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DOCKET NUMBER **50**
PROPOSED RULE PR-50(44FR4483)

August 31, 1979

United States Nuclear Regulatory
Commission
1717 H Street, N.W.
Washington, DC 20555

Attention: Mr. Samuel Chilk, Secretary

Gentlemen:



Subject: Federal Register Notice of July 17, 1979,
44 Federal Register 41483

The enclosed comments are provided by the Edison Electric Institute on the Advance Notice of Proposed Rulemaking--Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities--10 CFR Part 50.

Sincerely,

John J. Kearney
John J. Kearney
Senior Vice President

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Enclosure

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7R. 50(44FR41483) August 31, 1979

The Honorable Joseph M Hendrie, Chairman
John F Ahearne, Commissioner
Peter A Bradford, Commissioner
Victor Gilinsky, Commissioner
Richard T Kennedy, Commissioner

Gentlemen:

Re: Nuclear Regulatory Commission's Advance
Notice of Proposed Rulemaking concerning
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities

There is enclosed a copy of the Edison Electric Institute's comments, dated August 31, 1979, on the above referenced Notice.

As indicated on page 2 of the enclosure, the members of the Institute are concerned that the Commission act both promptly and deliberately in this proceeding. In particular, we believe that the Commission should publish any proposed revisions of its regulations for public comment rather than making such revisions immediately effective.

The Institute and its members desire to work closely and expeditiously with the NRC and all responsible Federal, State and local agencies to improve emergency planning in light of the experience of Three Mile Island. We fully recognize this is a subject of intense public and Congressional interest. We support the efforts of the NRC Staff to provide additional guidance to licensees and to State and local agencies in these matters, including the recent NRC regional briefings. However, we would oppose any attempts by the Staff to impose significant new requirements on licensees which are not based on applicable law and regulations and subjected to a deliberate rulemaking process.

Sincerely yours,

dlh 9/4/79 *William McCollam, Jr.*
William McCollam, Jr.
President

jkj
Enclosure

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August 31, 1979

Comments of the Edison Electric Institute
on Nuclear Regulatory Commission
Advance Notice of Proposed Rulemaking--
Adequacy and Acceptance of Emergency Planning
Around Nuclear Facilities--10 CFR Part 50

I. Introduction

Edison Electric Institute submits these comments in regard to the Advance Notice of Proposed Rulemaking concerning Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities published by the Nuclear Regulatory Commission ("NRC") in the Federal Register of July 17, 1979, 44 Fed. Reg. 41483. These comments on emergency planning also apply to the issues raised in the Petition for Rulemaking recently filed by a number of organizations, including Critical Mass and Public Interest Research Groups. See 44 Fed. Reg. 32486 (June 6, 1979).

Edison Electric Institute is the association of the nation's investor-owned electric utilities. Its members serve 99.6 percent of all ultimate customers served by the investor-owned segment of the industry, generate more than 77 percent of all of the electricity in the country and service more than 77 percent of all ultimate electricity customers. A number of Edison Electric Institute's members are the operators of nuclear power reactors and/or are responsible for the planning, design or construction of additional reactors. Its members therefore

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would be affected directly by the adoption by the NRC of additional regulations concerning the adequacy and acceptance of emergency planning around nuclear facilities.

Edison Electric Institute agrees that the Commission should complete this important proceeding promptly. Among other things, this will serve to provide the NRC staff and NRC licensees with necessary guidance. However, because of the complex and interrelated issues which this rulemaking addresses--including the legal and practical responsibilities of Federal, State and local governmental entities and NRC licensees--the Institute strongly urges the NRC to publish a proposed rule for notice and comment rather than making any rule immediately effective. There is no justification here for circumventing the normal requirements of Section 4 of the Administrative Procedure Act for obtaining comments from the public and deliberate consideration of these comments by the Commission prior to rulemaking. The requirements of the National Environmental Policy Act might also be violated by making any such rule immediately effective. Finally, the Commission would be violating the request by President Carter voluntarily to apply the policies and procedures of Executive Order 12044, 43 Fed. Reg. 12661 (March 24, 1978) if it acted precipitously in this important matter and without preparation of a Regulatory Analysis.

