

GAO

## Testimony

Before the Subcommittee on Oversight and  
Investigations, Committee on Energy and Commerce,  
House of Representatives

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# CUSTOMS SERVICE

## Acquisition and Deployment of Radiation Detection Equipment

Statement of (Ms.) Gary L. Jones, Director  
Natural Resources and Environment  
and  
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Tax Administration and Justice



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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to be here today to discuss our ongoing work related to Customs' acquisition and deployment of radiation detection equipment, and our report related to assistance provided by the United States to foreign countries to combat nuclear smuggling.<sup>1</sup> As you know, we have also been doing work for the Committee, including visits to ports, concerning other aspects of Customs' inspection of cargo at seaports. The Customs Service has deemed the information we are collecting regarding that work as law enforcement sensitive, which precludes us from discussing it in an open hearing. We understand that a closed session for questions and answers will follow this open session. We will be happy to share information about this law enforcement sensitive work in that setting.

Our testimony focuses on (1) Customs' acquisition and deployment of radiation detection equipment on U.S. borders and ports of entry and (2) U.S. assistance to foreign countries to help them combat nuclear smuggling. We shared our observations from visits to two major ports with this Subcommittee during a closed hearing on July 9, 2002, and our observations on the deployment of radiation detection equipment in a letter to the full Committee on August 15, 2002. Our statement today results from interviews with Customs and Department of Energy (DOE) officials and draws upon our prior work on U.S. efforts to help other countries combat nuclear smuggling.

Our observations concerning the acquisition of radiation detection equipment have not changed from what we reported to you in August. Specifically, the Customs Service's primary radiation detection equipment—radiation pagers—have certain limitations and may be inappropriate for the task. Further, we remain concerned that no comprehensive plan is in place for installing and using radiation detection equipment at all U.S. border crossings and ports of entry. Regarding U.S. efforts to help other countries combat nuclear smuggling, a number of U.S. agencies, including Customs, have provided assistance to foreign countries—mostly in the former Soviet Union and Central and Eastern Europe. The agencies have provided a range of assistance including

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<sup>1</sup>U.S. General Accounting Office, *Nuclear Nonproliferation: U.S. Efforts to Help Other Countries Combat Nuclear Smuggling Need Strengthened Coordination and Planning*, [GAO-02-426](#), (Washington, D.C.: May 16, 2002).

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radiation detection equipment and training as well as other equipment and training to generally improve countries' ability to interdict nuclear smuggling.

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## Customs' Acquisition and Deployment of Radiation Detection Equipment

Based on our work with Customs and DOE officials and our review of U.S. efforts to help other countries combat nuclear smuggling, we have concerns that Customs has not yet deployed the best available technologies for detecting radioactive and nuclear materials at U.S. border crossings and ports of entry. Customs officials told us that its approximately 7,500 inspectors rely primarily on personal radiation detection pagers, worn on a belt. Since fiscal year 1998, Customs has deployed about 4,200 pagers among its inspectors and expects to purchase over 4,000 additional pagers to complete deployment by September 2003. At that time, every inspector will have his or her own pager.

However, radiation detection pagers have limitations. DOE officials told us that they do not view pagers as search instruments, but rather as personal safety devices to protect against radiation exposure, and that the pagers have a limited range and are not designed to detect weapons-usable nuclear material. According to U.S. radiation detection vendors and DOE laboratory specialists, pagers are more effectively used in conjunction with other radiation detection equipment, such as portal monitors similar to what DOE is providing to Russia for use at its border crossings. Customs has deployed over 200 radiation detectors on its x-ray systems for screening small packages, but it has not deployed the larger portal monitors for screening pedestrians and entire vehicles. Customs plans to install portal monitors at every U.S. border crossing and port of entry, but so far has only deployed them at one border crossing as a pilot project. Customs has told us that a report on the pilot project would be issued by the middle of this month, but according to a Customs official we spoke with the report is not yet available. We will be reviewing, among other things, the results of this pilot project in response to the Committee's recent request to review the Customs Service's efforts to deploy radiation detection equipment on U.S. borders and ports of entry. Customs officials also told us that they plan to purchase up to 400 portal monitors by the end of fiscal year 2003. While these purchases are a step in the right direction, Customs officials told us that equipment evaluation and testing could still take several years, and in the meantime they do not have a time frame or specific plan for actually deploying portal monitors.

