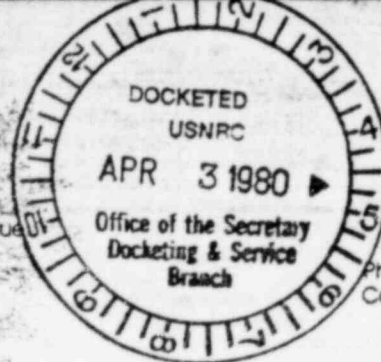


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March 28, 1980

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

DOCKET NUMBER
PROPOSED RULE PR-50 (173)
(44 FR 75167)

Re: Proposed Emergency Response Rule Changes to
10 CFR Part 50 and Appendix E to 10 CFR
Part 50

Dear Sir:

I am writing as counsel for the citizen's group SCANP (Skagitonians Concerned About Nuclear Plants), intervenors in pre-LWA proceedings relating to a nuclear facility proposed by Puget Sound Power and Light Co. for the Skagit River Valley of Washington State. SCANP's emphasis is therefore on rules relating to plants that have not yet been licensed, although our policy perspective applies to operating plants as well.

First, we commend the NRC for the advances it has made in its approach to emergency planning, as reflected in the proposed regulatory changes. It is encouraging that the NRC is responding to critical evaluation of its radiological emergency planning program with remedial action to correct deficiencies and errors of the past.

In soliciting comments on the proposed changes, however, it is unfortunate that the NRC sent special notification, enclosing the proposed rules, to all reactor licensees, construction permit holders and applicants, and not to a more balanced sample of interested parties. The proposed rules impact more than the utilities involved in the nuclear business: local and state governments, citizen groups, and residents in the vicinity of proposed or operating reactors also have a serious interest in regulations pertaining to emergency planning and their reactions are essential to NRC evaluation of the workability and adequacy of the proposed changes. In giving special notification and providing special workshops for licensees, CP holders and applicants, the NRC has sought one-sided comment from only a portion of the interested and impacted populace.

Acknowledged by card 5/2/80

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SCANP has played an important role in the Skagit pre-LWA proceedings. The group has made substantial contributions to the record on the full range of issues embraced by the proceedings, including geological site suitability (SCANP revealed the presence of active faults in the vicinity of the proposed plant), evacuation planning (SCANP showed that the utility's calculations were erroneous), meteorology (again, SCANP demonstrated that the applicant's calculations were erroneous), and many other equally consequential siting issues. SCANP hopes that its views will be of value here as well.

The need for changes in the present regulations has become increasingly apparent. Three recent government studies -- the GAO Report, Areas Around Nuclear Facilities Should Be Better Prepared for Radiological Emergencies, (March 30, 1979); the Committee on Government Operations Fourth Report to the 96th Congress based on a study by its Environment, Energy, and Natural Resources Subcommittee on Emergency Planning Around U.S. Nuclear Power Plants (August 8, 1979); and the Report on the President's Commission On the Accident at Three Mile Island, The Need for Change: The Legacy of TMI (October, 1979), -- concluded that present emergency planning requirements around fixed nuclear facilities are inadequate to protect the public health and safety.

The congressional report found emergency preparedness lacking at every level of responsibility -- Federal, State and local governments, and utility companies. It further found that (1) the Commission has failed to demonstrate strong leadership in this area; (2) the Commission has allowed nuclear facilities to be built with only a bare outline of emergency response capability; (3) the Commission has "grandfathered" older facilities, allowing them to operate under standards less stringent than the ones presently used; (4) the requirements of Appendix E and Regulatory Guide 1.101 are deficient in accident assessment, notification, drills, NRC review, and public information; (5) the Commission has been remiss in failing to condition operating licenses upon the existence of acceptable state and local plans; (6) the Commission's review and approval process for state plans has not yielded effective plans; (7) the LPZ

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planning basis is irrational; (8) the failure to analyze Class 9 accidents is imprudent, and (9) evacuation around a number of U.S. nuclear power plants is not feasible.¹

Similarly, the President's Commission's report on TMI concluded (p. 39) that "at all levels of government, planning for the off-site consequences of radiological emergencies has been characterized by a lack of coordination and urgency." The President's Commission found that the absence of a predetermined, tested plan in support of the TMI-2 facility led to confusion and a potentially dangerous situation in which key facts were not communicated effectively.

