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U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C.

TESTIMONY BY CHAIRMAN JOSEPH M. HENDRIE
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT, ENERGY AND NATURAL RESOURCES
OF THE
COMMITTEE ON GOVERNMENT OPERATIONS
UNITED STATES HOUSE OF REPRESENTATIVES

NOVEMBER 1, 1979

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Thank you, Mr. Chairman. We are pleased to return today and explore with you and the Committee another significant facet of the Three Mile Island accident, namely, the importance of emergency preparedness in the spectrum of protections to be assured to the public at or near nuclear facility sites. Prominent among the lessons learned from Three Mile Island is the fact that existing emergency preparedness arrangements for commercial nuclear activities should be promptly upgraded. All parties involved in emergency planning and in responding to actual accidents at nuclear sites--and that includes licensees, local government agencies, State agencies, and the Federal Emergency Management Agency (FEMA) as well as the NRC--must ensure that effective emergency plans are in place at every site and tested to confirm their adequacy.

Emergency preparedness has been an aspect of the NRC regulatory process from the beginning of our existence as an independent agency and earlier under the Atomic Energy Commission. The focus of the regulatory process in the past, however, has been strongly centered on prevention of accidents, as the first imperative, and mitigation of the effects of such accidents as may happen primarily through plant design features. I think Three Mile Island drove home the fact that serious accidents can happen and that their effect cannot always be quarantined by structural elements or neutralized by safety systems.

The NRC has taken action to improve emergency preparedness in the aftermath of Three Mile Island. I would like to discuss these NRC initiatives in the context of the recommendations made in your Committee's report entitled "Emergency Planning Around U.S. Nuclear Powerplants."

Your first group of recommendations indicates that the Commission needs to involve itself directly in emergency planning, make it clear by official documentation that it considers "severe nuclear accidents possible, not hypothetical, occurrences for which emergency planning is appropriate," and that it should "determine whether sufficient resources are committed to utility and state planning."

The Commission is convinced that emergency planning is an essential requirement for the protection of public health and safety and has emphasized its importance.

An early, explicit declaration of our determination to upgrade emergency preparedness was a letter signed by me and sent to Governors of States with nuclear power plants within or near their borders to urge immediate attention to the development of thorough, realistic emergency plans and to offer NRC's full assistance in that task.

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A recently issued Commission policy statement in response to the December, 1978 recommendations of the joint NRC/EPA Task Force on Emergency Planning accepts its guidance and recognizes the possibility of a wide spectrum of accident scenarios, including core meltdowns. In this and in work at the staff level, such as the report of the special NRC Task Force on Emergency Planning presented to the Commission in August, we have recognized the possibility of severe accidents and the fact that emergency planning is essential to the fulfillment of our mission to protect the public.

We have augmented the commitment of staff resources to emergency preparedness through temporary assignments of experienced reviewers to evaluate State and local plans. We have also requested, in our fiscal year 1980 budget supplemental, the addition of 14 new permanent positions for servicing this effort.

In your second group of recommendations, your Committee report focused on the plans of the utilities, our licensees. You indicate that the NRC should upgrade its standards so as to spell out effective utility plans and then incorporate these standards into a rule that retrospectively covers all operating nuclear power plants, as well as new applications.

In July of this year, we issued an "Advanced Notice of Proposed Rulemaking on Emergency Planning." The rulemaking is considered to be a matter of high priority by the Commission and the staff and is being completed expeditiously. Last Friday, the staff forwarded to the Commission a paper containing the proposed changes in regulations. Among other actions the proposal includes requiring use of 10 and 50 mile zones, annual drills of all agencies, and required annual public information on emergencies. A summary of its major changes is appended to my prepared statement.

In the interim, improvement of utility emergency planning is being carried out mainly by means of NRC staff reviews. The staff is reviewing licensee preparedness through team visits to operating nuclear power plant sites and is assessing updated facility plans against Appendix E to 10 CFR Part 50 (Emergency Plans for Production and Utilization Facilities"), Regulatory Guide 1.141 (additional guidance), and revised acceptance criteria. The revised criteria have the objectives of assuring: (1) effective coordination of emergency activities among all organizations having a response role; (2) early warning and clear instructions to the population-at-risk in the event of a serious radiological emergency; (3) continued assessment of actual or potential consequences on-site and off-site, including improved radiological monitoring; (4) effective implementation of emergency measures in the environs; and (5) continued maintenance of an adequate state of emergency preparedness, including periodic joint exercises with Federal, State and local response organizations, and licensees. As of the end of this week, the teams will have visited

16 out of 50 sites and conducted the initial reviews there. All utility plans should be upgraded within a year.

In the area of emergency communications, we have installed dedicated telephone lines between the NRC Incident Response Center in Bethesda and each operating power reactor control room. Auxiliary lines will be in place by the end of the year.

