



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

September 29, 2021

Ms. Allison Bawden, Director  
Natural Resources and Environment  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Ms. Bawden:

Thank you for the opportunity to review and comment on the United States Government Accountability Office (GAO) draft GAO-22-104113 report, "Alternatives to Radioactive Materials: A National Strategy to Support Alternative Technologies May Reduce Risks of a Dirty Bomb," which the U.S. Nuclear Regulatory Commission (NRC) received on August 25, 2021. The NRC has general comments, which are provided below, and more specific comments on the report, which are provided in the enclosure.

As noted in the draft GAO report, the NRC was established by Congress to regulate the civilian use of radioactive materials in the United States, with a non-promotional safety and security mandate. The NRC was granted broad authority for the regulation of radioactive material to provide reasonable assurance of adequate protection of the public health and safety and common defense and security in the use of such materials.

The security and appropriate control of nuclear and radioactive materials is a top priority for the NRC. Together, the NRC and the Agreement States have established a strong regulatory framework that ensures the safety, security, and control of radioactive materials and discrete sources. This framework includes Title 10 of the *Code of Federal Regulations* (10 CFR) Part 37, "Physical Protection of Category 1 and Category 2 Quantities of Radioactive Material," to ensure the appropriate access to, secure storage of, and effective detection, assessment, and response to any unauthorized access to risk-significant radioactive materials. The framework also includes robust oversight and enforcement programs. There are an estimated 2 million radioactive sources and devices in the United States, including approximately 80,000 risk-significant Category 1 or Category 2 sources. Since the 2013 implementation of 10 CFR Part 37, there have not been any incidents that have resulted in unrecovered Category 1 and 2 radioactive sources.

The NRC's mission and regulatory framework are complemented by those of several other Federal and State agencies. Each of these agencies, including the Department of Homeland Security, the Department of Energy and the Food and Drug Administration, plays an integral role in the domestic architecture for radioactive material safety and security while also ensuring risks are adequately mitigated so that the United States reaps the societal benefits of many technologies.

The NRC staff participates in multiple fora, both formal and informal, that contribute to the advancement of safety and security nationwide, and many of them include discussions of various non-isotopic technologies. Informal activities have included participation in public

meetings of the National Academies of Sciences, Engineering, and Medicine, Nuclear and Radiation Studies Board, cooperation in interagency working groups to streamline international grantmaking for linear accelerators for cancer treatment in underserved countries, and periodic information sharing with other Federal partners on new or existing programs. Most recently, the NRC staff and the National Nuclear Security Administration worked collaboratively to develop key messages regarding information available on domestic programs for the replacement of cesium irradiators.

Formally, through the Radiation Source Protection and Security Task Force (Task Force), 14 federal agencies, and others, coordinate on a routine basis to ensure that the United States is appropriately positioned to protect the country from potential terrorist threats, such as the use of radioactive material in a radiological dispersal device or a radiation exposure device. Alternative technologies is a specific area of consideration by the Task Force as a whole, with specific programs noted by agencies with statutory authority to support them. In October 2018, the Task Force submitted a report to the President and Congress (Agencywide Documents Access and Management System Accession No. ML18276A155), in which the 14 Task Force member agencies concluded that there are no significant gaps in the area of radioactive source protection and security that are not already being addressed by ongoing efforts of the appropriate agencies. The Task Force is currently working to draft the next report, which will be submitted to the President and Congress in 2022.

Consistent with these roles and responsibilities, the NRC staff, in coordination with its Agreement State partners, has developed a robust program of security measures for nuclear and radioactive materials that is focused on providing protection commensurate with the risk associated with the material. The United States was the first country in the world to require such enhanced security requirements for radioactive materials, and both Federal and State regulators actively oversee licensee implementation of these requirements to ensure that such materials remain secure throughout the lifecycle—from manufacture through disposal, and including long-term storage if disposal is not an option. As such, the security of Category 1 and 2 radioactive materials at domestic facilities has greatly improved since the terrorist attacks of September 11, 2001. In addition, the NRC will continue its efforts to improve the security of radioactive material and discrete sources, in coordination with Federal, State, and international partners. In partnership with appropriate elements of the United States Government, the NRC will also continue to evaluate the current domestic threat environment, to ensure its security rules and regulations are risk-informed, appropriate, and effective.

While the NRC does not take a position on the matters for congressional consideration included in the draft report, the agency is providing comments for GAO's consideration as GAO finalizes the report. Thank you for the opportunity to review the draft report. Should you have any questions concerning these comments, please contact John Jolicoeur at (301) 415-1642.

Sincerely,



Signed by Doane, Margaret  
on 09/29/21

Margaret M. Doane  
Executive Director  
for Operations

Enclosure:  
NRC comments on draft report  
GAO-22-104113

cc: Mr. Edwin Woodward, GAO  
Mr. Jeffrey Baron, GAO