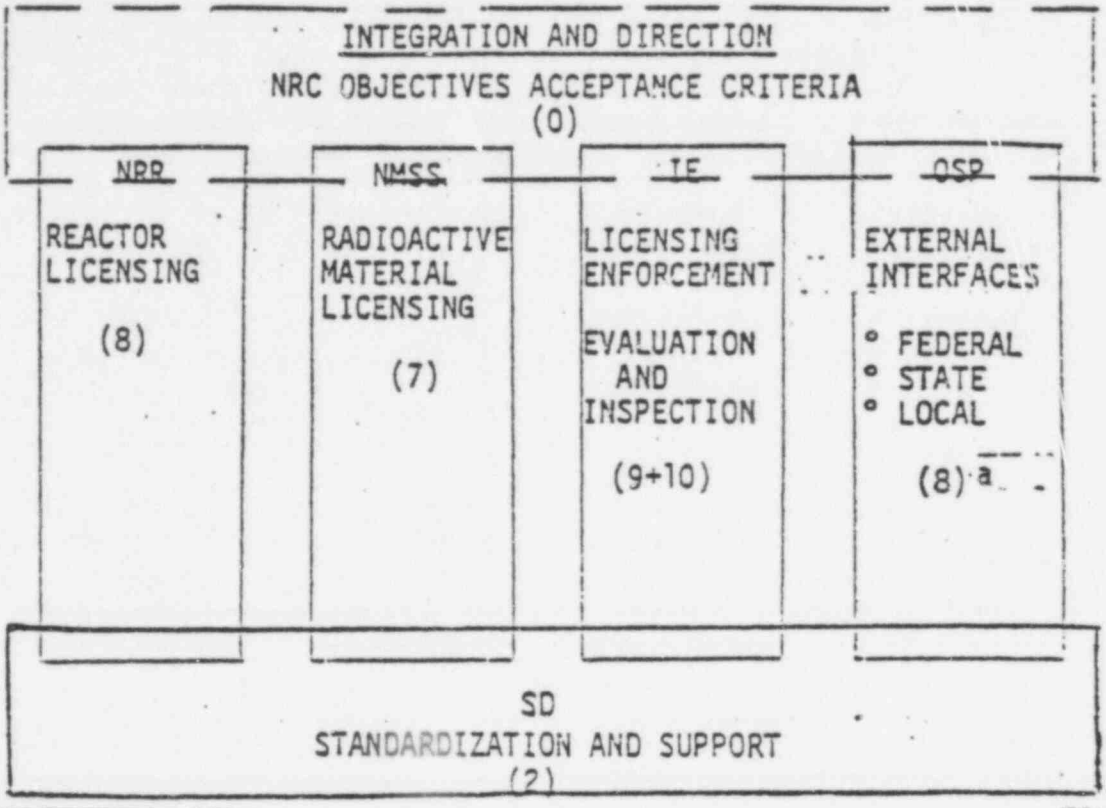
The increase in Office of Nuclear Reactor Regulation is designed primarily to provide Office of Nuclear Reactor Regulation leadership to six evaluation/instruction teams. These teams would be further augmented by six full-time consultants (one per team).

Office of Nuclear Material Safety and Safeguards, within its own resources, has reorganized to create an Environmental Radiation and Emergency Support Section, at a strength of seven. Additionally, it is expected that an equivalent level of staff support will be required to evaluate licensee response to new rules requiring emergency plans.

The Office of Inspection and Enforcement headquarters' need includes five watch officers (the minimum number needed to support full-time manning of the Incident Response Center) and four to support planning and operations. Additionally, Office of Inspection and Enforcement estimates that ten additional regional inspectors will be needed to increase the stringency and thoroughness of emergency plan and test evaluation for power reactors. Resources for inspection of material licensees and transportation are not included.

* Some augmentation of staff support would have been needed even if a new rule were not implemented, simply to apply current regulations and programs for State assistance more stringently.

** These figures do not reflect the additional staffing which would be required to implement the Hart bill or similar legislation currently being considered by Congress.



a These eight spaces were included in recommendations from the Director, Office of State Programs to the Executive Director for Operations, in a memorandum of April 10, 1979. There is also a provision in the Senate NRC Authorization Bill for FY80 (S.562), which states that there "shall be made available to the Office of State Programs . . . support for eight additional positions for training and assistance to State and local governments in radiological emergency response planning and operations and for review of State plans."

Figure 2
NRC EMERGENCY RESPONSE REQUIREMENTS

The Office of State Programs' additional requirement of eight is generally split between increase of its quasi-regulatory field role and an increased requirement for interagency planning and coordination.

Two additional staff members at Standards Development are required, because of the almost immediate need to revise the whole structure of NRC regulations into conformity with the expected results of the current rulemaking decision.

