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Congress of the United States

House of Representatives

Mashington, D.C. 20515

UNCKET RUMSER PR - 50 (44 FR 41483) August 17, 1979

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

Dear Mr. Secretary:

This is in response to the Nuclear Regulatory Commission's (NRC) Advance Notice of Proposed Rulemaking regarding the adequacy of emergency planning around nuclear facilities published in the <u>Federal Register</u> of 17 July, 1979.

In its Advance Notice of Proposed Rulemaking the NRC stated that it is interested in receiving public comment on objectives for efficient plans, acceptance criteria for State and local emergency plans, NRC concurrence in State and local plans as a requirement for issuance of an operating license or for continued operation of a nuclear facility, and coordination between the licensee plan and State and local plans.

Serious consideration of these issues by the Commission is long overdue.

The policies of the Atomic Energy Commission and subsequently the Nuclear Regulatory Commission over the past

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two decades with regard to the siting of commercial nuclear powerplants in the United States have produced a situation where currently 10 million Americans live within 20 miles of a nuclear reactor. At one time during the Three Mile Island (TMI) accident, the Chairman of the NRC told the Governor of Pennsylvania that it might become necessary to evacuate people who lived as far as 20 miles from the reactor site. Such an evacuation was later found unnec ssary in that particular accident. But 'he NRC Chairman's counsel to the Governor demonstrates that major protective actions could be necessary during a severe nuclear accident at substantial distances from the powerplant and for very large numbers of people. Effective emergency planning to ensure the protection of public health and safety thus by any measure should be the sine qua non of nuclear power.

Unfortunately the experience of TMI was not the first warning to the Commission concerning the inadequacy of its emergency planning and plant siting requirements.

In August 1976, a task force of officials of the NRC and the Environmental Protection Agency was created at the urging of the Conference of Radiation Control Program Directors, a national organization of state radiological health officers.

The task force was directed to determine the most severe effects of a nuclear powerplant accident for which radiological emergency response plans should be developed. It issued its report in December, 1978. The report recommended replacement of the Low Population Zone (LPZ) as the basis for emergency planning with what it called "Emergency Planning Zones." These Emergency Planning Zones would be of uniform size for all nuclear powerplants regardless of plant size, location, or design. There should be, said the task force, one zone of 10 mile radius in which plans are developed for coping with exposure from the "plume", or radioactive cloud, and another zone of 50 mile radius where preparation is made for prevention of exposure from ingestion of radioactively contaminated foods, such as milk. The task force took account in its analysis of the possibility of class 9 accidents and concluded that the zones it recommended were of sufficient size to ensure planning would be adequate to protect the public in the event of such accidents. It was sharply critical of the use of the LPZ as a planning basis.

In a report which was submitted to the NRC for agency

comment in December, 1978 entitled Areas Around Nuclear Facilities Should Be Better Prepared For Radiological Emergencies,

the Comptroller General of the United States concluded:

Presently, there is only limited assurance that the people near most fixed nuclear facilities will be adequately protected from the radiological consequences of a serious nuclear accident.

The Comptroller General therefore recommended that the NRC:

(R) equire that the people living near nuclear (power plants) be provided with information about the potential hazard, the emergency actions planned, and what to do in the event of an accidental radiological release.

Allow nuclear powerplants to begin operation only where State and local emergency-response plans meet all of the NRC's essential planning elements. In addition, NRC should require license applicants to make agreements with State and local agencies assuring their full participation in annual emergency drills over the life of the facility.

Establish an emergency-planning zone of about 10 miles around all nuclear powerplants as recommended by the Environmental Protection Agency Nuclear Regulatory Commission task force, and require licensees to modify their emergency plans accordingly.

In the face of these two detailed, highly professional reviews of NRC regulatory policy regarding nuclear plant siting and emergency planning and the near tragedy at TMI, it is shocking that the Commission seeks now to study the situation further rather than act.

