



Why This Matters

TSA is responsible for screening passengers at commercial airports and uses the general-use backscatter unit, an imaging technology that delivers low doses of ionizing radiation, to detect weapons and explosives on screened individuals. TSA began deploying general-use backscatter units in March 2010, with 247 units currently operating in 39 commercial airports. At the request of Congressman Edward J. Markey, we assessed the manner in which TSA inspects, maintains, and operates general-use backscatter units, and how accidental overdose information is shared and coordinated with federal agencies, passengers, and employees.

DHS Response

TSA concurred with the six recommendations in our report.

TSA's responses need to incorporate additional actions that fully address the intent of each recommendation.

For Further Information:

Contact our Office of Public Affairs at (202)254-4100, or email us at DHS-OIG.OfficePublicAffairs@dhs.gov

Transportation Security Administration's Use of Back Scatter Units

What We Determined

Radiation assessments conducted by federal agencies, the manufacturer, and a third-party tester prior to and after the deployment of general-use backscatter units concluded that radiation levels emitted from these units were below the limits established by the American National Standards Institute (ANSI). We found that TSA: complied with ANSI requirements for conducting radiation safety surveys during specific intervals and when circumstances dictate; and, communicates and coordinates its efforts with other federal agencies. We did not identify any situation where accidental radiation emissions had occurred; however, TSA's process did not include conducting a radiation survey in the event of any incident that may damage the system and cause unintended radiation emissions. In addition, we did not identify any improperly calibrated backscatter units that compromised operational safety; however, backscatter calibrations were not performed consistently at all airport locations as outlined in TSA policy. We also determined that not all Transportation Security Officers (TSOs) completed the required annual Radiation Safety Training.

What We Recommend

Our recommendations to the Assistant Administrator for Security and Technology, TSA, are intended to assist TSA in: developing procedures that ensure radiation surveys are conducted on general-use backscatter units that could cause unintended radiation emissions; establishing controls to ensure that backscatter unit calibrations are conducted consistently; developing procedures to ensure that TSOs satisfy ANSI requirements for radiation safety training and annual refresher training; reassessing the amount of on-the-job training TSOs require to operate general-use backscatter units; and, developing procedures to ensure the Food and Drug Administration is notified of any instances of accidental radiation emissions or overdoses.