

October 10, 1978

DOCKET NUMBER
PROPOSED RULE PR-50(43FR 37473) (24)

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Attention: Docketing and Service Branch

Subject: Proposed Rule, 10 CFR 50 Appendix E, Emergency Plans for
Production and Utilization Facilities

The NRC published in the Federal Register on August 23, 1978, a proposed amendment to Appendix E to 10 CFR 50, "Emergency Plans for Production and Utilization Facilities," FR Doc. 78-23870. The purpose of this letter is to forward comments on the proposed amendment on behalf of the Steering Group of the Atomic Industrial Forum's Committee on Reactor Licensing and Safety.

It should be noted at the outset that there is a long history of the evolution and application of regulatory requirements concerning population densities and emergency planning in the vicinity of nuclear plant sites. In this regard, I would direct your attention to the enclosed AIF letter to NRC of November 24, 1975, commenting on a petition for rule-making to amend 10 CFR 50; and to the enclosed AIF letter to NRC of August 20, 1976, concerning a petition to amend 10 CFR 100. We are concerned that the amendment to Appendix E now proposed is a significant departure from long-standing regulatory practice, apparently without adequate consideration of the long history of related matters of concern.

Our additional comments on the subject Proposed Rule are as follows:

1. The NRC has failed to demonstrate that an amendment to the rule is necessary, and specifically has failed to demonstrate that the proposed amendment would result in any improvement in public safety.
2. We object to the premise that diminishingly low-probability, nearly meaningless events (e.g. class 9 accidents) should play a dominant role in the site selection and evaluation process. This proposed amendment is the latest in an increasingly long list of considerations introducing class 9 events into the licensing process.
3. The proposed amendment, as written, is a "blank check" for imposing emergency planning requirements beyond the LPZ. The new requirements are not specified, and this uncertainty will result in uneven application of the rule and add great

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confusion to a process that has patiently evolved to reach some measure of definition and stability. The amendment also implies that the 10 CFR 100 requirements are somehow inadequate, without stating how or why this is so.

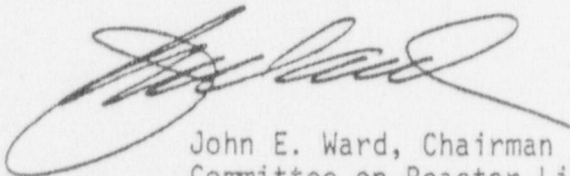
4. The proposed amendment does not specify criteria for requiring emergency planning beyond the LPZ, and is an invitation to litigation on this subject. Again, only confusion and instability would result.
5. The proposed amendment could decrease the effectiveness of emergency planning (or action) within the LPZ by diluting the limited resources available to carry out such planning or action. The overall level of public protection could therefore be decreased by the dilution of resources and the confusion created by the proposed amendment.

Recommendation

We therefore recommend that the proposed amendment not be promulgated at this time, and that the possibility of amending 10 CFR 50 Appendix E should be integrated into the review of the high-level NRC task force formed recently to make recommendations on NRC siting policy.

We would be pleased to discuss these comments and our recommendation further with you at your convenience.

Sincerely,



John E. Ward, Chairman
Committee on Reactor Licensing and Safety

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August 20, 1976

Division of Rules and Records
Office of Administration
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Petition for Rule-Making with Respect to 10 CFR
Part 100 on Behalf of the Public Interest Research
Group.

Gentlemen:

The July 1, 1976 Federal Register invited comments on the subject petition for rulemaking with respect to 10 CFR Part 100. In general, the petition challenged the adequacy of the current regulations and siting policy with respect to population density requirements.

The Steering Group of the AIF Committee on Reactor Licensing and Safety, employing the special expertise of its Ad Hoc Committee on Emergency Planning, has reviewed the petition. We contend that the petition has misjudged both the content and adequacy of the Nuclear Regulatory Commission's siting policies and practices. The NRC's regulations and siting practices when combined with the conservative accident calculational procedures they require are more than adequate to protect the health and safety of the public.

BACKGROUND

The policy set forth in 10 CFR 100 is an integral part of the Commission's overall reactor siting policy. As indicated in the introduction to Regulatory Guide 4.7, General Site Suitability Criteria for Nuclear Power Stations: "Site selection involves considerations of public health and safety, engineering and design, economics, institutional requirements, and environmental impacts."

