J. Conran

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

MEMORANDUM FOR: Edward L. Jordan, Chairman
Committee to Review Generic Requirements

FROM: Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

SUBJECT: CRGR REVIEW OF A PROPOSED RULE ON EMERGENCY PREPAREDNESS RELATING TO PART 52 LICENSING FOR NUCLEAR POWER PLANTS

Enclosed for CRGR review is a copy of a draft Commission Paper containing a proposed rule on emergency preparedness for Part 52 licensing of Nuclear Power Plants. Twenty additional copies are being sent under separate cover directly to Jim Conran. I would appreciate review by the CRGR in January.

The planned schedule is:

ACRS Subcommittee and CRGR Review	January 1990
Full ACRS Review	February 8, 1990
Submission to EDO	March 1, 1990
Submission to Commission	March 30, 1990

Enclosure 3 to the draft Commission paper contains a discussion of the factors required by 50.109(c). Based on this discussion, we conclude that:

(a) the public health and safety and the common defense and security would be adequately protected if the proposed rule were implemented, and

(b) the cost savings attributed to the action would be substantial enough to justify taking the action.

The staff project manager is Mike Jamgochian, 492-3918. Please contact Mr. Jamgochian if additional information is required.

Eric S. Beckjord

Eric S. Beckjord, Director
Office of Nuclear Regulatory Research

Enclosure: Draft Commission Paper with
Proposed Rule on
Emergency Preparedness

PREDECISIONAL

For: The Commissioners

From: James M. Taylor
Executive Director for Operations

Subject: EMERGENCY PREPAREDNESS RULEMAKING RELATING TO PART 52 LICENSING FOR NUCLEAR POWER PLANTS

Purpose: To obtain Commission approval for publication in the Federal Register of a proposed regulation.

Background: In a memorandum dated June 29, 1989 from EDO to the Commission, the staff provided an analysis and review of the emergency planning regulations and proposed revisions designed to eliminate unclarity and ambiguity. In this memo the EDO stated that "... the staff [has] identified a potential problem regarding governments withdrawing from participation in emergency planning, specifically participation in emergency planning exercises which would be required before licensing and periodically thereafter during construction and operation." Additionally, "rulemaking could clarify the application of the "realism" provisions of 10 CFR 50.47(c)(1) to plants with operating licenses. Other changes may be needed to deal with the issue of State or local government withdrawal near the completion of construction. Another issue for which rulemaking may be needed relates to those portions of the plan which cannot be exercised prior to issuance of the combined license. For example, although a pre-licensing exercise could be developed to include the major observable elements of the onsite and offsite plans, some aspects of the plans would be difficult to demonstrate prior to construction of the facility (e.g., the control room and emergency response facilities). If portions of the plans were exercised for the first time in post-licensing tests, the results might be subject to an opportunity for hearing relatively late in the process."

In the staff requirements memo dated September 12, 1989 (COMKC-89-8) the Commission directed the staff, on a high priority basis, to develop a rule change which would determine

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whether exercise timing and frequency can be detached from the authorization to operate a nuclear power plant under a combined license.

Discussion: After the 1979 accident at Three Mile Island (TMI) the Commission, for the first time, required offsite emergency plans as a condition of a nuclear reactor operating license. Up to that time, state and local governments prepared such emergency plans on a voluntary basis, if at all. Following the TMI incident, the President's Commission on the Accident at Three Mile Island found that "the [emergency offsite] response was dominated by an atmosphere of almost total confusion." Report of the President's Commission on the Accident at Three Mile Island-The Need for Change: The Legacy of TMI p. 17 (1979). The President's Commission recommended that in the future, before a utility was granted an operating license, offsite emergency response plans should be developed by state authorities, evaluated by the Federal Emergency Management Agency (FEMA), and the means for implementing them put in place.

As a result of experiences during the TMI accident, the Commission announced that it now "view[ed] emergency planning as equivalent to ... siting and design in public protection." 44 Fed. Reg. 75169 (1979) (proposed rule on emergency response plans). In 1980, after rulemaking proceedings, the Commission published a rule addressing offsite emergency preparedness. This rule provides that no operating license for a nuclear power reactor will be issued unless a finding is made by NRC that the state of onsite and offsite emergency preparedness provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. FEMA is to make findings and determinations on whether offsite "emergency plans are adequate and whether there is reasonable assurance that they can be implemented." The Commission in turn will base its findings on the state of emergency preparedness on FEMA's findings, which constitute a rebuttable presumption as to the adequacy and implementation capability of the emergency plans. 10 CFR 50.47(a).

The rule, however, expressly conditions licensing of plants on satisfaction of sixteen specific standards for emergency preparedness plans. One of those standards requires that:

> [p]eriodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises are (will be) corrected. 10 CFR 50.47(b)(14).

The 16 standards are refined and particularized in NUREG-0654, FEMA-REP-1, Rev. 1 , Criteria for Preparation and Evaluation of

Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

In addition, for new plants, the regulations provide that:

> [A] full scale exercise which tests as much of the licensee, State and local [onsite and offsite] emergency plans as is reasonably achievable without mandatory public participation shall be conducted ... within one year before issuance of the first [full power] operating license. 10 CFR Part 50, Appendix E, Section F1 (1983).

As originally promulgated, the rule said nothing specific either way about including the results of these compulsory exercises within the scope of the licensing authorization hearing.

Subsequent to the promulation of the 1980 Emergency Preparedness regulations, the following rule changes and court cases have brought us to our current desire to propose the rule change enclosed.

1. The 1982 Exercise Rule change which stated that emergency planning exercises were part of the operational inspection process and are not required for any initial licensing decision.

2. In UCS vs. NRC (D.C. Cir., 1984) the court, in invalidating the 1982 Exercise Rule change, stated that the evaluation of an EP exercise is not a determination resting solely on a test or inspection (rather the Commission weights evidence from FEMA, the licensee and state and local officials as well as the staff) and used the results of exercises in the licensing decision process and therefore does not qualify for the Administrative Procedures Act generic exemption to the requirement for a formal hearing.

3. Chemical Waste vs. EPA (D.C. Circ., 1989) the court reversed the requirement for a formal, on the record hearing, but left stand the requirement from the UCS case that there be a hearing of some form for issues material to a licensing decision.

4. Promulgation of the Realism Doctrine (1987) which specifically provides that it will be assumed, absent convincing evidence to the contrary, that state and local governments will exert best efforts in an actual emergency and will generally follow a utility plan if one is available. 10 CFR 50.47(c). In the same rulemaking the Commission amended Appendix E, providing that the participation of state and local governments in an emergency exercise is not required to the extent that the applicant has identified

those governments as refusing to participate further in emergency planning activities. The realism rule was challenged and upheld in federal court. Commonwealth of Massachusetts v. NRC, 856 F.2D 378 (1st Cir., 1988).

5. Promulgation of 10 CFR Part 52 (1989) which is intended to achieve early resolution of licensing issues and enhance safety and reliability of NPP's.

With all of the above mentioned changes in the emergency preparedness arena the staff is now faced with a desire to resolve two fundamental issues using the attached rule change.

Issue 1. In light of the current status of emergency planning, how should the Commission now treat the results of exercises in making the determination of whether to issue an operating license or a combined operating license.

There are two reasons for the Commission's consideration of this issue. One reason is that the issue of how to, or whether to, litigate the results of emergency planning exercises has the potential to frustrate the purposes behind the promulgation of Part 52. Specifically, if a significant issue concerning licensing is not resolved at an early stage of the construction of a nuclear power plant, then the goals of providing predictability, early review of safety issues, and earlier more meaningful public participation in licensing decisions will be frustrated. Because Part 52 sets into place a different licensing process for future nuclear power plants, it is necessary to examine how emergency exercises fit into that licensing scheme. A second reason to address this issue is that the passage of time has placed the Commission in a very different position than it was in originally when promulgating the emergency planning requirements. Since the time of the UCS case, the Commission has gained experience through hundreds of emergency planning exercises conducted by licensees. Both FEMA and the NRC have issued significant additional guidance on the appropriate content of emergency plans. In addition, the Commission, through its Appeal Board, has provided a definition of the term "fundamental flaw" as applied to emergency plans.