The precise applicability of any revised emergency planning requirements to the siting and licensing of nuclear power plants for which applications have not yet been filed requires further evaluation in the light of this rulemaking proceeding. The Commission should continue to consider emergency planning requirements at the construction permit stage. However, detailed planning requirements appropriate to the operating license stage are unnecessary and infeasible at the construction permit stage.

Edison Electric Institute's comments on the issues raised by the NRC in the Advance Notice of Proposed Rulemaking follow.

II. Comments on Issues Raised in Advance Notice of Proposed Rulemaking

1. What should be the basic objectives of emergency planning?
 - a. To reduce public radiation exposure?
 - b. To prevent public radiation exposure?
 - c. To be able to evacuate the public?To what extent should these objectives be quantified?

Response:

For nuclear facilities, the basic objectives of emergency planning should be:

- (1) To provide reasonable assurance that appropriate measures can and will be taken to protect public health and safety in the event of an emergency.

(2) To limit public radiation exposure in the event of an emergency.

(3) To provide timely dissemination of accurate information to local, State and Federal authorities and to the public.

The objectives or purposes of emergency planning should not be confused with the various measures which may be employed to accomplish these fundamental objectives. To accomplish these objectives, any emergency plan must allow flexibility and provide for early communication to designated governmental officials who will determine the appropriate action to be taken. Experience has shown that emergency plans cannot account for all possibilities in any practical manner. The NRC should not require that emergency plans for nuclear facilities attempt to encompass every conceivable type of emergency situation or prescribe in advance specific protective measures (such as evacuation).

Evacuation is but one action which may be appropriate in the event of an accident. Evacuation should not be the objective of emergency planning. Other actions are sheltering, administering radioprotective drugs, using special breathing apparatus, and curtailing access to contaminated areas. Officials responsible for implementing the protective

actions must be able to take into account existing and projected constraints and use professional judgment to determine which actions are most appropriate to protect the public at a particular site. Each protective action carries its own risks and those risks must be balanced against both the risks from the projected radiation exposure in the event of an accident and the risks of alternative protective measures.

Preventing all exposure under all accident conditions is not a feasible objective. Each emergency plan should have as an objective taking the preventive measures most effective to limit public radiation exposure. Quantified criteria, such as the Environmental Protection Agency's Protective Action Guides, should be applied only to define an accident situation and to initiate various phases of the emergency plan taking into account the risks of alternative actions. Therefore, the Commission should not attempt to quantify an acceptable level of public exposure as a basis for emergency planning.

The objective of timely dissemination of accurate information to the public encompasses both prior notification (see Issue 7) and ongoing information during an emergency (see Issue 2). This objective includes not only providing accurate information but also eliminating or

refuting inaccurate information which is reported or rumored.

2. What constitutes an effective emergency response plan for State and local agencies? For licensees? What are the essential elements that must be included in an effective plan? Do existing NRC requirements for licensees (10 C.F.R. Part 50, Appendix E) and guidance for States (NUREG-75/111) lack any of these essential elements?

Response:

Most of the elements of an effective radiological emergency plan are in common with those of an effective plan for other types of public emergencies such as floods, tornadoes, train derailments and chemical tank ruptures. Thus, the best assurance of an effective radiological emergency plan is for it to be incorporated in an overall plan for all other types of emergencies, which are dealt with much more frequently than are radiological emergencies. This also provides a greater opportunity for testing the plan's workability. Organizational responsibilities and emergency functions which are common to all types of disasters should be included in general emergency planning, so they need not be duplicated for radiological emergency planning. The latter should address only those matters which have particular significance or are unique in responding to a radiological emergency. The role of local officials

in communications, traffic control, evacuation, public notification and other emergency responses tends to be the same regardless of the cause of the emergency.

An effective emergency response plan must integrate the plans of the State and local agencies and the licensees. An effective emergency plan should ensure that actions to control an accident, assess the extent of a hazard, initiate notification and protective measures and terminate protective measures will be carried out promptly and expertly.

