



Highlights of [GAO-05-754T](#), a testimony before the Subcommittee on Clean Air, Climate Change, and Nuclear Safety, Committee on Environment and Public Works, U.S. Senate

## Why GAO Did This Study

The Nuclear Regulatory Commission (NRC) has the regulatory responsibility to, among other things, ensure that the nation's 103 commercial nuclear power plants are operated in a safe and secure manner. While the nuclear power industry's overall safety record has been good, safety issues periodically arise that threaten the credibility of NRC's regulation and oversight of the industry.

Recent events make the importance of NRC's regulatory and oversight responsibilities readily apparent. The terrorist attacks on September 11, 2001, focused attention on the security of facilities such as commercial nuclear power plants, while safety concerns were heightened by shutdown of the Davis-Besse nuclear power plant in Ohio in 2002, and the discovery of missing or unaccounted for spent nuclear fuel at three nuclear power plants.

GAO has issued a total of 15 recent reports and testimonies on a wide range of NRC activities. This testimony (1) summarizes GAO's findings and associated recommendations for improving NRC mission-related activities and (2) presents several cross-cutting challenges NRC faces in being an effective and credible regulator of the nuclear power industry.

[www.gao.gov/cgi-bin/getrpt?GAO-05-754T](http://www.gao.gov/cgi-bin/getrpt?GAO-05-754T).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Jim Wells at (202) 512-3841 or [wellsj@gao.gov](mailto:wellsj@gao.gov).

# NUCLEAR REGULATORY COMMISSION

## Challenges Facing NRC in Effectively Carrying Out Its Mission

### What GAO Found

GAO has documented many positive steps taken by NRC to advance the security and safety of the nation's nuclear power plants. It has also identified various actions that NRC needs to take to better carry out its mission. First, with respect to its security mission, GAO found that NRC needs to improve security measures for sealed sources of radioactive materials — radioactive material encapsulated in stainless steel or other metal used in medicine, industry, and research—which could be used to make a “dirty bomb.” GAO also found that, although NRC was taking numerous actions to require nuclear power plants to enhance security, NRC needed to strengthen its oversight of security at the plants. Second, with respect to its public health and safety, and environmental missions, GAO found that NRC needs to conduct more effective analyses of plant owners' funding for decommissioning to ensure that the significant volume of radioactive waste remaining after the permanent closure of a plant are properly disposed. Further, NRC needs to more aggressively and comprehensively resolve issues that led to the shutdown of the Davis-Besse nuclear power plant by improving its oversight of plant safety conditions. Finally, NRC needs to do more to ensure that power plants are effectively controlling spent nuclear fuel, including developing and implementing appropriate inspection procedures.

GAO has identified several cross-cutting challenges affecting NRC's ability to effectively and credibly regulate the nuclear power industry. Recently, NRC has taken two overarching approaches to its regulatory and oversight responsibilities. These approaches are to (1) develop and implement a risk-informed regulatory strategy that targets the most important safety-related activities and (2) strike a balance between verifying plants' compliance with requirements through inspections and affording licensees the opportunity to demonstrate that they are operating their plants safely. NRC must overcome significant obstacles to fully implement its risk-informed regulatory strategy across agency operations, especially with regards to developing the ability to identify emerging technical issues and adjust regulatory requirements before safety problems develop. NRC also faces inherent challenges in achieving the appropriate balance between more direct oversight and industry self-compliance. Incidents such as the 2002 shutdown of the Davis-Besse plant and the unaccounted for spent nuclear fuel at several plants raise questions about whether NRC has the risk information that it needs and whether it is appropriately balancing agency involvement and licensee self-monitoring. Finally, GAO believes that NRC will face challenges managing its resources while meeting increasing regulatory and oversight demands. NRC's resources have already been stretched by the extensive effort to enhance security at plants in the wake of the September 11, 2001, terrorist attacks. Pressure on NRC's resources will continue as the nation's fleet of plants age and the industry's interest in expansion grows, both in licensing and constructing new plants, and re-licensing and increasing the power output of existing ones.