In practice, pre-licensing exercises for Comanche Peak, Shoreham and Seabrook, the only plans exercised since the fundamental flaw criteria has been articulated, have not revealed a fundamental flaw in the plans despite heavy scrutiny. Actual practice virtually precludes the uncovery of a fundamental flaw during an exercise. The staff customarily conducts a two week inspection of the emergency facilities, procedures and personnel prior to allowing the utility to conduct a pre-licensing

exercise. Thus, the exercise would not be permitted if a fundamental flaw existed in the plan. There are no known instances in the recent past where a pre-licensing exercise revealed a significant failure of an essential element requiring significant revision of the plan. There have been deficiencies which could be and were readily corrected. Nonetheless, the staff is currently conducting a study of all pre-licensing exercises in order to determine the extent of major deficiencies (similar to fundamentals flaws that may have surfaced during exercises).

Thus, it is appropriate for the Commission to consider whether the regulations should be modified to reflect the realities of emergency planning as it exists today.

Issue 2. How should the Commission address the emergency planning requirements where there is a lack of cooperation or withdrawal of state and local government emergency planning cooperation for operating plants, and for those receiving combined operating licenses (Part 52).

In the rulemaking titled "Evaluation of the Adequacy of Offsite Emergency Planning for Nuclear Power Plants at the Operating License Review Stage where state and/or local Governments Decline to Participate in Off-Site Emergency Planning (52 FR 42078, Nov. 3, 1987) the Commission partially resolved this issue for those applicants seeking new operating licenses.

Nonetheless, the staff now sees a need to resolve this issue for operating plants and for applicants seeking a combined license (Part 52). For operating licenses the staff feels that the same logic used for new operating licensees is applicable for operating plants. See 52 Fed. Reg. 42078 (Nov. 3, 1987). Therefore the staff proposes revising 10 CFR 50.54 in the same manner as the Commission stated when amending 50.47 as it applied to those seeking an initial operating license, "[i]n actual emergencies state, local, and federal officials have invariably done their utmost to protect the citizenry, as two hundred years of American history amply demonstrates." The staff believes that reality is as applicable to operating plants as it is to plants seeking initial licensing.

For applicant's seeking a combined license (Part 52) the staff has two alternative approaches, each with merit and each with pitfalls but both accomplishing the same goal - to assure early

resolution of safety and environmental issues in licensing proceedings.

These alternative approaches along with their pros & cons are:

Alt 1: To require a utility emergency plan as a backup to the preferable state and local plan.

Pro: 1. A utility plan would be developed, in place and approved if a state became uncooperative.

2. A utility could not be held hostage by the threat of lack of cooperation by a state or local government.

3. There would be no delay in licensing or operation in the eleventh hour if a state or local government does not wish to cooperate.

4. The changing of elected officials in the state would not effect the continued operation of a plant.

Con: 1. A state may decide not to participate in any emergency planning because the utility would be required to develop the plan.

2. The focus of a utility's attention and effort may be split between two plans, delaying completion of the plans.

Alt 2: To permit a utility emergency plan as a backup to the preferable state and local plan.

Pro: 1. For initial licensing, the state would have the incentive to develop the plan and cooperate.

2. The utility would have the option of focusing efforts on one plan at a time rather than splitting attention and effort between two plans.

Con: 1. If a state decided to not continue its cooperative efforts the operation of a plant could be jeopardized.

2. A significant delay would be experienced if a utility needed to develop, exercise and obtain approval of a plan in the eleventh hour.

3. A utility could still be held hostage by the threat of lack of cooperation by a state or local government.

The Commission should consider which of these alternatives would be preferrable for assuring effective emergency plans are in place when a facility is ready for operation. Accordingly, it is recommended that the Commission request comments on both of the above alternatives.

Summary of Proposed Changes

In conclusion the enclosed proposed rulechange accomplishes the following:

1. Establishes that emergency plans and exercise acceptance criteria are material to a licensing decision thus removing the need to conduct an exercise prior to issuing a combined operating license (Part 52).

2. For those receiving an operating license, the emergency planning exercise is now part of the pre-operational inspection process and training program and therefore not required for any licensing decision.

3. The use of the realism doctrine is expanded to operating reactors and for those receiving a combined operating license (Part 52).

Coordination: RES and NRR have concurred in these recommendations.

OGC has reviewed this paper and has no legal objection.

The ACRS and CRGR have reviewed this paper.

Recommendation: That the Commission:

1. Approve a notice of proposed rulemaking (Enclosure 1).

2. Certify that this rule, if promulgated, will not have a significant economic impact on a substantial number of small entities in order to satisfy the requirements of the Regulatory Flexibility Act [5 U.S.C. 605(b)].

3. Note:

   a. The proposed rule would be published in the Federal Register for a 75 day public comment period.

   b. Appropriate Congressional committees will be notified of the proposed rule change.

c. An environmental assessment prepared in connection with the subject amendment indicates that the proposed rule would not have substantive or significant environmental impact (Encl. 2).

d. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the reasons for its as required by the Regulatory Flexibility Act.

e. That this proposed rule contains no information collection requirements subject to the Paperwork Reduction Act of 1980 (44 U.S.C 3501 et seq.).

f. A public announcement will be issued when the proposed rule is filed with the Office of the Federal Register.

g. A discussion of the backfit factors required by 10 CFR 50.109(c) is included as Enclosure 3.

Sunshine Act: Recommend consideration at an open meeting.

James Taylor
Executive Director for Operations

Enclsoures: 1. Federal Register
Notice of Proposed
Rulemaking
2. Environmental Assessment
3. Discussion of Backfit Factors

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ENCLOSURE 1

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Production and Utilization Facilities;
Emergency Planning and Preparedness

AGENCY: Nuclear Regulatory Commission.

ACTION: Proposed Rule.

SUMMARY: The Nuclear Regulatory Commission is considering revising its regulations in 10 CFR Part 50, to address the relationship of emergency planning exercises to Commission licensing decisions. The Commission is also clarifying its position relating to state and local government failure to participate in emergency planning or emergency exercises for operating power plants.

DATES: The comment period expires 75 days after publication in the FEDERAL REGISTER. Comments received after [end of comment period] will be considered if practical to do so, but only those comments received on or before this date can be assured of consideration.

ADDRESSES: Comments may be sent to the Secretary of the Commission, Attention: Docketing and Service Branch, U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, or may be hand-delivered to One White Flint North, 11555 Rockville, Pike, Rockville, MD 20852, between 7:30 a.m. and 4:15 p.m. weekdays. Copies of comments received may be examined at the Commission's Public Document Room at 2120 L Street N.W., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Michael T. Jamgochian, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 Telephone (301-492-3918); Edward M. Podolak, Office of Nuclear Reactor

Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555 Telephone (301-492-3167); Bradley W. Jones, Office of General Counsel, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Telephone 301-492-1637.

SUPPLEMENTARY INFORMATION:

I. Background

After the 1979 accident at Three Mile Island (TMI) the Commission, for the first time, required offsite emergency plans as a condition of a nuclear reactor operating license. Up to that time, state and local governments prepared such emergency plans on a voluntary basis, if at all. Following the TMI incident, the President's Commission on the Accident at Three Mile Island found that "the [emergency offsite] response was dominated by an atmosphere of almost total confusion." Report of the President's Commission on the Accident at Three Mile Island-The Need for Change: The Legacy of TMI p. 17 (1979). The President's Commission recommended that in the future, before a utility was granted an operating license, offsite emergency response plans should be developed by state authorities, evaluated by the Federal Emergency Management Agency (FEMA), and the means for implementing them put in place.

As a result of experiences during the TMI accident, the Commission announced that it now "view[ed] emergency planning as equivalent to ... siting and design in public protection." 44 Fed. Reg. 75169 (1979) (proposed rule on emergency response plans). In 1980, the Commission published a final rule addressing offsite emergency preparedness. This rule provides that no operating license for a nuclear power reactor will be issued unless a finding is made by NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. FEMA is to make findings and determinations on whether offsite "emergency plans are adequate and whether there is reasonable assurance that they can be implemented." The Commission in turn will base its overall findings on the state of emergency preparedness on FEMA's findings and on the NRC assessment as to whether the applicants' onsite

emergency plans are adequate and whether there is reasonable assurance that they can be implemented.

The rule, however, expressly conditions licensing of plants on satisfaction of sixteen specific standards for emergency preparedness plans. One of those standards requires that

> [p]eriodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises are (will be) corrected. 10 CFR 50.47(b)(14).

The 16 standards are refined and particularized in NUREG-0654, FEMA-REP-1, Rev. 1 , Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants.

In addition, for new plants, the regulations provide that:

> [A] full scale exercise which tests as much of the licensee, State and local [onsite and offsite] emergency plans as is reasonably achievable without mandatory public participation shall be conducted ... within one year before issuance of the first [full power] operating license. 10 CFR Part 50, Appendix E, Section F1 (1983).

