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Testimony

For Release
on Delivery
Expected at
10:00 a.m. EST
Wednesday
April 27, 1988

Proposal to Reorganize NRC

Statement of
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Before the
Committee on Governmental Affairs
United States Senate



11973/135660

Mr. Chairman and Members of the Committee:

We appreciate the opportunity to present our views on the proposed legislation to establish a Nuclear Safety Agency to assume the functions of the Nuclear Regulatory Commission (NRC). My testimony today will focus on an unnumbered draft bill reported by the Senate Committee on Environment and Public Works on March 29, 1988. The structure proposed would make one individual--the administrator--accountable for nuclear regulation and would provide a system of checks and balances through the creation of an Inspector General and a Nuclear Reactor Safety Investigations Board to ensure that programmatic, technical, and public health and safety issues are adequately addressed.

In general, we support the move to a single administrator to oversee nuclear regulation and the creation of an Inspector General and a Nuclear Reactor Safety Investigations Board. However, we see no need for an Assistant Administrator for Investigations. In addition, we have some specific observations and suggestions regarding the need to (1) provide specific criteria concerning the activities that would prompt an investigation by the Board, and (2) leave in place important panels and committees, such as the Advisory Committee on Reactor Safeguards and Atomic Safety and Licensing Board Panel, to provide the administrator expertise and advice on technical issues.

Our position on NRC's organizational structure has evolved over the past several years as the nuclear regulatory environment has changed. In the aftermath of Three Mile Island, we concluded that the commission form, with a strong Chairman, was more appropriate for resolving long-term nuclear policy decisions. We believed then, and still do, that a single administrator could respond in a more timely and efficient manner to day-to-day regulatory problems and decisions. Since 1980, the Congress or NRC have largely addressed many of the long-term issues. And, NRC now concentrates most of its efforts on overseeing the safe, day-to-day operation of plants rather than approving license applications. Given this shift, we believe the time is right to change to an agency headed by a single administrator, thereby pinpointing accountability for effective regulation of nuclear activities and operations.

As you know, Mr. Chairman, we have supported the need for an Inspector General at NRC since 1981. We reiterated our position before this Committee last year when you considered amendments to the Inspector General Act. We will continue to support the need for an Inspector General regardless of NRC's organizational structure.

Last year we also outlined for you five elements for an oversight board for the Department of Energy's (DOE) nuclear facilities. Similar elements--independence, technical expertise,

ability to determine the scope of work, authority to report findings to the agency head, and public access to the findings-- should also apply to the Nuclear Reactor Safety Investigations Board. Although the proposed Board meets several of the elements, it does not fully meet those involving independence and the ability to determine the scope of work.

Further, because the bill would transfer to the new agency most of NRC's functions, it appears to contemplate that existing panels and committees, such as the Atomic Safety and Licensing Board Panel and Advisory Committee on Reactor Safeguards, would remain in existence. Such panels become even more important in a regulatory agency headed by a single administrator to ensure that the administrator receives a broad range of technical advice. Therefore, the bill should clearly state that the panels and committees would remain after the transfer of functions occur.

Let me briefly describe NRC's organizational structure, the principal features of the proposed legislation, and our views on the benefits of a single administrator, Inspector General, and the Board. In addition, we will offer some observations to help ensure the benefits are obtained and clarifications for specific provisions of the bill (app. I lists the clarifications).

NRC'S ORGANIZATIONAL STRUCTURE

Under the Atomic Energy Act, NRC regulates the construction and operation of nuclear plants and issues regulations to ensure they do not pose undue public health and safety risks. To carry out its regulatory responsibilities, NRC develops policies, standards, and guides as prescribed by the agency's five commissioners. The commissioners are nominated by the President and confirmed by the Senate for a 5-year term; the President appoints one commissioner as chairman.

The chairman is responsible for (1) preparing policies and guidance for the commission's consideration, (2) conducting administrative, organizational, budgetary, and certain personnel functions, and (3) setting rulemaking, research and development, and other priorities. The collegial commission is responsible for policymaking, rulemaking, and licensing; the Chairman does not have a preeminent vote in these matters.

