



Department of Energy
Washington, D.C. 20545

JUL 23 1981

Mr. Miltor Plesset, Chairman
Advisory Committee on Reactor Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Plesset:

I am enclosing the first draft of the Department of Energy's response to Public Law 96-567 in accordance with the schedule provided in my letter to you on April 15. We will be continuing our efforts on that schedule.

Based on our efforts to date, our response to Congress can be summarized as follows:

I. Assessment Of The Need For and Feasibility Of Establishing A National Reactor Engineering Simulator Facility (Section 5 of Act)

The Department concludes that the facility, as proposed, is not needed by the U.S. nuclear industry or by the Department in order to foster research in generic design improvements and simplifications. Furthermore, the Department concludes that such a facility, although it is theoretically feasible, does not justify the significant national effort and expense that would be required to develop, construct, and operate it.

The review and analysis completed by the Department to date includes input received from a wide cross section of the U.S. nuclear industry, the Department's national laboratories, and the Nuclear Regulatory Commission.

II. A Study As To The Desirability and Feasibility Of Creating A Federal Nuclear Operations Corps (Section 6 of Act)

The Department concludes that it would not be desirable to create a Federal Nuclear Operations Corps. Furthermore, the Department concludes that, although it is theoretically feasible to create such a Corps, it would not be appropriate for the type of operation required for a safe U.S. commercial industry. In addition, the program presently being undertaken by the U.S. nuclear industry is sufficient to meet the needs that a Federal Nuclear Operations Corps might satisfy. Therefore, the significant national effort and expense that would be required to develop and operate such a Corps are not warranted.

III. Program Management Plan For The Conduct Of A Research, Development, and Demonstration Program For Improving The Safety Of Nuclear Powerplants (Section 8 of Act)

The Department is developing a program management plan to conduct those efforts that are fully consistent with items in Sections 4(a)(1) through 4(a)(7) and Section 4(b). The Department will develop and coordinate this program in a manner similar to that being used by the Department, Nuclear Regulatory Commission, and the Industry Degraded Core Program for degraded core program efforts. The process to be followed by the Department to develop this program plan is summarized below.

- a. Provide a forum and internal organization that can successfully coordinate a comprehensive national program in cooperation with industry, Nuclear Regulatory Commission, Department laboratories, other Government bodies, and foreign programs while maintaining a flexibility for each participating organization to discharge their individual responsibilities.
- b. Organize and convene working groups composed of representatives from the organizations identified in item a. above, to assist the Department in formulating a comprehensive program plan, and to review the progress and implementation of the program.
- c. Initiate and complete a program based on the National Research, Development, and Demonstration Program Plan For Improving The Safety of Nuclear Powerplants. This program will avoid unnecessary duplication of research, development and demonstration being performed by domestic and foreign programs.

The efforts selected to be completed is based on the following order of descending priority:

- (a) those required to keep present plants operating at full power and availability;
- (b) those required to bring plants under construction up to full power operation as soon as possible; and
- (c) efforts required for future Light Water Reactor (LWR) plant design, construction, and operation.

The objective of the tasks will be to provide technology focused to improve the ability of the nuclear industry to accomplish the following four safety functions: (1) maintain the normal operating envelope, (2) protect the core in the event normal operating conditions cannot be maintained, (3) maintain the integrity of the containment building for those low probability events that result in failure to protect the core, and (4) provide adequate emergency

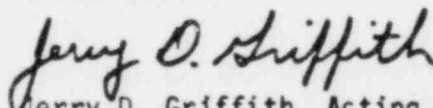
preparedness to protect the health and safety of the public during those extremely low probability events when the integrity of the containment building cannot be maintained.

Based on our review to date of ongoing domestic and foreign light water reactor safety efforts and adhering to a policy of minimizing duplication of efforts, the Department's program will emphasize tasks to improve operator performance, provide technical assistance to the Institute of Nuclear Power Operations (INPO) for use by INPO to improve training of nuclear powerplant personnel, characterize risks from nuclear powerplant operation, improve emergency preparedness, reduce radiation exposure to workers during plant operation and maintenance, and obtain selected experimental data required for development of safety improvements. For those tasks in the Law that specify development of component and/or system designs, the Department will implement a coordinated program with the industry wherein the Department efforts will emphasize tasks to develop and evaluate functional requirements, and the industry efforts will develop design details.

The responses to Sections 5, 6, and 8 of the Act described in this draft were developed after discussions with utilities, reactor vendors, architect-engineers, the management of the Industry Degraded Core Program, national laboratories, the Nuclear Regulatory Commission, and others. The detailed schedule and scope of efforts to be completed by the Department during the 5-year LWR safety program will be based on comments received on this draft, final reviews, availability of resources, and results of continuing efforts to assure that this program is consistent with the Congressional Findings and Purpose of the Act.

Thank you for your cooperation and assistance in preparing this response to Congress. I look forward to receiving your comments and would appreciate receiving them by September 1 so that we can maintain our schedule. If you have any questions, please do not hesitate to contact me.

Sincerely,



Jerry D. Griffith, Acting Director
Office of Nuclear Power Systems
Office of Nuclear Energy

Enclosure