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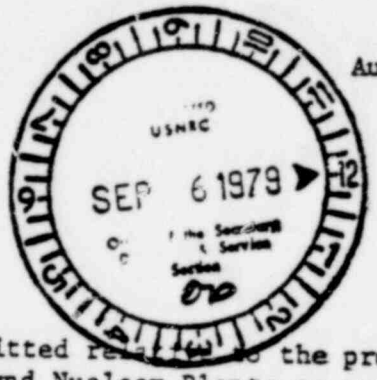

Secretary of the Commission
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Sir:

The following comments are submitted relative to the proposed rulemaking on the Acceptance of Emergency Planning Around Nuclear Plants as outlined in the Federal Register of July 17, 1979.

My perspective and experience may be enough out of the ordinary to provide a practical approach to the protection of the public. I have directed a major metropolitan civil defense operation for a number of years; I have personally instructed over a thousand police and fire personnel (as well as volunteers) in radiation monitoring and basic health physics; I have directed the planning for the evacuation of approximately 2 million persons and have implemented those plans with full traffic control staffing and associated services and reception areas. These years of experience and subsequent work in planning evaluation at a university, and as a planning consultant, have developed a perspective that is less than optimistic about the adequacy of local response in the absence of federal oversight and support.

I will comment briefly on each of the 14 issues listed in the Federal Register. I have two general concerns which I will summarize first. On February 10th I wrote to the Commission expressing my disagreement with a public statement of the evacuation of the low population zone. "To refer to the ad-hoc evacuations in the face of floods, hurricanes, chemical releases and the like as being comparable, by inference, to the evacuation which might be required in a nuclear accident, is grossly misleading. Neither the scale of the evacuation which must be planned (due to wind variability among other factors) nor the available response time are comparable. To speak of an effective notification scheme as being the key to implementation of protective measures is outrageously simplistic. Immediate notification is indispensable, but 99% of the action, and therefore the planning, must follow in a precisely structured and practiced format. If equipment is required, for communications, for monitoring, for preparation and reception of wind advisories, for any of the multiple tasks that need to be accomplished in such an emergency, it must be in place, tested, and maintained on a regular basis. Planning manuals and training programs are of no value without a state of readiness."

To continue the quote: "I realize that a readiness program is in direct conflict with the "safe" nuclear power image, in spite of the recent downgrading of the Rasmussen report. Nevertheless, if the low population zone continues to be one of the criteria for nuclear plant siting, this program requires realistic assessment and development to the point of utility. If this is not to be done, the program itself should be cancelled rather than being displayed as an additional safeguard."

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The events at Three Mile Island have established a continuing doubt about the capacity and willingness of a nuclear plant operator to provide immediate notification of an emergency. The reticence of the operators of the Davis-Besse plant in Ohio to provide information, even to the NRC, until well after an emergency event, is a case in point.

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The second concern relates to what has been the implicit acceptance of the social planning performed by the public utility. The future preferred by the utility (an identification required for any planning effort) has failed, in the past, to acknowledge the train of requirements that now must be recognized as an essential concomitant of nuclear power. That is, an emergency system, staffed, trained, equipped, and in a state of readiness for operation, 24 hours per day, every day of every year. The equipment mentioned above, such as instrumentation for monitoring exotic contaminants (well beyond the capability of current civil defense instruments), must be available, in place, tested, with trained operators available, and with communications to an operations center that can use the data to support emergency measures. This requirement has never been considered in the cost/benefit ratio of nuclear power. It should be from now on.

The general tenor of my response to the specific questions posed by the Commission is indicated by the foregoing. The specific response follows:

1. The basic objectives of emergency planning should encompass all three alternatives indicated. Public radiation exposure should be reduced, prevented, if at all possible, using evacuation measures to accomplish that protection. Your guidance acknowledges that "acceptable values for emergency doses to the public under actual conditions cannot be predetermined." Further, the concept of Protective Action Guides as a triggering level appear unacceptable if action to save lives or prevent damaging exposures is delayed in a fluid situation. There is no current assurance that the limits of the accident or of radioactive emissions are determinable while the accident is evolving. Just the opposite seems indicated by the Three Mile experience. Deliberate quantification of this response, except in terms of the population identified at risk, seems unacceptable. A qualitative response based on the desired outcome is a more appropriate planning path.

