

GAO Highlights

Highlights of [GAO-14-293](#), a report to congressional requesters

Why GAO Did This Study

In 2012, GAO identified security weaknesses at U.S. medical facilities that use high-risk radiological sources, such as cesium-137. This report addresses potential security risks with such sources in the industrial sector. Radioactive material is typically sealed in a metal capsule called a sealed source. In the hands of a terrorist, this radioactive material could be used to construct a “dirty bomb.” NRC is responsible for licensing and regulating the commercial use of radiological sources. NNSA provides voluntary security upgrades to facilities with such sources. GAO was asked to review the security of sources at industrial facilities. This report examines (1) the challenges in reducing security risks posed by industrial radiological sources and (2) the steps federal agencies are taking to improve security of the sources. GAO reviewed relevant laws, regulations, and guidance; interviewed federal agency and state officials; and visited 33 of about 1,400 U.S. industrial facilities selected based on, among other things, geographic location and type of device using the radiological source.

What GAO Recommends

GAO recommends, among other things, that NRC assess the T&R process to determine if it provides reasonable assurance against insider threats. In addition, GAO recommends that NNSA, NRC, and DHS review their collaboration mechanism for opportunities to enhance it, especially in the development of new technologies. NRC generally agreed with GAO’s recommendations, and NNSA agreed with the one recommendation directed to it. DHS did not comment on the report.

View [GAO-14-293](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

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NUCLEAR NONPROLIFERATION

Additional Actions Needed to Increase the Security of U.S. Industrial Radiological Sources

What GAO Found

GAO found that challenges exist in reducing the security risks faced by licensees using high-risk industrial radiological sources. Specifically, licensees face challenges in (1) securing mobile and stationary sources and (2) protecting against an insider threat. Regarding mobile sources, their portability makes them susceptible to theft or loss, as the size of some of these sources is small enough for them to be easily concealed. The most common mobile source is contained in a device called a radiography camera. GAO identified four incidents from 2006 to 2012 where such cameras that use high-risk sources to test pipeline welds were stolen. These thefts occurred even though the Nuclear Regulatory Commission (NRC) has established increased security controls. Licensees also face challenges in determining which employees are suitable for trustworthiness and reliability (T&R) certification to have unescorted access to high-risk radiological sources. GAO found two cases where employees were granted unescorted access, even though each had extensive criminal histories, and one had been convicted for terroristic threats, which include a range of violent threats. In this case, NRC said that the person was convicted not of a threat against the United States, but of making violent verbal threats against two individuals. It is unclear whether these cases represent isolated incidents or a systemic weakness in the T&R process established by NRC. Without an assessment of the process, NRC may not have reasonable assurance that access decisions made by licensees can prevent threats to high-risk radiological sources, particularly by a determined insider.

Federal agencies responsible for securing radiological sources—including NRC, the National Nuclear Security Administration (NNSA), and the Department of Homeland Security (DHS)—have taken steps to improve the security of industrial radiological sources. For example, NRC is developing a best practices guide that is expected to provide licensees with practical information about how to secure their sources. Also, NNSA is developing new technology that would, if successful, improve tracking of radiological sources while in transit. However, GAO found that although the agencies have been meeting quarterly to discuss, among other things, radiological security, this mechanism did not always help them collaborate and draw on each agency’s expertise during research, development, and testing of a new technology for a mobile source tracking device. By not collaborating consistently, the agencies have missed opportunities to leverage resources and expertise in developing this new technology to track radiological sources. This technology could aid in the timely recovery of a lost or stolen radiological source and support the agencies’ common mission. As GAO has previously reported, when responsibilities cut across more than one federal agency—as they do for securing industrial radiological sources—it is important for agencies to work collaboratively to deliver results more efficiently and in a way that is consistent with the federal government’s multiple demands and limited resources.