In this context, reactor siting policy must be comprehensive, yet flexible enough to contend effectively with the range, variability, and diversity of site characteristics and design features that contribute to the overall evaluation of site acceptability. Since the publication of 10 CFR 100, Reactor Site Criteria, in 1962, its general site acceptability provisions have been supplemented by other regulations, e.g., 10 CFR 51, Licensing and Regulatory Policy Procedures for Environmental Protection, and a series of standard review plans and

regulatory guides such as Regulatory Guide 4.7 cited above, as well as case-by-case decisions of the NRC Staff, the ACRS, and the decisions of licensing boards in contested and uncontested proceedings. Notwithstanding the more specific acceptance criteria set forth in this supplementary regulatory guidance, the Commission has maintained broad discretion in their review of complex siting issues in which many competing factors must be considered. The introduction of Regulatory Guide 4.7 indicates some of these factors:

"The (siting) guidelines should be used in a screening process to identify suitable candidate sites for nuclear power stations. The decision that a plant may be built on a specific candidate site is based on a detailed evaluation of the proposed site-plant combination and cost benefit analysis comparing it with alternative site-plant combinations as discussed in Regulatory Guide 4.2 (Preparation of Environmental Reports for Nuclear Power Plants)."

Regulatory Guides 1.3, and 1.4, Assumptions Used for Evaluating the Potential Radiological Consequences of a Loss of Coolant Accident for (Boiling and Pressurized) Water Reactors, point to the difficulty in enveloping all sites and plants under one guide.

"In some cases, unusual site characteristics, design features, or other factors may require different assumptions, which will be considered on an individual basis."

The petition requests to amend 10 CFR 100 in regard to one aspect of overall siting policy, population density considerations; but, in approaching this aspect narrowly, the petition fails to give due consideration to other complicated and important factors that validate site suitability. Further, both the discussion and use of cited references by the petition indicate, in our opinion, a lack of understanding of the current regulations and companion guidance.

GENERAL COMMENTS ON THE PETITION

We believe the petition's proposed criteria to limit categorically the permissible population density to 400 people per square mile out to a distance of 40 miles are without basis. The petition makes numerous references to a series of internal Commission "working papers" in which such concepts were discussed. However, it notes, "though our numerical standards are based upon figures developed by the Commission's Staff, we do not find them satisfactory. Their specific derivation

does not demonstrate a thorough analysis of the problem." We agree that the population density limits expressed in the cited "working papers" were, and are, without sound technical bases--a compelling reason for their never becoming regulatory guidance. Moreover, the petition's stated reason for accepting these limits, i.e., that "any restriction on population density is better than none", does not, in our opinion, take into account the existence of current requirements or constitute any justification for the proposed limits.

Regarding the petition's specific proposals for amending the regulations with respect to "exclusion area" and "Low Population zone" distance limits, we believe that the petition misconstrues and confuses the purpose of these limits and their relationship with the population density requirements proposed. The petition's basic misunderstanding of current practice in this regard is discussed further below.

CORRELATION OF COMMENTS TO CURRENT PRACTICE

Part 100 contains definitions and exposure guidelines which, when combined with related calculational techniques, are used to evaluate distance requirements for the "exclusion area," the "low population zone," and the distance to a "population center." The philosophy implicit in the regulations and used to develop the above quantities is predicated on protecting the individual as well as to considering the risk to the surrounding population.

In current practice, potential radioactive releases are calculated from predetermined postulated "Design Basis Accidents" to assure that the conservatively calculated resultant doses to an individual who resides at the boundary of the exclusion area and to an individual who resides at the boundary of the low population zone, would not exceed the exposure guidelines set forth in 10 CFR 100. This approach provides a common benchmark against which risks to individuals at various sites can be judged. This approach does not discriminate against individuals based on the location of the plant. Consideration of societal risks are also included in 10 CFR 100. This is accomplished in part by the definition of a population center distance and through incorporation of population considerations in site evaluation practices.

