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Remarks by
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THE NUCLEAR FUTURE -- A SHARED MISSION

Let me begin by expressing my pleasure at being part of this stimulating conference. It is gratifying to see the vision and candor the nuclear industry is capable of when circumstances demand it. Surely there is no question but that the circumstances today call for unblinking appraisal and unflinching action. It is indeed time now to go "beyond the platitudes," as the program theme suggests.

It has been requested of me -- and of my distinguished colleagues in the Federal Government -- to set forth what we need and want from the industry. Let me offer my thoughts on the subject.

First of all, it seems to me that what we need from each other ultimately is dictated by what the public interest requires of all of us. We need to develop the mutual understanding that our goals are not essentially different. Only our roles are. The role of the Nuclear Regulatory Commission is basically defined by one element of the public interest -- protection of the health and safety. And the role of the nuclear industry is basically to serve an additional aspect of the common good, the need for affordable energy. That is much is clear enough.

What has perhaps not been so clear is just what is not implied, and what is implied, by these roles. I think it is unfortunate that a good many people in and outside of the nuclear energy field have perceived the nuclear industry and NRC to co-exist in what is essentially an adversary

relationship, in a tension of opposite values with each side resisting the other. I question if that ever was an accurate perception, and I hope we can dispel any of its lingering aspects in the future.

To some, the difference in our roles has implied that the regulating agency should be oblivious to the need for affordable energy. That was never the case. Our statutory charter directs us to regulate so as to contribute to the national welfare. The Congress decided long ago that the nation should have the benefit of nuclear power generation, and neither the Atomic Energy Commission nor the NRC was empowered to regulate the industry out of business. The final verdict on the nuclear future must come from the jury of the people and the people's representatives.

Whatever the future holds, I think all involved must perceive that public safety and public benefit are common goals for both government and industry. Both institutions must pursue them with the utmost vigor. When we disagree as to what safety requires in certain circumstances or how the requirement can be met, let us understand that the conflict is about means and not ends.

We are supposed to get beyond the platitudes today, so let me be more specific. I want to do two things. First I will convey what it is we want from the industry. Then I will go you one better and tell you some of the things we are doing to meet the legitimate needs of the industry.

What does the NRC want from the nuclear industry? I'll tell you what I want and simply stipulate that I believe my colleagues on the Commission would probably agree with me and maybe even add to my list.

First, I would like to see industry continue to strengthen its quality assurance programs at every level and phase of its operations, beginning with the design even before ground is broken for a new plant and lasting through decades of operation until the plant is decommissioned. I want the industry to do that with a will that not only convinces us but also convinces the suppliers and vendors and operations personnel that nothing is more important to them than doing their jobs right in the first place. We must have full agreement that safe operation is ultimately the result of determination and commitment of resources on the part of the industry. We in regulation can try to make the safety goals clear, draw the lines for all to observe, research the hidden problems, and lay down the law when necessary. But we are not industry's quality controller, and if industry is not assuring quality, we cannot save it from the consequences. We can only do our best to be the eyes and ears of the public interest.

Next, I would like to see all the industry furnish the NRC with quality information -- coherent, comprehensive, and responsive to our reviewers' needs. We don't have anything like the resources that this industry has. We depend on you to a considerable extent to get us the data we need to make our judgments and decisions. It behooves you to give us reliable, verifiable data, with realistic schedules and candid disclosure of potential problems.

I also would like to see industry communicate with us when it disagrees with us or when it feels that there is a misunderstanding between us. For example, if you feel that there is a misunderstanding between you and the NRC, I hope we will hear from you before we hear it from another source. Surely it is part and parcel of my thesis of our common goals that we should not nurture hostility because of abuse, real or imagined. Let us agree to deal openly and directly with one another. Any other route only deepens misunderstanding.

Next, I would like to see the industry continue and, where needed, upgrade its efforts to absorb all the lessons of operating experience. Impressive and commendable steps were taken after the Three Mile Island accident by the nuclear industry to collect and analyze operational data and to disseminate the results of that analysis. I do not want that effort to lose momentum as the impact of the accident wanes with the passing of time. The learning that can only come from understanding actual operating experience must be pursued until there is a pervasive diagnostic skill acquired at every level of plant operations. Plant managers and supervisors, as well as reactor operators, should all be able to diagnose and deal with off-normal conditions. They can do this if they become serious students of industry-wide operating experience. It is something they will have to work at more, not less, as time goes by.

I also would like to see improved maintenance programs at a number of nuclear power plants so that problems can be prevented. Furthermore, maintenance should be controlled so that it itself does not become a source of problems.

I would like to see the industry cooperate with the NRC in moving toward a new generation of nuclear power plants. To my mind, that generation will be one of standardized plants constructed possibly on pre-selected sites. I will have more to say about that in a few minutes.

Finally, I would like to see the industry take a close look at and help with the changes we are making that can contribute constructively to the new relationships between us. I also want to raise a special concern that I hope you will share and act upon, but I'll leave you in suspense about that for a while.

In February we issued a policy statement proposing definitive safety goals and soliciting comment on the proposal. No doubt many of you here are familiar with the document. Briefly stated, the proposal is an attempt to answer the question "how safe is safe enough?"

