

STATE OF NEW YORK



DEPARTMENT OF HEALTH

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Mr. Robert G. Ryan, Director
Radiological Emergency Preparedness
Division
Federal Emergency Management Agency
1725 I Street, N.W.
Washington, D.C. 20472

Dear Mr. Ryan:

The State of New York provides comment to NUREG-0654/FEMA-REP-1, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, January 1980. Enclosed with this letter are the specific comments prepared by three State agencies: the Division of Military and Naval Affairs, the Energy Office and the Health Department. I have taken the liberty of leaving the agency comments unedited despite the fact that some are overlapping or similar on content in order to highlight the catholicity of our views.

It is important, however, to highlight in this cover letter those issues which appear to be of greatest concern to the State.

Preparation of State, local government and operator emergency plans in the absence of comprehensive Federal agency plans makes impossible the task of integrating plans properly. Experience leads us to anticipate deep involvement by the NRC in any accident, probably to the point of recommending actions independently or through its licensee. The extent of FEMA participation during an accident is at this time an unknown quantity. What are State and local governments to do if they receive conflicting recommendations from the two Federal agencies?

Reports describing emergency response during past accidents, including that at TMI, indicate that provision for licensee assessment of offsite actions is not wholly satisfactory for initiating State and local response. Furthermore, independent actions by multi-local jurisdictions could lead to conflicting actions. Thus, there is need for central state agency coordination and direction.

The most important consideration on the part of New York State with NUREG-0654 is the need to transfer primary authority for initiating offsite emergency actions from licensee to the State. In view of specifications in NUREG-0654 and those in a March 12, 1980 communication entitled NRC Nuclear Data Link from NRC to all operating nuclear plants, data is to be made available from in-plant, onsite and offsite monitors which with modern communica-

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tions and computer systems makes possible direct monitoring and evaluation by State personnel of all critical parameters necessary to recommend offsite actions. Since licensee personnel will be most critically involved during an accident with stabilizing the reactor, transfer of primary responsibility for offsite evaluation to State personnel can serve to improve operations within the control room as well as offsite. Direct monitoring of critical parameters by State personnel can also provide extra lead time for an evacuation, permitting emplacement of local and State traffic controllers and other emergency personnel prior to initiation of the public notification system. Any emergency plan which depends solely on the licensee for initiating offsite actions will be unacceptable, especially to the public which the plan is to serve.

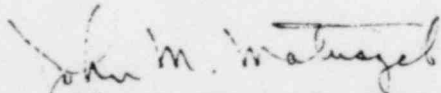
Such independent evaluation should not be misconstrued as relieving the licensee of his responsibility to notify State and local agencies of accidents and to provide assessment which will complement and confirm the State's evaluation. The State must retain, however, the authority to initiate offsite actions according to its independent evaluation rather than depending solely on that of the licensee.

The requirement for 15-minute notification of 90 to 100% of the population within the 10-mile EPZ appears not to be justified by the supporting information provided in NUREG-0654. Furthermore, it is not clear whether the 15-minute notification requirement includes completion of instructions to the public. A major concern with this requirement is that spontaneous, uncontrolled evacuation by the public may occur before responsible public agencies announce a planned public action. Such a spontaneous evacuation is likely to hinder subsequent planned evacuation and may also prevent governmental and other emergency personnel from reaching assigned duty stations. This requirement requires much more evaluation and clarification.

A number of other important issues are raised in the accompanying comments from each of the responding New York state agencies.

Thank you for your considerate attention to this matter.

Very truly yours,



John M. Matuszek, Ph.D.

