SAN LUIS OBISPO AREA
TASK FORCE ON NUCLEAR POWER ISSUES
August 27, 1979

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Mr. Samuel J. Chilk,
Secretary of the Commission,
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Docketing and Service Branch

Re: Comment Upon Adequacy and Acceptance of Emergency Planning Around Nuclear Facilities

Dear Mr. Chilk:

This letter transmits to the Commission formal written comments concerning the adequacy, acceptance and implementation of emergency planning around nuclear facilities in anticipation of proposed rulemaking by the Commission.

BACKGROUND

As noticed in 44 Federal Regulations 41483, the NRC is considering the adoption of additional regulations which will establish, as conditions of power reactor operation, increased emergency readiness for public protection in the vicinity of nuclear power reactors on the part of both licensee and local and state authorities.

Acknowledged by card 9/4

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It is understood that the NRC's nuclear licensing process now requires only that power reactor license applicants plan for radiological emergencies within their plant sites and make arrangements with State and local organizations to respond to accidents that might have consequences beyond the site boundary. Although some efforts have been made on the part of the NRC and other federal agencies to aid State and local governments in the development and implementation of adequate emergency plans on a cooperative and voluntary basis, there is ample evidence that plans are inadequate and woefully devoid of implementing systems which could reasonably demonstrate their operational feasibility in a true emergency.

At the present, NRC approval is not required for State and local emergency plans as a condition of nuclear power plant operation.

As recommended by the Government Accounting Office (GAO, Report to Congress, "Areas Around Nuclear Facilities Should be Better Prepared for Radiological Emergencies," March 30, 1979) and confirmed by the events surrounding Three Mile Island, the NRC ought not license new power plants or allow existing plants to operate unless off-site emergency plans, among other things, have been deemed adequate and operationally proven feasible.

A recent joint NRC-EPA Task Force Report entitled, "Planning Basis for Development of State and Local Government Radiological

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Emergency Response Plans in Support of Light Water Nuclear Power Plants," NUREG-0396/EPA 520/1-78-016, provides additional insight into need for better regulatory standards and approaches to emergency response planning. The content of this report is discussed below.

This commentary has been developed following, in part, the issues outlined in the notice by the Commission dated July 12, 1979, and discusses:

A. Critical objectives for effective emergency plans;

B. Acceptance criteria for State and local emergency plans;

C. NRC concurrence in State and local plans as a requirement for issuance of an operation license and for continued operation of a nuclear facility; and

D. coordination between the licensee plan and the State and local plans/implementation.

INTRODUCTORY STATEMENT

A full analysis of the issues raised by the NRC in seeking these written comments has led to the conclusion that the very risks which the NRC, State and local agencies, and licensees are attempting to protect against are of such proportions as to preclude any appreciable success. The NRC should carefully weigh the significance of this conclusion, for if the risks to the public and the environment cannot be reasonably controlled under emergency situations, then there should be the gravest doubts whether the operation of such facilities should be allowed at all.

Nonetheless, it is crucial that the following comments be considered in order that the practical impossibility of successfully managing such risks be understood. If the NRC continues in its stated objective of improving emergency plans, the following responses represent the best and perhaps the only responsible manner in which such circumstances could be managed.

PUBLIC AND LICENSEE EMERGENCY RESPONSE PLANS

1. WHAT SHOULD BE THE OBJECTIVES OF EMERGENCY PLANS

On-Site Planning. The fundamental objectives of emergency planning within nuclear power plant sites are:

A. To prevent public radiation exposure;

B. To prevent the release of radiation off-site;

C. To reduce radiation exposure and damage on-site

Off-Site Planning. The fundamental objectives of off-site emergency planning in proximity to a nuclear power plant are:

A. To prevent public radiation exposure;

B. To prevent injury and loss of life;

C. To provide all levels of the food chain and property from radiation contamination; and

E. To protect all aspects of the local eco-system from both short and long term radiation exposure and damage.

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The NRC should establish quantitative criteria to accomplish the above only where such use will contribute to advance demonstration that the above objectives can and will be attained in a real emergency. Quantitative expressions should not be the exclusive means to determining whether objectives have been attained.

The objectives listed above are in order of the priority with which they should be dealt in an emergency situation.