The GAO survey found a multitude of serious problems: e.g., reactor operators unwilling to inform the public of the potential for accidents and possible emergency response actions; local authorities in the vicinity of nuclear facilities who had not been informed of the need to develop emergency plans nor even that there was a potential for accidents; and state authorities who indicated that they were not confident of their capability to respond effectively to an emergency situation because of inadequately trained personnel, equipment, or procedures.

A. Emergency Planning Issues Must be Resolved Before Construction Begins.

These official reports recommended that operating licenses be granted only when State and local emergency plans are approved. The Congressional report concluded that the Commission has the legal authority to implement this recommendation (legal opinion of GAO provided to Toby Moffett²). In response to this recommendation, the argument has been offered by the NRC

¹The Committee on Government Operations Fourth Report to the 96th Congress based on a study by its Environment, Energy, and Natural Resources Subcommittee on Emergency Planning Around U.S. Nuclear Power Plants, August 8, 1979, pp. 48-49.

²Ibid., p. 32.

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and utility representatives that utilities should not have to suffer the consequences of inaction on the part of State and local governments. This argument clearly misplaces priorities. To the contrary, a nuclear facility should not be operated under unsafe conditions, e.g., lack of an acceptable emergency plan, irrespective of whether the utility is to blame for the conditions. The Atomic Energy Act clearly places primary emphasis on assurances of public health and safety. We concur with the recommendations of the reports, and believe that conditioning not only licensing but granting of construction permits upon existence of satisfactory State and local emergency response plans would be the best approach, and is required to avoid unnecessary and imprudent commitment of resources.

The issuance of construction permits should be conditioned not only upon the existence of adequate state and local plans, but upon the existence of a complete and workable site specific plan resulting from a cooperative effort on the part of the utility, the Federal, State, and local governments, and the public. If, instead, the composite emergency response plan is evaluated at the operating license stage, as this rule change proposes, large wastage of resources (often over millions of dollars and at great environmental expense) may result at sites where it is discovered that a practical plan which would provide for sufficiently rapid notification and implementation of emergency response action cannot be developed and the project must be abandoned. Furthermore, it is in the interest of the public not to allow the vast commitment of resources to be considered a factor to be weighed against the public's safety in a cost-benefit analysis which might be conducted in the event that a workable emergency plan cannot be developed. Emergency planning clearly is a site suitability issue. It would be anomalous to treat this vital safety issue otherwise.

The NRC Special Inquiry Group's Report, Three Mile Island, (Jan. 24, 1980) recommended that the construction permit and operating license stages be condensed into one stage. This recommendation was based on the finding that:

"one lengthy safety review is conducted too early to be useful, and the other is too late to be fully

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effective. In between times, the sketchiness of the original design makes the task of the Office of Inspection and Enforcement that much more difficult during the construction period". (p. 139).

SCANP agrees that information requirements at the construction permit stage are entirely inadequate. Site suitability safety issues demand that the requirements delineated in Parts III and IV of Appendix E (requirements for the FSAR) apply to applicant submissions for construction permit proceedings.

B. Inadequacies of EPZ Planning Basis.

SCANP recommends discarding the LPZ planning basis concept, but cannot advocate installation of the EPZ concept. At the proposed plume exposure emergency planning limit of 10 miles, the probability of exceeding PAG's (Protective Action Guides) in a core-melt accident is still 30 percent, according to the Report of the EPA/NRC Task Force on Emergency Planning.¹ PAG's are defined to be the doses to individuals which warrant protective action following a contaminating event -- it is therefore illogical to plan exclusively for an area which only two thirds of the time comprises the entire zone in which protective action must be taken in the event of a serious accident. A more rational approach would be to establish a zone which extends beyond the drop-off in probability of PAG exposure rather than just prior to the drop-off.