Director

Radiological Sciences Laboratory

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cc: Mr. S.J. Chilk, NRC ✓
Ms. Rita Meyninger, FEMA (Region 2)
Dr. Axelrod
Mr. Leavy
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Comments Relative to NUREG-0654/FEMA-REP-1

1. The Foreword to NUREG-0654/FEMA-REP-1 (hereafter to be referred to as NUREG-0654) states that it "supersedes previous guidance and criteria published by FEMA and NRC." Despite this, the text refers in many places to various documents, some of which have been, or may have been superseded, and others which are still in effect. In some cases, NUREG-0654 is not clear as to whether or not a specific publication has been superseded. For example, there is a statement on the fourth and fifth lines of page 4, which reads, "This document supersedes NUREG 75/111 and Regulatory Guide 1.101." It is not clear what "this document" is, NUREG-0654 or 45 FR 2893 or NUREG-0396.

As a result, the reader of NUREG-0654 finds himself in the position of either referring to listed documents, or wondering whether a failure to refer to those documents is important. It is recommended that a solution to this concern would be the inclusion of a bibliography of references cited in the text which clearly identifies those documents which have been superseded and need not be consulted and those documents which remain in effect. With respect to the latter, there should be further distinction between those which are essential to be consulted and those which are primarily of a background, or "nice to know" nature.

2. There is reference on page 21 and 22 to funding and technical assistance, which is equivocal and could be counterproductive. The reference indicates that the Federal Emergency Management Agency expects to make a significant contribution to assist in the development of State and local plans. At the same time, it is stated that FEMA and NRC expect nuclear facility operators will have an interest in providing resources needed by State and local governments to meet the criteria in NUREG-0654. Given the absence of specific Federal funding to support State and local efforts and the lack of progress which has greeted the President's request for funds for this purpose, it is recommended that this discussion be omitted from NUREG-0654 and that funding issues be addressed separately when there is a substantive Federal policy with the funding available to carry it out.
3. In discussing Federal response plans on page 24, it is stated that response plans should contain provision for the integration of Federal assistance. It is stated further that interrelationships of Federal agencies and their precise roles will be defined in a national contingency plan being prepared by FEMA, and in an NRC plan. It is essential that these be defined as quickly as possible. Such definition must include also a definition of the interrelationship between the Federal government, the States and the utilities. In short, there must be a clear understanding of who will be in command onsite and offsite, and the absence of a definitive Federal plan raises a question as to whether such plan, or plans, when issued will insert Federal agencies (FEMA, NRC, or some other agency) into the command structure.
4. It is essential that there be an understanding of the degree of flexibility which will be utilized by FEMA in evaluating the adequacy of offsite State and local plans against the criteria contained in pages 27 through 69. These plans must be evaluated in the context of State and local legal authorities, and overall disaster preparedness interrelationships between State and local governmental levels. For example, Evaluation Criterion A3 on page 28 calls for each plan to include written agreements between, among others, among State and local agencies. In the framework of our plan, there is no need for such written agreements in my opinion. The plan, in effect, is the written agreement.

5. In terms of the planning concepts enunciated by the State Department of Health, a basic issue which must be resolved is the role of the nuclear facility operator, as described on pages 22 and 23 of NUREG-0654, specifically with respect to the operator's role in having primary responsibility for accident assessment, including prompt evaluation of any potential risk to public health and offsite safety. It is crucial to DOH's concept of operations that reliance not be placed on such action by the facility operator, but that the State have the capacity to assess the potential hazards independently and make independent judgments as to the magnitude of the offsite problems and decisions as to offsite actions which need to be taken. Several of the evaluation criteria are tied directly to this issue, including D3 on page 36, E1 on page 37, E3 through E7 on pages 38 and 39, F1 on page 40, H5 through H7 on pages 44 and 45, H8 and H12 on page 46, all accident assessment evaluation criteria on pages 47 through 49, J7 on page 51 and J8 on page 52. Also related to this issue is the notification responsibility placed on the licensee in NUREG-0610, specifically Licensee Action 1 under each of the four classes of Emergency Action Levels established therein on pages 1-3, 1-6, 1-9 and 1-12.
6. The whole issue of the 15 minute notification requirement needs to be clarified. A cogent and interesting discussion of this issue appears in the petition which accompanied the letter from Mr. Frank T. Cox, Coordinator, Texas Division of Disaster Emergency Services, dated March 25, 1980, specifically in footnote 12, on pages 10 and 11 of the petition. In commenting on NUREG-0654, and therefore on NUREG-0610 incorporated therein, we could use the petitioners approach and language.
7. The requirement for relocation centers to be five or more miles beyond the boundaries of the ten mile EPZ, as indicated on page 54 under item 10g, requires further study. There is a very real danger that those persons residing outside the ten mile EPZ, but less than fifteen miles from the facility, may be alarmed by this action. If evacuees are being taken past them to a greater distance, they may well question why they, too, are not removed at least 15 miles away from the source of danger.
8. Historically, in any evacuation, there is a large percentage of persons who make their own arrangements and accommodations. They are never counted and provided for. On page 58 under item K8, it indicates that evacuees are to be registered and monitored at relocation centers. It is questioned whether these persons who "self-evacuate" can be forced into a relocation center when they are already making their own arrangements.
9. It does not appear practical to indicate that a confirmation of evacuation instruction, as indicated on page 4-4 of Appendix 4, item 3, will be followed. It is believed that many persons would assume the tying of a handkerchief to a door or gate to indicate the occupants of a building have left would be construed as an invitation for looting and robbery. This procedure is not generally followed in evacuations of other types.