The essential elements of an effective emergency response plan are all defined within the following five functions: -

- 1) define the organizational and operational roles of all of the parties involved;
- 2) state limitations which, when exceeded, actions will be taken;
- 3) establish communication channels;
- 4) outline plans which provide flexibility for dealing with the emergency; and
- 5) establish means to test the plan and monitor its effectiveness.

The first function is the most crucial; without identifying who is to do what, and when, the other elements in a plan exist in a vacuum. The question, 'Who is in charge?' should be answered before it must be asked. Fragmented authority can contribute to the problem, making

it more serious than it might have been.

State and local officials. State and local officials have the responsibility to determine and carry out appropriate measures to protect public health and safety in the event of an emergency. Responsibility for the initial response to limit public radiation exposure rests with local governmental officials who have the knowledge of existing local conditions and the authority necessary to implement protective measures for the public in their jurisdictions.

Licensee. The NRC licensee's role is necessarily limited to: (1) notifying offsite authorities of the potential hazard, (2) providing ongoing assessments of the hazards, (3) providing radiological assistance if requested, and (4) recommending to offsite State and local authorities public protective measures that might be effective.

Federal Government. The role of Federal agencies should be regarded primarily as supportive of, and not as a substitute for, responsible action by NRC licensees and State and local governments. The nature of the support to be provided to State and local governments by Federal agencies, including the NRC, should be clearly defined in the emergency plan.

The second essential element in an emergency plan is a set of procedures to define what an accident is; that

is, to determine when emergency activities of any sort should be initiated and terminated. Assessment is a subelement of this function: determining current and projected magnitude and possible impacts.

Once the initial emergency determination and assessment has been made, the next essential element of the plan--communications channels--becomes crucial. Communication among all of the parties to the plan is essential to provide assurance that appropriate measures will be taken. The consequences of an accident can be effectively limited only if the actions of Federal, State, and local government and licensees are well-coordinated and lines of communication are clear. The NRC and other Federal agencies must identify their chain-of-command for communications. Early communication by the licensee of potential hazards and consequences to responsible governmental officials is important to allow them the time to decide promptly among the measures available. The time available for action is strongly related to the time consumed in notification. All of the parties involved--NRC licensees, State and local authorities, and Federal agencies--must know how to communicate with the others, with whom to communicate, and what information should be communicated in what form. Some of the necessary subelements are the bases for notification,

methods of communication, call lists of specific authorities, notification networks, 24-hour-day coverage, and listings of specific information needed from the facility for decision-making. The concept of an offsite emergency response center has been offered as part of the solution to the communications problem and it should be adopted. Physical as well as organizational communications channels must be adequate for emergencies. Direct links through dedicated circuitry, or their equivalent, between facilities and State and local officials and between facilities and NRC regional or Washington offices should be required. Communication links between State and Federal officials should be established where required to support the emergency plan.

State and local government plans must provide for the fourth element, flexibility. The responsible government officials must be not only aware of, but prepared to implement, a variety of protective measures. Each accident may have different consequences, both in nature and degree. Different types of releases may cover different time periods; wind and weather conditions also affect release characteristics. Planners must consider the time required to implement particular protective measures (such as evacuation) in terms of the specific release characteristics for each site.

The final element, testing, is essential in order to ensure that the other elements are all in place and that the plan will work as designed. The means to implement this element must provide for regular review, drills and tests, and cooperation among all parties. See the discussion for Issues 6, 10, and 14.

The existing NRC requirements and guidance are adequate on a generic basis, but they should be viewed as guidelines to be adapted for individual facilities. The emphasis should be on two areas: site-specific variations, and radiological-specific variations. A large number of specific emergency plan elements will vary from site-to-site, because-of facility characteristics such as size and safety features, local geographic, climatic, and demographic features, and technical resources of the responsible State and local governments. Similarly, the assistance and guidance required to be offered to State and local governments by the NRC and the NRC licensee should be aimed at those aspects of emergency planning which are significant or unique to radiological accidents and the particular plant, respectively. Review in connection with licensing actions by NRC should be functional and site-specific; plans should not be required to contain elements which are unnecessary or inappropriate for the particular facility under review.