Conservatism is deliberately built into the formal regulatory guidance for implementing Part 100. The source terms specified in TID 14844 which are carried into Regulatory Guides 1.3 and 1.4 are extremely conservative and, as such, impart a large degree of conservatism to any siting judgement. These guides also ignore various mitigating features, and contain unrealistic assumptions such as zero time inventory release to the containment and other assumptions which increase the calculated results of the event. (As a point of perspective, many participants in the licensing process raise serious objection with the excessive amount of conservatism these guides add to this calculational process; and they believe that if improvements are to be made to the process, unrealistic assumptions should be reconsidered and appropriate credit should be given for the actual safety features provided by plant design.)

Furthermore, additional conservatism is built into the guides during the construction permit stage of licensing.

"During the construction permit review, guideline exposures of 20 rem whole body and 150 rem thyroid should be used rather than the values given in 100.11 in order to allow for (a) uncertainties in final design details and meteorology or (b) new data and calculational techniques that might influence the final design of engineered safety features or the dose reduction factors allowed for these features."

The provisions of 10 CFR 100 are inextricably related to the design features of the plant which in many respects have developed from the application of these regulations. Therefore, to understand the regulations in the context of licensing issues the petition addresses, it is essential to recognize that the exposure guidelines, accident definitions, and related calculational procedures (both suggested in 10 CFR 100 and amplified through regulatory staff guidance) are interrelated and cannot be considered comprehensively in isolation from each other.

In this regard, the significance of the "Design Basis Accident" to the implementation of 10 CFR 100, particularly as the petition would have it revised, does not appear to have been understood. Plant designs provide engineered safety features to limit the consequences of "Design Basis Accidents" so as to assure that the exposure guidelines of Part 100 are met. In this manner, protection of the individual is addressed and the impacts on the surrounding population are also taken into consideration.

In the above context and in view of the foregoing, the petition's basis for amending current requirements, does not appear to be either supported by or consistent with its recommendations. More restrictive recommendations on population density requirements such as the petition requests would have to be predicated entirely on the basis that overall risk to the general populace is unacceptably high. In this regard, the petition alludes to consequences of a "very large uncontained release" as the basis for the need for more stringent population density requirements (to reach this point, the petition must assume accidents more severe than design basis accidents, however, the petition raises no basis for expanding the range of design basis accidents). It is inconsistent, moreover, to at once attempt to justify population density requirements on this basis, in which the mitigating systems derived from Part 100 analyses are assumed to fail, and at the same time, suggest, as the petition does on page 23, that, if population density guidelines exceed their recommended limit during the lifetime of the operating plant, the applicant "provide state-of-the-art engineered safety features to assure that the conservatively calculated consequences of postulated design basis accidents (emphasis added) are significantly below the dose guidelines of Section 100.11." This basic inconsistency in logic leaves no basis to support the petition's proposed recommendations.

COMMENTS ON REFERENCES AND INFERENCES

In the first paragraph on page 3, the petitioner makes initial statements which are really the yet unproven conclusions he wishes to be drawn after arguments are presented. In this regard, the remaining presentation is previewed by stating that reactors are built too close to metropolitan areas and that nuclear plants are a "looming hazard." The basis for such statements is neither presented nor referenced. The petitioners purpose is clearly stated in that paragraph, "Petitioners believe that an end to reliance on nuclear power is the only true solution to the problem." This stated bias and admitted objective must be considered in the review of the petition's reasoning and demands.

The petition includes numerous comments with respect to current licensing practice on population density requirements. In contrast with the petitioner's criticism, the Commission recognizes in its published regulatory guides and standard review plans that as the requirements of Part 100 are addressed population density considerations should be evaluated in conjunction with various other factors in choosing among viable sites.

This current policy is applied in the context of an overall site acceptability analysis. Each reference made by the petition to official regulations and guidance reinforces rather than detracts from the reasoned manner in which population considerations are now included in the licensing process.

Several examples of this are worth noting. On page 8 of the petition, reference is made to an excerpt from Regulatory Guide 4.7 which suggests that in cases involving certain population densities, special attention should be given to alternate sites. This procedure is, of course, consistent with the current process in which alternatives are considered in the overall site evaluation process; it does not mean that any single factor, such as population density should inflexibly dictate the selection of a site as suggested by the petition. Later, on page 16, the petition again refers to Regulatory Guide 4.7 but misinterprets the intent of the guidance, which, in this context, simply identifies distances for exclusion areas and low population zones-- these distances which have been found acceptable under Part 100 even at locations with particularly unfavorable meteorological conditions, would most likely assure that the calculated dose exposure limits could be met with state-of-the-art engineered safety features. This simply offers a coarse evaluation approach to reduce the need for early site data analyses, based on a statistical treatment of meteorological conditions at previously accepted sites-- that is, it was not intended to restrict the distance to the stated values, but to provide a simplified approach in such coarse site evaluations. The full analysis must still be done for a proposed site and reviewed in the licensing process. The suggested values of 0.4 miles for exclusion area distance and 3 miles for low population zone distance, therefore, have little meaning unless compared with the local meteorological conditions of the proposed site in question in combination with the engineered safety features on the standard or custom plant that will be placed on that site.