COMMENTS ON NUREG-0654/FEMA-REP-1

CRITERIA FOR PREPARATION AND EVALUATION OF
RADIOLOGICAL EMERGENCY RESPONSE PLANS AND PREPAREDNESS
IN SUPPORT OF NUCLEAR POWER PLANTS

A. General Comments

1. The concept in NUREG-0654 of consolidating the emergency planning guidance for the facility operator and State and local officials in a single document is supported. The prior approach of guidance dispersed through various documents, regulatory guides, regulations and directives was confusing.
2. Implementation of the various planning elements for State and local governments will require a large commitment of manpower and financial resources. A formal approach to insure that the resources are available, preferably through State and/or Federal requirements, is needed.
3. There has been no technical justification or cost-benefit analysis for the requirement of 15 minute notification to the public. Apparently this notification time arises from information listed in Table 2 on page 14. (This table is extracted from NUREG-0396.) The time for initiating an atmospheric release is stated as from 0.5 hours to one day. NRC staff at various emergency plan review meetings have stated that the requirement for 15 minute notification is required for rapid developing accidents with serious offsite consequences. Table VI 2.1 from the Reactor Safety Study (attached) identifies only two pressurized water reactor accidents with release times as short as 0.5 hours. The offsite consequences of these accident categories (PWR 8 and PWR 9) are extremely small. The accidents resulting in significant offsite releases are shown to have initiating times much longer than 0.5 hours.
4. Specific information on Federal agency emergency plans and procedures are required for coordination and interfacing with State and local procedures that will be developed. It is difficult to develop State and local plans without specific information on the emergency procedures and support from Federal agencies including the NRC.

5. A companion document or an appendix is required providing interpretive material for the numerous planning elements listed in Section II. This interpretive material will aid in defining the detail and scope necessary for developing an adequate emergency plan.
6. There is need for uniform PAGs for the ingestion pathway to be applied by all affected states. At present FDA guidance remains in draft form. These PAGs should be finalized.
7. In order to avoid conflicting actions at the time of an emergency, the decision to initiate remedial actions should be coordinated by a single agency since in most releases multi-local jurisdictions would be involved. In New York, the State should be the central agency for coordination and direction.
8. In the past, there have been delays notifying appropriate State and local agencies by nuclear facility operators, e.g., Three Mile Island, Brown's Ferry, etc. In order to avoid similar delays, whether due to underestimation or misdiagnosis of the situation, an independent capability to assess the situation is needed. Such capability could be at the Federal or State level.

