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ENHANCING PERFORMANCE IN A TIME OF CHANGE

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DR. SHIRLEY ANN JACKSON, CHAIRMAN U.S. NUCLEAR REGULATORY COMMISSION AT THE 17TH ANNUAL INSTITUTE OF NUCLEAR POWER OPERATIONS CEO CONFERENCE IN ATLANTA, GEORGIA NOVEMBER 7, 1996

Good afternoon. I am delighted to be here to address this annual meeting of the chief executive officers and senior nuclear officers of INPO's member utilities. We at the U.S. Nuclear Regulatory Commission (NRC) are well aware of all that INPO has done over the years to help enhance performance throughout the nuclear utility industry. Today, a new set of challenges is testing both INPO and the NRC.

Some of the challenges to which I refer are those presented by economic deregulation and competition in the utility industry. I will begin my remarks by talking about this new environment, and its implications for nuclear safety and nuclear regulation. I also will discuss NRC expectations of licensee performance, and the evolving emphasis of our own regulatory oversight. Finally, I will discuss the NRC's Strategic Assessment and Rebaselining of regulatory activities. I will give you an idea of the Commission's preliminary views on that assessment, and where we expect to go from here.

Let me begin by taking note of the most obvious recent change at the NRC. We now have a full, five-member Commission. This is the first time since June, 1993 that the NRC has had a full complement of Commissioners. The appointments of Commissioners Diaz and McGaffigan will enhance our deliberative process on policy issues. They join Commissioners Rogers, Dicus, and myself to provide a Commission with diverse backgrounds and perspectives to address the important work of the NRC.

ECONOMIC DEREGULATION AND COMPETITION - EFFECT ON NUCLEAR REACTOR REGULATION

The U.S. electric utility industry has entered a period of economic deregulation and restructuring, with potentially profound impacts on its business practices. These changes have operational, economic, and ownership aspects that are of importance to the NRC. Of course, the NRC is not an economic or rate regulator, but we long have recognized the challenges posed to the nuclear power industry by a changing business environment and by fiscal stringency. Those challenges are facing us squarely today. They include internal restructuring; ownership changes, including mergers; and a continual effort by utilities to control and reduce costs. These structural changes and economic uncertainties for electric utilities are driven by regulatory and market forces that will determine how, and in what form, nuclear electric generators will survive in an unregulated, or less regulated, world. Our focus at the NRC must be on ensuring that economic pressures do not erode nuclear safety. As the business environment changes, the NRC must ensure that nuclear electric generators continue to maintain high safety standards, with sufficient attention and resources devoted to nuclear operations, and with decommissioning funding secure.

The NRC traditionally has relied on its inspection and plant assessment programs to identify any adverse trends in safety performance. Based on inspection program results, plant performance reviews, and other evaluative mechanisms, including the Senior Management Meeting, the NRC can take whatever action may be appropriate to protect public health and safety. In the current economic environment, if new business arrangements, competition, or other economic constraints result in any impairment of safety, our assessment mechanisms must detect those problems early.

Recent events at Maine Yankee underscore a need for heightened concern. Not long ago, the NRC's special independent safety assessment of Maine Yankee Atomic Power Company concluded that, while overall performance at Maine Yankee was adequate for continued operation, there were a number of significant deficiencies. These deficiencies, some of which may result in enforcement action, stemmed from two closely related root causes. The first was economic pressure to be a low-cost energy producer, which limited the resources available for corrective actions and plant improvements. The second was the lack of a questioning attitude -- a major component of a safety culture -- which resulted in a failure to identify and promptly correct problems arising in areas that management viewed, not always correctly, as having low safety significance.

The NRC must be capable of detecting any similar degradations at other facilities, before serious operating problems occur. The Commission has asked the staff to examine measures to identify plants where economic stress may be impacting safety.

As utility deregulation proceeds, the NRC needs to ensure not only that operational safety is unimpaired, but also that adequate decommissioning funding is available, whether nuclear plants operate to the end of their license terms or shut down prematurely. In addition, since deregulation may change the economic umbrella for some licensees, the NRC may need to monitor their financial qualifications more closely.