In the Committee's third group of recommendations, it is proposed that the NRC upgrade requirements for State and local planning, including demonstrated evacuation capability; that we incorporate the requirements into a rule; and that we evaluate the plans against the requirements. You also recommend that the compliance of State and local plans with the proposed rule be made a condition for issuance of new construction permits or operating licenses, or for the continued operation of plants already licensed.

The NRC staff is currently developing acceptance criteria which will integrate State and local government emergency plans and is working with FEMA to improve emergency planning guidance to successfully mesh those plans with utility plans by June 1980. In the interim, the staff will continue to evaluate State plans as part of the voluntary program of NRC assistance to State and local governments. In addition to this review of State plans, an appraisal of the effectiveness of these plans and need for revision will be conducted during the annual exercises that are required to maintain NRC concurrence.

Within the program for upgrading of utilities' emergency plans, the response capability of local organizations will receive special scrutiny. I might note that the acceptance criteria for upgrading utility plans also list specific provisions that will be congruent with provisions of State and local plans.

Among the major changes proposed by the NRC staff in the rulemaking proceeding now underway is the recommendation that an NRC concurred in State and local emergency plan be a precondition for receiving an operating license or for continuing to hold one. I am advised that the bulk of the comments received to date favors such a rule.

We believe that our increased efforts to assist State and local governments will result in the development of acceptable emergency plans within the next eight months, thereby obviating the need for suspension of operating licenses of nuclear power plants. Should those efforts not produce the improvement necessary to provide the level of preparedness we feel essential to protect the public, I would not hesitate to call for whatever action would provide that level of protection -- including the suspension of existing operating licenses.

In the fourth group of Committee recommendations, you address the planning basis for both the State and utility emergency plans. For emergency preparedness purposes, you believe the NRC should replace the Low Population Zone with Emergency Planning Zones (EPZs) as the planning basis and require, by rule, that there be plume and ingestion pathway EPZs around each nuclear power plant prescribed in State and local plans.

The Commission has concurred in the zone concept for use in State and local radiological emergency plans, in accord with the recommendation of the NRC/EPA Task Force report. We have directed the staff to incorporate the planning basis guidance into existing documents used for evaluation of State and local emergency response plans to the extent practicable. However, specific dates have not been established for full implementation of this concept.

In your last group of recommendations -- those dealing with nuclear plant siting -- you urge that the NRC review existing emergency response capability, including evacuation feasibility, and that we require, by rule, the establishment of effective response capability for utilities, State and local governments as a prerequisite to issuance of a construction permit or operating license.

We have endorsed, as I indicated, the concept of emergency planning zones and our review teams are encouraging the use of EPZs. In connection with that, the review teams will be evaluating the time required to implement protective measures, including evacuation, for the EPZ associated with the plume exposure pathway.

In addition to these activities, we have undertaken internal changes based upon the Task Force recommendations. The NRC Executive Director for Operations has appointed his Deputy as coordinator of all activities in NRC offices related to emergency preparedness. A steering group representing the major NRC offices having emergency preparedness responsibilities has been created. The Office of Nuclear Reactor Regulation has restructured its activities to ensure the thoroughness of the review of emergency planning in the licensing process. As part of our own effort to assure readiness to respond when offsite action must be considered, we are currently reviewing our own decision-making procedures and plan soon to have both the Commission's and NRC staff role in emergency response defined with detailed clarity.

In another major sector of our agency-wide commitment to fostering genuine and effective emergency planning, the Office of Nuclear Material

Safety and Safeguards is developing formal emergency preparedness guidelines and collecting data on the activities of fuel cycle and materials licensees, with a view to assessing potential hazards in this area and examining response capabilities. As I affirmed at the outset, every effort will be made to assure that each NRC-licensed facility or activity that could pose a significant risk to the public will have an up-to-date emergency plan.

In closing, I would suggest that the actions I have set forth are consistent with and responsive to the recommendations of this Committee. There is an imperative need for planning that will work in the real world, and that will not break down at the junctures between Federal, State, local, and private domains. I think it is possible that this Committee may be able to reinforce the good intentions and best efforts of all these elements to protect the public. That is our common objective, and I think we might do well to pursue it together.

That concludes my prepared statement, Mr. Chairman.

