

Why GAO Did This Study

Most weapons in the U.S. nuclear stockpile were produced over 20 years ago and are being sustained beyond original design lifetimes. It is critical to ensure that these weapons are safe, secure, and reliable to perform as the nation's nuclear deterrent. The National Nuclear Security Administration (NNSA), a semiautonomous agency within the Department of Energy, is responsible for the nation's nuclear weapons program. NNSA identifies nuclear weapon limitations—areas where military requirements may not be met—and conducts nonnuclear tests to evaluate the condition and reliability of weapons through its nuclear stockpile surveillance program. GAO was asked to determine the (1) number and types of such limitations and any concerns raised by Department of Defense (DOD) officials, and (2) actions NNSA has taken to implement its prior recommendations for the nuclear stockpile surveillance program. GAO reviewed agency documents, analyzed limitations, and interviewed key NNSA and DOD officials.

What GAO Recommends

Among other things, GAO recommends that NNSA, in appropriate collaboration with DOD, expand guidance on weapon limitations to include all limitations, revise this guidance to clearly describe the limitations' potential impacts, and develop a corrective action plan for implementing surveillance program recommendations. NNSA generally agreed with GAO's recommendations and outlined planned actions to address them. DOD agreed with GAO's recommendations.

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NUCLEAR WEAPONS

NNSA Needs to Improve Guidance on Weapon Limitations and Planning for Its Stockpile Surveillance Program

What GAO Found

For the 52 NNSA identified limitations for all weapons in the U.S. nuclear stockpile, 86 percent fall into six types: detonation safety under abnormal conditions, weapon reliability, weapon delivery, more frequent replacement of limited life components, nuclear yield, and worker safety. Some DOD officials expressed concern over the impact that certain weapon limitations have on weapon operation, maintenance, and war planning. According to DOD officials, current DOD mitigation actions, as well as the successful completion of ongoing and planned NNSA efforts, should address most limitations for which the officials raised concerns. DOD officials stated that the current stockpile allows sufficient flexibility to mitigate limitations. However, they told GAO that there may be less flexibility in the future as the stockpile continues to age and decreases in size. For each weapon system, NNSA provides DOD with guidance containing additional information on nuclear weapon limitations. However, GAO found that this guidance does not cover all limitations and some DOD officials said that it may not provide them with relevant information for some limitations. Specifically, the guidance addresses approximately 60 percent of all limitations but does not include limitations based on certain weapon components. In addition, one senior DOD official stated that the guidance did not help clarify the potential impact that a particular limitation may have on weapon operation and maintenance. The applicable military service is now conducting its own analysis of this limitation's potential impact. Furthermore, the national laboratories identified four existing weapon limitations (8 percent of all limitations) that are no longer valid because, among other reasons, corrective action to address the limitations is complete. In addition, it is uncertain if an ongoing DOD and NNSA review of nuclear weapon military requirements will be used to eliminate limitations based on potentially outdated military requirements.

NNSA has begun to implement some recommendations from the agency's draft October 2010 management review of the nuclear stockpile surveillance program but has not developed a corrective action plan to guide its multiple actions. For example, NNSA (1) created and staffed the position of Senior Technical Advisor for Surveillance in response to the review's recommendation to establish strong NNSA leadership and (2) established a formal process for setting surveillance testing requirements. National laboratory and DOD officials GAO interviewed generally viewed NNSA's actions as positive steps to improve the program. However, NNSA has not developed a corrective action plan, as called for by Office of Management and Budget Circular No. A-123. According to this circular on management controls, federal managers are to develop a corrective action plan to address program operations weaknesses identified through management reviews, among other things. Such plans are to include specific dates, assigned responsibilities, and metrics to measure progress and hold management accountable. According to a senior level NNSA official, the agency did not implement many of the recommendations from three prior surveillance program management reviews primarily because there was no specific approach for implementation. Without a corrective action plan, it is unclear how NNSA will (1) ensure that the draft October 2010 management review's recommendations are fully implemented and (2) demonstrate to key stakeholders, such as Congress and DOD, that NNSA is committed to improving the surveillance program.