The commissioners have four staff offices and three advisory committees to assist them. In addition, NRC has an Executive Director for Operations who supervises and coordinates policy development and operational activities of the agency's staff and implements commission policy directives.

PRINCIPAL FEATURES OF THE PROPOSED LEGISLATION

On March 29, 1988, the Senate Committee on Environment and Public Works, reported out an unnumbered bill, Nuclear Regulation

Reorganization and Reform Act of 1988. The legislation proposes to transfer NRC's existing functions to the Nuclear Safety Agency as well as all rules, regulations, policies, and advisory panels and committees in place on the date of enactment. The agency would be headed by an administrator and deputy administrator, both appointed by the President and confirmed by the Senate. The bill would also establish an Office of Inspector General, an Assistant Administrator for Investigations, and a Nuclear Reactor Safety Investigations Board. The Board would investigate significant safety events defined as a (1) moderate exposure to, or release of, radioactive material, (2) major degradation of essential safety-related equipment, or (3) major design, construction, operating, or management deficiency.

GAO'S VIEWS ON THE
PROPOSED LEGISLATION

We would like to discuss our views on this proposal and suggest some modifications for your consideration.

Single Administrator

Over the last several years, we have compared the commission and single administrator structure for several federal agencies, including NRC, the Federal Communications Commission, and the Consumer Product Safety Commission. The conclusions we reached varied with the responsibilities of the affected agency and the status of its regulatory posture at the time.

For example, in April 1987 we concluded that the Consumer Product Safety Commission's functions could more effectively be carried out by a single administrator because some basic assumptions about the need to have commissions--stability, insulation from political pressures, and diversity of viewpoints--had not been realized.¹ We also noted that seven of eight other regulatory agencies concerned with public health and safety were headed by a single administrator. NRC was the exception.

We believe that nuclear regulation too could benefit from such a change. Our position has evolved over time. In January 1980 we found that the commission failed to provide leadership and direction to the staff and permitted the staff to decide when new policies were needed. Nevertheless, we concluded that, if the Chairman's and Executive Director's roles were strengthened, the commission structure offered a distinct advantage for resolving long-term policy decisions concerning such issues as nuclear waste, decommissioning, and breeder reactor deployment.² At the same time, we recognized that a single administrator could respond in a more timely, efficient manner to day-to-day nuclear regulatory decisions.

¹Consumer Product Safety Commission: Administrative Structure Could Benefit From Change (GAO/HRD-87-47, Apr. 9, 1987).

²The Nuclear Regulatory Commission: More Aggressive Leadership Needed (EMD-80-17, Jan. 15, 1980).

Shortly thereafter, the President submitted to the Congress an NRC reorganization plan that better defined the Chairman's role and addressed other concerns we highlighted. The plan gave the commissioners responsibility for policy formulation, rulemaking, and licensing and allowed the Chairman to clearly define the Executive Director's role. However, the commission continues to rely on the staff to decide how policies should be written and has been slow to take decisive action. For example, the commission took 4 years to amend its backfit regulations, and for more than 10 years has been in the process of revising its decommissioning rule.

In addition, over the last 8 years, the nuclear regulation environment has changed. First, many of NRC's regulatory policies have been established and tested. Second, the Congress and/or NRC have largely addressed many of the long-term nuclear safety policy issues. Third, NRC's regulatory emphasis has changed from primarily approving license applications to ensuring the safe, day-to-day operation of 109 plants. Finally, a growing perception exists among the Congress, nuclear utility industry, and public that the commission is indecisive, takes too long to effect change, limits the staff's effectiveness because they can receive directions from at least five individuals, and is too often an industry advocate rather than a regulator.

As a result, over the last several years the Congress has considered a number of legislative proposals to strengthen NRC's regulatory stance; now the Congress is considering legislation to change the nuclear regulatory structure. Because of the change in nuclear regulatory emphasis and the desirability of having a single administrator accountable for overseeing the operation of nuclear power plants and other licensed activities, we support the change to a single administrator. However, we believe that the administrator would benefit by having access to the technical expertise and advice of the Atomic Safety and Licensing Board Panel and the Advisory Committee on Reactor Safeguards. Therefore, we suggest that the bill clearly state that existing panels and committees would continue after the transfer of functions occurs.