Last fall, I initiated a reevaluation of NRC policy regarding decommissioning funding. The NRC issued an advance notice of proposed rulemaking (ANPR) in April, seeking additional information on electric utility restructuring in general. The ANPR explained that the NRC was concerned that some additional decommissioning funding assurance might be needed for those power reactor licensees no longer subject to rate regulatory oversight by FERC or the State regulatory commissions.

The NRC's decommissioning regulations already have some built-in capability to address rate deregulation. Currently, NRC regulations allow only licensees meeting the NRC's definition of "electric utility" to use the external sinking fund method of decommissioning funding assurance. Power reactor licensees that are no longer considered "electric utilities", within the current NRC definition, will be required to provide some other method of assurance, such as a letter of credit or surety bond, for any unfunded balance of decommissioning costs. As indicated in the ANPR, the NRC believes that additional measures may be required. Regulatory changes might include eliminating ambiguities in the NRC's definition of "electric utility", and taking account of alternative methods of providing assurance of decommissioning funding - for example, pooled insurance, if available, or accelerated funding of decommissioning. The NRC staff is currently developing a proposed rule in light of comments received.

The NRC also has issued a Draft Policy Statement on the Restructuring and Economic Deregulation of the Electric Utility Industry. Comments are invited -- they are due by December 9 -and I hope that you will give us the benefit of your ideas. In addition, the NRC has drafted Standard Review Plans (SRPs) in the areas of financial qualifications and decommissioning funding assurance and anti-trust reviews. We soon will be issuing the draft SRPs for public comment to evaluate whether the NRC review process in these areas should be changed as a result of deregulation.

The draft policy guidance includes a discussion of our planned approach to future reviews as rate deregulation accelerates. In summary, the NRC will:

- (1) Continue to conduct financial qualifications, decommissioning funding, and antitrust reviews as described in the Standard Review Plans being developed in concert with the Policy Statement;
- (2) Identify all owners, indirect as well as direct, of nuclear power plants;
- (3) Establish and maintain staff-level working relationships with state and Federal rate regulators, including NARUC, FERC and the SEC;
- (4) Evaluate the relative responsibilities of power plant coowners/co-licensees; and
- (5) Reevaluate our regulations for their adequacy to address changes resulting from rate deregulation.

We also are examining potential changes in reportability requirements with respect to decommissioning funding. In this regard, we have been tracking the work of the Financial Accounting Standards Board (FASB), for possible endorsement of an FASB reporting standard for decommissioning fund status, if such a standard is developed and issued in a timely manner.

Because of the complexity of proposed new business arrangements, and because of our concern about the timing of asset divestiture in relation to rate deregulation, we issued an administrative letter on June 21, 1996, informing licensees of their obligation, under our regulations, to report to the NRC any changes in ownership arrangements that would constitute a direct or indirect transfer of the license. It also included a reminder of their responsibility to advise us promptly of any information bearing on financial qualifications and the assurance of decommissioning funding.

The current regulatory framework provides us the authority to obtain the information we need to determine whether restructuring actions are creating problems in operational safety, or in financial assurance for decommissioning. We are examining how to further strengthen our capabilities in these areas. As the ANPR and Policy Statement actions indicate, we intend to monitor these issues closely, to take whatever action is required in specific cases, and, as necessary, to modify our regulatory framework.

Before leaving this topic, let me stress that our initiatives in these areas should not be construed as implying that we view economic deregulation somehow to be inconsistent with adequate nuclear safety. It is not. Of course, NRC's primary concern is with safety, not economics. Nevertheless, my own view is that adequate protection of public health and safety is entirely compatible with a deregulated environment. With sensible cooperation, where appropriate, among the NRC as safety regulator, FERC and the State regulatory commissions as rate regulators, and yourselves, I believe that the nation can continue to enjoy the benefit of safely operated, soundly regulated nuclear-generated electricity, along with the economic benefits of deregulation.