3. Should NRC concurrence in the associated State and local emergency response plans be a requirement for continuing operation of any nuclear power plant with an existing operating license? If so, when should this general requirement become effective?
4. Should prior NRC concurrence in the associated State and local emergency response plans be a requirement for the issuance of any new operating license for a nuclear power plant? If so, when should this general requirement become effective?

Response:

The NRC already evaluates State and local emergency response plans on a site-specific basis in the licensing process, and it should continue to do so. However, prior NRC "concurrence" in State and local emergency plans should not be a requirement for either new or continuing licensing. If there is to be a significant modification in either the level of review or the result of a review, three key issues must be addressed:

- 1) How should concurrence or non-concurrence be defined?
- 2) What time frame should be allowed for bringing plans into compliance?
- 3) What are the legal and practical problems involved and how can they be resolved?

Concurrence should be defined on a functional and site-specific basis. Emergency plans should be reviewed only in terms of whether they satisfy the objectives

outlined in the response to Issue 1. The NRC should not dictate or require specific procedures for implementation, but should consider whether essential functions for public protection are included. Licensing decisions should not be based on whether or not every item on a detailed list is checked off. The NRC may define key elements which must be covered in some manner but should not define subelements in such detail as to preclude flexibility of response or ability to adapt to differing State and local government organizational concepts. The plans should be reviewed from an overall perspective rather than in a piecemeal fashion. The NRC should consider whether some elements of the plan are defined or implemented in such a way as to offset or mitigate an apparent deficiency in other elements. Similarly, the NRC should review State plans only in conjunction with and with reference to the plans of the licensee and the localities in the vicinity of the nuclear facility. If the public in the planning zone is provided adequate protection in any manner, further NRC concurrence in the State's overall plan should not be necessary. Functional review should also be directed to site-specific characteristics rather than to technical compliance. Neither the State and local governments nor the licensee should be required to include elements which are clearly inappropriate or unnecessary for a particular site.

The time frame afforded for plans to be brought into compliance should be realistic and should also be site-specific. In setting deadlines, the NRC must recognize that licensees cannot take unilateral action to improve State and local plans. Furthermore, any deadlines should recognize that actions cannot be taken until further guidance is given by the NRC in coordination with other responsible Federal agencies. The time limit should also allow for normal scheduling problems and for site-specific adjustments. For example, States and local governments which have done little emergency planning in this area will need more time to "start from scratch" than governments which already have plans which merely need minor adjustments or improvements to be brought into compliance. Areas made up of a number of small, independent local governments will need more time for coordination than an area with one large, active county government. Such small governments will also have fewer resources to devote to the emergency planning problem and may often be distracted by more immediate local problems.

There are also several legal and practical issues which should be considered. These involve problems of the role of the new Federal Emergency Management Agency (FEMA) and Federal/State and State/local relationships. First, the NRC has no authority to require States or

localities to develop emergency plans. The NRC should not link emergency planning and nuclear powerplant licensing in a way which would penalize consumers for the failure or unwillingness of States or localities to develop emergency plans. This is a particularly sensitive issue where a single site may encompass a multi-State emergency planning zone. Secondly, the level of emergency planning which is acceptable to the affected public is essentially a State and local political issue. If the public to be protected wants a more effective plan, it will make this known to the State and local government planners through the political process. The Federal Government could provide additional financial and technical assistance to encourage emergency planning if financial constraints are the problem. Finally, NRC concurrence procedures cannot impose any specific division of labor or relationship between States and their local governments. State laws and State participation in and contributions to local emergency planning will vary. The NRC cannot require any particular type of decision to be made or action to be taken at any particular level. This problem may be overcome, however, by reviewing emergency plans on a functional basis rather than on a detailed procedural basis.

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5. Should financial assistance be provided to State and local governments for radiological emergency response planning and preparedness? If so, to what extent and by what means? What should be the source of the funds?