Let me now briefly summarize two reports that demonstrate that the commission's slowness and/or indecisiveness in addressing nuclear power plant safety issues. Appendix II lists some other reports we have issued.

Efforts to Ensure Nuclear Power Plant Safety Can Be Strengthened
(GAO/RCED-87-141, Aug. 13, 1987)

In this report, we found that NRC's safety standards do not, nor are they required by the Atomic Energy Act to, eliminate all risks associated with plant operations. Although NRC recognizes that the plants pose some risk to public health and safety and uses a number of mechanisms to minimize the risk, NRC has taken from

several months to 10 or more years to identify and approve a solution for problems that are common to several or a class of plants. In addition, over the years NRC has identified more possible safety problems than it has resolved. We concluded that the longer these issues are unresolved, thereby precluding NRC from improving its safety standards, the longer plants may operate in a less safe manner.

We also found that NRC identified five plants with chronic safety problems but was slow to require effective corrective action. As a result, four plants continued to operate until either an incident occurred that forced a shut down or the utility stopped operations to correct the problems. We believe this occurs because NRC lacks guidelines to alert the industry that plants would be shut down when safety or management problems approach a specified threshold. Therefore, we recommended that NRC develop guidelines to use as a framework to decide the types and/or degree of safety problems that constitute undue risk such that NRC would consider shutting a plant down. NRC disagreed with this recommendation.

Action Needed to Ensure That Utilities Monitor and Repair Pipe Damage (GAO/RCED-88-73, Mar. 18, 1988)

In part, this report shows that an unexpected event in non-safety-related equipment can adversely affect important plant safety systems. In December 1986, a pipe rupture at Virginia Electric and Power Company's Surry Unit 2 nuclear power plant

injured eight workers; four subsequently died. Virginia Power concluded that the cause of the accident was erosion/corrosion caused by fluid passing through pipes at high temperature, pressure, and speed during the 14 years the plant had been in service. The accident occurred in the portion of the plant not regulated by NRC, but its effects cascaded across several regulated systems causing additional accident management problems.

Until this accident, NRC did not focus attention on erosion/corrosion in the non-safety-related portion of nuclear plants. Since that time, NRC has required utilities to report on the extent of known erosion/corrosion in each plant. As of January 1988, NRC had identified 34 plants--about 30 percent of those with operating licenses--that have some erosion/corrosion damage in both the safety and non-safety-related portions of the plant. Despite these findings, NRC staff plan to gather additional information and decide during the summer of 1988 whether they should recommend that the commission take additional regulatory action. Even then, however, the staff do not know if the commission will address this issue or the extent of the action it may take.

We believe that NRC should ensure that utilities assess the integrity of all pipe systems. As a result, we recommended that NRC require utilities to (1) inspect all plants to determine the extent of erosion/corrosion, (2) replace pipe that does not meet

the industry's minimum standards, and (3) periodically assess the spread of erosion/corrosion in the plants. NRC received this report on April 1, 1988; therefore, we do not know what, if any, action it may take.

Office of Inspector General

As early as 1981, we supported the need for an Inspector General at NRC to ensure that the Congress and the commissioners receive objective information on problems within NRC and to enhance public trust in the regulation of commercial nuclear power.³ Last year, Mr. Chairman, your committee debated amendments to the Inspector General Act, which proposed to create such offices within four agencies, including NRC. A representative from our Accounting and Financial Management Division reiterated our support for creating an Inspector General in NRC.

The Congress intended for Inspectors General to have the requisite independence to do an effective job. They are appointed by the President and confirmed by the Senate. Although an Inspector General reports to, and is under the general supervision of, the agency head, the agency head cannot prohibit, prevent, or limit the Inspector General from undertaking or completing any audit or investigation the Inspector General deems necessary. The

³Improvements Needed In The Nuclear Regulatory Commission's Office of Inspector and Auditor (EMD-81-72, July 9, 1981).

