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NUCLEAR WEAPONS

NNSA and DOD Need to More Effectively Manage the Stockpile Life Extension Program

Why GAO Did This Study

As a separately organized agency within the Department of Energy, the National Nuclear Security Administration (NNSA) administers the Stockpile Life Extension Program, whose purpose is to extend, through refurbishment, the operational lives of the weapons in the nuclear stockpile. NNSA encountered significant management problems with its first refurbishment for the W87 warhead. GAO was asked to assess the extent to which NNSA and the Department of Defense (DOD) have effectively managed the refurbishment of two other weapons—the B61 bomb and the W76 warhead.

This report summarizes the findings of GAO's classified report on the refurbishment of the B61 bomb and W76 warhead (GAO-09-152C).

What GAO Recommends

GAO recommends that NNSA and DOD take several actions to improve the management of the life extension program, including, among other things, (1) developing and using consistent budget assumptions and criteria for the baseline to track costs over time, (2) comprehensively reviewing military requirements for a weapons system before beginning a life extension program, and (3) assessing the cost and schedule implications for meeting each military requirement. NNSA and DOD generally agreed with GAO's recommendations.

What GAO Found

NNSA and DOD have not effectively managed cost, schedule, and technical risks for either the B61 or W76 life extension program. Regarding the B61 program, although NNSA completed the refurbishment of the strategic variants of the B61 bomb—the Mods 7 and 11—on schedule in November 2008, the refurbished weapons do not meet all refurbishment objectives. According to NNSA and DOD officials, NNSA established an unrealistic schedule and failed to fully implement its refurbishment guidance, known as the Phase 6.X process. NNSA was able to meet its refurbishment schedule and avoid significant cost overruns for the B61 program only because (1) some of the refurbishment objectives were changed, (2) NNSA was able to reuse, rather than manufacture, a critical component when B61 bombs were decommissioned, and (3) the Nuclear Weapons Council significantly reduced the number of B61 bombs in the stockpile. Despite DOD concerns about the adequacy of NNSA testing of the B61 bombs under certain conditions, NNSA continued refurbishing the weapons. Some of the B61 refurbishment problems could have been avoided if DOD had fulfilled its roles and responsibilities in overseeing NNSA's life extension program activities. For example, the Air Force did not adequately review NNSA's design, engineering, and testing activities—a review that would have alerted DOD that NNSA was missing some of its refurbishment objectives.

Regarding the W76 program, NNSA did not effectively manage a high risk associated with manufacturing an essential material, known as Fogbank, needed to refurbish the W76 warhead. NNSA had developed a risk mitigation strategy to avoid potential cost overruns and schedule delays related to the manufacture of this key material but failed to effectively implement this strategy. As a result, NNSA's original plans to produce the first refurbished W76 weapon in September 2007 slipped to September 2008; NNSA spent $69 million to address Fogbank production problems; and the Navy faced logistical challenges owing to the delay. Furthermore, NNSA did not have a consistent approach to developing a cost baseline for the W76 program, which makes it difficult to track refurbishment costs over time and to know the actual cost of the program.

To view the full product, including the scope and methodology, click on GAO-09-385. For more information, contact Gene Aloise at (202) 512-6870 or aloise@gao.gov.