Regarding the several references made to the court decisions on the Bailly case, the petition failed to mention that the Supreme Court over-ruled the lower court decision.

The petition makes reference to the Reactor Safety Study (RSS) which, does not, in fact, support its contentions. The difference between the analyses of the Reactor Safety Study and the analyses used in licensing calculations must be appreciated if valid reference is to be made to the RSS. The RSS uses risk assessment techniques to evaluate the range of conceivable accident events and to thereby obtain a general perception of the overall risks portrayed by current nuclear power plant designs within ranges of uncertainty. This broad assessment of accident events is particularly useful in providing perspective by comparing these risks with non-nuclear risks to which society is exposed. In developing this perspective, the study incorporates postulated scenarios that go beyond what is considered reasonable as a design basis event.

However, plant designs and sites that are premised on current licensing practice were the subject of this risk assessment study. The results of this study indicate that the current framework for assessing doses and dose limiting systems in nuclear plants have provided an adequate design that presents low risk to the public. These results accrue, in part, from the highly conservative approach that the Commission has traditionally taken in the licensing reviews and analyses of plant applications.

Regarding the petition's reference to issues related to emergency planning, your attention is requested to our November 24, 1975 letter to the Commission which provides comments on these contentions.

SPECIFIC COMMENTS ON PROPOSED AMENDMENTS

Section 100.11 Subsection (a) (Page 21, Part A)

- (1) Inclusion of dose limits and distances in the same criteria are unnecessary, since dose limits coupled with meteorology imply a radial distance. An exclusion area radius of 0.4 miles may result in doses which exceed the dose criteria in Part 100.11 for some sites, and may be unduly restrictive for other sites. Exclusion area distances should not be generic, but should be evaluated from site specific data.

- (2) Here again, inclusion of dose limits and specific distance are inconsistent. The low population zone boundary should be chosen consistent with the surrounding population distribution, taking into account ease of evacuation, topography, meteorology and other site related factors. The dose should then be evaluated at the boundary of the LPZ for conformance with Part 100. As with the exclusion area radius, the LPZ boundary should not be generic.

The PIRG petition also failed to recognize the 25 rem Whole Body Limit. This limit should be retained in the low population zone criteria just as in the exclusion area radius criteria.

New Section to Part 100 (Page 22, Part B)

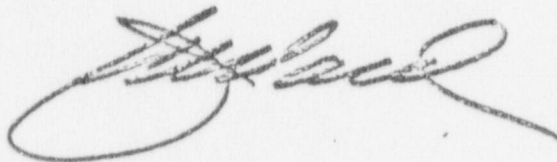
- (a) The petition simply provides no basis for this proposal. Any consideration of population density beyond the current requirements of Part 100 should take place in an overall analysis of viable sites and not under an inflexible rule. The appendices to the petition show that such an inflexible rule would have excluded a number of sites which have been found suitable, and indeed preferable to alternatives in a detailed review.
- (c-1) Since we are already required by 10 CFR 51.20 to perform an analysis of alternative sites, it is unnecessary to include this requirement in 10 CFR 100.
- (c-2) Part 100.10, Subsection (a), adequately considers the items discussed in this section.
- (d) The petition provides no basis for this proposal to reconsider engineered safety features during plant operation if its plant startup population density limits are exceeded. Current practice requires the projected population density for both the year of plant startup and the projected lifetime of the plant be included in the overall site-plant acceptability review; the licensing review also includes an evaluation of the adequacy of the engineered safety features. The petition fails to note that engineered safety features are designed to limit doses from postulated design basis accidents to individuals at the exclusion area and low population zone boundaries.

