

GAO Highlights

Highlights of [GAO-20-392](#), a report to the Committee on Armed Services, U.S. Senate

Why GAO Did This Study

Russia possesses the world's largest stockpile of weapons-usable nuclear materials, largely left over from the Cold War. These nuclear materials could be used to build a nuclear weapon if acquired by a rogue state or terrorist group. Starting in 1993, and for the next 2 decades, DOE worked with Russia to improve security at dozens of sites that contained these nuclear materials. In 2014, following Russian aggression in Ukraine and U.S. diplomatic responses, Russia ended nearly all nuclear security cooperation with the United States.

The Senate report accompanying the Fiscal Year 2019 National Defense Authorization Act includes a provision for GAO to review NNSA's efforts to improve Russian nuclear material security. This report (1) examines the extent to which NNSA had completed its planned nuclear material security efforts when cooperation ended and what nuclear security concerns remained, (2) describes what is known about the current state of nuclear material security in Russia, and (3) describes stakeholder views on opportunities for future U.S.-Russian nuclear security cooperation.

To address all three objectives, GAO interviewed U.S. government officials, personnel from DOE's national laboratories, and nongovernmental experts. In this report, GAO refers to all of these groups as stakeholders. GAO also reviewed relevant U.S. government plans, policies, and program documentation. GAO requested the opportunity to interview Russian officials and representatives at nuclear material sites for this review, but the Russian government denied this request.

View [GAO-20-392](#). For more information, contact David Trimble at (202) 512-3841 or trimbled@gao.gov

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NUCLEAR NONPROLIFERATION

Past U.S. Involvement Improved Russian Nuclear Material Security, but Little Is Known about Current Conditions

What GAO Found

Over more than 2 decades starting in the early 1990s, the Department of Energy (DOE) and its National Nuclear Security Administration (NNSA) completed many of their planned efforts to improve nuclear material security in Russia, according to DOE documentation, U.S. government officials, and nuclear security experts. These efforts, carried out primarily through NNSA's Material Protection, Control, and Accounting (MPC&A) program, included a range of projects to upgrade security at dozens of Russian nuclear material sites, such as the installation of modern perimeter fencing, surveillance cameras, and equipment to track and account for nuclear material. However, not all planned upgrades were completed before cooperation ended in late 2014. NNSA also completed many—but not all—of its planned efforts to help Russia support its national-level security infrastructure, such as by helping improve the security of Russian nuclear materials in transit. In addition, NNSA made some progress in improving each site's ability to sustain its security systems, such as by training Russian site personnel on modern MPC&A practices and procedures. NNSA documentation that GAO reviewed showed that by the time cooperation ended, Russian sites had generally improved their ability to sustain their MPC&A systems, but this documentation showed that concerns remained.

According to stakeholders, there is little specific information about the current state of security at Russian nuclear material sites because U.S. personnel no longer have access to sites to observe security systems and discuss MPC&A practices with Russian site personnel. However, stakeholders said there is some information on national-level efforts. Specifically, stakeholders said that Russia has improved regulations for some MPC&A practices, and there are signs that Russian sites receive funding for nuclear material security, though it is unlikely that Russian funding is sufficient to account for the loss of U.S. financial support. Regarding threats to Russia's nuclear material, nongovernmental experts GAO interviewed raised concerns about the risk of insider theft of Russian nuclear materials. Experts stated that it is likely that Russian sites have maintained nuclear material security systems to protect against threats from outsiders, but it is unlikely that sites are adequately protecting against the threat from insiders.

Stakeholders said that there may be opportunities for limited future cooperation between the two countries to help improve Russian nuclear material security. Such opportunities could include technical exchanges and training. These opportunities could provide the United States with better information about the risk posed by Russia's nuclear materials and could help address areas of concern, such as by training Russian personnel to help sites better address the insider threat. However, any potential cooperation faces considerable challenges, according to stakeholders, most notably the deterioration of political relations between the two countries. In addition, stakeholders said that cooperation is challenged by current U.S. law, which generally prohibits NNSA from funding nuclear security activities in Russia; by Russian antagonism toward U.S. proposals to improve nuclear material security internationally; and by Russian conditions for cooperation that the United States has not been willing to meet.