A further inadequacy in the concept of EPZ's is the emphasis on early health effects. Doses which cause early illness or injury are used as the basis for planning. Those which will cause cancer after a latent period, and which also deserve attention, are ignored. Planning to protect the public health should establish predetermined measures to

¹NUREG-0396, EPA 520/1-78-016, Planning Basis for the Development of State and Local Government Radiological Emergency Response Plans in Support of Light Water Nuclear Power Plants, a Report prepared by the NRC/EPA Task Force on Emergency Planning, p. I-37.

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protect the health of individuals exposed to dosages which will exert delayed health effects. Because no radiation dosage is known to be safe, emergency planning should at a minimum embrace areas where dosages may exceed the standards for worker exposure (5 rems).

The NRC Special Inquiry Group, in its Report on Three Mile Island (January 24, 1980), stated that "the selection of a 10-mile emergency planning zone by the NRC/EPA study as a ballpark figure, and the adoption of this number by the NRC in its proposed new regulations, appears to us to have been relatively arbitrary" (p. 133). Furthermore, the report stated that "wider evacuation may clearly be necessary in some unlikely accident situations" (p. 133).

Beyond the problems of the EPA/NRC Task Force rationale, it is important to note that the EPZ radii are based on the WASH-1400 Reactor Safety Study calculations. The EPA/NRC Task Force report was published one month before the Nuclear Regulatory Commission issued a statement which provided, inter alia, that the absolute values of the risks presented in the Reactor Safety Study shall not be used uncritically in the regulatory process, and that any such use in the past will be corrected as appropriate. This policy change was the result of a study performed by the NRC-commissioned Lewis Commission which found that many of the statistical analyses in WASH-1400 were erroneous and resulting accident probability values were underestimated. The EPZ radii therefore relied on a highly questionable information base and should be recalculated.

C. Government Entities Presently Neglected From Emergency Planning Funds.

A present inadequacy which needs to be better addressed in the regulatory changes is exemplified at the Trojan Nuclear Plant (c.f. Social and Economic Impacts of the Trojan Nuclear Power Plant, E. Wenk, et al., October 1979). Here, local jurisdictions which border on the locality in which the plant is sited have been unable to prepare adequate emergency response plans because they have not received funds from the utility operating the plant. Provisions must be made to ensure adequate funding of localities within which protective actions may need to be taken in the event of an

accident. Similarly, utilities operating nuclear facilities near state borders and national borders must reimburse those state and national governments for the costs of preparing adequate emergency plans. Furthermore, provisions must be made to involve presently neglected tribal Indian governments in emergency plans where appropriate, and to reimburse them for the costs incurred in preparing plans.

D. Deadline for State and Local Emergency Plan Approval.

The opinion was expressed in the supplementary information accompanying the proposed rule changes that the increment of risk involved in permitting operation for a limited time in the absence of satisfactory plans may not be undue in every case. The amendments to 10 CFR provides no criteria for determining which nuclear facilities should be shut down immediately and which facilities should be permitted to operate until January 1981, or 6 months after the effective date of the regulations. When is the increment of risk acceptable? SCANP maintains that the increment of risk in allowing the reactors that are presently operating in localities lacking satisfactory State or local emergency plans to operate for another six months is substantial and unacceptable. On December 7, 1979, the President directed that FEMA complete by June 1980 the review of State and local emergency plans for adequacy. State and local governments have therefore had ample notice of the necessity to upgrade their emergency plans and should be well on their way to preparing new plans. Thus, because there is a substantial public health and safety risk involved and because State and local governments should already be in the process of upgrading their plans, the deadline for obtaining State and local emergency plan approval should be made considerably earlier than is presently proposed.

E. Comments on Specific Rule Changes.

1. §50.47 and §50.54(s) and (t).