NRC EXPECTATIONS OF LICENSEE PERFORMANCE AND REGULATORY OVERSIGHT

NRC's focus on safety inevitably produces certain expectations of licensee performance, as well as a strong emphasis on regulatory oversight. There is a real danger in being ensnared by false distinctions between safety and compliance with our regulatory program. In fact, the concepts are tightly bound together. Ιt is the licensee's responsibility to operate a safe nuclear plant, and to respond to any event. The responsibility of the NRC is to lay out clear and fair safety requirements, to provide oversight to ensure that its licensees are performing as they should, and to facilitate, rather than hinder, the nuclear operator in performing its job. A licensee's compliance with our regulations and license conditions is fundamental to our confidence in the safety of licensed activities. This relationship was clear at the beginning of nuclear regulation and it remains so today. The credibility of the nuclear regulator is inextricably tied to the credibility of the industry it regulates, and that industry's demonstration that it is living within regulatory requirements, including the licensing basis. This is critical as we move to more performance-oriented regulatory approaches, which place more items under the administrative control of licensees. There is thus a regulatory compact.

The Atomic Energy Act itself explicitly provides that, as a prerequisite to issuance of an operating license, the Commission must find that the facility will be operated in conformance with the application, the provisions of the Act, and the Commission's regulations. The Act also requires that a license applicant <u>agree</u> to observe the Commission's requirements. Since the days of the U.S. Atomic Energy Commission, the <u>foundation</u> for adequate protection of public health and safety has been compliance with applicable safety requirements -- regulations and license conditions.

In achieving the objective of protecting public health and safety, there are times when we may be required to take steps that go beyond existing formal regulatory requirements. There may, in fact, be appropriate instances where relief from a requirement is warranted. But it is untenable for a regulatory agency -- or a licensee -- to suggest that specific regulatory requirements simply can be ignored. Moreover, the NRC must not rely on routine exemptions and enforcement discretion to dispense with nagging glitches in the regulations or license conditions. If there are requirements on the books that do not have to do with safety or that need adjustment, we should fix them or remove them through the well-established processes to make such changes.

The NRC and the industry have been working together to remove unnecessary regulatory requirements through such programs as conversion to improved Standard Technical Specification, marginal to safety rule changes, and implementation of Regulatory Review These recommendations included expedited Group recommendations. review of cost beneficial licensing actions and the development of guidelines that would permit licensees to implement changes to, or reduce commitments in, quality assurance programs, emergency preparedness plans, and security plans without prior NRC review and approval, as long as the underlying regulations are met. The continued move toward more flexibility in regulatory requirements rests on the discipline of compliance, and a continued focus on safety in your operations. That has been the standard to which you have always been obligated to adhere, and that has always been within your power to achieve.

As an agency with limited resources and staff, the NRC must make informed choices in applying its resources to safety significant activities and challenges requiring special oversight. This drives the importance of a risk-informed approach to regulation. By focusing our resources on those significant issues <u>and</u> maintaining high expectations for licensees' adherence to existing requirements, we will strengthen the quality of our oversight and public confidence in it. We also will enhance consistency and objectivity in our evaluation and enforcement, and, thereby, help to ensure fairness to all.

The role of the nuclear power industry self-assessments that INPO has spearheaded is invaluable in setting and maintaining high standards. However, recent events at plants such as Millstone, Connecticut Yankee, and Maine Yankee point to the need for careful corporate management attention to self-assessment; as does the fact that there are plants, such as Dresden and Indian Point 3, that continue, year after year, to be of concern to the NRC. Self-assessments should determine whether facility operation and design are being maintained within license requirements; whether they are accurately reflected in your Updated Final Safety Analysis Report; whether root causes of problems are being identified, with prompt and effective corrective actions; and whether employees are free to raise safety and compliance concerns without fear of retaliation.

Self-assessment is not just for our licensees. The NRC also has been assessing its own performance. Recent events point to two specific areas which stand out for review and reconsideration. The first is our oversight of the Millstone station. With more attention to warning signs of declining performance, and with more regulatory focus on Millstone station at an earlier stage, we might have delineated the problems sooner, and might have focused licensee attention on effective and timely corrective actions - before the situation reached its current status. The Millstone and Maine Yankee situations have revealed vulnerabilities in our reactor oversight program, which we are addressing.

The second area is design basis inspections. We stopped doing those inspections too soon, relying instead on the nuclear power industry to address the problem, and we failed to maintain a sufficient regulatory focus to be sure that the industry was handling the issue appropriately. I do not mean to suggest that we cannot rely on the industry -- we do and we must, because, as indicated earlier, our licensees have the primary responsibility for the safe operation of their facilities. However, it is our responsibility to regulate, to set appropriate safety requirements, and to insist upon compliance with existing requirements.