As originally promulgated, the rule said nothing specific either way about including the results of these compulsory exercises within the scope of the licensing authorization hearing.

[In some cases, licensing boards apparently authorized licenses without considering emergency preparedness exercises. See, e.g., Pennsylvania Power and Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), 15 NRC 771 (1982). In other cases, the licensing board conditioned its authorization upon exercises demonstrating the adequacy of the emergency preparedness plans. See, e.g., Southern California Edison Co. (San Onofre Nuclear Generating Station,

Units 2 and 3), 15 NRC 1163, 1210 (1982); cf. The Cincinnati Gas & Electric Co. (Wm. H. Zimmer Nuclear Power Station, Unit 1), 15 NRC 1549, 1566 (in hearing prior to exercises, the inability of FEMA witnesses to address details and problems of plan implementation precluded authorization), modified in relevant part, 17 NRC 760 (1983) (in light of the 1982 amendment to the rule on emergency preparedness, no need for licensing board to wait for final FEMA determination on adequacy of plans to hold further hearings). Prior to the amendment of the emergency preparedness rule, we are aware of no case in which the Commission or one of its licensing boards squarely addressed the issue of whether, in the face of a challenge to the lack of emergency exercises, the board could authorize a license prior to such exercises.]

The overall regulatory framework is further augmented by FEMA regulations set out in 44 CFR Part 350 and in a series of documents known as FEMA Guidance Memorandums. These documents, developed and refined as NRC and FEMA gained significant additional experience with Emergency Planning around nuclear power plants during the implementation of the 1980 emergency planning rule, provide a detailed framework for licensees' development of adequate emergency planning plans and organizations.

1982 Exercise Rulechange and Associated Court Cases

On July 13, 1982, the NRC issued an amendment to its rule on emergency preparedness, eliminating the emergency exercise as a prerequisite to authorization of a license, 10 CFR § 50.47(a)(2) (1983) [hereinafter referred to as the Amendment]. The Amendment, in part, added to the language of the original rule the following provision:

> Emergency preparedness exercises ... are part of the operational inspection process and are not required for any initial licensing decision.

The 1982 amendment left intact Appendix E's requirement that full scale exercises of emergency plans be held within one year before full power

operation and the original rule's requirement that identified deficiencies be corrected. In response to comments by interested parties, the Commission reiterated that "exercises[s] will [still] be held before full power [operation], and all significant deficiencies will be properly addressed." 47 Fed. Reg. 30233 (1982). The Commission's rationale for the Amendment was that it would allow exercises to be held at a time closer to full power operation of a plant, thereby making them more meaningful. See 47 Fed. Reg. 30233 (1982); and 48 Fed. Reg. 16693 (1983). The Commission stated in promulgating that Amendment that, "these exercises are treated as part of pre-operational testing of nuclear power plants, which as a matter of longstanding regulatory practice has been conducted in the post-adjudicatory phase of licensing." The Commission stated that its "evaluation of the exercise results ...[is] part of the administrative record for the licensing decision and thereby subject to judicial review." Id. In effect, the Commission retained evaluation of the offsite exercises as a licensing pre-requisite, but removed the exercises from the licensing hearing and made them a part of the licensee's pre-operational testing.

[The Commission said the Amendment merely clarified that the findings on emergency planning required by the original rule for issuance of a license, were "predictive in nature and need not reflect the actual state of preparedness at the time the finding is made." 47 Fed. Reg. 30232 (1982). However, in assessing the Amendment's effect on public participation, the Commission stated "the rule changes will have the likely effect of limiting litigation of the success of exercises in licensing hearings," 47 Fed Reg. 30233 (1982), thus acknowledging that the Amendment would to some extent modify the existing practices of exploring the exercise results in the licensing authorization hearing.]

Prior to the promulgation of the Amendment, several interested parties expressed concern that the change would eliminate public participation in the review and assessment of exercises. The Commission responded that "such assessments are not necessary to make the kind of predictive finding on emergency planning called for by the regulations prior to license issuance. It further noted that

an interested party may seek to reopen a concluded hearing or petition for rescission of a license should the "actual conduct of an exercise identify fundamental defects in the way that an emergency plan is conceived." Id. The Commission distinguished such fundamental defects justifying reopening of a hearing from those "which only reflect the actual state of emergency preparedness on a particular day in question." Id.

The Amendment to the regulations was challenged in federal court by the Union of Concerned Scientists. In a decision invalidating the Amendment the D.C. Court of Appeals concluded that, because the rule denied a right to a hearing on a material factor relied upon by the Commission in making its licensing decisions, the rule was issued in excess of the Commission's authority under Section 189(a). and the Amendment was vacated by the court. The Court, in invalidating the Amendment, stated that evaluation of radiological emergency exercises is not a determination resting solely on a test or inspection so as to qualify for the APA's generic exemption to the requirement for a formal hearing. UCS v. NRC, 735 F.2d 1437 (D.C. Cir., 1984). However, the same Court of Appeals in Chemical Waste Management, Inc. v. EPA ____F. 2d ____(D.C. Cir., May 5, 1989), reversed that portion of the UCS case that would have required formal, on the record hearings for emergency planning exercises. Id. slip op. at p.10. While the Chemical Waste court indicated that a formal hearing might not be required to meet a statutory hearing requirement such as appears in Section 189(a) of the Atomic Energy Act of 1954, as amended, it left stand the requirement from the UCS case that there must be a hearing of some form for issues material to a licensing decision.

Realism Doctrine and Executive Order 12657

The requirement that emergency exercises be the subject of pre-licensing hearings has been complicated by the decision on the part of several state and local governments not to participate in emergency planning for nuclear power plants being built in their areas. In response to this continuing complication, on November 3, 1987, the Commission published an amendment to

10 CFR 50.47, which amplified and clarified the guidance provided by the Commission in an adjudicatory decision issued in the Shoreham licensing proceeding. Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-86-13, 24 NRC 22 (1986). The rule incorporates the "realism doctrine", set forth in the Shoreham decision, which holds that, in an actual emergency, state and local governmental authorities will act to protect the public, and that it is appropriate for the NRC, in evaluating the adequacy of a utility's emergency plan, to take into account the probable response of state and local authorities, to be determined on a case-by-case basis. The rule adopting the "realism doctrine" specifically provides that it will be assumed, absent convincing evidence to the contrary, that state and local governments will exert best efforts in an actual emergency and will generally follow a utility plan if one is available. 10 CFR 50.47(c). In the same rulemaking the Commission amended Appendix E, providing that the participation of state and local governments in an emergency exercise is not required to the extent that the applicant has identified those governments as refusing to participate further in emergency planning activities. The realism rule was challenged and upheld in federal court. Commonwealth of Massachusetts v. NRC, 856 F.2d 378 (1st Cir., 1988).

Promulgation of 10 CFR Part 52

On April 18, 1989, the Nuclear Regulatory Commission promulgated a new set of regulations, appearing in 10 CFR Part 52, which provide for issuance of early site permits, standard design certifications, and combined operating licenses for nuclear power reactors. The new part sets out the review procedures and licensing requirements for applications for these new licenses and certifications. The Part 52 regulation is intended to achieve early resolution of licensing issues and enhance the safety and reliability of nuclear power plants, while at the same time enhancing public participation by providing the public the opportunity to provide meaningful comments before a proposed nuclear power plant has proceeded through construction. In promulgating these regulations, the Commission's goal was to have a sensible procedural framework

in place for the consideration of designs of enhanced safety, and to make it possible to resolve safety and environmental issues before plants are built, rather than after.