Emergency response capability review at the operating license stage is weakened by providing a loose means of skirting the requirement for concurred-in State and local plans. The provision in §50.47 and §50.54(s) and (t) that the applicant may demonstrate to the NRC that "deficiencies in the plan are not significant for the plant in question,

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that alternative compensating actions have or will be taken promptly or that there are other compelling reasons for continued operation," leaves too much to the Commission's/FEMA's discretion. There can be no guarantee that the Commission/FEMA will have adequate opportunity to review properly an applicant's submission demonstrating why concurred-in plans are not necessary. Furthermore, the language is overly broad. What are the criteria for determining whether "deficiencies in the plans are not significant for the plant in question"? Certainly, for local plans the concept is nonsensical. What types of "alternative compensating actions" would be acceptable? How is "promptly" defined, i.e., could a plant propose to undertake "compensating actions" a year after operating license issuance? If "compensating actions" are to be allowed, should not the operating license be made effective only upon completion of these compensating actions? What constitutes "other compelling reasons"? Is energy need sufficient? Or the fact that costs due to delay would be burdensome to the applicant? Clearly, the range of exceptions needs to be spelled out. Quite simply, these provisions invite applicants, and the Commission/FEMA, to overlook any and all substantive requirements of the new rules, and could negate completely any improvements otherwise provided for. Neither the public safety nor the credibility of the Commission can afford these escape clauses, which also invite additional litigation in an already complex scheme, in order to answer the factual questions posed above.

2. §50.47.

In practice, it would probably prove to make little difference whether the applicant were required to request an exemption in order to operate in the absence of concurred-in plans, or were allowed the opportunity to demonstrate reasons to the NRC in the course of operating license proceedings. SCANP has already made clear its concern that either of these alternative provisions would render the requirement for concurred-in plans spineless. If, however, the Commission finds it necessary to include one of these provisions, we would prefer that the alternative requiring a request for exemption be instituted. There is at least a small chance that this alternative may avoid the eventuality of every applicant attempting to demonstrate in the course of

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operating license proceedings why concurred-in plans are unnecessary, in lieu of undertaking the effort and expense to see to it that the State and local plans are worthy of concurrence. Furthermore, Alternative B, unlike Alternative A, includes the absolutely vital provision that no operating license will be issued unless the Commission finds that appropriate protective actions can be taken for any reasonably anticipated population within the plume exposure EPZ. A prerequisite to carrying out the mandate to protect the public in matters of radiological health and safety is conditioning operation of nuclear facilities upon the capability to undertake protective actions, including evacuation, in the event of accidents. The omission of this final provision in Alternative A renders this alternative useless for the protection of the public health.

3. §60.54(s) and (t).

Alternative B is infinitely superior to Alternative A in paragraphs (s) and (t) because Alternative B does not allow inaction on the part of the NRC/FEMA to jeopardize the health and safety of those who live near nuclear facilities. Under Alternative A, the NRC/FEMA could be slow in making a determination as to whether a reactor should be shut down and the reactor in question, for which emergency plans may be entirely inadequate, could remain in operation indefinitely. This is, in fact, a likely scenario because the NRC/FEMA is going to have its hands full during the six months following rule promulgation. Forty-one reactors are currently operating in states which do not have concurred-in plans (two of these states do not have any plan at all), and many more reactors are likely operating in localities without local emergency response plans. Thus, if the proposed regulatory changes are promulgated the Commission/FEMA will be besieged for the following six months, or for the time remaining until January 1, 1981, with newly formulated or revamped state and local plans which it must review. At the same time, the Commission/FEMA will have to be reviewing previously concurred-in plans to determine whether they warrant continued concurrence. In addition to these tasks, can the Commission/FEMA be making determinations as to whether a particular plant should be shut down and reviewing licensee submissions as to why the plant should not be shut down? The Commission/FEMA appears to have a formidable assignment before it, one which will

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require many man-hours to complete. Given the likelihood that the Commission/FEMA will be overworked for the period immediately following promulgation of these rule changes, Alternative B is preferable because the public will not be subjected to a dangerous situation for longer than these rules intended (6 months at most), simply because the Commission/FEMA has not had the opportunity to make a determination as to whether a plant should be shut down. Again, there is no reasonable choice. The public health and safety must come first.

