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NUCLEAR SAFETY

The Convention on Nuclear Safety

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Mr. Chairman and Members of the Committee: We are here today to provide information on the Convention on Nuclear Safety—a multilateral treaty to improve civil nuclear power safety. Our statement today summarizes (1) the Convention's scope and objectives, (2) the process for reviewing compliance with the Convention, (3) the dissemination of information related to the Convention's proceedings, and (4) the costs to implement the Convention. We have issued two reports that track the Convention's development and implementation.[1]

In summary, Mr. Chairman:

- The Convention on Nuclear Safety, which focuses on civilian nuclear power reactors, is viewed by the United States as one of the chief policy instruments to encourage countries with Soviet-designed nuclear reactors to improve the safety of their reactors. The Convention seeks to achieve its safety objectives through countries' adherence to general safety principles, such as establishing an independent body to oversee safety, rather than binding technical standards. The Convention does not provide sanctions for noncompliance nor require the closing of unsafe nuclear reactors.
- The Convention's peer review process is intended to establish a forum where groups of countries will comment on reports that are self-assessments of their nuclear programs and thereby encourage countries to improve the safety of these programs. However, the Convention does not specify the form and content of the peer review process nor the quality of countries' reports; therefore, it is unclear how peer pressure will accomplish change or even whether sufficient information will be contained in the reports.
- Although public dissemination of information about the countries' progress in meeting the terms of the Convention can play a role in influencing compliance, it is uncertain how much information from the peer review meetings will be available to the public. Nuclear Regulatory Commission (NRC) officials told us that the Convention does not specifically provide for the kind of openness that they would prefer, but they believe that over time, more information will be made available to the public.
- In January 1997, we reported that the United States estimated that it could spend up to $1.1 million through fiscal year 1999 to prepare for and attend the first review meeting. However, according to an NRC official, the actual costs for this time period will be significantly less because U.S. officials

[1]Nuclear Safety: Progress Toward International Agreement to Improve Reactor Safety (GAO/RCED-93-153, May 14, 1993) and Nuclear Safety: Uncertainties About the Implementation and Costs of the Nuclear Safety Convention (GAO/RCED-97-39, Jan. 2, 1997).

have not participated in the full range of meetings and activities to date related to the Convention.

Scope and Objectives of the Nuclear Safety Convention

The development of the Nuclear Safety Convention is one of a number of cooperative efforts being undertaken by the international community to improve nuclear safety. The impetus for these efforts is based largely on the continuing concern about the safety of the older Soviet-designed reactors. Many of these reactors are operating without basic safety features, such as protective structures to contain radioactive releases and adequately trained personnel. Although the Convention is not viewed as a panacea or "quick fix," it is believed to be a positive step toward improving worldwide nuclear safety. Importantly, though, the Convention does not require any specific actions like closing unsafe nuclear reactors, and its focus is limited to civilian nuclear power reactors. The Convention seeks to achieve its safety objectives through countries' adherence to general safety principles rather than binding technical standards. These principles include (1) establishing and maintaining a legislative framework and an independent regulatory body to govern the safety of nuclear installations; (2) establishing procedures to ensure that technical aspects of safety, such as the siting, design, and construction of nuclear power reactors, are adequately considered; and (3) ensuring that an acceptable level of safety is maintained throughout the life of the installations by such things as considering safety to be a priority and establishing a quality assurance program.

The majority of the country representatives that we met with during the early drafting stages of the Convention supported these principles. A few country officials stated, however, that without establishing procedures for addressing existing problem reactors, including time frames for upgrading their safety, the Convention would not improve nuclear safety. Nevertheless, 65 countries have signed the Convention, and 49 of the 65 have ratified it. As you know, the United States has signed but not ratified the Convention.

Peer Review Process Is Central to the Convention's Success

As noted, the Convention does not impose sanctions for noncompliance. Rather, it seeks to encourage compliance through a peer review process, which is considered central to the Convention's success. According to officials of the departments of State and Energy and NRC, this process will enable countries' safety practices to be brought before the "bar of world public opinion." The Convention does not specify the form and content of

the peer review process but calls on the parties to (1) submit self-assessment reports of the measures they have taken to implement the Convention and (2) hold meetings to review these reports. As you are aware, the first meeting of the parties will take place next month at the International Atomic Energy Agency (IAEA) in Vienna, Austria.