In language acompanying the publication of Part 52, the Commission discussed the use of hearings after construction of a nuclear power plant pursuant to a combined license. Because the assumptions and bases for the Commission's adoption of Part 52 are important to understanding the rule being proposed today, the Commission's statements which accompanied the promulgation of Part 52 are set out in some detail below. The Commission stated:

> The first issue concerning hearings after completion of construction under a combined license is whether there should be such hearings at all. Most commenters, whatever their affiliation, believe that there should be the opportunity for such hearings. They disagree only over how limited the hearings should be. DOE argues that there should be no such hearings at all. As the principal support for its argument, DOE cites the section of the Administrative Procedure (APA) which says, in effect, that adjudication is not required in cases in which the agency decision rests "solely on inspections, tests, or elections". See 5 U.S.C. 554(a)(3). Under Part 52's provisions on combined licenses, a combined license will contain the tests, inspection, and analyses, and acceptance criteria therefore, which are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will operate in conformity with the license and the Act. See § 52.97(b). DOE's argument amounts to the claim that the kind of tests and inspections spoken of in Part 52 is the same as the kind of tests and inspections spoken of in the APA.
>
> The Commission agrees that findings which rest solely on the results of tests and inspections should not be adjudicated, and the final rule so provides. See § 52.103. However, not every finding the Commission must make before operation begins under a combined license will necessarily always be based on wholly self-implementing acceptance criteria and therefore encompassed within the APA exception. The Commission does not believe that it is prudent to decide now, before the Commission has even once gone through the process of judging whether a plant built under a combined license is ready to operate, that every finding the Commission will have to make at that point will be cut-and-dried -- proceeding according to highly detailed "objective criteria" entailing little judgment and discretion in their application, and not involving questions of "credibility, conflicts, and sufficiency", questions which the Court in

UCS v. NRC, 735 F.2d 1437 (D.C. Cir. 1984), held were marks of issues which should be litigated at least under the facts of that case.

...Thus, the question becomes whether the rule must provide an opportunity for a post-construction hearing on the issues which are not excepted from adjudication by the APA. ...[E]very commenter who believes there should be such an opportunity also believes that an issue in the hearing should be whether construction has been completed in accord with the terms of the combined license, and the final rule so provides. Also, under Section 185 of the Atomic Energy Act, the Commission must find, prior to facility operation, that the facility has been constructed and will operate in conformity with the application and the rules and regulations of the Commission. This statutory finding, in the context of Subpart C of Part 52, translates into two separate but related regulatory findings: that compliance with the acceptance criteria in the combined license will provide reasonable assurance that the facility has been constructed and will operate in accordance with the Commission's requirements, and that the acceptance criteria have in fact been satisfied. The former finding will be made prior to issuance of the combined license, and will necessarily be the subject of any combined license hearing under Section 189a of the Act. The latter finding cannot by its nature be made until later, after construction is substantially complete, and therefore cannot by its nature be the subject of any hearing prior to issuance of the combined license. Thus, to the extent that an opportunity for hearing should be afforded prior to operation, it should be confined to the single issue that cannot have been litigated earlier - whether the acceptance criteria are satisfied.

...[10 CFR Part 52] adopts a straight-forward approach to limiting the issues in any post-construction hearing on a combined license. As a matter of logic, every conceivable contention which could be raised at that stage would necessarily take one of two general forms. It would allege either that construction had not been completed -- and the plant would not operate -- in conformity with the terms of the combined license, or that those terms were themselves not in conformity with the Atomic Energy Act and pertinent Commission requirements. The final rule makes issues of conformity with the terms of the combined license part of any post-construction hearing, unless those issues are exempted from adjudication by the APA exception for findings which are based solely on the results of tests and inspections. The final rule does not attempt to say in advance what issues might fall under that exception. ...Moreover, this limited opportunity for hearing is consistent with the Commission's belief that, even if Section 185 did not speak at all to the need for a conformity finding, the Commission itself would need to make such a finding prior to operation in order to conclude, in the language of Section 103, that operation is not inimical to the health and safety of the public. The final rule also provides that issues of whether the terms of the combined license are themselves inadequate are to be brought before the Commission under the provisions of 10 CFR 2.206. This approach to

issues concerning the inadequacy of the combined license is well-founded in the discretion afforded the Commission under Section 185 of the Act to determine what constitutes "good cause" for not permitting operation, and in the analogy which this approach has with the way construction permits are treated in operating license proceedings.
54 Fed. Reg. 15372 (April 18, 1989).

10 CFR Part 52 Emergency Planning Requirements

10 CFR Part 52 did specifically address emergency planning requirements for an early site permit and a combined license. For Early Site Permits the regulations provide at 10 CFR 52.17(b) that:

1) The application must identify physical characteristics unique to the proposed site, such as egress limitations from the area surrounding the site, that could pose a significant impediment to the development of emergency plans."

(2) The application may also either:

(i) Propose major features of the emergency plans, such as the exact sizes of the emergency planning zones, that can be reviewed and approved by NRC in consultation with FEMA in the absence of complete and integrated emergency plans; or

(ii) Propose complete and integrated emergency plans for review and approval by the NRC, in consultation with the Federal Emergency Management Agency, in accord with the applicable provisions of 10 CFR 50.47.

Under paragraphs (1) and (2)(i) of this subsection, the application must include a description of contacts and arrangements made with local, state, and federal governmental agencies with emergency planning responsibilities. Under the option set forth in paragraph (2)(ii) of this subsection, the applicant shall make good faith efforts to obtain from the same governmental agencies certifications (i) that the proposed emergency plans are practicable, (ii) that these agencies are committed to participating in any further development of the plans, including any required field demonstrations, (iii) that these agencies are committed to

executing their responsibilities under the plans in the event of an emergency. The application must contain any certifications that have been obtained. If these certifications cannot be obtained, the application must contain information, including a utility plan, sufficient to show that the proposed plans nonetheless provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency at the site.

Whether the information required of the applicant by § 52.17(b)(1) shows that there is no significant impediment to the development of emergency plans, whether any major features of emergency plans submitted by the applicant under § 52.17(b)(2)(i) are acceptable, and whether any emergency plans submitted by the applicant under § 52.17(b)(2)(ii) provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency, are decisions made by the Commission after evaluating the applicants application.

10 CFR 52.79 provides that an application for a combined license must either reference the emergency plans or major features of emergency plans previously approved in considering an early site permit or must contain equivalent emergency planning information to that required under 10 CFR 52.17 for early site permits.

Finally, 10 CFR 52.97 on issuance of a combined license provides:

(a) The Commission shall issue a combined license for a nuclear power facility upon finding that the applicable requirements of §§ 50.40, 50.42, 50.43, 50.47, and 50.50 have been met, and that there is reasonable assurance that the facility will be constructed and operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's regulations.

(b) The Commission shall identify in the license the tests, inspections, and analyses that the license shall perform and the acceptance criteria therefore which are necessary and sufficient to provide reasonable

> assurance that, if the tests, inspections, and analyses are performed and the acceptance criteria met, the facility has been constructed and will be operated in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's regulations..." [emphasis added]

Other than § 52.97's reference to applicable requirements of 50.47, Part 52 does not specifically address the role of emergency exercises in the context of a combined license.

Discussion:

In this proposed rulemaking the Commission is addressing two issues related to emergency planning. Those issues are:

1. In light of the current regulatory status of emergency planning, how should the Commission treat the results of exercises in making the determination of whether to issue an operating license or a combined operating license; and

2. How should the Commission address the emergency planning requirements where there is a lack of cooperation or withdrawal of state and local government emergency planning cooperation for operating plants, and for those receiving combined operating licenses.

Issue 1 - In light of the current regulatory status of emergency planning, how should the Commission now treat the results of exercises in making the determination of whether to issue an operating license or a combined operating license.

There are two reasons for the Commission's consideration of this issue. First because Part 52 sets into place a different licensing process for future nuclear power plants, it is necessary to examine how emergency exercises fit into that licensing scheme. The issue of how to, or whether to, litigate the results of emergency planning exercises has the potential to frustrate the purposes behind the promulgation of Part 52. Specifically, if a significant

issue concerning licensing is not resolved at an early stage of the construction of a nuclear power plant, then the goals of providing predictability, early review of safety issues, and earlier more meaningful public participation in licensing decisions will be frustrated. Second, it is appropriate for the Commission to consider whether the regulations should be modified to reflect the regulatory realities of emergency planning as it exists today. The passage of time has placed the Commission in a very different position than it was in originally promulgating the emergency planning requirements. Since the time of the UCS case, the Commission has gained experience through hundreds of emergency planning exercises conducted by licensees. Both FEMA and the NRC have issued significant additional guidance on the appropriate content of emergency plans. In addition, the Commission, through its Appeal Board, has provided a definition of the term "fundamental flaw" as applied to emergency plans.

When the Court of Appeals overturned the Commission's amendments to the emergency planning regulations in 1982, the court stated

> ... in light of the scope of the APA's test exemption, we do not believe that evaluations of emergency preparedness exercises fall within the category of determinations that might be excepted from a section 189(a) hearing because they do not lend themselves to the hearing process. In evaluating the exercises, the Commission does more than just review on the scene reports by NRC staff observers. Rather, the Commission is called upon to consider and weigh evidence presented by FEMA, the licensee, and state and local officials as well as its staff in assessing whether the exercises demonstrate that adequate emergency preparedness plans can and will be implemented. In addition, the evaluation of exercises is itself just one, not the "sole" factor in the Commission's overall determination, required under the rule, that, in case of a radiological emergency, there is reasonable assurance that adequate measures can and will be taken to protect the health and safety of the population around a nuclear power plant. Thus, we conclude that evaluation of emergency exercises is not a determination resting solely on a test or inspection so as to qualify for a generic exemption from section 189(a)'s hearing requirement. UCS supra. at 1450.