4. 50.54(u).

It is unlikely that licensee employees would be capable of performing an "independent review." We therefore recommend that the review be conducted by an impartial party, in order to achieve an objective evaluation of the licensee's emergency plans.

The results of the review and recommendations for improvements should be submitted to FEMA. Without independent federal review, the results of the audits will likely be stored away and forgotten.

5. 50.54(v).

Will there be federal agency review of each licensee's plans for Appendix E compliance? We believe that FEMA review of the emergency plans of all licensees is the only way to enforce Appendix E.

SCANP suggests that the following paragraph be added to Section 50.54(v):

Any licensee who has not obtained approval from the FEMA for its emergency response plans within this time period shall have its operating license automatically suspended until such time as the licensee has upgraded its plans to comply with Appendix E of this Chapter and has obtained approval for its plans from the FEMA.

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6. 10 CFR Part 50, Appendix E.

As indicated above, site suitability safety issues demand that the requirements delineated in Parts III and IV should apply to applicant submissions for construction permit proceedings.

7. Appendix E, Part II(C).

Alternative B is superior to Alternative A because it requires inclusion in the PSAR of procedures by which protective measures are to be carried out. In order to prove that an effective emergency plan is possible, it is necessary to demonstrate that procedures can be devised whereby protective measures can be carried out. As the Committee on Government Operations Report of August 8, 1979 stated,

Good procedures can be the difference between effective and ineffective response to an emergency. Often the plan itself is an extremely complex and cumbersome document, requiring the interaction of large numbers of people and organizations. It is virtually useless to a single individual trying to determine what specific tasks he must perform in an emergency. Well-conceived procedures break the plan down into the multitude of tasks that must be performed when an emergency occurs, and they explain explicitly and simply how each task is to be done and who is responsible for doing it. If the quality of these procedures is not checked, there can be no assurance the plan can be carried out. The failure of the NRC to require submission of emergency procedures along with the plan makes the approval process only a half-way measure, and it creates the potential for fundamental deficiencies in the capability of utilities to respond to nuclear accidents.

Alternative B should read: "Protective measures to be taken. . ." (a typo? -- presumably there will be more than one protective measure.)

8. Appendix E, Part II(H).

Thorough analyses of: (1) the time required for means to be employed in the notification of state and local governments and the public, and (2) the time required to evacuate various sectors should be conducted for the PSAR. These are the crucial links which must not have any bugs, or unnecessary injury and death may result. The speed and thoroughness of public notification and the swiftness of evacuation are heavily dependent upon proper siting. It is therefore of utmost importance that these elements be examined in detail at the LWA stage.

9. Appendix E, Part III.

Alternative A is preferable because, although minimizing property damage is most certainly a secondary concern relative to protecting public health and safety, plans must be constructed to ensure protection of property. In this way, a small amount of foresight and planning may avoid a great deal of undue hardship.

10. Appendix E, Part IV(A)(2)(a).

Individuals who will take charge should be identified by name (to be updated each year) and position.

11. Appendix E, Part IV(A)(5).

A description of the types of tasks which could be performed by the persons with special qualifications who are not employees of the licensee but who may be called upon for assistance during an emergency should be included.

12. Appendix E, Part IV(B).

Specific actions in response to specific emergency conditions should be decided upon by the applicant and the State and local governments and submitted to the FEMA for approval. The more specific the plans, the better prepared the utility and emergency response agencies will be and the less delay there will be in deciding upon appropriate actions at the time of an accident.

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13. Appendix E, Part IV(C).

The details, rather than the mere existence, of a message authentication scheme should be required in order to assure that this important link is sound.

14. Appendix E, Part IV(D)(1).

Specific responsibilities of each principal official should be described.