2. I have indicated earlier what I consider the only effective emergency response plan for State and local agencies. Obviously, given the time frame for possible response, the readiness of local or substate jurisdictions must be greater than that of the state or federal agencies which can only perform a support role. The requirements for licensees appear adequate in terms of on-site preparation. The notification process and the assurance that notification of potential offsite emergencies will be made is inadequate. I would prefer that provision for criminal charges be available where notification is avoided. State guidance also appears adequate in outline. I would prefer more explicit, precise guidance together with level of performance indicated.

3. NRC concurrence in associated state and local emergency response plans should be a requirement for continued operation of existing licensed power plants. No more than six months should be allowed for compliance following the issuance of revised guidance.

4. NRC concurrence in associated state and local response plans should be a requirement for issuance of new licenses. It should become effective immediately.

5. Financial assistance (and instrumentation) should be provided to state and local governments for radiological emergency response planning and preparedness. Training in the planning process and requirements; training for instructors for local agencies, aid for acquiring and maintaining equipment other than that normally used by safety forces, such as monitoring equipment, air samplers, and meteorological equipment. Coordination and shared expense with DOD emergency preparedness may be possible.

6. Radiological emergency response drills are an absolute requirement, involving all levels of government involved in the plan and the licensee. Participation must be mandated. The eventual authority must be federal, but the authority should be staged as in a real emergency.

Paper plans deteriorate rapidly. It is amazing how fast telephone numbers and personnel change. Cooperation and coordination, as well as equipment need to be tested under pressure. Regular testing, however, (at least twice a year) must not be allowed to substitute for a readiness requirement that is subject to regular unit testing. How often do you replace batteries in radiological monitoring equipment, for instance?

7. The GAO has identified the lack of federal policy on public notification. This is a deficiency that must be remedied at once. The public needs to know about the potential hazards, the emergency responses that may be required, and the plans of local and other government for providing protection. The public should be involved in the emergency planning as part of the mandated government response.

8. The recommendations of the joint NRC/EPA Task Force relating to the establishment of minimal emergency planning zones, time factors using no more than the recommended 30 minutes as the lower end of the time frame, and establishing radiological characteristics of the potential releases should be adopted for planning purposes. I disagree with their contention that no special provisions for the general public should be made, or that members of the public should be excluded from test exercises. Certainly, some provision should be made (for instance) for regional hospitals to be prepared for decontamination of radiation victims. To do otherwise, is to assure the further spreading of contamination and compounding the difficulties of cleanup.

Recent events require the updating of this report in a number of respects such as the estimate of the probability and consequences of a Class 9 accident.

9. Considering the limited response time, licensees should be required to notify the local state and federal agencies at once in any emergency involving off-site release. Lesser emergencies should require notification of federal agencies for determination of the need for local notification. If a permanent NRC representative is on site, the decision might be made by that individual.

10. The concerns of local and state governments should be incorporated into plan requirements. From full, accurate information on radiological hazards to such requirements as on-site pre-fire planning, the known concerns should be specified. Credibility can only be obtained with open planning.

11. Federal officials and agencies can only provide support in off-site emergencies when initiated, providing advice and expertise. The probability of federal control as the emergency phases into decontamination and cleanup is likely. This assumes that the local governments, and the state are prepared and ready.

12. The licensee should be required to assist in providing training for state and local personnel. They cannot remain just the beneficiaries. Such elements as refresher training and instrument repair and maintenance would be appropriate technical service.

13. According to the recent GAO report, there is little confidence among local officials that licensees would provide them with prompt and accurate notification. The responsibility should rest on a permanent NRC representative

14. While mass public participation in evacuation drills would probably not be useful, selected participation of institutions and organized groups in a range of emergency responses would be useful. Systems must be tested under minimal load, including shelter and reception areas. Public involvement in the planning process should be mandated.

Very truly yours,

James W. Cowden