A second, equally important, aspect of the UCS case is that the Court noted the authority of the Commission to adopt as its substantive licensing standard a position that the only aspect of emergency planning exercises relevant to a licensing decision is the extent to which the exercise demonstrates a fundamental flaw in the emergency plan and that the exercise was not relevant to licensing as to minor or ad hoc problems occurring on the exercise day. Id. at 1448. The lack of detailed criteria which the UCS court relied upon in concluding that the results of an emergency planning exercise could not be equated with other pre-operational testing, as well as the utility of an exercise for demonstrating a "fundamental flaw" in an emergency plan, are both assumptions whose validity has come into question since the Court issued its decision.

As the court noted in issuing its decision in the UCS case, at the time that the Commission adopted the Amendment which was overturned in that decision, the whole question of emergency planning was a relatively new one. However, in the decade since TMI occurred, that situation has changed. Hundreds of emergency exercises have been conducted involving states, local governments, utilities, FEMA, NRC, and others. The NRC/FEMA developed criteria for the preparation and evaluation of radiological emergency plans titled Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, NUREG-0654 FEMA-REP-1, Rev. 1 October 1980. NUREG-0654 contains 16 planning standards and 196 individual criteria for evaluating compliance with those standards. (These 16 planning standards which we also found in 50.47(b) 1-16 are the key ingredient to establishing a fundamental flow as defined by the Shoreham Board.) NUREG-0654 has been used by the NRC and FEMA for several years to evaluate emergency plans. NRC also developed nineteen inspection procedure 82301, "Evaluation of Exercises for Power Reactors" of which the latest issuance date is August 21, 1989. FEMA has developed 19 detailed Guidance Memorandums for states, municipalities and utilities on the conduct and evaluation of exercises. For example the FEMA

Exercise Evaluation Methodology dated May 25, 1988 contains 180 pages of evaluation criteria for 37 exercise objectives.

This broad base of experience and guidance raises questions as to the continued validity of the UCS court's original conclusion that emergency planning issues were so subjective in nature that they could not be relegated to the same status as other pre-operational testing. As the UCS court stated "Obviously Congress did not mean to require a hearing where a hearing serves not purpose." Id. at 1449. The Commission believes that the criteria for judging the adequacy of emergency planning exercises has developed to the point where consideration of exercise results in a formal hearing serves no useful purpose with respect to the decision on whether or not to license a nuclear power plant.

Emergency Exercises and Combined Licenses

The above discussion and background has particular significance for combined licenses issued under Part 52. Under 10 CFR 52.97, an applicant for a combined license must not only meet the emergency planning requirements of § 50.47, the applicant must also propose, and the NRC must approve, acceptance criteria to be incorporated into the combined license. The licensing process with respect to emergency planning would work in much the same manner as reviews for design, construction and operation features of the plant. A special section of the applicant's Safety Analysis Report would be dedicated to emergency preparedness. The applicant would describe a set of acceptance criteria to be met for emergency planning. The applicants ability to meet the acceptance criteria will govern whether they are permitted to operate in accordance with the combined license. The regulations, however, leave it up to the applicant to specify in the application the acceptance criteria they intend to meet. Although the regulations continue to require that an emergency planning exercise be conducted prior to operations, the regulations do not necessarily require that the exercise be part of the acceptance criteria proposed by the

applicant under 10 CFR 52.97. Thus, the acceptance criteria proposed by an applicant would not necessary involve use of an exercise to demonstrate compliance with the emergency planning standards in § 50.47.

Once the applicant has presented the proposed acceptance criteria in the combined license application, the staff, in consultation with FEMA, would then determine whether the plan and meeting such criteria provides a reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The staff decision on emergency planning would be published in its Safety Evaluation Report along with other safety items. The applicant's emergency plan and acceptance criteria and the NRC Staff's evaluation would then become subject to hearing process requirements.

The reliance on emergency plans and acceptance criteria is well founded based on the NRC Staff's and FEMA's experience with numerous emergency plans. Criteria actually are the dominant feature in emergency planning. Plans and exercises are only articulations of criteria. In fact, there can be many acceptable variations of a plan or exercise response to meet a single criterion. The criterion, on the other hand, is fixed. It is also determinative of whether the variation of the plan or exercise response is acceptable.

It is reasonable to conclude, therefore, that the use of the plan and the criteria as a basis for the decision to grant a license may be considered substantively superior to the use of exercises. As such, this approach would not diminish public health or safety and would provide a meaningful basis for public participation and intervention. Moreover, it would give greater certainty to the process by facilitating early review and resolution of emergency planning issues.

The Language of the Regulation and Its History

Commission regulation governing emergency plans, set out in 10 CFR §50.47(a)(1), states that "no operating license for a nuclear power reactor will be issued unless a finding is made by NRC that there is reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency." The following subpart, 10 CFR §50.47(a)(2), provides that these findings are to be based on a determination of whether emergency plans are adequate and whether there is reasonable assurance that they can be implemented. FEMA is to make findings and determinations on the adequacy and implementability of state and/or local (or offsite) plans, and the NRC is to make findings on the adequacy and implementability of licensee (or onsite) plans. The regulation further sets out the "standards", in 10 CFR §50.47(b), that are to be applied in making that determination. FEMA's findings on offsite matters under 10 CFR §50.47(b)(10) are to be "primarily based on a review of the plans and is to constitute a rebuttable presumption on these matters."

> Subsection (c)(1) further indicates that conformance to the planning standards in subsection (b) is the basis for licensing and that upon meeting those standards a license may be issued. It provides:
>
> Failure to meet the applicable standards set forth in paragraph (b) of this section may result in the Commission declining to issue an operating license' however, the applicant will have an opportunity to demonstrate to the satisfaction of the Commission that deficiencies in the plan are not significant for the plant in question, that adequate interim compensating actions have been or will be taken promptly, or that there are other compelling reasons to permit plant operations.

Thus, under the regulatory language the predicate for licensing is the existence of plans that are found to be adequate and implementable under the particular standards prescribed in the regulation.

As the Commission stated in promulgating Part 52, whether questions of compliance with all of the criteria approved for the combined license are subject to a post-construction hearing depends on whether the Administrative Procedures Act's exemption for agency decisions based "solely on inspections,

tests, or elections" applies to the criteria. 5 U.S.C. 554(a)(3). Although the Commission has indicated that it will make the determination on whether the APA exemption applies when the issue of compliance with a combined license is actually raised, the evolution of knowledge, experience, and formal guidance on developing emergency plans makes it likely that large portions of the acceptance criteria developed for emergency plans may be subject to the APA exemption. Under the approach created by the Part 52 amendments, however, the emergency exercise itself is no longer necessarily material to a decision to license operation of a proposed facility.

Emergency Exercises and Part 50 Operating Licenses

The creation of a licensing process under Part 52, where specific acceptance criteria are litigated prior to granting a combined license, has resulted in an exercise being material for that license only to the extent it is used to demonstrate compliance with the acceptance criteria contained in the combined license. The Commission's proposal, however, goes beyond merely concluding that the results of emergency planning exercises are not material for Part 52 combined licenses. The Commission has concluded, as a general matter, that the results of emergency planning exercises are no longer material to any decision to license a nuclear power plant. At the outset the Commission wants to emphasize that it is not saying that emergency planning exercises are not important. Licensees must continue to exercise their plans and must continue to do so prior to and after commencing operation. The Commission believes that exercises provide invaluable training for licensee, state, and local personnel, as well as serving to aid in fine tuning emergency plans. However, experience has demonstrated that emergency planning exercises are not necessary to determine whether "fundamental flaws" exist in licensee's emergency plans and they are not, therefore, material to the decision to grant the facility a license.

It must be remembered that the UCS court action did not find that all aspects of an emergency exercise had to be considered in a licensing hearing. Rather,

the court indicated that the Commission only had to have a hearing for those issues that were material to licensing, and the Commission was within its authority in determining that the exercise was material to licensing only to the extent that the exercise identified fundamental flaws in the emergency plan. UCS. supra. at 1448.