The answer offered is in two parts, one related to individual risk and the other to societal or collective risk. The first part proposes that the risk of a nuclear power plant accident should not be a significant contributor to a person's risk of accidental death or injury. The second states that the risk of such an accident to the general population should be as low as reasonably achievable and also that it should be a risk comparable to, or less than, the risk associated with other viable means of producing electricity on the same scale. We are also proposing numerical guidance for ascertaining when the goals have or have not been satisfied, and by how much.

While the proposed goals and numerical guidance are out for public comment, we have directed our staff to prepare a plan on how to use them in conjunction with probabilistic risk assessment. Following our evaluation of comments on the proposals and of the staff's implementation plan, we will consider using both on a trial basis in an effort to stabilize the regulatory process. For example, we could apply them to an analysis of both proposed and existing NRC reactor safety requirements.

Safety goals, numerical guidelines, and probabilistic risk assessment can be used to help analyze the cost and benefits of certain regulatory proposals. In this way, we can establish a reference point for determining whether or not to add more safety improvements to nuclear plants that now are operating and have been operating successfully for years. I believe it essential -- and it is one of my most important objectives -- that we get control of the issuance of greater numbers of regulatory requirements on plants that are now operating or soon will be operating. In short, I want to prevent unnecessary backfitting. But I must emphasize that we cannot and will not hesitate to impose new safety requirements that are truly worthwhile.

Nevertheless, it is extremely important to bear in mind that the use of tools such as I have just mentioned is an emerging methodology for us in nuclear regulation. Substantial uncertainties remain. Some of these may be eliminated as the state-of-the-art advances, but I think it will always be important to use such tools with great care. In addition we must emphasize that they are not a substitute for our regulations, and that individual licensing decisions will continue to be based on compliance with those regulations.

Of interest to you as well should be our organizational adjustments to gain firm control of the issuance of new requirements and to streamline licensing.

A major reorganization last fall brought about the creation of a Committee to Review Generic Requirements. This group of senior level officials, chaired by the Deputy Executive Director for Operations, acts as a screening and verifying mechanism for controlling the issuance of both new requirements and backfitting requirements to be placed on existing nuclear plants.

Our effort to streamline licensing also led to the formation of a Regulatory Reform Task Force to develop and recommend both near and long term measures to improve the process. The Task Force recommendations will call for legislative changes as well as internal changes.

Among the new approaches under scrutiny by the Task Force and others are several fundamental changes in our way of doing business. These measures would go beyond tightening schedules and sharpening issues to avoid delay in licensing review and decision. They would hold the promise of bringing a new and lasting stability to the regulatory regime for nuclear power in America.

The changes I am speaking of involve three closely inter-related innovations: the use of standardized power plants with designs that would be valid for many years into the future; the availability of pre-selected plant sites, approved in advance of specific applications; and the authority to issue a combined construction permit and operating license to applicants who want it. These three features -- standardized and stable designs, pre-selected sites, and one-step licensing -- could prove to be answers to some of the problems of time, cost and uncertainty that have plagued this industry in recent years and proved resistant to ad hoc remedies.

I think standardization could bring many benefits with it. Given some sort of explicit assurance that, except for very special circumstances, there will not be any changes required in the design, applicants could more confidently make plans to build a nuclear plant. The advance approval of the design, and also of the pre-selected sites, would remain in effect for a substantial period, ten years or so, and be renewable thereafter.

Standardization would also be safety-enhancing. It would stimulate standardized programs of quality control. It would make for better, faster training of operators and workers. Above all, it would generate and disseminate learning. Experience gained from one or another aspect of

the operation in a standard plant would be relevant to the personnel, equipment, and procedures employed in all other plants of that design. That should lead to more effective maintenance of key safety components and improved reliability.

It may take awhile to get there, but the potential payoffs from this basic re-tooling of the licensing process that we will be proposing are well worth the time and work involved. The payoffs in safety and in cost-saving are not mutually exclusive. The public benefits from both.

I mentioned earlier that I wanted to express a special concern that the industry might share and take action on. Well, I know beforehand that you share the concern. It is the action that is not so readily apparent at this juncture. My concern is with the cleanup at the Three Mile Island site, with the disturbingly slow pace of the project, and especially with the prospect that funds may run down or run out before the job is done.

I and others have made strenuous efforts to have the Federal Government and the Congress recognize what we are really dealing with at TMI -- an unstable situation that may be on its way to becoming a serious situation.

I don't hear the voice of the nuclear industry. If the industry doesn't see that it has an enormous stake in a satisfactory conclusion to that momentous accident, then perhaps there is less hope for expeditious removal of this scar from the back of the industry than I have thought. If the industry sees its stake but is waiting to see if the financial burden at TMI will be borne by others, the scar will remain even longer.

However, being a born optimist, I still look forward to seeing industry action in a plan for assuring that the TMI site is stabilized as expeditiously as possible.

I also look forward to seeing stability return to the industry as a whole, and public confidence -- and investor confidence -- along with it. In serving the public interest those of us in regulation and in industry must meet our common goals to help keep this vital resource safe as well as affordable.

Safety-consciousness in the industry is strong, and I believe growing stronger. Cost-consciousness in the NRC is genuine and starting to show results. I believe that we are making real progress in improving the ways in which we work.