

No. S-13-92
Tel. 301-504-2240

Remarks by Ivan Selin
Chairman, U.S. Nuclear Regulatory Commission
at the
Japan Atomic Industrial Forum Conference
Yokohama, Japan
Wednesday, April 8, 1992

"GLOBAL SAFETY AND AN INTERNATIONAL CONVENTION"

Good afternoon ladies and gentlemen. It gives me great pleasure to be here today to open Session 1 of the 25th Japan Atomic Industrial Forum Conference. While I have been to Japan many times before, this is my first visit as Chairman of the U.S. Nuclear Regulatory Commission. I am most honored to have this opportunity to share with you my thoughts about some of the issues that I believe are of great importance to the nuclear industry.

Since assuming my post ten months ago, I have taken the opportunity to learn as much as I could about nuclear power as an energy source. I have talked to technical experts, utility executives, the environmental community, and government leaders involved in nuclear energy matters. I have visited over 40 nuclear power plants in the United States, plus plants in Eastern and Western Europe, and plan to visit several more facilities while I am here in the Far East. Combined, these activities have allowed me to confirm some old and also form some new impressions of the nuclear industry as a whole.

I would like to share some of these impressions with you. I will begin with several general observations and comments about nuclear power. Then, I will direct my remarks to the area that I believe impacts many of us here -- the issue of global safety and an international convention.

Let me start along the lines of the conference theme, "Challenges in Another Fifty Years to Come -- the Positioning of Nuclear Energy and Future Energy Tasks." The Nuclear Regulatory Commission sees the future of nuclear power as involving the resolution of several important issues. In the United States,

these include waste disposal, plant aging, licensing reform, and standardization. Many of you face similar issues to varying degrees. However, one priority shared by all of us here today is the safety of currently operating reactors.

All of us who are regulators share the duty of ensuring that existing nuclear power plants are operated safely and with proper regard for national security and for environmental values. But safety is not just the obligation of the regulator -- it is first and foremost, the duty of the nuclear industry. The operators of the world's nuclear power plants realize better than anyone that without safety -- safety which is demonstrable, consistent, and proven -- there will be no future for the nuclear industry. Enlightened self-interest is a powerful motivator for sustaining the efforts required to keep the nuclear house in order. All facets of the nuclear industry have a common interest in having a well run, well regulated nuclear power program. Yet, it is the regulator's primary duty to assure that the health and safety of the public is protected at all times.

Looking forward to the years ahead, if nuclear power is to survive and continue to be a viable source of energy, three goals will have to be achieved. The first of these is increased openness and candor with our public. Not only does the public have the right to know how every plant operates, without public understanding of key issues and decisions there will be no acceptance or support for nuclear power. Open, thorough, and prompt communication channels must be available and used between the industry, the regulator, and the public, and among national and international organizations.

While our first obligation is to the public, we also have an obligation to the regulated community as well. By letting the industry know what is expected of it -- measuring off the playing field in advance, so to speak -- everyone's interest is served. It is here where we can all be better served by an international convention, if properly established and applied. An international nuclear safety convention could help rebuild public confidence and sustain the nuclear option.

In our environmentally conscious global village, the future of nuclear power depends on safe reactor performance everywhere. It depends on the nuclear plants of each country achieving and maintaining an adequate margin of safety. It also depends on developing public confidence that these safety margins can be assured in each and every country with nuclear power. The value of an international safety convention would be to help strengthen the hand of the regulator and of those involved in safe reactor operations. Currently, the International Atomic Energy Agency, the IAEA, is putting the final touches on a recommended set of international safety fundamentals. I believe the development and

universal acceptance of such safety fundamentals can lead to improved plant performance and can help to encourage public confidence in reactor safety.

Looking back over the past year, we have all seen phenomenal change. The Soviet Union collapsed. The United States announced plans to bring nuclear weapons home from Europe. In addition, a concern over the safety of nuclear power plants worldwide continued to grow. Questions still remain as to the likelihood of another Chernobyl-type accident, given the serious safety inadequacies of many of the nuclear power plants in the former Soviet Union and in Eastern Europe. Changes in the governments of these countries have heightened this concern and have raised the additional question of the ability of nations to reduce the dangers.