Review groups composed of members from participating countries serve as the foundation of the peer review mechanism. Each group includes members from several countries that have ratified the Convention. As the process is currently envisioned, the countries with the most operating nuclear reactors will participate in separate groups along with several other countries that have ratified the Convention. Within this group setting, all countries will critically examine and review how each country is complying with the Convention. Because the United States has not yet ratified the Convention, it has not yet been assigned to one of the country groups. In our 1997 report, we pointed out that NRC officials had expressed some concern about the potential grouping of countries. For example, the United States, which has spent tens of millions of dollars to improve the safety of Soviet-designed reactors, will not be in the same review group as Russia, which operates many of these reactors.

Although U.S. representatives had misgivings about the country peer review groups, the Convention states that each country shall have a reasonable opportunity to discuss and seek clarification of the reports of any other party at the review meeting. As a result, NRC officials believed that regardless of how the countries are ultimately grouped, the United States would have ample opportunity to review and comment on the self-assessment reports of all countries. According to NRC, the procedures on the peer review process have been clarified since the issuance of our 1997 report. The process will begin with discussions by group members but will then allow countries that are outside a particular group to obtain information of interest to them. Outside parties will be permitted to sit in on the full discussion of any report about which they have submitted questions or comments as observers. NRC believes this process will enable the United States' concerns about any country's report to be fully heard.

We would like to point out that this process is still somewhat theoretical and neither we nor anyone else can be fully certain that it will work precisely as described. Furthermore, it is unclear what form peer pressure will take and how it will cause changes in a country's nuclear power program. As we noted in our May 1993 report, overall responsibility for

nuclear safety rests with the country where a nuclear installation is located.

Another issue that will affect the success of the peer review process is the quality of the individual countries' self-assessment reports, which are expected to describe how the parties are complying with the Convention. Because of differences in countries' nuclear safety programs and available resources, NRC officials anticipate unevenness in the quality and detail of the reports. In their view, this unevenness could affect the level of review and analysis. Similarly, an NRC official recently told us that there is no standard format for the reports and that quality issues will remain problematic.

Public Access to Information Resulting From the Convention's Meetings Can Influence Compliance

The public dissemination of information about the countries' progress in meeting the terms of the Convention can play a key role in influencing compliance, according to some experts familiar with international agreements that rely primarily on peer review. Although U.S. and IAEA officials believe the Convention will encourage greater openness about many countries' safety records and programs, it is uncertain how much information resulting from the periodic meetings will be made available to the public. According to NRC officials, the countries can limit the distribution of their reports. While several countries have made the reports prepared for the first review meeting available to the public and even accessible on the Internet, an NRC official told us that one country, for example, has not made its report public. According to an NRC official, the United States plans to make its report publicly available.

Our 1997 report pointed out some concerns about what type of public record would result from the periodic meetings. We noted that the Convention provides for the public distribution of a report summarizing the issues discussed and the decisions reached during a meeting. However, an NRC official recently told us that the report will be generic in nature and unlikely to identify countries by name. Overall, NRC officials told us that the Convention does not specifically provide for the kind of openness that they would prefer but they believe that over time, more information will be made available to the public. Certainly, promoting greater openness about countries' nuclear safety regimes will enhance the credibility of the process.

Costs to Implement the Convention

In January 1997, we reported that the United States estimated that it could spend up to $1.1 million through fiscal year 1999 to prepare for and attend the first review meeting. However, according to an NRC official, the actual costs for this time period will be significantly less because U.S. officials have not participated in the full range of meetings and activities to date related to the Convention.

The Convention states that IAEA will bear the costs of administering the meeting of the parties, which were expected to total about $1 million. Our 1997 report noted that IAEA planned to support the Convention through its operating budget, which the United States supports through an annual 25-percent contribution. NRC officials had told us that they were concerned about IAEA's potential costs for administering the Convention. The factors affecting IAEA's costs primarily involve the number of languages used to conduct the meeting of the parties and the corresponding translation services. Recently, though, an NRC official told us that costs are being contained because English will serve as the working language for the meeting of the parties. If more languages had been used, then the costs would have been higher given the corresponding costs for translation. As noted in our 1997 report, IAEA's then Deputy Director General for Nuclear Safety told us that the Convention might uncover additional safety problems that require attention. As a result, the countries with the most acute safety problems may seek to use the Convention process as leverage to obtain additional nuclear safety assistance.

This concludes our statement. We would be happy to respond to any questions you or other Members of the Committee may have.

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