The NRC position as set out in the UCS case was that "the exercise is only relevant to its licensing decision to the extent it indicates that emergency preparedness plans are fundamentally flawed ..." Id. Six years later the Atomic Safety and Licensing Appeal Board defined "fundamental flaw as follows: "[f]irst, it reflects a failure of an essential element of the plan, and, second, it can be remedied only through a significant revision of the plan." Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-903, 28 NRC 499, 505 (1988). In addition, the Board noted, "where the problem can be readily corrected, the flaw cannot reasonably be characterized as fundamental." Id. at 506. Based on the Appeal Board's discussion, a fair interpretation of "an essential element" is that it is determined by reference to the sixteen standards in 10 CFR § 50.47(b) or any of the major areas of concern set out in Appendix E, i.e., organization, assessment actions, activation of emergency facilities and equipment, and training. "Failure" must refer to significant failure and not minor or ad hoc problems which develop on exercise day.

In practice, pre-licensing exercises for Comanche Peak, Shoreham and Seabrook, the only plans exercised since the fundamental flaw criteria has been articulated, have not revealed a fundamental flaw in the plans despite heavy scrutiny. Actual practice, virtually precludes the uncovery of a fundamental flaw during an exercise. The staff customarily conducts a two week inspection of the emergency facilities, procedures and personnel prior to allowing the utility to conduct a pre-licensing exercise. Thus, the exercise would not be permitted if a fundamental flaw existed in the plan. There are no known instances in the recent past where a pre-licensing exercise revealed a significant failure of an essential element requiring significant revision of

the plan. There have been deficiencies which could be and were readily corrected.

Emergency planning is a multi-lateral, highly coordinated effort. Licensees typically hire experts in the field who draw on previous experience to help construct the plan. State and local governments, NRC and FEMA add their expertise in a highly interactive undertaking to assure that all emergency planning standards are properly addressed. FEMA, for example, has a formal program of providing technical assistance to state and local governments to assist them in developing offsite emergency plans. Meetings are held, information is exchanged, goals are set and schedules are developed. The participants draw upon the experience and formats of previously approved plans which have been the subject of numerous exercises, and in some cases extensive review and litigation.

This review of actual practice suggests two things. First, the theory that exercises are somehow necessary to discover "fundamental flaws" is questionable. In the recent past, fundamental flaws have not been discovered and are not likely to be discovered as the result of an exercise. Rather, our experience indicates that, at most, an exercise may be corroborative of a fundamental flaw that would be identified during review of the plan itself. However, because it is doubtful that FEMA or NRC would participate in scheduling an exercise if the review of the plan had already revealed a fundamental flaw, even this corroborative role is unlikely to actually occur in an exercise. Second, the <u>better</u> place to look for fundamental flaws is in the plan itself rather than its exercise. Properly constructed and reviewed, the plan should address all essential elements. The preponderance of experience in emergency planning gained by licensees as well as federal, state and local governments over almost a decade at over seventy sites provides a rational basis for finding with a high level of confidence that fundamental flaws will be detected by review of the plan alone.

Emergency plans are also a better mechanism for demonstrating that "adequate protective measures can and will be taken in the event of a radiological emergency" pursuant to 10 CFR 50.47(a). The plan comprehensively covers emergency planning standards. The exercise, on the other hand, is not a complete test of the plan and, therefore, is not as comprehensive as the plan. Moreover, many parts of the exercise are simulations and the results only reflect the unique events and reactions of exercise day. With the experience gained in the decade since TMI, the NRC is able to reach a decision that adequate measures "can" be taken by reviewing the plan. The existence of an approved plan and the required evidence of state and local governments' cooperation will also give the NRC an adequate basis to decide that adequate measures "will" be taken. There are several reasons for this. On its face the plan is an explicit proffer by the state and local governments of what they intend to or "will" do. That proffer should be weighted heavily in resolving the "will" question. Additionally, the Commission's realism doctrine, as codified in 10 CFR 50.47(c), established that state and local governments "will" exert their best efforts to protect their citizens in the event of an emergency even without plans. Finally, the proposed rule will not change either the requirement for or the frequency of emergency exercises that licensees are required to conduct. Thus, from the standpoint of training, there should be just as effective a training function achieved by the exercises as has existed for every emergency plan the Commission has approved under the current requirements.

Emergency plans, evaluated against existing NRC and FEMA guidance, contain a more complete set of information than exercises, can be evaluated more meaningfully and are more predictive of whether adequate protective measures can and will be taken. Exercises, on the other hand, usually reflect the events and reactions on exercise day. The most important function of an emergency exercise is its ability to provide practice and training in the integration of various emergency organizations and the carrying out of specified procedures. These functions are significant enough that, like pre-operational testing, they should be required to be completed prior to full

power operation, but they do not generate the type of information necessary to decide whether to license a power plant.

Part of the reason the Commission believes that it is appropriate to focus on reviewing emergency plans to determine whether adequate protective measures can and will be taken relates to a change in the attitude of both the citizenry and the governmental entities involved in emergency planning since the time of the TMI accident. Since the TMI accident emergency planning has been firmly established as a national program. The shortcomings existing at the time of TMI as pointed out by the Kemeny Report and others no longer apply. The NRC and particularly FEMA have developed strong ties with state and local governments regarding emergency preparedness around nuclear power plants. There is a high level of awareness and dedication at all levels of government.

Just after TMI, when licensees, federal, state and local officials were essentially starting from scratch to establish emergency planning programs, substantial reliance on emergency exercises to determine if emergency plans would actually work may have been necessary. But those circumstances have changed. The NRC staff and FEMA have almost a decade of experience involving emergency plans and exercises. This experience in reviewing plans and testing them through exercises provides a strong foundation for relying on reviews of the emergency plans using FEMA and NRC guidance alone to predict whether adequate protective measures can and will be taken.

The changed circumstances are apparent when the Kemeny observations of 1980 are compared with the realities of today. The Kemeny Report described the situation as one where planning for offsite consequences of radiological emergency at nuclear power plants had been characterized at all levels of governments were unprepared and local officials were further characterized as apathetic.

At that time, the criticism may have been justified. TMI created a psychological atmosphere where it appeared that extraordinary measures had to

be taken to assure that all states with nuclear power plants had operable emergency plans. Close scrutiny of those plans, including emergency exercises, assured that in a relatively new area of expertise the NRC was able to conclude for a particular plant that adequate protective measures "can and will be taken" to protect the public in the event of an emergency. The policy of considering exercises as material to the licensing decision could be viewed as a logical extension of the extraordinary measures taken at that time. For all intents and purposes, this was the initial phase of establishing a national emergency planning program.

Today, the situation has changed. The problems raised by the Kemeny Report and others no longer exist. There are emergency plans for over seventy sites in thirty-five states. Hundreds of exercises have been conducted. Where deficiencies were noted, corrections were made. Federal, state and local governments have repeatedly demonstrated their ability to work together. There is a sensitivity to emergency planning at all levels of government and among licensees.

Because of the changed circumstances discussed above, the Commission now concludes that the results of emergency planning exercises are not material to licensing decisions and that exercises are now appropriately considered as an integral part of pre-operational testing process and of the routine training program for operating plants and those receiving operating licenses. For those receiving a combined operating licenses (Part 52) the Commission now proposes to use emergency preparedness plans and acceptance criteria developed in accordance with Part 52 requirements as a basis for making the licensing decision. Time and circumstances have changed so that the Commission no longer needs to consider the outcome of emergency planning exercises in granting a license. Because of changed circumstances, the Commission can change its methods of review and still make findings that adequate protective measures can and will be taken to assure there is no undue risk to public health and safety.

Discussion of Issue 2

The Commission now finds itself proposing to resolve yet another issue in the emergency preparedness area; the withdrawal of state and local government participation for operating plants, and for those seeking a combined operating license Part 52. In the rulemaking titled "Evaluation of the Adequacy of Offsite Emergency Planning for Nuclear Power Plants at the Operation License Review Stage where state and/or local Governments Decline to Participate in Off-Site Emergency Planning (52 FR 42078) the Commission partially resolved this issue for those applicants seeking new operating licenses.

Nonetheless, the Commission now sees a need to resolve this issue for operating plants and for applicants seeking a combined license (Part 52). For operating licenses the Commission finds that the same logic used for new operating licensees is applicable for operating plants. See 52 Fed. Reg. 42078 (Nov. 3, 1987). Therefore the Commission proposes revising 10 CFR Part 50, 54 accordingly. As the Commission stated in amending 50.47 as it applied to those seeking an initial operating license, "[i]n actual emergencies state, local, and federal officials have invariably done their utmost to protect the citizenry, as two hundred years of American history amply demonstrates." Id. The Commission believes that reality is as applicable to operating plants as it is to plants seeking initial licensing.