Why are design bases so important? In maintaining and improving your facilities, you make continual changes to your plant systems, structures and components; procedures; and other administrative controls. It is important that the as-built plant accurately reflects, and is reflected in, the plant design basis and that plant changes do not erode or compromise safety margins of risk-significant systems. The Maintenance Rule aids in ensuring this, but it also is dependent upon an accurate design basis.

Therefore, the NRC is giving increased focus to design basis control and use in plant changes, procedures, and operations, especially as embodied in the Final Safety Analysis Report (FSAR). The NRC uses the FSAR when evaluating license amendment requests and other issues at particular facilities and will use the FSAR in reviewing applications for license renewals. The accuracy of the FSAR, and the design basis generally, has a direct impact on the accuracy of recurring reviews and safety analyses performed by the NRC staff. NRC inspectors continue to use the FSAR as a baseline when conducting inspections. The NRC staff is returning to an increased use of inspections based on the safety system function format. This in-depth vertical slice review of actual design basis documentation and its use in plant modifications, procedures, and operation, together with other assessments, will provide a better integrated picture of licensee effectiveness in maintaining license and design bases. We have requested submissions from all operating reactor licensees regarding the adequacy and availability of design basis information, and we will use this information in planning these inspections.

We also are making improvements to the NRC Senior Management Meeting Process, which identifies plants for increased NRC focus. We have now completed the guidance on the Plant Evaluation Processes, and are in the process of preparing the guidance on the Senior Management Meeting in final form, as an internal management directive. This guidance is publicly available.

Improvements to the Senior Management Meeting process include a new Performance Evaluation Template. Designed to be used by the NRC senior managers as they assess plants, it helps to provide consistency and structure to the decision-making process. I think it would be prudent for each licensee to consider where it stands on the elements evaluated by the NRC. These include Effectiveness of Licensee Self-Assessment, Operational Performance (Frequency of Transients), Human Performance, Material Condition (Safety System Reliability/Availability), and Engineering and Design Basis.

Additionally, the NRC has standardized Plant Performance Reviews to increase consistency among the Regions in evaluating plants and inspection planning, and in providing input to the Senior Management Meeting. The newly developed Plant Issues Matrix will clearly identify objective data to be considered. We also have identified possible NRC actions for plants that have remained on the Watch List for extended periods. To enhance further our efforts to address problem plants, we are continuing to review the process, and we are working to identify better indicators to tell us when plants need to be placed on the Watch List or taken off it.

We are continuing the review of our reactor oversight program, and will consider the need for further changes, as appropriate.

In order to move forward together on a number of fronts, we must continue to have confidence in your ability to operate your plants safely within license requirements, and in the ability of the NRC's regulatory process to ensure an acceptable level of safety. We also must examine and improve our regulatory effectiveness beyond what I already have described. This includes continuing to remove unnecessary regulatory requirements and successfully implementing risk-informed, and performancebased approaches to regulation, while addressing generic issues such as shutdown risk and steam generator reliability. To enhance the use of risk insights in regulatory decision-making, the NRC staff is developing, on an expedited basis, a PRA Standard Review Plan and Regulatory Guide, drafts of which will be available by the end of 1996.

NRC'S STRATEGIC ASSESSMENT

Part of our self-assessment has been a broad look at our readiness to respond to change. The NRC has underway, as you know, a Strategic Assessment and Rebaselining of all NRC activities. A principal outcome of this process will be a strategic plan which will establish a framework to guide future NRC decision-making. In addition, the plan will provide a basis for aligning the NRC's budget with its mission and goals.

The strategic plan will be available in early 1997. At that time, we will begin work on the fiscal year 1999 budget, for which the plan will serve as a framework. Moreover, to the extent possible, we intend to use the plan to influence the scope and direction of the FY 1998 budget request as well.

During the first two phases, we have identified key strategic issues, questions, and decision-making points to be addressed by the Commission. For key strategic issues, papers have been developed containing policy options for Commission consideration. There have been preliminary Commission views expressed. Before reaching final decisions on the issues, the Commission wants to have the benefit of the views of "stakeholders" -- those in the industry and the public who will be affected by the decisions.