B. Specific Comments

1. II.A. There is a lack of definition of what is meant by organization and suborganization and which of these are to be included in the 10 mile and 50 mile EPZs.
2. II.A.2.b. The need for including a description of the legal basis for each authority named in 2.a. is not obvious. The legal basis appears to be self evident for some organizations such as Law Enforcement, Fire and Rescue, and Emergency Medical Service.
3. II.C. As indicated previously under the general comments, support plans and procedures by appropriate Federal agencies is required for development of a complete State plan.

4. II.C.1.a. Titles rather than the names of persons should be specified.
5. II.F.1.b. Provision for primary and backup communications with contiguous State and local governments should be required for the 10 mile emergency planning zone. A primary notification system is sufficient for State and local governments beyond the 10 mile and within the 50 mile ingestion EPZ.
6. II.H.7. Many local organizations do not have the capability or technical expertise for offsite radiological monitoring. We do not believe that local organizations should be required to have such capabilities. Previous experience with monitoring done by various local agencies has lead to confusion, resulting in unnecessary public anxiety.
7. II.I.5. Add "and State EOC."
8. II.I.7. The minimum detectable radioiodine concentration in air of 5×10^{-8} $\mu\text{Ci/cc}$ in any kind of weather may not be technically feasible.
9. II.I.8. Clarification of this item is needed. This item appears to imply that local organizations are required to have the capability and resources for field monitoring within the 10 mile EPZ.
10. II.J.2. Although this element is primarily for evacuation of onsite individuals, provisions for this element should be included in the State and local plans.
11. II.J.7. The wording for this item should be changed to reflect recommending protective actions to the agencies authorized to initiate protective actions. This will allow flexibility in addressing particular State and local regulations and practices.
12. II.J.9. It is important that the EPA manual of protective actions and the FDA guidance regarding radioactive contamination of human food and animal feeds be completed and made binding on all Federal agencies as quickly as possible.

13. II.J.10.e. and f. The question of distribution of thyroid blocking agents to the general public and immobile or institutionalized people is still unresolved. Inclusion of these elements in NUREG-0654 implies that NRC and FEMA are recommending the use of such agents.
14. II.J.11. The manner in which this element is written leads one to conclude that the planning effort for the ingestion pathway requires a relatively small effort in comparison to the other protective responses in Section J. Adequate plans and procedures to protect the population from the ingestion pathway will in fact require a major effort.
15. II. Table J.1. The proposed sector and zone designators for emergency planning is generally not useful. A preferred method would be to use areas readily identified by known geographical and political boundaries. Actual response using imaginary sector lines is impractical.
16. II.K.3.a. A clarification for the requirement of both self reading and permanent record dosimeters for all emergency personnel is needed.
17. II.L.3. We recommend that this item be changed to include identifying location of hospitals and not necessarily requiring their inclusion on a map.
18. II.N.O.P. Section II.N., Exercises and Drills, O., Training, and P., Planned Distribution, are not emergency response plan elements. These items are important but should not be included in the emergency plan proper. It is recommended that they be included in attachments, an appendices, or reference document.
19. II.N.1.b. Only the operator should be required to exercise during the periods indicated in this element. These time frames are not necessarily the worst case for State and local response. The time periods when the population is in transit from home to work and also from work to home would probably be the most difficult time for prompt notification and response.

COMMENTS ON NUREG 0654/FEMA-REP-1

1.E. This section indicates that plans of licensees, State and local governments should not be developed in a vacuum or in isolation from one another. We fully support this concept; however we believe that this concept must also be applied to Federal emergency plans, primarily those of the NRC. Since NRC will be deeply involved in any accident response, both in Bethesda and at the site, they will be in a position to recommend actions to both the licensee and the State. We believe it is necessary for the State and utility to have some knowledge of the extent and mechanisms of NRC involvement in an emergency in order to properly provide for that in their plans.

1.E. Throughout this section reference is made to the operators prime responsibility for accidents assessments, for his recommendations on protective actions. We believe that the State also has an accident assessment responsibility and has the ultimate responsibility and authority to take off site protective actions. The Facility operators who would be on duty are primarily operations and engineering personnel and are not trained, nor should they be, in offsite protective actions. We therefore, believe it is essential to have State personnel, trained in accident assessment, health physics and protective measures, on duty to perform such a function in a timely fashion consistent with the assessment provided by the operator. Predetermined protective actions would then be taken based on both assessments without undue delay.