Inspector General can evaluate agency performance; combat fraud, waste, abuse, and mismanagement; and ensure that the Congress and the agency head receive objective information on problems. In addition, the Inspector General Act provides that this office shall have an assistant inspector general for audits and one for investigations.

In this case, the bill proposes two separate offices: an Office of Inspector General and an Assistant Administrator for Investigations. From our point of view, we see no need for a separate Assistant Administrator for Investigations. As set out in the proposed legislation, this office would investigate allegations bearing on the integrity of agency proceedings and practices and ensure licensee compliance with rules, regulations, and the terms of their licenses. However, the Office of Inspector General can investigate allegations bearing the agency's integrity, such as the recent cases concerning possible collusion between NRC and licensee employees. Moreover, the agency's staff inspect licensees to ensure regulatory compliance. Since the functions of the Assistant Administrator for Investigations as proposed by the bill would appear to duplicate the work of the Inspector General and agency staff, we would suggest deleting section 131 from the bill and making it clear that the Inspector General can investigate allegations of wrongdoing by agency employees, contractors, and licensees.

Nuclear Reactor Safety
Investigations Board

As proposed, the Board would consist of three members including a chairperson appointed by the President and confirmed by the Senate; the administrator would select the other two members. The members would be appointed for 3 years. In addition, the Board would be authorized a staff of 55 people and an annual appropriations of \$5.5 million. It would cease to function at the end of fiscal year 1993.

Last year we testified before this Committee on the key elements for a safety board to independently oversee DCE's nuclear weapons facilities. Although the Board proposed here would differ from that proposed for DOE, it should have similar, key elements: independence, technical expertise, ability to determine the scope of work undertaken, authority to report its findings and recommendations to the agency head, and public access to the findings and recommendations made and the agency's response to them. We do not believe the Board fully meets the independence and ability to determine the scope of work elements. Our rationale and a discussion of the importance of each element follow.

Independence

In our opinion, to be independent the Board must not rely on the agency for funds and resources and should be free to pursue

issues to their logical conclusions for all of the agency's public health and safety activities. The Board in the proposed legislation would be part of the agency, and the bill contemplates funding the Board's activities by a line item appropriation, separate from the agency's appropriation. However, the legislation would allow the administrator to select two Board members from the private sector or the agency staff. With the administrator selecting two members, some of the Board's independence could be compromised. Therefore, we do not believe the Board fully meets the independence element. To alleviate this concern, the Committee could require that the President appoint and the Senate confirm the three Board members; this would be consistent with the method used, for example, to appoint members to the National Transportation Safety Board.

Technical Expertise

Technical expertise is needed to ensure that the Board does not rely solely on agency or licensee information when conducting its activities and/or developing its findings and recommendations. Further, the Board should understand the various activities licensed by the agency, as well as the public health and safety ramifications of the operations conducted. To do this, the Board should obtain or acquire technical expertise in a number of areas, such as nuclear safety technology, operations and maintenance, and human factors. The Board should also draw on expertise available

through DOE's national laboratories and NRC's existing panels, boards, and committees, such as the Advisory Committee on Reactor Safeguards.

The proposed legislation provides that the Board have the necessary technical expertise to perform the functions established. For example, the bill states that the members "shall be appointed on the basis of technical qualification, professional standing, and demonstrated competence and knowledge" The bill also states that the Board may obtain assistance from any federal or state agency. Therefore, we believe it meets the technical expertise element.

Ability to Determine the Scope of Work

Within the criteria established for the conduct of the Board's activities, it should not be restricted in the scope of work undertaken. The Board should be able to immediately respond to safety issues that arise as well as non-safety-related issues that could challenge safety systems and potentially endanger public health and safety. The Board must also be given clear access to licensed facilities and records to ensure that it can conduct timely and complete assessments.