I can state for the record that continued failure by

NRC to address these well documented problems may result in punative legislation which would place undue restrictions on the nuclear power industry and risk serious energy shortages in the immediate future. I note that the U.S. Senate has already passed legislation which would -- if it becomes law -- close down by June 1, 1980 any nuclear power plant located in a state which does not have an NEC approved emergency plan. Responsible action by the Commission can forestall this type of hasty legislation in Congress.

As a member of the Hous. Government Operations Committee, Subcommittee on Environment, Energy, and Natural Resources, which has legislative oversight jurisdiction over the NRC, I participated in that subcommittee's investigation of emergency planning around U. S. nuclear power plants.

The objectives of our investigation were far-reaching and included:

- The adequacy of utilities' emergency plans and of the NRC requirements pursuant to which they are prepared;
- The adequacy of planning by State and local governments;
- 3) The relationship of the NRC to the State and local planning process, including the validity of NRC guidelines for State planning and the question of whether the NRC should require that there be State and local emergency plans;
- The basis for emergency planning, including the question of whether the LPZ should continue as the basis or be replaced; and

The relationship between reactor siting and emergency planning.

In the course of our investigation, the Subcommittee held hearings on May 7 and 14 in Washington, D. C. and on May 10, in White Plains, New York. Witnesses at these hearings included utility company officials, local government officials, citizens group representatives, and the Subcommittee staff interviewed numerous Federal and other government officials and utility company officials, and it reviewed a substantial mount of documentary material.

The Subcommittee conducted case studies of emergency planning at two nucleær powerplant sites, Oconee and Indian Point, and the states and localities in which they are located. The Oconee site has three pressurized water reactors rated at 887 megawatts electric each. It is operated by Duke Power Co., w' ch generates approximately 30 percent of its electricity from nuclear power and is the country's second largest producer of electricity from nuclear power. The three plants are relatively new, having received their operating licenses in 19 and 197. They are located in a rural area of South Carolina, which has a State emergency plan concurred in by the NRC. At Indian Point, there are now two pressurized water reactors in operation: Indian Point 2, a reactor of 873 megawatts electric owned and operated by Consolidated Edison, and Indian Point 3, rated at 965 megawatts electric and owned and operated by the Power



Authority of the State of New York. Indian Point 2 received an operating license in 1973, Indian Point 3 in 1976. The site at which they are located is quite old, however, as Indian Point 1 was licensed in 1962. The Indian Point plants are located in a heavily populated area of New York, less than 40 miles from New York City. The State of New York has an emergency plan concurred in by the NRC.

Based on the investigation of our Subcommittee, the House Government Operations Committee concluded in its report, "Emergency Planning Around U. S. Nuclear Power Plante: Nuclear Regulatory Commission Oversight," (H. Rept. No. 96-413):

1. State of readiness

(a) Emergency preparedness at every level of responsibility— Federal, State, and local governments, and utility companies—is inadequate to protect the public health and safety in the event of a severe nuclear powerplant accident.

(b) Even with better emergency planning, evacuation of a sufficient area around a number of U.S. nuclear powerplants is not feasible.

2. NRC leadership

(a) The Commission has failed to demonstrate strong constructive leadership in the field of emergency planning.

(b) The Commission has not fully advised the public of the risk associated with nuclear power, especially the severity of accidents possible, and it has failed to inform the public of the need for emergency planning.
 (c) The Commission has failed to exercise its full authority in the

(c) The Commission has failed to exercise its full authority in the field of emergency planning and to give sufficient priority to emergency planning.

(d) The Commission's failures, both with respect to setting priorities and informing the public about the need for emergency planning, are in part responsible for the lethargic attitude of many utilities and state and local governments toward emergency planning. POOR ORIGINAL

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3. Utility plans

(a) The Commission has failed to involve itself substantially in emergency planning, leaving both the setting and the application of standards to the discretion of the staff. Delegation of authority to act in an area so directly affecting public health and safety is an unsound regulatory practice.