Response:

Federal funds should be provided as needed for general plans to meet all types of emergencies. This should be administered by the new Federal Emergency Management Agency. If States and localities have adequate general emergency plans, there should be little need for additional planning, or funds, for radiological emergencies at specific sites. Federal assistance for generic radiological emergency needs, however, should be provided. This could be done either through FEMA, or through the NRC, which has more expertise in assessing and defining such needs. The NRC has a responsibility to encourage and assist State and local authorities to develop nuclear emergency plans.

"Generic" needs which could be Federally funded include training for State and local personnel who might be expected to respond to a nuclear emergency (e.g., police, firefighters, medical workers), communications links, and equipment necessary for offsite monitoring and assessment. The amount of assistance provided should be site-specific and geared to the realities of the problems encountered by

State and local governments in developing their own emergency plans. Federal oversight should be provided to ensure that the assistance is used appropriately.

6. Should radiological emergency response drills be a requirement? If so, under whose authority: Federal, State or local government? To what extent should Federal, State, and local governments, and licensees be required to participate?

Response:

Drills by licensees are now required by 10 C.F.R. 50, Appendix E, are described in Regulatory Guide 1.101, and are recommended in NUREG 75/111. Although a decision to require state or local government participation on a regular basis could provoke legal challenges concerning Federal authority over state and local governments, cooperation in such tests should be strongly encouraged to ensure that the emergency plans will work as expected. Drills should be conducted under combined Federal, State and local authority. Drills should be as realistic as possible and should, at a minimum, test the communications links for ability to make contact, and for notification speed and message content.

Although it may not be possible for the NRC to require State and local participation, it may be possible to encourage it in a number of ways. For example, State and local authorities can be educated about the types of

problems which have been identified in previous drills and which could have been serious in a genuine emergency, pointing up the need for identifying such problems in advance. If financial constraints inhibit State and local cooperation, Federal funding should be provided. The public should not be asked or required to participate (see Issue 14).

7. How and to what extent should the public be informed, prior to any emergency, concerning emergency actions it might be called upon to take?

Response:

It is both impractical and undesirable to provide detailed information about the actions which might be taken for all possible emergencies. As emphasized above, one of the essential objectives of an emergency plan is to maintain flexibility of response. Providing detailed information to the public in advance of an emergency situation might even limit the ability of responsible officials to choose among major alternative protective actions. Yet, without some prior knowledge of what to expect and what to do, the public may not react as quickly or as cooperatively as the situation demands. If information is supplied in advance to the public, it must include (1) the potential hazards involved, (2) the range of

protective responses expected, and (3) how emergency instructions will be communicated. The communications aspect of prior information is most important. The information need not explain the specific protective measures to take, but it is important for the public to know the nature of the possible emergency, that an emergency plan exists and how the public will be informed about it if it is ever put into operation. As with many other aspects of radiological emergency planning, providing prior public information should be part of the State and local general emergency planning. If the public knows how it will be instructed about hurricanes, tornadoes, floods, or industrial accidents they need only know that the same source will also be used for nuclear emergencies.

The general level of information recommended could be disseminated in a number of ways. It is a State or local responsibility to provide this information, as it is for any other emergency planning information, and the NRC should not shift this responsibility to its licensees. If necessary, FEMA may provide funds for publication in local newspapers, announcements on local radio or television stations, or similar methods. The detailed emergency plans could be maintained for public inspection and comment at announced locations and a copy could be made available to a

member of the public on request. As noted above the plan, should not be generally published or distributed.

8. What actions should be taken in response to the recommendations of the joint NRC/EPA Task Force Report (NUREG-0396/EPA 520/1-78-016)?

Response:

There should be emergency planning efforts based on a plume exposure pathway. Detailed emergency planning should continue to be performed for the Low Population Zone, established for each plant on the basis of specific plant and site features. It would also be reasonable to establish an emergency planning zone around each plant ranging out to about 10 miles for the plume exposure pathway. However, the detail of planning should be greater within the smaller radius of the Low Population Zone than beyond the boundary of this zone and out to the 10-mile radius. Recognizing, for example, the fact that there is more time to take protective action the farther one is from the plant in the event of an accident, it is reasonable to conclude that the type and level of emergency planning should not be the same for the entire 10-mile radius. Requiring the same level of planning for the entire 10-mile radius would divert scarce resources from the real task at hand.