We believe that it is important that Customs develop a comprehensive plan for installing radiation detection equipment at all U.S. border crossings

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and ports of entry, and in the near term, while the plan is being developed, consider immediate steps to deploy currently available radiation detection equipment. A comprehensive plan would address, among other things, vulnerabilities and risks; identify the complement of radiation detection equipment that should be used at each type of border entry point—air, rail, land, and sea—and whether equipment could be immediately deployed; identify longer-term radiation detection needs; and develop measures to ensure that the equipment is adequately maintained. However, it is not enough to simply deploy equipment. Customs personnel must be effectively trained in radiation science, the use of the equipment, and identifying and responding to alarms. The plan would need to identify costs, annual budgetary needs, and timeframes for all these activities. The plan would provide for an integrated, systematic approach to Customs antiterrorism efforts and provide the basis for setting priorities and for coordinating efforts with other federal, state, and local agencies that would be involved with these activities. While Customs officials told us that they have developed the elements of a plan, including schedules to purchase equipment and train personnel, these elements have not yet been integrated into a comprehensive plan.

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## U.S. International Assistance to Combat Nuclear Smuggling

U.S. assistance efforts to combat nuclear smuggling are divided among six federal agencies—DOE and the Departments of State and Defense; Customs; the Federal Bureau of Investigation (FBI); and the U.S. Coast Guard. From fiscal year 1992 through 2001, the six agencies spent about \$86 million to help about 30 countries, mostly in the former Soviet Union and Central and Eastern Europe, combat the threat of smuggling of nuclear and other materials that could be used in weapons of mass destruction. The agencies have provided a range of assistance including radiation detection equipment and training as well as other equipment and training to generally improve countries' ability to interdict nuclear smuggling. DOE has two programs to combat nuclear smuggling, primarily focusing on Russia. The State Department has provided radiation detection portal monitors, mobile vans equipped with radiation detectors, handheld radiation detectors, and other assistance to about 30 countries through two separate programs. The Department of Defense has two programs that have provided radiation detection portal monitors, handheld detectors, and other assistance to about 20 countries. With funding provided by the Departments of State and Defense, Customs, the FBI, and the U.S. Coast Guard have provided a variety of training and equipment to customs, border guard, and law enforcement officials in numerous countries.

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As part of U.S. assistance to combat nuclear smuggling, DOE is implementing the Second Line of Defense program to install radiation detection portal monitors at Russian border crossings. From fiscal year 1997 through 2001, DOE installed 70 portal monitors at eight border crossings in Russia—an airport in Moscow, six seaports and one railroad crossing—at a cost of \$11.2 million. The eight border crossings are the first of close to 60 sites where DOE plans to install portal monitors based on its assessment of over 300 border crossings in Russia. DOE prioritized the border crossings based on factors that might increase the risk that potential smugglers would use particular routes to smuggle nuclear material out of Russia. According to DOE officials, the portal monitors they provided to Russia have detected more than 275 cases involving radioactive material including contaminated scrap metal, irradiated cargo, and other radioactive materials that could pose a proliferation concern.

Russian customs officials told us that radiation detection equipment funded by DOE's Second Line of Defense program has helped accelerate Russia's plans to improve border security. According to these officials, as of October 2001, DOE had financed the purchase of about 15 percent of Russia's 300 portal monitors. The U.S.-funded equipment is manufactured in Russia to, among other things, facilitate maintenance, and DOE national laboratory personnel test the portal monitors to ensure that they are placed in an optimal configuration (to maximize detection capability) and are being used as intended. According to Russian officials, there is excellent cooperation with DOE on ways to continually improve the performance of the equipment, and DOE makes follow-up visits to inspect the equipment and ensure that it is recalibrated as necessary to meet performance specifications.

During our visit to Russia, we observed several U.S.-funded pedestrian portal monitors that were installed at Moscow's Sheremetyevo Airport as well as a control room that included video equipment and a computerized monitoring system, also funded by DOE, that was connected to the portal monitors. Russian officials tested the equipment we saw at the airport on our behalf. With our knowledge, they "planted" a radioactive source in an attaché case that we carried past a pedestrian portal monitor, which activated an alarm. A computer screen in the control room displayed our movements past the portal monitor.

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Mr. Chairman, this completes my prepared statement. We will be happy to answer any questions you or other Members of the Subcommittee may have at this time.

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## GAO Contact and Acknowledgments

For further information about this testimony, please contact Gary Jones at (202) 512-3841 or Laurie E. Ekstrand at (202) 512-9110. Gene Aloise, Seto Bagdoyan, Ryan T. Coles, Joseph Cook, and Glen Levis also made key contributions to this testimony.