

GAO Highlights

Highlights of [GAO-16-330](#), a report to the Ranking Member, Committee on Homeland Security, House of Representatives

Why GAO Did This Study

In 2007, GAO reported weaknesses in NRC's licensing program as GAO investigators, after setting up fictitious companies, were able to obtain an NRC license and then alter it to obtain agreements to purchase devices containing, in aggregate, a dangerous quantity of radioactive materials.

GAO was asked to review and assess the steps NRC and agreement states have taken to strengthen their licensing processes. This report examines (1) the steps NRC and agreement states have taken to ensure that radioactive materials licenses are granted only to legitimate organizations and licensees can obtain materials only in quantities allowed by their licenses; and (2) the results of covert vulnerability testing designed to test the effectiveness of these controls. GAO reviewed relevant guidance documents, regulations, and analyses of orders, and interviewed NRC and state officials. GAO also established three fictitious businesses and applied for a radioactive materials license for each.

What GAO Recommends

GAO is making three recommendations to NRC, including that NRC (1) take steps to include category 3 quantities of radioactive materials in NSTS and WBL, and (2) require that transferors of category 3 quantities of radioactive materials confirm the validity of licenses with regulators before selling or transferring these materials. GAO provided a draft of this report to NRC for comment. NRC neither agreed nor disagreed with GAO's recommendations, but noted that the agency has formal evaluations underway considering all three recommendations.

View [GAO-16-330](#). For more information, contact David C. Trimble at (202) 512-3841 or trimbled@gao.gov.

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NUCLEAR SECURITY

NRC Has Enhanced the Controls of Dangerous Radioactive Materials, but Vulnerabilities Remain

What GAO Found

The Nuclear Regulatory Commission (NRC) and the 37 states it permits to grant licenses for radioactive materials—called agreement states—have taken several steps since 2007 to help ensure that licenses are granted only to legitimate organizations and that licensees can only obtain such materials in quantities allowed by their licenses. However, NRC and agreement states have not taken some measures to better control some dangerous quantities of radioactive materials. The International Atomic Energy Agency established a system ranking quantities of certain radioactive materials into five categories based on their potential to harm human health, with, in descending order of danger, categories 1, 2, and 3 all considered dangerous. NRC developed revised guidance, screening criteria, and a checklist, among other things, and now directs NRC regions and agreement states to conduct prelicensing site visits—focusing on questions related to the applicant's business operations, facility, radiation safety operations, and personnel qualifications for all unknown applicants. NRC, however, has not strengthened controls for all categories of radioactive material considered dangerous. Unlike its process for applicants for category 1 and 2 quantities of radioactive materials, for category 3 applicants NRC does not review specific security measures before a license is issued. NRC has also developed and deployed the National Source Tracking System (NSTS), the Web-based Licensing System (WBL), and the License Verification System to better control some materials. However, these systems focus on more dangerous category 1 and 2 quantities but not category 3 quantities. Further, NRC does not specifically require that the validity of category 3 licenses be verified by the seller with NRC or the agreement states—creating risks that licenses could be counterfeited or that licensees could obtain radioactive materials in quantities greater than what is allowed by their licenses.

GAO's covert testing of NRC requirements showed them to be effective in two out of our three cases; in a third case, GAO was able to obtain a license and secure commitments to purchase, by accumulating multiple category 3 quantities of materials, a category 2 quantity of a radioactive material considered attractive for use in a "dirty bomb"—which uses explosives to disperse radioactive material. To test NRC's prelicensing processes, GAO established three fictitious companies, leased vacant space for each company (two in agreement states, one in an NRC state), and submitted an application to the appropriate agreement state or NRC office for a license to possess a category 3 source only slightly below the threshold for category 2. GAO made no attempt to outfit the site to make it appear as if a legitimate business was operating there. In the two cases where GAO was unable to obtain a license, the scrutiny provided by NRC or agreement state (regulatory body) officials during the prelicensing site visit led to the license not being granted. In the third case, the official from the regulatory body accepted GAO's assurances without scrutinizing key aspects of the fictitious business, which led to a license being obtained. NRC is currently taking corrective actions to provide training to NRC and agreement state officials to emphasize greater scrutiny in conducting prelicensing site visits. According to NRC officials, NRC and agreement state working groups are currently developing and evaluating enhancements to (1) prelicensing guidance overall and (2) license verification and transfer requirements for category 3 licenses.