- (e) Each site should be evaluated independently. The comments in Part (a) on population density apply here. The current practice of accounting for transient occupancy on an annual basis by weighting such populations for occupancy time should be retained. By weighting the transient population in this manner, the transient population can be considered part of the permanent population for purposes of site evaluation. In any event, the probability of an accident occurring on the day the transient population reaches its maximum size can be evaluated. In practice, it has been found to be extremely low.

CONCLUSIONS

The proposed rule-making on 10 CFR 100 is not justified based on the arguments presented in the PIRG petition. As discussed above, current regulatory procedures with their many conservatisms are adequate. The proposed rule-making would only further complicate the licensing process without adding any benefit. We, therefore, contend that the subject rule-making is not necessary or justified.

Sincerely,



John E. Ward, Chairman
Committee on Reactor Licensing
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November 24, 1975

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Washington, D. C. 20555

Subject: Docket PRM-50 14 Petition for Rule-Making with Respect to
10 CFR Part 50 on Behalf of the Public Interest Research
Group, et al.

Gentlemen:

The September 23, 1975 Federal Register invited comments on the subject petition for rulemaking with respect to 10 CFR Part 50. In general, the petition challenged the adequacy of the current regulations and guidance.

The Steering Group of the AIF Committee on Reactor Licensing and Safety (CRLS) has established an ad hoc committee on Emergency Planning under the chairmanship of J. L. Elliott of Duke Power Company. Employing the special expertise of this ad hoc committee, we have reviewed the petition and believe that the petitioners have misjudged the bases for nuclear accident assessment and the Nuclear Regulatory Staff's (NRC) practices with respect to emergency planning provisions. The NRC's regulations, in fulfilling the Commission's lead operating agency role in nuclear incident planning, particularly when combined with accident calculation procedures which are very conservative, are more than adequate to protect the public.

Current Practice

In the reactor licensing process, highly unlikely sequences of events are postulated and their potential consequences analyzed by the applicant in the Safety Analysis Report which accompanies each application and by the NRC Staff in its Safety Evaluation Report for each plant. In developing a perspective on these postulated accidents and measures that are designed to mitigate the potential consequences of these accidents, it is relevant to note that emergency planning provisions are included as an adjunct to the overall "defense in depth" approach to design and licensing.

Defense in depth is a very comprehensive and complicated subject, which we will not attempt to describe completely here. However, to place the accident postulations and emergency planning in an overall context, a simplified overview of the three levels of defense in depth is briefly repeated below.

The first level addresses prevention of accidents through the design of the plant, including quality assurance, redundancy, testing and inspection. The approach is to design and build the plant so it will operate as intended with a high degree of reliability.

Despite the care taken at the first level, it is prudently anticipated that some failures or operating errors will occur during the life of a plant. Accordingly, a second level of protection is provided by means of protection devices and systems which assure that these incidents will be prevented or arrested in a safe manner.

The third level of safety, which supplements the first two, is to add even further margin by postulating for design purposes the occurrence of extremely unlikely circumstances. A spectrum of severe hypothetical accidents is postulated which only could occur in the event of failures in both the first and second levels of defense. These design basis accidents then are studied in detail, with combinations and sequences of events to make more demanding the safety feature performance objectives. From an analysis of these postulated events, the third level of features and equipment is designed and incorporated into the plant to control safely the situation and protect the public health and safety.

In this overall context, we concur with the current NRC judgement that it is reasonable, for purposes of emergency planning relative to nuclear facilities, to prepare for the potential consequences of accidents of severity up to and including the most serious design basis accident analyzed for siting purposes. These overall preparations to mitigate the consequences of postulated design basis accidents involve interfaces among federal, state and local agencies and the applicant.

The NRC has developed regulations for emergency planning that justify a finding of "reasonable assurance" that the public health and safety is protected. The regulations are set forth in 10 CFR Part 50, Appendix E, and 10 CFR 100 and in further regulatory guidance, the most relevant of which are noted below:

Regulatory Guide 1.70.14 -- "Information for Safety Analysis Reports - Emergency Planning" (Information requirements now are incorporated in Regulatory Guide 1.70, Revision 2 - Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants - LWR Edition", which was issued for comment on October 16, 1975)".

Regulatory Standard Review Plan 13.3 -- "Emergency Planning" (with Appendix A, "Emergency Plans for Nuclear Power Plants").

