

Highlights of GAO-10-489, a report to the Chairman, Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Currently, 437 civilian nuclear power reactors are operating in 29 countries, and 56 more are under construction. After the Chernobyl accident, representatives of over 50 nations, including the United States, participated in the development of the Convention on Nuclear Safety, a treaty that seeks to promote the safety of civilian nuclear power reactors. The Convention has been in force since 1996. GAO was asked to assess (1) parties' views on the benefits and limitations of the Convention, (2) efforts to improve implementation of the Convention, and (3) how International Atomic Energy Agency (IAEA) programs complement the Convention's safety goals. GAO surveyed the 64 parties to the Convention for which it was in force at the time of GAO's review and analyzed the responses of the 32 that completed it, analyzed relevant documents, and interviewed U.S. and foreign officials.

What GAO Recommends

GAO recommends, among other things, that the Department of State, in coordination with NRC, work with other parties to the Convention to encourage the use of performance metrics in national reports to track progress toward improving safety of civilian nuclear power plants and expand efforts to increase the number of reports posted to IAEA's public Web site. The Department of State generally agreed with these recommendations. NRC generally agreed with GAO's report but did not specifically agree or disagree with these recommendations.

View GAO-10-489 or key components. To view the survey results online, click on GAO-10-550SP. For more information, contact Gene Aloise at (202) 512-3841 or aloisee@gao.gov.

NUCLEAR SAFETY

Convention on Nuclear Safety Is Viewed by Most Member Countries as Strengthening Safety Worldwide

What GAO Found

The Convention on Nuclear Safety plays a useful role in strengthening the safety of civilian nuclear power reactors worldwide, according to most parties to the Convention that responded to GAO's survey and representatives of parties GAO interviewed. In particular, parties indicated that the Convention's obligations to (1) establish effective legislative and regulatory frameworks and strong, independent nuclear regulatory bodies and (2) prepare a national report every 3 years that describes the measures the country has taken to achieve the Convention's nuclear safety goals, are among its most useful contributions. The countries present their national reports at review meetings, address questions that may arise about the reports, and assess and ask questions about the reports of other parties. This is known as the peer review process. Some concerns were raised about limited public access to Convention proceedings, some countries' lack of resources to fully participate in the review meetings, and the absence of performance metrics in the national reports to gauge progress toward meeting safety goals and objectives. Half of the parties responding to GAO's survey stated that the lack of performance metrics limited the usefulness of the Convention. Neither the Department of State nor the Nuclear Regulatory Commission (NRC) has formally proposed the adoption of performance metrics. However, NRC officials told GAO that performance metrics could be useful. In addition, the number of parties posting their national reports to IAEA's public Web site has declined since 2005. NRC and Department of State officials told GAO that the United States has always made its national report available on the Internet. However, the U.S. approach has been to lead by example rather than taking an active role in encouraging other parties to post their reports. Further, universal participation would advance achievement of the Convention's goals. Several representatives from countries who are parties to the Convention told GAO that Iran should ratify the Convention. In their view, without Iran's participation, the international community has limited or no insight on, or access to, Iran's civilian nuclear power program. Russia, which is helping Iran build the nuclear reactor at Bushehr, may condition continued assistance on Iran becoming a party to the Convention, according to Russian officials.

The parties have taken some actions to improve the Convention's implementation, and more proposals are being considered. Steps have been taken to make the process for asking questions during peer review meetings more open and to increase the amount of time available for preparing for the review meetings.

IAEA nuclear safety programs, which predate the Convention, complement the Convention's safety goals through the Technical Cooperation program, safety standards, and peer review missions. The Technical Cooperation program supports, among other things, the development of nuclear power. IAEA has established nuclear safety standards and also promotes nuclear safety through peer review missions that evaluate the operations of a member state's nuclear regulatory system and nuclear power plant operational safety.