2. WHAT CONSTITUTES AN EFFECTIVE EMERGENCY RESPONSE PLAN FOR STATE AND LOCAL AGENCIES? FOR LICENSEES? WHAT ARE THE ESSENTIAL ELEMENTS THAT MUST BE INCLUDED IN AN EFFECTIVE PLAN? DO EXISTING NRC REQUIREMENTS FOR LICENSEES (10 CFR PART 50, Appendix E) AND GUIDANCE FOR STATES (NUREG-75/111) LACK ANY OF THESE ESSENTIAL ELEMENTS?

An effective emergency response plan, whether on or off-site, is one which through testing demonstrates that the objectives of the plan can be achieved.

We believe a nuclear emergency plan is directly analogous to a grammer school fire drill and that no amount of planning on paper in terms of quantitative criteria or otherwise can satisfactorily guarantee success in advance of the emergency without thorough and repeated field testing of the plan and its components.

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Existing NRC regulations require nuclear facility licensees to develop emergency response plans. 10 CFR 50, Appendix E. These regulations are expressed in terms of minimum requirements, or elements, which do not provide criteria sufficient to establish that plans would work even if actually enforced, tested and updated. Portions of these regulations require the licensees to coordinate their plans with State and local agencies. Federal guidelines (NUREG-75/111 and EPA-520/1-75-001) recommend that State and local governments formalize their emergency response plans in support of these facilities to protect public health and safety in the unlikely event of a significant release of radioactive material from a nuclear facility to the environment.

Public emergency response plans and implementing systems must meet the standards set forth in this letter as a mandatory precondition to the construction, licensing and continued operation of a nuclear power plant. Federal law and regulations for licensees and public agencies, after public notice and hearings (involving full citizen participation) must include provisions for the following crucial elements:

A. Provisions that the primary responsibility for writing and implementing emergency response plans rests with state and local governments which must comply with but may exceed comprehensive, tested minimum federal standards;

B. Provisions for determining that State and local emergency response plans are totally integrated, clearly delineating the responsibilities of each;

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C. Provisions that licensee plans be totally integrated with such State and local plans, involving full citizen review and approval;

D. Assurances that both public agency and licensee emergency personnel have been certified through appropriate training and will remain on duty during an emergency;

E. Assurances that adequate and qualified medical and health services and facilities can and will accommodate the spectrum of medical and health needs which could arise during such an emergency;

F. Provisions for evacuating the public in times of radiation emergencies;

G. Specific measures to protect the public within not less than 100 miles of the licensed facility (planned off-site protective actions, including evacuation, shall explicitly take into account the anticipated range of actual or imminent radiation releases and durational, weather, seasonal, and traffic conditions);

H. Vesting of authority in the designated local lead emergency agency to halt plant operations where emergency plan tests demonstrate ineffectiveness.

3. and 4. SHOULD NRC CONCURRENCE IN THE ASSOCIATED STATE AND LOCAL EMERGENCY RESPONSE PLANS BE A REQUIREMENT FOR CONTINUED OPERATION OF ANY NUCLEAR POWER PLANT WITH AN EXISTING OPERATING LICENSE OR FOR THE ISSUANCE OF ANY NEW OPERATING LICENSE? IF SO, WHEN SHOULD THIS GENERAL REQUIREMENT BECOME EFFECTIVE?

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Revised NRC regulatory standards should be enacted promptly to assure the public's health, safety and welfare under the ominous risks perceived from nuclear reactor operations.

It is imperative that public emergency response plans supported by proof of demonstrated workability be approved in advance by formal action of the NRC as a mandatory requirement for the continued operation of any nuclear power plant with an existing operating license and as a mandatory requirement for the issurance of any new operating license or construction permit.

Because NRC regulatory standards concerning the adequacy of such plans and operational systems are themselves presently inadequate, this requirement should be effective immediately upon issuance by the NRC of new comprehensive standards.

The new comprehensive standards must contain complete provisions for the matters enumerated in the responses to questions 1 and 2 above.

5. SHOULD FINANCIAL ASSISTANCE BE PROVIDED TO STATE AND LOCAL GOVERNMENTS FOR RADIOLOGICAL EMERGENCY RESPONSE PLANNING AND PREPAREDNESS? IF SO, TO WHAT EXTENT AND BY WHAT MEANS? WHAT SHOULD BE THE SOURCE OF THE FUNDS?

Public financial assistance should not be the source for State and local governmental radiological emergency response planning and preparedness. Applicants and licensees are creating enormous public and environmental risks through the operation of nuclear power plants and should bear the costs to adequately manage these extraordinary risks.

