



Highlights of [GAO-11-920](#), a report to the Committee on Foreign Affairs, House of Representatives

## Why GAO Did This Study

The United States has exported special nuclear material, including enriched uranium, and source material such as natural uranium under nuclear cooperation agreements. The United States has 27 nuclear cooperation agreements for peaceful civilian cooperation. Under the U.S. Atomic Energy Act of 1954 (AEA), as amended, partners are required to guarantee the physical protection of U.S. nuclear material. GAO was asked to (1) assess U.S. agency efforts to account for U.S. nuclear material overseas, (2) assess the Department of Energy's (DOE) and U.S. agencies' efforts to evaluate the security of U.S. material overseas, and (3) describe DOE's activities to secure or remove potentially vulnerable U.S. nuclear material at partner facilities. GAO analyzed agency records and interviewed DOE, Nuclear Regulatory Commission (NRC), Department of State (State), and partner country officials. This report summarizes GAO's classified report issued in June 2011.

## What GAO Recommends

GAO suggests, among other things, that Congress consider directing DOE and NRC to compile an inventory of U.S. nuclear material overseas. DOE, NRC, and State generally disagreed with GAO's recommendations, including that they conduct annual inventory reconciliations with all partners, stating they were unnecessary. GAO continues to believe that its recommendations could help improve the accountability of U.S. nuclear material in foreign countries.

View [GAO-11-920](#). For more information, contact Gene Aloise at (202) 512-3841 or [aloisee@gao.gov](mailto:aloisee@gao.gov).

## NUCLEAR NONPROLIFERATION

### U.S. Agencies Have Limited Ability to Account for, Monitor, and Evaluate the Security of U.S. Nuclear Material Overseas

#### What GAO Found

DOE, NRC, and State are not able to fully account for U.S. nuclear material overseas that is subject to nuclear cooperation agreement terms because the agreements do not stipulate systematic reporting of such information, and there is no U.S. policy to pursue or obtain such information. U.S. nuclear cooperation agreements generally require that partners report inventory information upon request, however, DOE and NRC have not systematically sought such data. DOE and NRC do not have a comprehensive, detailed, current inventory of U.S. nuclear material—including weapon-usable material such as highly enriched uranium (HEU) and separated plutonium—overseas that includes the country, facility, and quantity of material. In addition, NRC and DOE could not fully account for the current location and disposition of U.S. HEU overseas in response to a 1992 congressional mandate. U.S. agencies, in a 1993 report produced in response to the mandate, were able to verify the location of 1,160 kilograms out of 17,500 kilograms of U.S. HEU estimated to have been exported. DOE, NRC, and State have established annual inventory reconciliations with five U.S. partners, but not the others it has transferred material to or trades with.

Nuclear cooperation agreements do not contain specific access rights that enable DOE, NRC, or State to monitor and evaluate the physical security of U.S. nuclear material overseas, and the United States relies on its partners to maintain adequate security. In the absence of access rights, DOE's Office of Nonproliferation and International Security, NRC, and State have conducted physical protection visits to monitor and evaluate the physical security of U.S. nuclear material at facilities overseas when permitted. However, the agencies have not systematically visited countries believed to be holding the highest proliferation risk quantities of U.S. nuclear material, or systematically revisited facilities not meeting international physical security guidelines in a timely manner. Of the 55 visits made from 1994 through 2010, U.S. teams found that countries met international security guidelines approximately 50 percent of the time.

DOE has taken steps to improve security at a number of facilities overseas that hold U.S. nuclear material but faces constraints. DOE's Global Threat Reduction Initiative (GTRI) removes U.S. nuclear material from vulnerable facilities overseas but can only bring back materials that have an approved disposition pathway and meet the program's eligibility criteria. GTRI officials told GAO that, of the approximately 17,500 kilograms of HEU exported from the United States, 12,400 kilograms are currently not eligible for return to the United States. Specifically, GTRI reported that over 10,000 kilograms of U.S. HEU are believed to be in fuels from reactors in Germany, France, and Japan that have no disposition pathways in the United States and are adequately protected. In addition, according to GTRI, 2,000 kilograms of transferred U.S. HEU are located primarily in European Atomic Energy Community countries and are currently in use or adequately protected.