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State and local planning should address controls over an ingestion pathway. It is important in this connection to consider what constitutes a real "emergency" situation, and to recognize that some types of protective measures cover situations that are not "emergencies" in the most immediate sense. For example, while potential ingestion exposure zones may be large, the time period available for taking protective measures is much longer. Wind speed and dispersion effects tend to be correlated in such a way that the faster the release is spread, the more it is dispersed, thus reducing the potential exposure. Because the danger arises from ingestion, there are more points at which protective measures may be taken. Sources of exposure may be identified and dealt with on the ground and before processing, or after processing and before distribution. Again, there is considerably more time for projection, assessment, and implementation of protective measures than there is for the plume exposure pathway.

The emergency plans made for other accidents contain elements which are also applicable to so-called Class 9 accidents, such as a definition of the organizational and operational roles of the parties; communications channels; a chain of command; and protective action guidelines. However, detailed planning should not be required

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for Class 9 accidents. There is no other type of emergency planning which is required or performed for disasters of such a level and of such low probability. The Three Mile Island accident and the response to it by Federal, State and local governmental agencies indicate that improvements are needed in emergency planning but also tend to confirm that Class 9 accidents should not form an explicit emergency planning basis. It is true that public perception of danger plays a much larger part than probability of occurrence in nuclear emergency planning. However, public perception should not be the NRC's final arbiter in this instance, where the magnitude of planning and the probability of occurrence are at such odds. Such planning, if required in similar detail as for other radiological emergencies, would constitute a considerable burden on State and local governments which, as noted above, do not perform emergency planning for analogous types of disasters.

9. Under what circumstances and using what criteria should a licensee notify State, local, and Federal agencies of incidents, including emergencies? When, how, and to what extent, and by whom should the public be notified of these incidents?

Response:

The licensee should be required to notify State, local, and Federal agencies where there is a serious

potential of radiological consequences in excess of a clearly defined limit, and when that excess has been indicated by plant conditions. As discussed in the Response to Issue 2, an essential element of an effective plan is a definition of action levels. A set of action levels in each emergency plan should define when notification will take place. The action levels should be established in such a way as to be non-discretionary for the licensee: when the level is met, the action is taken.

Notification levels should be set low enough for each nuclear facility to ensure that the public health and safety will be adequately protected. They should be set low enough to allow for early notification of the officials responsible for selecting and implementing protective measures. However, they should be set high enough to assure that there are not so many false alarms that notification is not taken seriously by either the agencies or the public.

Notification to the public should be made by a clearly designated governmental official in accordance with individual site and State-local emergency plans and quantified criteria such as the Environmental Protection Agency's Protective Action Guides. Public notification should not be undertaken by the licensee or the NRC. Notification to

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the public must clearly distinguish between emergencies for which action is to be taken and incidents reported for public information purposes only. Pre-emergency planning should be performed to define the types of information public announcements will contain as well as their format.

10. How and to what extent should the concerns of State and local governments be incorporated into Federal radiological emergency response plans?

Response:

State and local concerns should continue to be incorporated into Federal planning for several reasons:

1) The basic responsibility for implementing protective actions rests particularly with the local governments.

2) State and local governments are familiar with important site-specific conditions, some of which may change over time.

3) State and local governments are likely to be more cooperative with licensee and Federal efforts in emergency planning if they feel that their special concerns are being considered.

Coordination between State and local general emergency planning and Federal and licensee radiological-specific emergency planning should continue in order to

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ensure that crucial gaps are filled and that unique requirements are met.

Incorporation of State and local concerns can be addressed at several stages. First, State and local agencies should be invited to participate at the earliest stages of emergency planning (i.e., pre-licensing), to ensure that the plan's assumptions are locally realistic. Second, State and local participation in drills should provide opportunities for corrections and adjustments. At all times, State and local officials should be able to suggest changes which may be required by any local physical, economic, or demographic changes that they are aware of.