Proper emergency planning and operational systems needed even to attempt to cope with such risks will require special resources, expertise, and on-going testing and reevaluation. Licensees and applicants should be required to deposit and maintain in trust with and for the use of the designated lead public safety agency or other responsible authority an amount sufficient to offset these extraordinary costs for specialized planning and implementation considerations, including both human and material resources.

6. SHOULD RADIOLOGICAL EMERGENCY RESPONSE DRILLS BE A REQUIREMENT? IF SO, UNDER WHOSE AUTHORITY: FEDERAL, STATE OR LOCAL GOVERNMENT? TO WHAT EXTENT SHOULD FEDERAL, STATE AND LOCAL GOVERNMENTS, AND LICENSEES BE REQUIRED TO PARTICIPATE?

No plan, per se, can save a life or prevent irreparable injury or loss of property. It is critical to the emergency response preparedness process that plans formulated under adequate standards

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and guidance be tested and demonstrated effective. Emergency tests should be required after the planning process has reached a point where testing would make evaluation possible. Such tests should be monitored by an agency qualified and disposed to render independent judgement. Tests should be under the direction of the agency designated by the State as being responsible for public safety within the area likely to be affected during emergencies.

Public participation in radiological response operational tests, including evacuation, would serve an essential purpose in evaluating whether the assumptions in the plans approximate reality.

Public participation should be considered only when the plans of the licensee and the public agencies have been sufficiently developed, integrated and been judged by the designated local emergency lead agency to warrant testing using human and equipment/facility resources which would be available in emergency conditions. The evaluation of drills should include maximum citizen participation through public meetings and other open forums.

It should be required that not less than two-thirds (2/3) of the population be involved in a minimum of three (3) drills prior to issuance of a construction permit and again prior to issuance of an operating license. Once a plant is operating, annual evacuation drills should be held to maintain a proper level of emergency preparedness and to take into consideration changes in governmental, licensee and medical and emergency personnel as well as changes in population density and location. Unsatisfactory drills would result in suspension of plant operations until the deficiency was fully rectified.

7. HOW AND TO WHAT EXTENT SHOULD THE PUBLIC BE INFORMED PRIOR TO AN EMERGENCY, CONCERNING EMERGENCY ACTIONS IT MIGHT BE CALLED UPON TO TAKE?

Approved public emergency response instructions should be developed and widely published in the media; posted in public areas and places of public accomodation (eg. motels/hotels, campgrounds); and generally be kept available and up-to-date on a systematic basis within all neighborhoods and communities within the established emergency planning zone. Additionally, licensees should be required to include public emergency response instructions to all customers at least twice a year or whenever approved changes to the instructions occur.

An ongoing and systematic program of public education on radiological emergency planning should be established to complement both the emergency instructions and the emissions reporting and public-alert systems discussed below. The education program should be administered locally by the designated lead public agency and financed by licensees.

Full, accurate and timely public disclosure should characterize any incident occurring at a nuclear power plant where there is any likelihood of risk to the public or environment.

Routine plant emissions should be reported to the public. Daily independent readings of recorded emissions should be reported for broadcast by local media. Such a reporting method must be based upon a reliable monitoring system, independent of the licensee.

There should be prior public notice of all scheduled emissions, and a proven alert and communications system to announce unscheduled emissions. Such a system must be automatic and not within the immediate control of the licensee.

Specific mechanisms to accomplish the above should be direct and not strictly through representatives of the licensee. A regularly informed public will become a more knowledgeable and rational public in situations where panic, confusion, or at least misunderstanding might otherwise prevail.

8. WHAT ACTIONS SHOULD BE TAKEN IN RESPONSE TO THE RECOMMENDATIONS OF THE JOINT NRC/EPA TASK FORCE REPORT (NUREG-0396/EPA 520/1-76-016)?

This report was prepared in response to a request to the NRC from the Conference of Radiation Control Program Directors to "make

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a determination of the most severe accident basis for which radiological emergency response plans should be developed by offsite agencies." This request followed other expressions of uncertainty from States regarding the extent of offsite planning and operational preparedness needed to cope with radiological emergencies at nuclear power plants.