Certainly, of great concern are many of the Soviet-designed nuclear reactors operating in Eastern Europe and the former Soviet Union. They represent about 10 percent of the world's operating reactors. Six of these reactors -- four located in the former East Germany, and two in the former Soviet Union -- have been shut down for safety reasons. Bulgaria has, at least temporarily, shut down two of its oldest reactors.

Yet, the need for power and the economic considerations inherent in these countries leave little flexibility as to whether these plants are shut down or continue to operate. This situation, coupled with the public's awareness of previously unknown problems with these Soviet-designed reactors, further contributes to anxiety about the safety of nuclear power everywhere. The lack of convincing evidence or independent assurances from credible authorities that nuclear reactors are operating safely in all countries continues to adversely affect public confidence.

The public is seeing the growth of commercial nuclear power in places like Taiwan and Korea, and the beginning of a new program in Indonesia. The international community will expect these national nuclear programs to achieve objectives established in an international safety convention.

The nuclear accident at Chernobyl had significant effects on Ukraine's neighbors; it led many to realize that while they might be in control of their own nuclear power plants, apparently there was little they could do to ensure the safety of plants in neighboring countries. As a result, there is a strong and growing incentive for all countries to bind together in a commitment to uniform safety fundamentals and to safety regimes that will provide the public with the confidence, now lacking, that their health and safety will be protected.

This has provided the basic rationale for a convention -- to provide assurance that all countries who utilize nuclear power meet an adequate level of safety. Let me stress, at the outset, that a convention is just one tool that is needed to raise the level of safety in problem nuclear power plants. And while not the most crucial tool, it is one that will be useful and productive for those countries which have weak regulatory authorities, and whose power plants, generally, have not been built with the margins of safety necessary to address a full spectrum of accident scenarios.

Given international concerns about the potential hazards posed by some early Soviet-designed nuclear power plants, the international community at large believes it is vital to provide additional, internationally endorsed, mechanisms for nuclear power plant safety. As most of you know, formal efforts are underway, under IAEA auspices, to establish an international nuclear safety convention which would codify the basic fundamentals of an effective nuclear safety regime. The prospect is ripe for collective actions on a truly global scale. The United States supports and is actively participating in this effort. Four fundamental tenets are guiding the U.S. policy towards the convention.

First, the scope of the convention should be limited to nuclear power plants -- the area of most immediate international concern. Civilian power reactor safety is the area of greatest international consensus and, thus, agreement on a convention should be attained on the urgent time schedule necessary for assisting Eastern Europe and the former Soviet Union.

Second, consistent with the premise of specifically focusing on power reactors, we believe that the convention should be negotiated and agreed to as an integral effort -- a single document. We believe that proposals to agree only on general objectives, with individual protocols negotiated over time, would be a complicated and difficult process. Such an approach would certainly tend to reduce the prospects of bringing an effective convention into force in a timely manner.

Third, the convention should commit all signature countries to the full implementation of essential nuclear safety principles, but should not impose mandatory, detailed safety standards. Broadly based and fundamental principles, such as those embodied in the IAEA's draft SAFETY FUNDAMENTALS: THE SAFETY OF NUCLEAR INSTALLATIONS, provide an effective framework for identifying needed changes and for subsequent peer review discussions. Further, such principles will assist member states, such as those in Eastern Europe and the former Soviet Union, in developing their own nuclear safety regime. I would be very concerned if we attempt to develop and impose detailed standards

that try to encompass the variations in plant design, siting, governmental organization, safety culture, and national laws and regulations of the various member states.

Fourth, and most importantly, nuclear power plant safety regulation must remain a national responsibility. The ultimate safety of commercial nuclear power plants must reside with plant and regulatory officials with day-to-day operational oversight responsibility. The concept of an international regulator, be it the IAEA or some new organization, would not be effective. It would dilute national responsibility and infringe on the sovereign role of member states in the governance of activities within their territories. Beyond that, I believe the IAEA already has an enormous job to do with respect to its safeguards and non-proliferation responsibilities.