For applicant's seeking a combined license (Part 52) the Commission has two alternative approaches, each with merit and each with pitfalls but both accomplishing the same goal - to assure early resolution of safety and environmental issues in licensing proceedings.

These alternative approaches along with their pros & cons are:

Alt 1: To require a utility emergency plan as a backup to the preferable state and local plan.

Pro: 1. A utility plan would be developed, in place and approved if a state became uncooperative.

2. A utility could not be held hostage by the threat of lack of cooperation by a state or local government.

3. There would be no delay in licensing or operation in the eleventh hour a state or local government does not wish to cooperate.

4. The changing of elected officials in the state would not effect the continued operation of a plant.

Con: 1. A state may decide not to participate in any emergency planning because the utility would be required to develop the plan.

2. The focus of a utility's attention and effort may be split between two plans, delaying completion of the plans.

Alt 2: To permit a utility emergency plan as a backup to the preferable state and local plan.

Pro: 1. For initial licensing, the state would have the incentive to develop the plan and cooperate.

2. The utility would have the option of focusing efforts on one plan at a time rather than splitting attention and effort between two plans.

Con: 1. If a state decided to not continue its cooperative efforts the operation of a plant could be jeopardized.

2. A significant delay would be experienced if a utility needed to develop, exercise and obtain approval of a plan in the eleventh hour.

3. A utility could still be held hostage by the threat of lack of cooperation by a state or local government.

The Commission is considering which of these alternatives would be preferrable for assuring effective emergency plans are in place when a facility is ready for operation. Accordingly, the Commission requests comments on both of the above alternatives.

Summary of Proposed Changes

In conclusion, the proposed rulechange accomplishes the following:

1. Establishes that emergency plans and exercise acceptance criteria are material to a licensing decision thus removing the need to conduct an exercise prior to issuing a combined operating license (Part 52).

2. For those receiving an operating license, the emergency planning exercise is now part of the pre-operational inspection process and training program and therefore not required for any licensing decision.

3. The use of the realism doctrine is expanded to operating reactors and for those receiving a combined operating license (Part 52).

ENVIRONMENTAL IMPACT -- CATEGORICAL EXCLUSION

The proposed rules would amend the procedures currently found in Part 50 and its appendices for the filing and reviewing of applications for construction permits, operating licenses, early site reviews, and combined operating licenses as well as conditions of licenses. As such they meet the eligibility criteria for the categorical exclusion set forth in 10 CFR § 52.11(c)(3). That section applies to "[a]mendments to ... Part[] 50 ... which relate to (i) procedures for filing and reviewing applications for licenses or construction permits or other forms of permission ... ." As the Commission explained in promulgating this exclusion, "[a]lthough amendments of this type affect substantive parts of the Commission's regulations, the amendments themselves relate solely to matters of procedure. [They] ... do not have an effect on the environment." 49 Fed. Reg. 9352, 9371, col. 3 (March 12, 1984) (final environmental protection regulations). Accordingly, pursuant to 10 CFR § 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with these proposed rules.

PAPERWORK REDUCTION ACT STATEMENT

The proposed rule contains information requirements that are subject to the Paperwork Reduction Act of 1980 (44 U.S.C. § 3501 et seq.). This rule has been submitted to the Office of Management and Budget for review and approval of the paperwork requirements.

BACKFIT ANALYSIS

This amendment does not impose any new requirements on production or utilization facilities; it only provides an alternative method to meet the Commission's emergency planning regulations. The amendment

therefore is not a backfit under 10 CFR 50.109 and a backfit analysis is not required.

REGULATORY FLEXIBILITY ACT CERTIFICATION

The proposed rule will not have a significant impact on a substantial number of small entities. The proposed rule will reduce the procedural burden on NRC licensees by improving the reactor licensing process. Nuclear power plant licensees do not fall within the definition of small business in section 3 of the Small Business Act, 15 U.S.C. § 632, the Small Business Size Standards of the Small Business Administration in 13 CFR Part 121, or the Commission's Size Standards published at 50 FR 50241 (Dec. 9, 1985). The impact on intervenors or potential intervenors will be neutral. For the most part, the proposed rules will affect the timing of hearings rather than the scope of issues to be heard. For example, many emergency planning issues will be considered earlier, in connection with the issuance of combined operating license rather than later. A combined license proceeding will include consideration of many of the issues that would ordinarily be deferred until the operating license proceeding. Thus, the timing rather than the cost of participating in NRC licensing proceedings will be affected. Intervenors may experience some increased preparation costs if they seek to reopen previously decided issues because of the increased showing that will be required. Once a hearing commences, however, an intervenor's costs should be decreased because the issues will be more clearly defined than under existing practice. Therefore, in accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. § 605(b), the Commission hereby certifies that the proposed rule, if promulgated, will not have a significant economic impact on a substantial number of small entities and that, therefore, a regulatory flexibility analysis need not be prepared.

List of Subjects in 10 CFR Part 50

Antitrust, Classified information, Fire prevention, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors., Penalty, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

For the reasons set out in the preamble, and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 554, the NRC is adopting the following amendment to 10 CFR Part 50:

PART 50 - DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows: Authority: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 938, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1233, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2236, 2239, 2282): secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 50.7 also issued under Pub. L. 95-601, sec. 10.92 Stat. 2951 (42 U.S.C. 5851). Section 50.10 also issued under secs. 101, 185, 68 Stat. 936, 955, as amended (42 U.S.C. 2131, 2235): sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.23, 50.35, 50.55, 50.58 also issued under sec. 185, 68 Stat. 955 (42 U.S.C. 2235). Sections 50.33a, 50.55a and Appendix Q also issued under sec. 102, Pub. L 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under sec. 204, 88 Stat. 1245 (42 U.S.C. 5844). Sections 50.58, 5091, and 50.92 also issued under Pub. L 97-415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122.68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184.68 Stat. 954, as amended (42 U.S.C. 2234). Section

50.103 also issued under sec. 106.68 Stat. 939, as amended (42 U.S.C. 2138). Appendix F also issued under sec. 187.68 Stat. 955 (42. U.S.C. 2237).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273): §§ 50.10(a),(b), and (c) 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b): §§ 50.10(b) and (c) and 50.54 are issued under sec. 161i., 68 Stat. 949, as amended (42 U.S.C. 2201(i); and §§ 50.55(e), 50.59(b), 50.70, 50.71, 50.72, 50.73, and 50.78 are issued under sec. 161o., 68 Stat. 950 as amended (42 U.S.C. 2201(o).

2. In § 50.33 paragraph (g) is revised to read as follows [footnote unchanged]:

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) 1/, as well as the plans of State governments wholly or partially within the ingestion pathway EPZ. 2/ Generally, the plume exposure pathway EPZ for nuclear power reactors shall consist of an area about 10 miles (16 km) in radius and the ingestion pathway EPZ shall consist of an area about 50 miles (80 km)

1/ Emergency Planning Zones (EPZs) are 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," December 1978.

2/ If the State and local emergency response plans have been previously provided to the NRC for inclusion in the facility docket, the applicant need only provide the appropriate reference to meet this requirement.

in radius. The exact size and configuration of the EPZs surrounding a particular nuclear power reactor shall be determined in relation to the local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries. The size of the EPZs also may be determined on a case-by-case basis for gas-cooled reactors and for reactors with an authorized power level less than 250 MW thermal. The plans for the ingestion pathway shall focus on such actions as are appropriate to protect the food ingestion pathway.

If the application is for a Combined Operating License the applicant [Alternative 1] shall [Alternative 2] may, submit a utility developed offsite emergency plan as a backup to the preferable State and local plan.

3. In § 50.47, paragraph (a)(2) is revised to read as follows:

The NRC will base its finding on a review of the Federal Emergency Management Agency (FEMA) findings and determinations as to whether state and local emergency plans are adequate and whether there is reasonable assurance that they can be implemented, and on the NRC assessment as to whether the applicant's onsite emergency plans are adequate and whether there is reasonable assurance that they can be implemented. A FEMA finding will primarily be based on a review of the plans. Any other information already available to FEMA may be considered in assessing whether there is reasonable assurance that the plans can be implemented. In any NRC licensing proceeding, a FEMA finding will constitute a rebuttable presumption on questions of adequacy and implementation capability.
Emergency preparedness exercises [required by paragraph(b)(14) of this section and Appendix E, Section F of this part] are part of the operational inspection process and training program and are not required for any licensing decision.