In a broader context, emergency planning responsibilities at the Federal level and the provisions for planning assistance to state and local governments are set forth in the January 24, 1973 Federal Register Notice, "Nuclear Incident Planning -- Fixed Facilities: Notice of Interagency Responsibilities", issued then by the Office of Emergency Preparedness, which has since then been replaced by the Federal Preparedness Agency of the General Services Administration.

Since the promulgation of this notice, the Nuclear Regulatory Commission has followed through in its lead operating agency role through the publication of WASH-1293, "Guide and Checklist for Development and Evaluation of State and Local Government Radiological Emergency Response Plans in Support of Fixed Nuclear Facilities", December, 1974. This document, a revised edition of a November, 1973 draft, provides a common reference and guidance source for: 1) state and local governments in the preparation of radiological emergency response plans in support of fixed nuclear facilities; 2) Atomic Energy Commission and other Federal agency personnel engaged in the review of such state and local government plans.

The above noted NRC documents offer guidance to the state and local agencies responsible for developing and implementing radiological emergency response plans. The applicant's responsibility for addressing the NRC requirements for emergency planning, include: a planning and local and state liaison function, general planning and implementation of emergency measures within its own site boundaries, and accident assessment and timely recommendations to state and local governments concerning protective measures in support of the state's overall responsibility for emergency measures.

Under these guidelines, the applicant is presently required to develop an emergency plan which, given the occurrence of a major plant accident, will allow for action to be taken to protect the public from radiation doses in excess of the guidelines of 10 CFR 100 and the guidance of Regulatory Guide 1.70.14. While details of any given plan are decidedly site specific, they are typically based upon dose analyses which employ very conservative assumptions with respect to radionuclide release terms, engineered safety feature effectiveness, and environmental dispersion. These conservative analyses provide the values of projected post-accident dose versus time and distance to be used in the planning process. The plan itself then focuses directly upon establishing procedures and interfaces such that evacuation and other appropriate protective actions can be effected within the time and distance constraints appropriate to the site.

Consideration of Additional Requirements

The subject petition, which proposed amendments to 10 CFR 50, requested, in general, that evacuation instructions be distributed within a 40 mile radius of the plant and that actual evacuation drills be conducted from at least a 7 degree sector out to at least 40 miles. In addition to the general argument against these requirements, that disproportionate attention has already been focused on the relative importance of planning for nuclear incidents as opposed to other postulated disasters of higher risk, impact-value considerations of evacuation must be taken into account from both standpoints of additional danger to the public from the test evacuation itself and from the economic, social, and employment costs perspective. The real burden placed on the surrounding community subjected to evacuation drills for highly unlikely postulated events must be considered in this regard.

Regarding the suggestion for wide spread publicity of emergency plans, the complexity of planning in itself requires a flexibility on the part of the emergency coordinator that will be hindered if plans were distributed to the surrounding public. In addition to the comprehensive nature of the plans which are designed to cope with a range of potential accident situations, the actual implementation will require a perception of the meteorological conditions and other parameters prevailing at the time of an actual incident; anticipatory action on the part of the public could be counterproductive to an actual evacuation. For example, the egress patterns selected by the emergency coordinator

could become congested if occupants that are not in the downwind sector evacuate and merge with the downwind sector evacuees. Moreover, evacuation in any specific number of degree sector to any arbitrary distance is an overly simplistic approach that, while sounding neat and definite, cannot be compared to the current practice of relying on a centralized communications system using the experienced input of the plant operator for evacuation assessment. In this regard, we believe the procedures provided for state emergency coordinators, as required by the current practice outlined above, provide the most flexible and effective mechanism for emergency planning.

Comments on PIRG References and Inferences

The petition for rulemaking to amend emergency planning regulations relies heavily on several sources of information as bases for indicating the inadequacy of current emergency planning requirements and the need for the petitioner's suggested solutions. These include the April 8, 1975 letter from William Kerr, ACRS Chairman, to NRC Chairman Anders and the results of critical reviews of the draft Reactor Safety Study.

Our review of the previously noted rules and guidance produced by the NRC, as supported by the July 19, 1975 response from Chairman Anders, indicates that many of the items are being resolved or rectified and that further fine-tuning actions are continuing within the current regulatory framework. The NRC Industrial Security and Emergency Planning Branch (ISEPB) is applying the stringent acceptance criteria of Standard Review Plan 13.3 in their review of current applications.