(b) The regulatory framework the Commission has allowed to evolve is an entirely unsatisfactory combination of mandatory regulations and voluntary guidelines and constitutes an unsound regulatory practice.

(c) The Commission has allowed nuclear powerplants to be sited and built with only the barest outline of what the emergency response capability is.

(d) The Commission has allowed U.S. nuclear facilities to operate under old emergency planning standards (as set out in Appendix E) less stringent than the standards it currently uses (Regulatory Guide 1.101), resulting in a level of emergency preparedness which nationwide is neither uniform nor adequate. Only four of 48 U.S. nuclear powerplant sites have emergency plans which comply with the current, more stringent standards. The Commission has no plan to bring these 44 noncomplying facilities into compliance with the current standards. The Commission's decision to "grandfather" nuclear facilities whose plans were approved under the old rule is an unsound regulatory practice.

(e) The requirements of both Appendix E and Regulatory Guide 1.101 are defective in a number of fundamental areas, including:

(1) accident assessment, including both onsite and offsite radiological monitoring;

(2) notification, particularly insofar as they fail to ensure prompt warning to both State and local officials;

(3) drills, in that they fail both to require annual drills and to require that State and local emergency plans be exercised clong with the utility plan during the annual drills;

(4) NRC review of emergency procedures, which are not required to be approved in the licensing process, and of the emergency plans themselves, which are not required to be periodically updated and resubmitted for Commission approval, creating serious potential for both abuse and good faith error by utility companies;

(5) public information, in that they fail to ensure that the public is fully and accurately informed about the hazards, particularly the hazards to human health during an accident, of nuclear power and the emergency response actions planned in the event of an accident.

4. State plans

(a) The Commission unquestionably has the legal authority to condition construction permits and operating licenses on the existence of approved State and local emergency plans.

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(b) The Commission has been remiss in failing to exercise that authority and thereby allowing nuclear powerplants to be built in States and localities which have unapproved emergency plans.

(c) The Commission's review and approval process for State plans has not yielded effective plans.

(d) The Commission's review and approval process for State plans is defective for failing to examine emergency response capabilities of local governments.

5. Planning basis

(a) The Commission has failed to set an explicit, legal requirement for the area within which utilities are required to carry out emergency planning, relying instead on a requirement which has evolved out of precedent and longstanding practice. Such regulation by "common law" is an unsound regulatory process.

(b) The current basis used by the NRC for emergency planning, the Low Population Zone, is irrational.

(c) In neglecting to analyze the most severe class of nuclear accident, the class 9 accident, the NRC has acted imprudently.
 (d) In relying on the Low Population Zone as the basis for plan-

(d) In relying on the Low Population Zone as the basis for planning, the NRC has caused to be formulated emergency plans which do not adequately protect the public health and safety.

I strongly support the recommendations of the Committee, based on the abovementioned findings. The actions that need to be taken to cure these deficiencies are not extremely costly nor do they require any large degree of the political balancing which is part of the legislative process. The Nuclear Regulatory Commission already has statutory authority fully adequate to ensure that emergency planning is done effectively.

It should be noted, moreover, that emergency planning can be dramatically improved without shutting down nuclear powerplants. None of the Committee's recommendations would, if effectively implemented, force plants to close or deprive Americans of the electricity they have come to rely upon, although serious questions beyond the scope of the Committee a report were raised about the effectiveness of evacuation planning for a few plants

now located in heavily populated areas. But the adoption of the Committee's recommendations would significantly enhance public protection from the hazards of nuclear power at existing and future powerplants.

The Committee made the following recommendations, all of which can be implemented by the NRC with its current statutory authority:

> With regard to its responsibility of leadership in the field of emergency planning, the NRC should:
>
> (a) make clear in its rules, policy statements, regulatory guides

(a) make clear in its rules, policy statements, regulatory guides and other official documents, that it considers severe nuclear accidents possible, not hypothetical, occurrences for which emergency planning is appropriate;

planning is appropriate; (b) involve itself more directly in this critical area rather than delegate virtually all work to its staff;

(c) review the Commission's resource commitments to both utility and State planning to determine if they are sufficient.