Based upon our review of this report, it is urged that the NRC:

A. Require the use of a spectrum of accidents (not the source term from a single accident sequence) <u>and</u> concurrent external emergency conditions (eg. earthquake, hurricane, floods) as the basis for emergency response planning. Class 9 event sequences must be included in the planning basis, together with site specific evaluations regarding Class 9 accidents in environmental impact reports filed by license applicants;

B. Require and test <u>Emergency Planning Zones</u> for plume exposure and ingestion pathways based upon strict public safety/health risk considerations, not cost effectiveness or generic accident probabilities. Relative zone sizes/shapes should be based upon local planning and conditions using established minimum standards as the baseline;

C. Establish and test time frames and radiological characteristics of accidents at each plant site for use in determining appropriate effective emergency actions which could be taken to reduce accident consequences.

These requirements should be applied to and enforced upon all nuclear plants, planned, new or existing.

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9. UNDER WHAT CIRCUMSTANCES AND USING WHAT CRITERIA SHOULD A LICENSEE NOTIFY STATE, LOCAL, AND FEDERAL AGENCIES OF INCIDENTS, INCLUDING EMERGENCIES? WHEN, HOW, TO WHAT EXTENT, AND BY WHOM SHOULD THE PUBLIC BE NOTIFIED OF THESE INCIDENTS?

Licensees have demonstrated repeatedly a lack of responsibility on this issue. The designated public safety lead agency shall be notified of all reportable facility occurences by a qualified representative certified by the NRC. Such notification shall be direct, accurate and timely, supported by an independent offsite radiological monitoring system to determine radiation exposure to the public from plant emissions. The public safety lead agency shall maintain for the public a current record of all reportable occurences.

Reportable occurences having public risk-potential shall be reported to the public on a basis consistent with degree of risk perceived by qualified and responsible representatives of the designated public safety lead agency. See comments to Question 7.

The vast and largely unmanagable dimensions of this issue reinforce concerns that adequate public protection can never be responsibly assured.

NRC EMERGENCY PLANNING AND PREPAREDNESS PROGRAM

10. HOW AND TO WHAT EXTENT SHOULD THE CONCERNS OF STATE AND LOCAL GOVERNMENTS BE INCORPORATED INTO FEDERAL RADIOLOGICAL EMERGENCY RESPONSE PLANNING?

The existing "guidelines" of the NRC to State and local governments do not provide any degree of assurance that response plans or implementation resources will be developed, tested and sustained. Federal law and regulations are needed to set rigid minimum standards by which State and local governments can better set planning and preparedness objectives, and through which the Commission can determine the adequacy of the total emergency response plans and operating system for each plant site. Such national standards should be premised upon public health, safety and the environment, not economic or cost factors, and should not be preemptive of more rigid, consistent state/local standards.

11. HOW SHOULD FEDERAL AGENCIES INTERFACE WITH STATE AND LOCAL GOVERNMENTS AND THE LICENSEE DURING EMERGENCIES?

The NRC must serve as the focal point for the development and enforcement of both licensee and public radiological emergency response and preparedness standards to the extent expressed in responses above. Other federal agencies and the NRC should first provide sufficient authority for the designated public safety lead agency to successfully cope with such emergencies. At the emergency scene, it will be this local agency that can best manage the emergency plan and coordinate both licensee and other organization/service resources, including federal support.

12. SHOULD THE LICENSEES BE REQUIRED TO PROVIDE RADIOLOGICAL EMERGENCY RESPONSE TRAINING FOR STATE AND LOCAL GOVERNMENT PERSONNEL? IS SO, TO WHAT EXTENT? SHOULD THE FEDERAL GOVERNMENT PROVIDE SUCH TRAINING? IF SO, TO WHAT EXTENT?

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Operating licensees should be required to fund through a pooled trust arrangement adequate radiological emergency response training for State and local government emergency personnel. The training programs and the standards by which they are developed and administered should be the responsibility of the federal government working in close collaboration with State and local governments who are better able to perceive and judge local/site conditions. Failure to implement such training programs to the required standards would result in suspension of plant operations until the deficiency is fully rectified.

13. TO WHAT EXTENT SHOULD RELIANCE BE PLACED ON LICENSEES FOR THE ASSESSMENT OF THE ACTUAL OR POTENTIAL CONSEQUENCES OF AN ACCIDENT WITH REGARD TO INITIATION OF PROTECTIVE ACTION? TO WHAT EXTENT SHOULD THIS RESPONSIBILITY BE BORNE BY FEDERAL, STATE OR LOCAL GOVERNMENTS?

Operating licensees should <u>not</u> be the exclusive source of accident assessment where there is <u>any</u> public risk-potential.

The designated local public safety lead agency should assume this responsibility and be given the means to carry it out. See comment on Issues 8, 9, 10 and 11 above.