The issue papers were made publicly available on September 16, and the NRC has been holding public meetings -- the last of which is being held today and tomorrow in Chicago -- to discuss the issue papers and to obtain comments from stakeholders. A number of the key strategic issue papers should be of interest to you. These include such topics as: the Operating Reactor Oversight Program; Role of Industry; Risk-Informed, Performance-Based Regulation; Reactor Licensing for Future Applicants; Public Communication Initiatives; Research; Enhancing Regulatory Excellence; Decommissioning Power Reactors; Low and High Level Waste; International Activities; and Fees. The comment period closes November 15. I hope and expect that INPO and its members will make the most of this opportunity.

In the interest of time, I will speak only briefly about the Commission's preliminary views on some of these issues. With respect to the Operating Reactor Oversight Program and the Role of Industry (that is, reactor licensees), the Commission's preliminary view is that the NRC should continue its ongoing comprehensive review of the areas of licensing, inspection, and performance assessment to identify any areas of needed This would include developing mechanisms to provide improvement. for a systematic reexamination of the reactor oversight program to ensure its continued effectiveness and to maximize agency learning in response to emerging issues. It is in the context of this effort that the Commission will attempt to determine the optimum balance of NRC resources among licensing, inspection, and performance assessment.

The Commission also has concluded preliminarily that the NRC should move as expeditiously as possible, within budget constraints, to evaluate on a case-by-case basis, initiatives proposing further NRC reliance on industry activities as an alternative for NRC regulatory activities. A number of such initiatives have already been implemented or being considered examples include accreditation of licensee technical training programs, and reliance on licensees, subject to NRC oversight, to draft and, in part, to conduct initial reactor operator licensing examinations.

In addition, it is the Commission's view that the NRC should increase its focus and emphasis on interacting with industry groups, professional societies, and technical institutes to develop new codes, standards, and guides relating to industry activities important to safety. These codes, standards, and guides would be endorsed, as appropriate, by the NRC, and then implemented by industry. Initial activities should focus on standards development in probabilistic risk assessment.

The Commission is considering increasing the opportunities for public involvement in the operating reactor oversight program. As a general matter, it is placing a priority on early identification of public concerns, and methods for public interaction in making regulatory decisions that are likely to generate substantial public interest or concern.

The NRC also is considering expanding the use of technology to improve efficiency and to increase flexibility in staffing multiple-unit sites; to improve effectiveness of the performance assessment process; to re-engineer work process methods to improve various aspects of the reactor oversight program; and to emulate "best-practices" from other regulatory agencies, foreign and domestic, nuclear and non-nuclear. In considering what criteria NRC should use in expanding the application of a risk-informed, performance-based approach to rulemaking, licensing, inspection, and enforcement, the Commission's preliminary views are as follows:

- Higher risk activities should be the primary focus of agency efforts and resources;
- NRC should continue current efforts on pilot programs and continue to evaluate performance data as it becomes available;
- NRC should proceed in the direction of enhancing the PRA Implementation Plan by building on the results of the Regulatory Review Group, with a more focused assessment of those regulations which are amenable to a risk-informed, performance-based approach; and
- NRC should evaluate and clarify any technical and/or administrative issues associated with performance-based approaches to regulation in such areas as inspection activities and enforcement.

In seeking public comment on this issue, the NRC particularly seeks views on how the agency should deal with dual regulation when applying a risk-informed, performance-based regulatory philosophy.

CONCLUSION

I have tried today to give you a sense of where I think we -- the NRC and the nuclear industry -- are headed, in terms of the challenges presented by economic deregulation and competition. How well we address these challenges is bound to affect the role that nuclear energy will play in the nation's energy mix in the future.

I believe that industry can <u>meet</u> the economic challenges, and that the NRC can <u>make</u> the necessary adjustments in its program to address the evolving regulatory needs and requirements. The crucial task is to ensure that licensee performance, and with it public health and safety, are never compromised in the process. In the end, the first line of defense for the public will be, as it has always been, the nuclear industry itself. That means a commitment both to running safe plants and to meeting all legal obligations. I fully expect that INPO will continue to be a leader in ensuring safety throughout the nuclear power industry, and to be NRC's valued ally in helping to protect the health and safety of the public. Thank you.