The legislation would allow the Board access to the facility where the event occurred and all information relevant to the

investigation conducted and give it authority to hold hearings and subpoena witnesses for the hearings. Further, the Board would not be limited in the scope of investigations for a significant safety event as defined in the proposed bill.

Although the definition is broad, it would limit a significant safety event to degradation of safety-related equipment or a major design, construction, operating, or management deficiency. The accident at Surry demonstrated that degradation of non-safety-related equipment can challenge important plant safety systems and did not result from a major design or construction deficiency. Under the definition proposed, this incident may not be considered significant.

In addition, the bill does not require the Board to set out criteria that defines the circumstances under which it would exercise its responsibilities or the mechanism that the Board would use to identify events that it should investigate. Rather, the bill states that prior to the start of an investigation, the Board would consult with the administrator and then set forth in writing the Board's rationale for determining that an event meets the bill's definition.

In our opinion, Mr. Chairman, the Board should, within a specified time after enactment, develop--and make available for public review and comment--criteria setting out the scope of its

authority under the act and the mechanism it will use to identify events subject to its authority. Having criteria in place would help ensure that the Board would not have to consult with the administrator and could respond rapidly and consistently in the conduct of its activities. For these reasons and because we have some concerns about another provision (section 143(b)), which we discuss in appendix I, we do not believe the Board meets this element.

Authority to Report Findings and
Recommendations to the Agency Head

The Board should have authority to report its findings to the agency head to ensure that the agency head seriously considers and acts on the findings and recommendations made. The agency head should respond in writing within a specified period to the actions it has taken or plans to take on the Board's findings and recommendations. If the agency head cannot implement the recommendations made, he or she should so notify the Board and provide the rationale for not doing so.

The proposed legislation would require the Board to submit its findings and recommendations to the administrator. The administrator then must provide a written report to the Board setting out the specific actions taken or planned for each of the recommendations or explaining why it is not feasible to take the action recommended. Therefore, we believe the Board satisfies the reporting authority element.

Public Access to the Findings
and Recommendations

The Board's findings and recommendations and the agency's response to them should be sent to the Congress and be made available to the public. This element is important because it provides the Congress and the public a better understanding of the issues facing the agency and its licensees. The legislation states that the Board would submit its findings to the administrator and the Congress and would issue an annual report that addresses the (1) significant safety events investigated and (2) recommendations made and the administrator's response to each recommendation. It would also require that the annual reports be made available to other federal, state, or local government agencies and, upon request, to the public. Therefore, we believe it satisfies the public access element.

In closing, Mr. Chairman, let me reiterate that times have changed and our position on NRC's structure has evolved. Further, the Congress and the public are exhibiting an increasing lack of confidence in NRC as an effective regulator and protector of public health and safety. We support the need to place nuclear regulation under a single administrator and create an Inspector General and Safety Investigations Board. Taken together--the single administrator, Inspector General, and Board--ensure accountability, independent oversight, and a system of checks and balances for the

agency and the activities regulated. Further, we believe it is particularly important that the single administrator receive input on highly technical and complex regulatory issues from expert groups, such as the Advisory Committee on Reactor Safeguards and Atomic Safety and Licensing Board Panel, and urge that the legislation provide for their continuation.

We hope our views and suggestions are useful to you in the legislative process. We would be pleased to respond to any questions you or the Members of the Committee may have.

SUGGESTED CHANGES FOR THE PROPOSEDNUCLEAR REGULATION REORGANIZATION AND REFORM ACT OF 1988

(Unnumbered draft legislation)

- Section 143(b) - This provision might allow the administrator to limit the scope of investigative activities undertaken. It states that "any employee of the Board, . . . may do all things appropriate for a proper investigation." As written, the administrator might argue that a proposed Board activity is not appropriate for a particular investigation. Since the Board should have the authority to determine what is appropriate, the Committee may wish to redraft this provision as follows: "any employee of the Board, . . . may do all things the Board deems appropriate for a proper investigation."