14. WOULD PUBLIC PARTICIPATION IN RADIOLOGICAL EMERGENCY RESPONSE DRILLS, INCLUDING EVACUATION, SERVE A USEFUL PURPOSE? IF SO, WHAT SHOULD BE THE EXTENT OF THE PUBLIC PARTICIPATION?

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Public participation in and evaluation of radiological response operational tests, including evacuation, would serve an essential purpose in evaluating whether the assumptions in the plans approximate reality.

Public participation should be considered only when the plans of the licensee and the public agencies have been sufficiently developed, integrated and been judged by the designated local emergency lead agency to warrant testing using human and equipment/ facility resources which would be available in emergency conditions.

It should be required that not less than two-third (2/3) of the population should be involved in a minimum of three (3) drills prior to the issuance of a construction permit and again prior to issuance of an operating license. Once a plant is operating annual evacuation drills should be held to maintain a proper level of emergency preparedness and to take into consideration changes in governmental, licensee and medical and emergency personnel as well as changes in population density and location. Unsatisfactory drills would result in suspension of plant operations until the deficiency was fully rectified.

CONCLUSIONS AND RECOMMENDATIONS

The adequacy of emergency response planning and preparedness in and around nuclear power plants should be predicated upon strict regulatory standards which affirmatively and directly demonstrate operational feasibility. It is now abundantly clear

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that plans do not an operational system make; and those public agencies responsible for safeguarding the health, safety, welfare and environment must aggressively and consistently discharge those responsibilities by developing and enforcing standards applied as a pre-condition to the construction or operation of nuclear power reactors. Because of the enormous risk-potential, lesser action would constitute gross disservice and irresponsibility. The cost of developing, managing and up-dating emergency plans should be the collaborative responsibility of the government at all levels. The extraordinary risks to the public and environment have been created by licensees who have neither the apparent business incentive nor corporate moral disposition to accept or responsibly manage such risks by their own initiative. Operators of existing plants and applicants for licenses should bear the full costs of these extraordinary risks. They should not, however, be placed in the position of determining the adequacy of emergency planning or preparedness systems.

It is strongly urged that the Commission:

1. Determine to proceed with proposed rules consistent with the above comments on issues relating to nuclear power plant and public emergency preparedness;

2. Make such regulations effective immediately upon issuance; and

3. Reconsider the petition for rulemaking filed by Critical Mass/Public Interest Research Groups concerning the operational details of evacuation planning. The petition has merit.

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The protection of humanity and the environment deserve no less.

Respectfully submitted,

The San Luis Obispo Area
Task Force on Nuclear Power Issues

By: Robert E. Griffin

This task Force was formed by and for the citizen organizations listed on the following Addendum Page to write and file this joint letter.

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SIGNATORY ADDENDUM PAGE

The following organizations within the San Luis Obispo, California, area join in the submission of the above letter dated August 27, 1979, to the U.S. Nuclear Regulatory Commission regarding the adequacy and acceptability of emergency planning around nuclear power facilities:

The Sierra Club
Santa Lucia Chapter
1727 Corralitos Avenue
San Luis Obispo, CA 93401

The Concerned Citizens
of San Luis Obispo
P. O. Box 456
San Luis Obispo, CA 93406

San Luis Obispo
Mothers for Peace
1415 Cazadero Street
San Luis Obispo, CA 93401

Seaside Survival Group
1397 Second Street
Baywood Park, CA 93402

Concerned Physicians of
San Luis Obispo
84 Santa Rosa Street
San Luis Obispo, CA 93401

Concerned Citizens of
Shell Beach
189 Leeward Street
Pismo Beach, CA 93449

South County Voters Against Diablo
1037 Ritchie Road
Grover City, CA 93433

Solid Rock
846 Marina
Morro Bay, CA 93442

People Generating Energy
452 Higuera Street
San Luis Obispo, CA 93401

Oak Tree Alliance
6604 Portola
Atascadero, CA 93422

Concerned Architects of
San Luis Obispo
738 Higuera Street
San Luis Obispo, CA 93401

The Secretary of the Commission is requested to provide each of the above organizations with all reports and documents published by the Commission relating to its actions on this matter.

cc: Senator Alan Cranston
Senator S.I. Hayakawa
Representative Robert J. Lagomarsino
Representative Leon E. Panetta
Governor Edmund G. Brown, Jr.
State Senator Robert Nimmo
Assemblyman Carol Hallett