4. In § 50.54 paragraph(s)(2) is revised by adding sections (iii). The new paragraph(s)(2) reads as follows:

(2)(i) For operating power reactors, the licensee, state and local emergency response plans shall be implemented by April 1, 1981, except as provided in Section IV.D.3 of Appendix E to this part.

(ii) If after April 1, 1981, the NRC finds that the state of emergency preparedness does not provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency (including findings based on requirements of Appendix E, Section IV.D.3) and if the deficiencies (including deficiencies based on requirements of Appendix E, Section IV.D.3) are not corrected within four months of that finding, the Commission will determine whether the reactor shall be shut down until such deficiencies are remedied or whether other enforcement action is appropriate. In determining whether a shutdown or other enforcement action is appropriate, the Commission shall take into account, among other factors, whether the licensee can demonstrate to the Commission's satisfaction that the deficiencies in the plan are not significant for the plant in question, or that adequate interim compensating actions have been or will be taken promptly, or that there are other compelling reasons for continued operation.

(iii) Where a licensee asserts that its inability to demonstrate compliance with the requirements of paragraph (b) 50.47 results wholly or substantially from the decision of state and/or local governments not to participate further in emergency planning, operation of the plant may continue if the licensee demonstrates to the Commission's satisfaction that: (1) The licensee's inability to comply with the requirements of paragraph (b) of 50.47 is wholly or substantially the result of the non-participation of state and/or local governments.

(2) The licensee has made a sustained, good faith effort to secure and retain the participation of the pertinent state and/or local governmental authorities, including the furnishing of copies of its emergency plan.

(3) The licensees's emergency plan provides reasonable assurance that public health and safety is not endangered by operation of the facility concerned. To make that finding, the licensee must demonstrate that, as outlined below, adequate protective measures can and will be taken in the event of an emergency. A utility plan will be evaluated against the same planning standards applicable to a state or local plan, as listed in paragraph (b) of 50.47 with due allowance made both for--

(i) Those elements for which state and/or local non-participation makes compliance infeasible and

(ii) The utility's measures designed to compensate for any deficiencies resulting from state and/or local non-participation.

In making its determination on the adequacy of a utility plan, the NRC will recognize the reality that in an actual emergency, state and local government officials will exercise their best efforts to protect the health and safety of the public. The NRC will determine the adequacy of that expected response, in combination with the utility's compensating measures, on a case-by-case basis, subject to the following guidance. In addressing the circumstances where applicant's inability to comply with the requirements of paragraph (b) of 50.47 is wholly or substantially the result of non-participation of state and/or local governments, it may be presumed that in the event of an actual radiological emergency state and local officials would generally follow the utility plan.

5. Section F of Appendix E to 10 CFR Part 50, paragraphs 1 and 4. are revised to read as follows [footnote unchanged]:

1. A full participation exercise which tests as much of the licensee, state and local emergency plans as is reasonably achievable without mandatory public participation shall be conducted for each site at which a power reactor is located for which the first operating license for that site is issued after July 13, 1982. This exercise shall be conducted within two years before the

issuance of the first operating license for full power (one authorizing operation above 5% of rated power) of the first reactor and shall include participation by each state and local government within the plume exposure pathway EPZ and each state within the ingestion exposure pathway EPZ. IF the full participation exercise is conducted more than one year prior to issuance of an operating licensee for full power, an exercise which tests the licensee's onsite emergency plans shall be conducted within one year before issuance of an operating license for full power. This exercise need not have State or local governmental participation. Even though these exercises are conducted prior to issuing an operating license, the exercise is part of the operational inspection program and the training program and are not required for any licensing decision.

Prior to issuing a combined operating license the Commission will review and approve emergency planning acceptance criteria which the NRC has determined that meeting such criteria will provide reasonable assurance that adequate protective measures can and will be taken. After the combined license is granted, a series of inspections and tests, which may be conducted during pre-operational exercises, will be performed to assure technical conformity to the acceptance criteria prior to allowing operation under the combined license. One full-participation exercise shall be conducted at least two years prior to fuel load, and another full-participation exercise shall be conducted between criticality and operation above 5% of rated power.

4. Remedial exercises will be required if the emergency plan is not satisfactorily tested during the biennial exercise. ~~such-that-NRC,-in consultation-with-FEMA,-cannot-find-reasonable-assurance-that-adequate-protective-measures-can-be-taken-in-the-event-to-a-radiological-emergency.~~ The extent of state and local participation in remedial exercises must be sufficient to show that appropriate corrective measures have been taken regarding the elements of the plan not properly tested in the previous exercises.

Dated at Rockville, Maryland, this day of

For the Nuclear Regulatory Commission.

ENCLOSURE 2

ENVIRONMENTAL ASSESSMENT FOR PROPOSED RULE AMENDING EMERGENCY PREPAREDNESS REGULATIONS

1. Need for the Proposed Action

As explained in the proposed rule preamble, the proposed rule

1. Establishes that emergency plans and exercise acceptance criteria are material to a licensing decision thus removing the need to conduct an exercise prior to issuing a combined operating license (Part 52).

2. For those receiving an operating license, the emergency planning exercise is now part of the pre-operational inspection process and training program and therefore not required for any licensing decision.

3. The use of the realism doctrine is expanded to operating reactors and for those receiving a combined operating license (Part 52).

2. Alternatives as Required by Section 102(2)(E) of NEPA

The proposed rule does not entail any unresolved conflict concerning alternative uses of available resources.

3. The Environmental Impacts of the Proposal and Alternatives

The proposed rule focuses on how the Commission should treat the results of exercises in making the determination of whether to issue an operating license or a combined operating license (Part 52) and how the Commission should resolve the withdrawal of state and local government participation for operating plants and for those seeking a combined operating license (Part 52).

Resolution of both issues would have no significant environmental impact.

4. Agencies and Persons Consulted

The proposed rule was developed by the Commission; FEMA will be informed about the proposed rule. No other outside agencies or persons were consulted because the rule relates primarily to NRC's exclusive regulatory responsibility to assess the safety of nuclear plant operations and to evaluate emergency plans. Of course other agencies and persons may comment during the comment period. The proposed rule preamble discusses all the sources used in developing the rule change.

ENCLOSURE 3

DISCUSSION OF BACKFIT FACTORS

1. The objective of the proposed rule is to

   1. Establish that emergency plans and exercise acceptance criteria are material to a licensing decision thus removing the need to conduct an exercise prior to issuing a combined operating license (Part 52).

   2. Establish that for those receiving an operating license, the emergency planning exercise is now part of the pre-operational inspection process and training program and therefore not required for any licensing decision.

   3. The use of the realism doctrine is expanded to operating reactors and for those receiving a combined operating license (Part 52).

2. No anticipated changes from adoption of the proposed rule would require any additional activity on the part of licensees or applicants for compliance. This is not correct if Alternative 2 to Issue 2, which would require a utility emergency plan as a backup to the preferable state and local plan, is chosen by the Commission after evaluating public comments. Additional work by the applicants will be evaluated at that time.

3. There should be no change in the potential risk to the public because this proposed rule change deals with procedures, plans and the treatment of exercises.

4. The proposed rule, if adopted, would have no potential impact on radiological exposure of facility employees since it retains all the protections of onsite emergency planning and preparedness which are designed for the protection of employees and others onsite.

5. There should be no installation and continuing costs associated with the proposed rule change.

6. As the proposed rule's preamble explains, the premise of the rule change is that there will be no safety impact by the change; the change will merely establish whether the Commission should consider the results of exercises in making licensing decisions and how to resolve the withdrawal of state and local government participation in emergency planning. The proposed rule, if adopted, could potentially save large amounts of licensee money and time in that the litigation of emergency planning issues would be conducted prior to issuing a Part 52 license and not prior to operation. Additionally, for those receiving a operating license, under Part 50, the proposed rule would limit the emergency planning issues that would be litigated prior to operation.

7. There will be no additional resource burden on the NRC as a result of the proposed rule change, if adopted, since it does not add any requirement on NRC staff and any timing change will have the effect of giving staff more rather than less time.

8. There will be no differences in impact of the proposed rule, if adopted, on any facility since the rules does not change or add any requirement and simply established whether the Commission should consider exercises in making licensing decisions. That point would not vary because of age or the design of the plant.

9. The proposed rule change, if adopted, will be a final rule to be made effective as soon as legally permissible.