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Key Recommendations in Response to Commission's

Advanced Notice of Rulemaking on Emergency Planning

The proposed rule contains three major changes from current practices. The proposed rule would:

1. Require that an applicant's emergency plans, including State and local governmental emergency response plans, be submitted to and concurred in by the NRC as a condition of operating license issuance. (NRC concurrence in State and local plans is not required at the construction permit stage.) Additionally:
 - a. An operating plant may be required to cease operation or reduce power levels if a State or local emergency plan has not received NRC concurrence within 180 days of the effective date of the final amendments.
 - b. An operating plant may be required to cease operation or reduce power levels if a State or local emergency plan does not warrant continued NRC concurrence and the State or locality does not correct the deficiencies within 4 months of notification of NRC concurrence withdrawal.
2. Require that emergency planning considerations be extended to "Emergency Planning Zones," as discussed in NUREG-0396.
3. Require that detailed emergency planning implementing procedures of both licensees and applicants for operating licenses be submitted to NRC for review. This review would determine the acceptability of such procedures in providing reasonable assurance that emergency measures can be taken to protect the public health and safety in the event of a radiological emergency. The Office of Inspection and Enforcement would perform this review, as it does for other implementing procedures. The proposed rule, as drafted, would not require approval of the procedures. Approval would represent a departure from the manner in which detailed implementing procedures in all other areas (e.g., operation, radiological protection, safeguards) are now examined and would require a considerable increase in staff resources.

In addition, the staff is proposing to revise 10 CFR Part 50, Appendix E, "Emergency Plans for Production and Utilization Facilities," in order to clarify, expand, and upgrade the Commission's Emergency Planning regulations. Sections of Appendix E that would be expanded are:

1. Specification of "Emergency Action Levels" (Sections IV.B and C),
2. Dissemination to the public of basic emergency planning information (Section IV.D),
3. Provisions for prompt alerting of the public and instructions for public protection (Section IV.D),
4. Onsite and offsite emergency control centers (Section IV.E),
5. Redundant communications systems (Section IV.E),
6. Specialized training (Section IV.F), and
7. Provisions for up-to-date plan maintenance (Section IV.G).

Applicants for a construction permit would not be affected by the changes in Sections 50.33 and 50.54 but would be required to submit more information as required in the new Section II of Appendix E.

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TESTIMONY ON LOW-LEVEL RADIOACTIVE WASTE DISPOSAL

BEFORE THE

SUBCOMMITTEE ON ENERGY RESEARCH AND PRODUCTION

HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY

PRESENTED BY

JOSEPH HENDRIE

CHAIRMAN

U. S. NUCLEAR REGULATORY COMMISSION

NOVEMBER 7, 1979

1365 311

We are pleased to testify before the Subcommittee on Energy Research and Production on the very important subject of low-level radioactive waste disposal. About 3 million cubic feet of low-level radioactive waste are currently generated annually. Of this volume, about 30 percent is medical waste, 50 percent is reactor and fuel cycle waste and 20 percent is waste from industry and government sources. As the Subcommittee knows, there are only three disposal sites licensed today to receive commercial low-level waste. In recent weeks, only one of these sites has been accepting wastes.

There is a need for more low-level waste disposal sites in the Nation and these should be equitably distributed geographically. The Governors of the three states in which burial grounds are located have indicated that they do not intend to have their states bear sole responsibility for the Nation's wastes. If regions of the Nation are to continue to obtain the benefit from services ranging from nuclear medicine to nuclear power production, we believe it is imperative that additional low-level waste disposal capacity be established on a regional basis. To do this requires cooperation of agencies within the Federal government as well as state governments.

The situation we face today can be broken down into a near-term and a long-term problem. In the near term, a short fall of disposal capacity is developing which must be managed until

additional disposal facilities can be established. The exact size of this short fall over the next several years is difficult to predict since it depends on the future operation of the three existing sites. South Carolina places an annual volume limit on waste received for disposal. This limit will be reduced over the next two years. Over the past year it has accepted waste at the rate of 2.4 million cubic feet per year. By the close of 1981 this rate will be reduced to about 1.2 million cubic feet per year, a 50 percent reduction. The other sites do not yet have volume limits but they have been shut down for certain periods in recent months. If decisions were made today to establish new disposal sites, it would take about two years to do all the technical and environmental analyses required prior to startup of the disposal operation. In the meantime, the short fall of disposal capacity can be expected to increase with the potential for adversely affecting the public welfare if interim solutions are not found. Most significantly, the early consequences of this short fall could be the inability to deliver nuclear medicine services at the rate needed. If the situation grows worse, it could also affect other services including nuclear power production.

In order to cope with the near-term problem, the NRC will do the following:

1. Assign a high priority to applications for increased storage capacity and waste volume reduction operations at licensed facilities where wastes are generated.

2. Provide technical assistance to Agreement States upon request for similar license applications which they might receive.
3. Provide technical assistance to state governments upon request in formulating storage requirements needed to protect the health, safety and welfare of the public.
4. Assign a high priority to applications from state governments or state endorsed private organizations for interim storage of low-level radioactive waste within the state.
5. Provide technical assistance to Agreement States for similar applications which they might receive.
6. If a state finds that it cannot provide sufficient storage or disposal capacity to prevent endangering the public health, safety and welfare caused by curtailment of licensed operations, such as nuclear medicine laboratories, the NRC will report to the DOE the unavailability of capacity to store or dispose of waste generated by certain licensed operations. Such NRC reports will be specific for certain licensees or categories of licensees and cover a limited time while the state continues efforts to provide storage or disposal capacity.