15. Appendix E, Part IV(D).

An understanding on the part of the public of the emergency response plan is essential. The utility should be required to disseminate quarter-annually a package of information describing the possibility of nuclear accidents and the potential human health effects of such accidents and their causes, detailed explanation of the various methods of notification, description of the types of messages that may be transmitted to them so that the messages will be more easily recognized, detailed description and explanation of all of the protective actions which might be put in effect, a mapping of evacuation routes, a signal to be used to confirm evacuation, such as a red flag to be displayed in the front yard, and finally, the local radio station which will be the centralized source of information. The proposed rule requires public education information to be disseminated only once a year. This is entirely inadequate due to transience of residents and the likelihood that many new residents would be in the area for months before becoming informed of emergency response plans. We therefore consider it important that the information package be distributed at least quarter-annually, and that other avenues of education be utilized in order to achieve maximum public preparedness. Enclosures of information in monthly ratepayer bills, publication of information in the local yellow pages, T.V. and radio advertisements, and public meetings are additional means of educating the public, but none of these should be relied on solely because none will reach every resident. Provisions should be made for ensuring that all residents own working radios (an annual check) and for providing radios to any residents who do not already have one.

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Provisions should also be made to educate tourists and other transient populations through such means as posted instructions in tourist areas.

Notification of all persons outdoors in the vicinity of an accident by such means as aircraft with loudspeakers should be provided for. Persons charged with operation of aircraft should be identified.

A technical liaison should be provided as a source of information for the media. Pre-recorded messages should be required to be put on file with broadcasters so that time is not wasted composing the messages at the time of an accident.

Provisions should be made to routinely inform the public of the results of radiation measurements which indicate that the public is being exposed to doses exceeding normal background radiation.

16. Appendix E, Part IV(D)(3).

The footnote to this paragraph indicates that it is expected that alerting the public within the plume exposure pathway EPZ is expected to be essentially complete within 15 minutes. The capability to complete notification of all, not most, persons should be required. This will require that means for rapid notification of persons outdoors, persons who are deaf and persons who are incapacitated be established. Furthermore, this will require that redundant public notification systems be put into effect.

17. Appendix E, Part IV(E).

The type of equipment for personnel monitoring, and for determining the magnitude of and for continuously assessing the release of radioactive materials to the environment should be prescribed in the regulations. The number of monitors and the distance to be monitored should also be prescribed.

The President's Commission's Report on the Accident at TMI revealed that communications between involved agencies and other parties broke down, and the result was a potentially

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dangerous state of confusion. Certain integral agencies could not be notified because the phone lines were busy. Redundant communications networks other than phone lines between the emergency response State, local, Federal agencies and the utility should be required.

18. Appendix E, Part IV(F).

The program should train and drill all licensee employee regarding emergency plans.

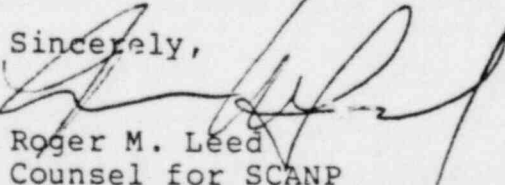
The exercise involving Federal, State, and local governments should also involve the utility (as presently written, the proposed exercise involves only governmental entities). Such a comprehensive drill should be conducted annually, rather than every three or five years, in order to train new employees and to continually refresh the minds of the remaining employees.

These drills are extremely important and should be undertaken in a serious manner. The report by E. Wenk, et al. on "The Social and Economic Impacts of the Trojan Nuclear Power Plant" (NUREG/CR-0973) indicates that drills conducted at the Trojan power plant failed miserably to achieve the desired objectives and pointed toward many necessary improvements.

The proposed regulations provide that a drill should be conducted within one year following operation. This foolish provision allows plants to operate for up to a year with untested emergency plans. A comprehensive test of the emergency plan should instead be conducted prior to issuance of a construction permit in order to make sure that the plan is workable.

Thank for this opportunity to convey our views. We understand that our comments will receive full consideration despite the fact they are late, due to the fact that the Office of Standards Development delayed over a month sending our office requested documents relating to the proposed rule change.

Sincerely,



Roger M. Leed
Counsel for SCANP

RML:mhh