Regarding references to the Reactor Safety Study, (RSS) the importance of emergency planning to the overall study conclusions, the commentary on the validity of the study conclusions, and the relationship of the study to reactor licensing practice have been distorted. The difference between the analyses of the Reactor Safety Study and the analyses used in licensing calculations must be appreciated if valid reference is to be made to the RSS. The RSS uses risk assessment techniques to evaluate the range of conceivable accident events and to thereby obtain a general perception of the overall risks portrayed by current nuclear power plant designs within ranges of uncertainty. This broad assessment of accident events is particularly useful in providing perspective by comparing these risks with non-nuclear risks to which society is exposed. In developing this perspective, the study incorporates postulated scenarios that go beyond what is considered reasonable as a design basis event.

However, plant designs and sites that are premised on current licensing practice were the subject of this risk assessment study. The results of this study indicate that the current framework for assessing doses and dose limiting systems in nuclear plants have provided an adequate design that presents low risk to the public. These results, which have been maintained in the recently issued final version of the Reactor Safety Study, accrue, in part, from the highly conservative approach the AEC has traditionally taken in the licensing reviews and analyses of plant applications.

Conclusion

In considering overall risk to the public, due consideration should be given to the risk contribution of nuclear power plants as compared with other natural and man-induced disasters when considering the degree of preparation required. It is reasonable that states and local governments should assure that their plans for responding to radiological emergencies are coordinated with their plans for dealing with floods, earthquakes, or other disaster situations which might necessitate large scale displacement of people. Communications, traffic control, evacuation, public notification and other emergency responses will tend to be the same whether or not the emergency involves radiological considerations. This agrees with the NRC recommendation in their Guide and Checklist that "States should maintain general plans for providing emergency services and resources anywhere within their borders. The radiological emergency response plan should be made a part of, or annex to, the general emergency response plan".

Measures beyond those expended for other potential disaster should not be imposed for postulated nuclear accidents, which do not contribute significantly to risk. Regarding the alleged need for actual evacuation drills, there is no reason for isolating the highly unlikely nuclear accident event from other potential disasters when considering this need. It is unlikely that other disasters are currently given the attention that is now imposed on nuclear applicants. For example, in Standard Review Plan 13.3 Appendix A, "Emergency Plans for Nuclear Power Plants", the following statements are included:

"Periodic (at least annual) announced drills should be incorporated in the emergency plan. These should be pre-planned simulations of accidents to test the adequacy of timing and content of specific implementing procedures and to test emergency equipment. Arrangements should be made for critiques of the drills. Coordinating drills should be made with participating agencies at least annually, testing at a minimum the communications links. An initial coordinated drill with participating agencies should be planned and carried out prior to fuel loading of the first unit at any site".

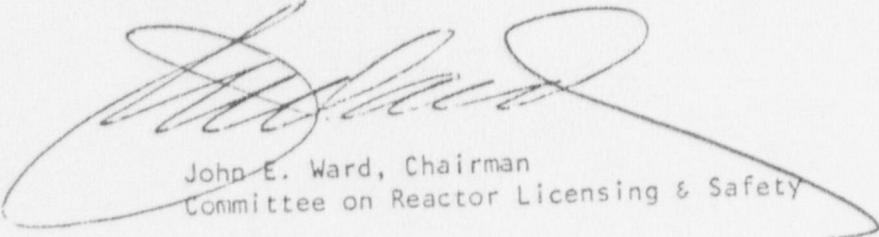
In summary, it is concluded that the emergency planning requirements in 10 CFR Part 50 and companion guidelines, in conjunction with the rigorous design bases for nuclear power plants that are required through NRC Staff licensing review and the "defense in depth" approach, provide measures

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which present low risk to the public. Through this integrated process, the NRC's requirements for public safety are clearly met. Disproportionate attention has already been focused on the relative importance of planning for nuclear incidents as opposed to other potential disasters of higher risk and, in this regard, the impact-value considerations noted herein do not point to the need for isolating and directing further attention to this specific risk. We, therefore, contend that the subject rule-making is not necessary or justified.

Sincerely,

JW:ssr



John E. Ward, Chairman
Committee on Reactor Licensing & Safety