- Section 143(a)(1) - This provision states that the Nuclear Reactor Safety Board would investigate significant safety events arising out of activities licensed under section 103 or 104 of the Atomic Energy Act. Although section 103 applies to commercial reactors, section 104 applies to licenses for the possession and use of radioactive material for medical therapy and research and development activities. We believe the latter activities should be within the Board's purview, but the Committee may want to delete the word "reactor" from the Board's title.

- Section 103(a) - This provision would establish a Nuclear Safety Agency. If the acronym NSA were used, we believe some confusion could arise since another agency has the same acronym. Therefore, the Committee may want to

consider alternatives, such as Nuclear Regulatory Agency, Atomic Regulatory Agency, Atomic Energy Regulatory Agency, or Nuclear Licensing and Regulatory Agency.

- Section 303 - This provision states that greater than Class C radioactive waste should be stored or disposed only in a commercial or government facility licensed by the Nuclear Safety Agency. Under the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Public Law 96-164), DOE's Waste Isolation Pilot Plant (WIPP), a geological repository for the permanent disposal of similar type of defense waste, is exempt from NRC licensing. The licensing requirements in the proposed legislation would appear to preclude use of WIPP to store commercial Class C waste.

SELECTED GAO REPORTS ON NRC

Nuclear Regulation: Action Needed to Ensure That Utilities Monitor and Repair Pipe Damage (GAO/RCED-88-73, 03/18/88)

Nuclear Regulation: Efforts to Ensure Nuclear Power Plant Safety Can Be Strengthened (GAO/RCED-87-141, 08/13/87)

Nuclear Regulation: A Perspective on Liability Protection for a Nuclear Plant Accident (GAO/RCED-87-124, 06/02/87)

Nuclear Regulation: Oversight of Quality Assurance at Nuclear Power Plants Needs Improvement (GAO/RCED-86-41, 01/23/86)

Information on Certain Aspects of TVA's Nuclear Power Program (GAO/RCED-86-72FS, 01/08/86)

Nuclear Regulation: Process For Backfitting Changes in Nuclear Plants Has Improved (GAO/RCED-86-27, 12/24/85)

Concerns Regarding the Nuclear Regulatory Commission's Implementation of the Freedom of Information Act (GAO/RCED-85-101, 04/25/85)

Further Actions Needed to Improve Emergency Preparedness Around Nuclear Powerplants (GAO/RCED-84-43, 08/01/84)

Nuclear Safety Research Responsiveness to Regulatory Needs and Coordination (GAO/RCED-84-15, 11/15/83)

Response to Questions Raised Concerning the TMI-2 Cleanup Schedule and Cost (GAO/EMD-82-90, 07/20/82)

Greater Commitment Needed to Solve Continuing Problems at Three Mile Island (GAO/EMD-81-106, 08/26/81)

Improvements Needed in the Nuclear Regulatory Commission's Office of Inspector and Auditor (GAO/EMD-81-72, 07/09/81)

Further Evaluation of the Proposed Interim Consolidation of the Nuclear Regulatory Commission (GAO/EMD-81-76, 06/24/81)

The Nuclear Regulatory Commission Should Specify User Needs and Improve Cost Control for its Document Control System (GAO/EMD-81-90, 06/03/81)

The Effects of Regulation on the Electric Utility Industry
(GAO/EMD-81-35, 03/02/81)

Electric Power Plant Cancellations and Delays (GAO/EMD-81-25,
12/08/80)

Economic Impact of Closing the Indian Point Nuclear Facility
(GAO/EMD-81-3, 11/07/80)

The Nuclear Regulatory Commission's Handling of Allegations of
Defective Cable (GAO/EMD-80-115, 09/17/80)

Proposed Interim Consolidation of the Nuclear Regulatory Commission
(GAO/EMD-80-118, 09/11/80)

Three Mile Island: The Financial Fallout (GAO/EMD-80-89, 07/07/80)

Existing Nuclear Sites Can Be Used for New Power Plants and Nuclear
Waste Storage (GAO/EMD-80-67, 04/01/80)

The Nuclear Regulatory Commission: More Aggressive Leadership
Needed (GAO/EMD-80-17, 01/15/80)