V. NRC Objectives for Emergency Response and Preparedness

Before any final recommendations for total staffing can be made (NRC-EDO action plan section VI.) it seems useful to define the objectives which the Commission is willing to accept.

In the course of its work, the Task Force developed a hierarchy of NRC objectives which, at least implicitly, reflects the current desires of the Commission. These objectives include the following:

- A considerably expanded emergency operational capability, with associated command and control structure and a capability for rapid deployment to emergency sites.
- An increased ability to monitor radiological release in the environs of a nuclear facility, after an accident.*
- A total reexamination and revision of all current regulations and guidance, to ensure that they conform with the new rule, and apply equally to all types of nuclear facilities.
- An expanded program of training (staff, licensee, local, State) to ensure that the new rule be credibly and consistently enforced.
- A better method to handle the complex problems of State-local-licensee interface.
- A straightforward and pre-announced NRC policy for dealing with public affairs during emergencies, and a greater assumption of responsibility for requiring public education before accidents.

VI. An NRC Action Plan

A. Short Range

A plan for short-range action was described in Table 1. This schedule generally conforms to current Commission guidance. The schedule is extremely demanding and will not be attainable unless it is forcefully supervised and coordinated by the Executive Director for Operations. Continuation of the Task Force on Emergency Planning would not be a satisfactory solution for two reasons:

- The Task Force lacks clear authority to compel interoffice participation on a sustained basis, and
- The efforts of Task Force members are frequently diluted by their attention to the responsibilities and demands of their current assignments.

* This specifically includes the assumption that NRC will play a stronger role in the development of Interagency Radiological Assistance Plan monitoring resources and requires that NRC accept both moral and legal responsibility, as the lead agency for accident monitoring.

B. Long Range

1. Summary Conclusions

- The current long-range action plans submitted by the NRC offices provide a preliminary basis for formulation of a long-range NRC action plan.

- The manpower requirements projected by these office plans imply increase by a factor of 3 in the NRC staff strength assigned to emergency preparedness.

Recommendations

° The Task Force on Emergency Planning should be dissolved.

° Emergency preparedness will require high-level management attention for at least two years. An organizational mechanism should be created which will better focus the attention of the Executive Director for Operations and the Directors of Office of Nuclear Reactor Regulation, Office of Nuclear Material Safety and Safeguards, Office of Inspection and Enforcement, Office of State Programs, Office of Standards Development, and Office of Nuclear Regulatory Research. Their representatives should be allowed to function so that NRC's Emergency Preparedness activities are meaningfully integrated and directed. Adherence to the requirements of the short-run schedule (Table 1) must be ensured. Below is a summary of the attributes which this organizational mechanism must possess:

  - Authority to directly represent Office Directors and the Executive Director for Operations in coordinating interoffice Emergency Preparedness activities and resolving resource conflicts.

  - Capability to assure consistency and uniformity of Emergency Preparedness activities and to make a continuing assessment of the overall emergency preparedness program.

  - Capability to coordinate Commission responses to Congress, Executive Branch, State/local governments, etc., on emergency preparedness.

  - Capability to represent the NRC in interagency emergency preparedness activities.

  - Capability to coordinate emergency preparedness technical assistance and research programs.

° A position entitled "Technical Assistant to the EDO for Emergency Preparedness" should be created and further designated Chairman* of an NRC Emergency Preparedness Committee. A representative for each of the Directors of Office of Nuclear Reactor Regulation, Office of Nuclear Material Safety and Safeguards, Office of Inspection and Enforcement, Office of State Programs, Office of Standards Development, and Office of Nuclear Regulatory Research should be assigned to be a member of the Emergency Preparedness Committee. The Emergency Preparedness Committee should serve as the organizational mechanism to implement the above recommendations.

* As an alternative to a Technical Assistant to the Executive Director for Operations chairing this committee, the committee could elect its own chairman, or the Executive Director for Operations could appoint the chairman from among the committee membership.

Discussion of Problem Topics

B-1--For the emergency planning process, there is no effective mechanism within NRC for assuring consistency and the integration of guidance, i.e., the effort is currently fragmented.

Emergency planning cuts across several NRC office lines during the process of generating guidance to licensees and others. However, there are no effective NRC-wide procedures in place or organizational arrangements established to ensure that adequate and clear guidance results. This is particularly important in view of the many interfaces involved, including the licensee, State, local and other Federal agencies.

Currently, several organizations within the NRC can and do issue guidance to licensees without the required knowledge of or concurrence by other organizations before the fact. This includes the Offices of Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Standards Development, and Inspection and Enforcement. Also, the Office of State Programs does the same for other than licensee organizations/agencies, without a required coordination with or concurrence by the other NRC organizations named. Although informal internal coordination among interested parties is practiced, it is by no means certain that all coordination that is needed is performed. Since some of the coordination is verbal, it is not easy to observe or reconstruct.