It should be noted that the ability of the existing sites to continue receiving any waste is highly dependent on waste generators and transporters adhering strictly to waste packaging and transport rules. The record of compliance with these rules has not been good and has resulted in the temporary closure of the Nevada and Washington sites in recent months. This matter was brought forcefully to our attention in a July 10, 1979 letter sent to me by Governors Riley, Ray and List. Abuses must be corrected. Since July we have taken a number of steps to improve compliance with rules. A list of these steps are enclosed with the prepared testimony.

There are, however, practical limitations on the amount of waste that can be accommodated in temporary storage or at DOE facilities, and the near-term short fall is just the tip of the iceberg. Unless steps are taken to establish additional disposal sites in the next several years, we anticipate reduction of some nuclear services.

The NRC, under its enabling legislation, the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, has responsibility to license and regulate commercial low-level waste disposal. The legislation does not authorize the NRC to establish or promote the development of commercial nuclear activities including the establishment of

low-level burial sites; nor do we believe it is appropriate for an independent regulatory agency to engage in this type of activity. However, we do have an obligation to develop and implement suitable regulations for disposal which provide adequate protection of the public health and safety. We also can provide technical assistance to Agreement States for disposal sites which they regulate under the terms of the agreement with the NRC.

When the NRC was formed, it was obvious that improvements needed to be made in regulations governing low-level radioactive waste disposal. We initiated a series of studies over the past several years to make these improvements. Significant studies include:

- Waste Classification Study
- Volume Reduction Technology for Low-Level Waste
- Technology, Safety and Costs of Decommissioning a
Low-Level Waste Burial Ground
- Environmental Impact Statement for Low-Level Waste
Regulation

These and other studies are forming the basis of improved criteria which have been drafted. Of course, the work does not stop here. Improvements are an evolutionary process. Additional studies and investigations are underway. The draft criteria are expected to be published as a Preliminary Notice of Rule Making by the end of

the year. In the meantime, the criteria can be applied on a case-by-case basis under existing general rules for disposal license applications which we or the Agreement States might receive.

New low-level disposal operations do not need to be delayed until the criteria are published as a final rule. In order to alleviate any misunderstanding on this point, I sent a telegram on October 24, 1979, to all state Governors indicating that we are prepared to receive and act on applications for new low-level waste disposal operations in non-Agreement States. I also said that we would provide technical assistance to Agreement States for applications which they might receive.

As a final point, I would like to mention our thoughts about new legislation since you asked for our views on it. We believe there are two general areas where new legislation could be helpful. One relates to financial and institutional arrangements for long-term control of disposal sites. The other relates to minimum technical and procedural standards. We believe legislation should be enacted which assures uniform minimum national standards are followed in these areas for both non-Agreement and Agreement States.

In conclusion, Mr. Chairman, we agree with Governors Riley, Ray and List that there is a need for additional sites with better regional distribution. It will take good cooperation from both the

federal and state governments to establish these sites. It will take courage and a good sense of community spirit for those states not equitably sharing the burden to face the problem squarely. The time for protracted debate and dodging the issue has ended. Action is needed. The NRC stands ready to assist in coping with this problem in any way it can within its statutory and resource capabilities.

This concludes my prepared testimony, Mr. Chairman. I would like to submit for the record copies of several reports which provide details on a number of the points raised in your letter announcing this hearing. I will be pleased to answer questions.

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RECENT ACTIONS TAKEN BY THE NRC TO IMPROVE COMPLIANCE
WITH LOW-LEVEL RADIOACTIVE WASTE PACKAGING
AND TRANSPORTATION RULES

1. Bulletins were issued to all NRC licensees requiring specific actions leading to waste packaging improvements.
2. Agreement States were requested to send the bulletin to their licensees.
3. An NRC Information Notice was sent to NRC licensees providing instructions on NRC, DOT, and burial site requirements.
4. Assistance was obtained from the Society of Nuclear Medicine in bringing the waste packaging problem to the attention of their membership. The cooperation of the AIF in their preparation of a guide for packaging wastes was obtained.
5. NRC inspectors were assigned to inspect at disposal sites about 3-5 days/months/site.
6. NRC regulations were amended to incorporate certain DOT requirements thus providing greater authority to inspect and enforce packaging rules at waste generator sites. Agreement States have been advised to adopt a similar rule change as a matter of compatibility. About 11 man-years of effort is being reallocated to conducting inspections under the rule. A supplemental budget request is being prepared to continue this effort.
7. Improved enforcement criteria are being developed to facilitate consistent enforcement of the revised NRC rules when they become effective.

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