1.J. The requirement to cross-reference a plan to the criteria in NUREG 0654 is unnecessary. It clutters the document and is in no way meaningful to emergency planning. There is no justification for NRC to shift a part of their review function to the States.

II.A. The definition of an organization and sub-organization as used in this section and subsequently must be defined. For instance, in 1.E., what levels within a State or Local government are 24 hours phone coverage required?

II.B.6. In addition to State and local governments, mention should be made here of interfaces with the NRC.

Table B-1 The Shift Technical Advisor should not be assigned as Emergency Coordinator as this task would deprive him of the ability to keep on top of overall plant operations in an emergency.

It is not clear who on shift would handle the extensive notification and communication function in the event of an emergency. While the table indicates one person is needed, it is not clear if one person is sufficient; it does not specify who that person is and what tasks would not be done for this to take place.

II.E.4.- In addition to providing the class of the emergency, the operator should give some description of the type of emergency and plant status.

II.E.k. This wording should be revised to indicate only actions being taken by the utility. A utility should not indicate actions that are being taken by other governments' agencies.

II.E.6.- While we agree in principal with the concept of prompt notification

of the public, the 15 minute requirement in appendix 3 has never been technically supported and, if implemented, could substantially interfere with an orderly response to an emergency. It is also virtually impossible to achieve 100% notification of any substantial area in so short a time.

II.F.1.- Provisions should be required for communications systems for use by both State and NRC personnel at the near-site EOF.

Communication plans should also include titles and alternates for both ends of the communication links between the NRC (and its staff) and the State.

II.G.1.- Provisions should be required for coordination of the dissemination of information. Each organization should not do this on its own. The information presented should represent input from all three organizations and the NRC, should be reviewed and agreeable to each, and should be jointly distributed.

II.G.5.- This should also be coordinated as II.G.1. above.

II.I.5.- Provision for access to this information should also be provided to a State emergency center.

II.J.10. a&b-The sectors designated on Table J-1 may be appropriate for a generic view, but are of little significance for a given site. The sectors should be subdivided to approximately this degree, but on a meaningful basis for a given site.

II.N.1.a.- The requirement to conduct an exercise prior to adoption of a plan is unworkable, in that the exercise would not be worthwhile until the plan had been distributed and all parties became familiar with it. It would be a serious mistake to have one plan in existence and another one being used for an exercise but not adopted; if a real accident occurred this would lead to tremendous confusion. A test would be reasonable within several months of adoption or after major changes are made.

The requirement for drills every 12 months should also be revised to 18 months to facilitate testing during various seasons. While this may not be necessary in much of the country, in much of New York the differences experienced between the summer vacation season and the extreme winter weather can have a significant impact on the plans implementation. A twelve month cycle would not facilitate such testing. Other annual requirements such as in II.N. should also be revised to be consistent with an 18 month exercise schedule.

States and local governments with more than one facility should conduct at least one detailed exercise annually in conjunction with a drill at a utility. Such detailed exercises should be rotated between sites, with a detailed exercise required at each site at least every 4 years. There should be limited participation in all other utility exercises, during which specific aspects of the plans should be tested.

Federal agencies should participate in an exercise in each State with a nuclear facility at least once every 36 months.

II.N.1.b.-It should be pointed out that the worst probable time is not between 6 P.M. and 6 A.M. but between 7:00 -9:00 A.M. and 4:00 - 6:00 P.M. when most response personnel are in transit.

II.N.3.-This is an exercise detail and does not belong in the plan. The qualified observers should insure that this type of information is utilized.

II.O.-While we agree that this training is necessary. We fail to see the need for these details in the plan. It should be a FEMA/NRC/State responsibility to check that such training is conducted for the appropriate personnel.