Specific Problems--B-1

1. In its July 17, 1979 Advance Notice of Rulemaking, the following statement is made:

"The Nuclear Regulatory Commission, in discharging its statutory responsibilities to protect the public health and safety, has given its primary attention to aspects of the reactor site and the facility design. In this regard, emergency planning, including evacuation planning, has been conceived of as a measure that adds to the level of public protection.

"To aid state and local governments in the development and implementation of adequate emergency plans, the NRC . . . has attempted, on a cooperative and voluntary basis, to provide for the training and instruction of State and local government personnel and to establish criteria to guide the preparation of emergency plans. (Underlining added.) . . . However, the NRC has not considered it necessary to require that State and local emergency plans contain all the elements that the NRC suggests are essential as a condition to issuance of an operating license to a nuclear power plant."

2. The "currently fragmented" effort of NRC can be partially blamed on the level of effort which has been applied. Coordination among five different offices (Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Inspection and Enforcement, Standards Development, and State Programs) is time-consuming, and inconsistencies and lack of integration have occurred.

Action Plan (Short-Term)--B-1

1. Lead offices should be recognized for each of the following areas of responsibility:
   - NRC command and control (to include the Incident Response Center) (Inspection and Enforcement)
   - Radiological monitoring, to include equipment identification and development of IRACT response (Inspection and Enforcement)
   - Site licensing, to include retroactive actions and new rule development (Nuclear Reactor Regulation or Nuclear Material Safety and Safeguards)
   - Training and staff assistance to licensees and state and local government (State Programs)
   - Public information policy during emergencies (Public Affairs)

2. The assignment of these responsibilities should remain unchanged. Additionally, a new Emergency Preparedness Committee should be established to provide a focal point for emergency preparedness staff action.

E-6--There is a need, during an actual emergency, for a near-to-the-site facility to house the multi-agency coordination and response support activity.

For sustained operations of a remote NRC response team, efficiency of the participants, including the licensee, will be hampered unduly unless provisions are made for offsite, but nearby, work space for NRC and others. This includes both coordination and support activities. Floor space and support equipment need to be defined and arrangements made, including communications terminals and storage for data brought with the team, or accumulated during the emergency.

Specific Problems--E-6

Long-term action should be deferred until the results of current appraisals, e.g., Mattson task group, MITRE report, and the Sandia scoping study are completed. Interim and short-term actions by the Office of Inspection and Enforcement should not hamper or fix the long-term action.

Action Plan (Long-Term)--E-6

1. Inspection and Enforcement, because of its strong regional organization, is the probable lead office.

2. Close coordination with FEMA and IRACT will be required to define responsibilities and to avoid overlap. This applies particularly to coordination of IRAP resources with DOE.

3. Drills or tests of response plans should be closely integrated into the program.

4. Modular concepts should be specifically explored.

5. Initial priority should be given to radiological monitoring.

6. Inspection and Enforcement should be the lead office, with the Offices of Nuclear Material Safety and Safeguards and Nuclear Reactor Regulation primarily responsible for providing technical personnel and equipment for mobilization of the response teams.

E-8--Procedures for public information dissemination are not adequate to protect the public from alarming and contradictory statements during the evolution of an emergency.

An adequate emergency response plan must include an effective system for informing the public, for updating the information as new developments occur, and for retracting information when it is found to be in error. Mistaken or false opinions which emanate from an emergency control center can cause damage to the public in excess of the severity of the emergency in progress. For this reason, early identification of information sources, concurrence in factual information released, and frequent updating of public information should be formalized in the planning process.

Specific Problems--E-8

This problem topic should not be difficult to solve. A plan for information policy during future emergencies should be developed by the Offices of Inspection and Enforcement, Nuclear Reactor Regulation, and Nuclear Material Safety and Safeguards (Inspection and Enforcement lead) and the Office of Public Affairs. The plan should then be circulated, for comment, to appropriate Federal agencies, the governors of all concerned states, and licensees.

Action Plan--E-8

The circulated plan should include, as a minimum, the following:

- Designation of a primary NRC spokesman (Executive Director for Operations or Commission Chairman, or a designated Commissioner)

- A pre-announced schedule of statements, press conferences and bulletins should be written. This would includ discussion of:
  - source term monitoring results
  - build-up of emergency response assets
  - relationships with cooperating agency spokesmen
  - relationship with State and local designated spokesmen
  - relationship with licensee spokesmen
  - specific areas of NRC lead authority

F-1--There has never been an NRC-wide audit of the emergency response function.

Although NRC requires an audit program associated with major or significant licensees, NRC has not applied a similar mechanism to itself for the emergency planning and response function. Many of the problem areas noted in this critique would probably have been detected by such a process.

Discussion--F-1

NRC should make a self-audit of the agency emergency preparedness program in 1980.