2. With regard to the plans required of utility companies operating nucl powerplants, the NRC should :

(a) upgrade the existing NBC standards for emergency planning, as expressed by Appendix E and Regulatory Guide 1.101, to ensure that compliance with them will, in fact, produce an effective emergency plan. At a minimum, the Commission should require:

(i) improved accident assessment, including better onsite and offsite radiological monitoring, the costs of which should be borne by the utility companies,

(ii) a notification system the hardware for which should include but not be limited to dedicated direct telephone lines and radio links to each State and local agency required by the utility's emergency plan to be notified in the event of an emergency,

(iii) annual drills of utility emergency plans with a condition that they be held jointly with drills of State and local emergency plans,

(iv) submission for approval during the licensing process of emergency procedures,

(v) periodic updating, subject to Commission approval, of emergency plans,

(vi) regular inclusion in customers' electric bills of accurate and specific information about the possibility and nature of nuclear accidents, the potential human health effects of such accidents and their causes, and the protective actions planned if an accident occurs,

(vii) improved public information procedure and facilities;



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(b) incorporate these upgraded requirements in a Commission rule;

(c) apply this new rule retrospectively so as to cover all operating powerplants, not simply new applicants.

3. With regard to state and local planning for nuclear emergencies, the NRC should :

(a) thoroughly review and upgrade its own requirements for State and local mans, particularly with regard to the adequacy of planning by local governments and the demonstrated capability for evacuation;

(b) incorporate these upgraded requirements in a Commission rule;

(c) review state plans in which it has concurred to determine if they in fact are capable of producing an effective emergency response, including evacuation;

(d) require, by rule, as a condition for the issuance of a construction permit for a nuclear powerplant, the existence of both a state emergency plan for the state in which the plant is sited and, for that site and each additional nuclear plant site in that state, a local p'ail that comply with the NRC standards contained in the rule described in 3(b);

(e) require, by rule, as a condition for the issuance of an operating license for a nuclear powerplant, in the case of all plants for which construction permits have already been issued, the existence of both a state emergency plan for the state in which the plant is sited and, for that site and each additional nuclear plant site in that state, a local plan that comply with the NWC standards contained in the rule described in 3(b);

(f) issue an order to each operating nuclear plant that, absent a showing that the State and locality in which it is located have approved emergency plans, its operating license will be suspended. While the Commission should determine how much time a utility will have to comply with this order, the Committee considers that in no case should more than 2 years be necessary and that in many cases, 1 year will be sufficient.

4. With regard to the planning basis for both State and utility plans, the NRC should:

(a) abandon the Low Population Zone and replace it with the concept of Emergency Planning Zones⁵⁹ as developed by the Joint Task Force of the NRC and the EPA for both plume and ingestion pathways, making these the areas within which, by rule, the utility is required to carry out those emergency planning tasks for which it is responsible:

(b) incorporate, by rule, in its standard for State and local plans a requirement that State and local authorities have a fully developed plan for the plume and ingestion pathway Emergency Planning Zones around each nuclear powerplant within the State.

5. With regard to nuclear powerplant siting, the NRC should :

(a) review, on a site-by-site basis, existing emergency response capability and determine the maximum sized zone around each plant for which evacuation is feasible within several different times corresponding to representative warning times for various types of accidents and advise the Committee of its findings within 180 days;

(b) require, by rule, that effective emergency response capability, including evacuation, be established in the licensing process by both utilities and state and local governments. While the Commission should determine the appropriate level of detail of planning that should be required as a prerequisite to issuance of a construction permit, the Committee considers that there should be considerably more planning at this stage than is presently required. The rule should require fully developed planning for issuance of an operating license.

In closing, I wish to thank the Nuclear Regulatory Commission for this opportunity to present the recommendations and findings of our Committee and my views on the adequacy of *e*...ergency planning around nuclear facilities.

Sincerely, YD/ FITHIAN

Member of Congress

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