11. How should Federal agencies interface with State and local governments and the licensee during emergencies?

Response:

The lines of communication and authority should be a clearly defined element of each site and State-local emergency plan. Both the direct communications links and provision for an offsite emergency response center will facilitate Federal cooperation. The role of the Federal government should be primarily supportive, providing special supplies, equipment, or knowledge, as requested by the State or local governments or licensees. Federal

agencies operate at a general level of knowledge, and thus should take their lead from State and local agencies, which are more familiar with the specific site, conditions, populace and resources. Federal agencies should obtain guidance from the licensee with respect to plant conditions and equipment needed at the site.

12. Should the licensees be required to provide radiological emergency response training for State and local government personnel? If so, to what extent? Should the Federal government provide such training? If so, to what extent?

Response:

The NRC should be concerned with the level of training of local emergency personnel (or other mitigating arrangements) rather than by whom such is provided. General radiological emergency training could be either conducted or funded by the NRC or FEMA for localities which could not otherwise afford it.

13. To what extent should reliance be placed on licensees for the assessment of the actual or potential consequences of an accident with regard to initiation of protective action? To what extent should this responsibility be borne by Federal, State or local governments?

Response:

The NRC licensee's role should remain primarily an advisory one. The licensee's unique knowledge of the

plant must obviously be the basis for the initial assessment of the potential hazard, and also for ongoing assessments of any increase or decrease in the danger or its duration. However, the decision to implement offsite protective measures must be made by State and local officials in accordance with their own plans. The licensee has the responsibility to help the State and local officials understand the situation so that those officials who have the authority to order necessary actions can make appropriate decisions. The licensee has no authority to implement off-site emergency protective actions.

After the initial notification by the licensee as discussed under Issue 9, above, State and local officials should have the means to review the initial assessment and to monitor the actual hazards. Because most State and local governments cannot support full-time radiological specialists, it will be difficult for them to assimilate a wide variety of subjective assessment criteria. Therefore, offsite monitoring equipment and training, funded or provided by the NRC or FEMA, may be necessary to help establish uniform action level criteria on which to base decisions. The NRC and other Federal agencies should provide support and advice.

14. Would public participation in radiological emergency drills, including evacuation, serve a useful purpose? If so, what should be the extent of the public participation?

Response:

Public participation in emergency drills, including evacuation, would serve no useful purpose, carries unnecessary risks, and would be counter-productive. According to the NRC's response to the GAO report on emergency planning (EMD-78-110, March 30, 1979, page 52), public evacuations are carried out in the United States at the rate of about one per week. They are virtually all conducted without a prior drill, and usually result in an orderly public response with few evacuation-related health or safety effects. For example, in 64 evacuations involving 1,142,336 persons which took place between 1960 and 1973, there were only ten deaths and two injuries related to the evacuation process. Two of the deaths were the direct result of failure to follow directions, and seven were the result of the crash of a single helicopter, not a usual mode of evacuation. In "Evacuation Risks--An Evaluation" (EPA-520/6-74-002), an EPA study pointed out that there are many myths about public response to disasters. One such myth is that people become disoriented and hysterical during a disaster. The truth appears to be to the contrary: that it is difficult to make people take the danger seriously and to persuade them to leave their homes. If this is true during a genuine emergency, it is likely to

be more true for a drill; and it is questionable whether people can be legally required to participate in a practice drill.

Aside from the fact that such drills are unnecessary and could very well result in only a low level of public participation, there are real risks to consider. First, although evacuations are relatively safe, there still exists some likelihood of evacuation-related injuries and deaths. Second, there is the possibility that after a number of drills the public would not take the evacuation or other actions seriously and would fail to respond in a genuine emergency. Finally, there is the problem that drills may cause the public to react in a too patterned manner, limiting the ability of officials to make any changes necessary to adapt to actual emergency conditions.

The public should not be asked or required to participate in drills conducted by the licensee and State and local officials.