Many of you know that the IAEA convened a nuclear safety experts group in December 1991 to discuss the proposed nuclear safety convention. The delegates supported the formation of the safety convention while expressing strong approval for the principle of national responsibility and opposition to the formation of a new international regulatory agency. Also, the idea of a convention based on fundamentals rather than standards was widely accepted. These general views were further endorsed in discussions by the IAEA Board of Governors in February. Additionally, there was agreement with the IAEA Director General's recommendations to continue the necessary planning process for an early convention.

Such a convention can be an important element in ensuring nuclear safety worldwide; however, it must be viewed in context. Several international efforts to improve nuclear safety are already underway in the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD), in the Commission of the European Communities (CEC), and in bilateral assistance programs offered by countries such as the U.S., U.K., France, Germany, Finland, Sweden, Belgium, and Japan. Additionally, the Europeans have initiated an effort to establish an Energy Charter among Eastern and Western Europe, and the former USSR, the U.S., Australia, Canada, New Zealand, and Japan. A Nuclear Protocol stressing nuclear safety and encouraging nuclear safety cooperation will be an integral element of the Charter. The Energy Charter was initiated by governments in December 1991 and efforts to complete its protocols are underway. The U.S. believes that implementation of effective nuclear safety regimes can best be encouraged through cooperation and interaction between those countries with effective safety regimes and those countries seeking to improve their safety practices.

A convention would help to improve safety by committing all signatory governments, particularly countries where safety is

weak, to abide by reasonable safety fundamentals. It should permit the development of consensus on a "high minimum" level of safety without enforcement sanctions that would interfere with national legal structures and national sovereignty. It would ensure that signatories to the convention are engaged at the center of current discussions on safety of nuclear power worldwide. It could also help put added pressure on policy makers, especially in the former Soviet Union and Eastern Europe, who will be allocating the scarce resources of their economies.

Importantly, it avoids the pitfalls of creating a new institutional structure in the IAEA that would be hard pressed to fulfill its responsibility. Even with an increase in IAEA resources, which many nations cannot afford, it would be difficult for the IAEA to add the long-term expertise and experience required. Moreover, a major increase in IAEA resources for safety is probably unrealistic, especially when there is a sentiment to strengthen the safeguards and non-proliferation regime.

As I conclude my remarks, I return to the point I made earlier -- namely, that countries with nuclear plants that may have inadequate margins of safety need help now. In this regard, perhaps the most expeditious and effective approach to improving nuclear safety is for the countries with mature safety programs to provide strong technical and regulatory support to countries with plants having known or perceived safety weaknesses. This should be on a plant-to-plant, regulator-to-regulator and government-to-government basis. These efforts should foster the establishment of competent national regulatory authorities which can effectively monitor changes in plant operations and impose needed requirements to assure adequate safety margins in plant design and operation.

We should encourage both formal and informal interactions among professional peer groups in the nuclear industry. The IAEA could help to nurture the kind of internal self-criticism that is essential to the development of safety discipline. Further, we need to take advantage of other organizations that can contribute to an international safety culture, such as the Institute of Nuclear Power Operations (INPO), which has helped the U.S. industry to improve nuclear safety, and the World Association of Nuclear Operators (WANO), which is doing similar work on the international front.

Let me conclude by noting that the United States strongly endorses an international safety convention, along the lines I have outlined. However, binding standards, no matter how well stated, will not on their own bring about change. To achieve the desired levels of safety in every power plant throughout the world, those with the safety knowledge must share it without

restraint. This must be coupled with a commitment of those seeking assistance, to listen, to learn, and to make the necessary changes. Policy makers need to commit the scarce resources necessary to establish an effective regulatory authority, to modify facilities, and to install a systematic and disciplined approach to safety. An international safety convention is only one of a number of steps that need to be taken. No one action or one approach will bring about the desired final outcome, but by working together in an open and positive environment, the necessary changes can be achieved. In turn, safe nuclear power may continue to be a viable option as a source of energy for all countries.

#