

Highlights of GAO-25-107016, a report to congressional committees

Why GAO Did This Study

NNSA is responsible for maintaining and modernizing the U.S. nuclear weapons stockpile. The agency has ongoing and planned efforts to modernize our nation's stockpile of weapons. NNSA also has plans for newly designed weapons. These efforts require producing new explosive components.

The report accompanying the Senate bill for the National Defense Authorization Act for Fiscal Year 2024 includes a provision that GAO assess NNSA's explosives supply chain, infrastructure, and program management. This report examines: (1) the state of the explosives supply chain; (2) the state of explosives infrastructure; and (3) the extent to which NNSA's explosives program manages supply chain risks to ensure resilience of the supply chain.

GAO reviewed NNSA documents and data, interviewed NNSA officials and contractor representatives, and conducted site visits to describe the supply chain and infrastructure, and assess the extent to which NNSA's management of the explosives program is managing risk to ensure supply chain resilience. GAO conducted site visits to four of NNSA's five key explosives sites.

What GAO Recommends

GAO is making three recommendations to NNSA aimed at ensuring it fully or substantially establishes a process for supplier risk reviews, fully develops a resiliency strategy, and has a workforce trained to manage supply chain risks. NNSA agreed with the recommendations.

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NATIONAL NUCLEAR SECURITY ADMINISTRATION

Explosives Program Is Mitigating Some Supply Chain Risks but Should Take Additional Actions to Enhance Resiliency

What GAO Found

According to National Nuclear Security Administration (NNSA) documentation, the explosives supply chain is vulnerable to risks, such as material supply and manufacturing challenges. GAO found 66 total NNSA-identified risks across the agency's 11 key explosives products supply chains. Agency officials told us the risks facing the explosives program, if not addressed, could result in delays to nuclear weapons modernization programs and newly designed weapons. NNSA has taken some steps to mitigate these risks, such as maintaining stockpiles of at-risk materials and identifying new domestic suppliers.

NNSA's nearly \$4 billion of existing explosives infrastructure—at five contractor-operated sites that design, produce, and test high explosives—is also facing risks. These include aging facilities, a changing regulatory environment, and budgetary constraints. To mitigate these risks, NNSA is pursuing improvements to some of its explosives infrastructure, including planning between \$1 and \$2 billion for major construction projects over the next decade, as well as investment in minor construction and recapitalization projects. However, NNSA has paused some of these projects, including two major projects, because of other agency priorities.

GAO found that NNSA's explosives program generally followed supply chain risk management leading practices. Specifically, NNSA fully or substantially followed five out of eight leading practices and partially followed three. For example, consistent with leading practices, NNSA developed an agencywide supply chain risk management strategy. However, NNSA has not developed a resiliency strategy—a strategy to ensure the supply chain is flexible and adaptable enough to mitigate future adverse events—that comprehensively covers all identified risks. Rather, its strategy covers a more limited set of risks associated with infrastructure and sole-source suppliers. Fully following these risk management practices would help NNSA improve future supply chain resiliency.

NNSA's High Explosives and Energetics Program Generally Followed Supply Chain Risk Management Leading Practices

Leading practice	Extent followed
Establish executive oversight of supply chain risk management activities	•
Develop an agencywide supply chain risk management strategy	•
Establish a process to identify and document agency supply chains	•
Establish a process to conduct agencywide assessments of supply chain risks	•
Establish a process to conduct risk reviews and develop requirements of suppliers	S 😜
Develop a resiliency strategy to ensure future supply	•
Develop a skilled workforce to manage supply chain risks	•
Establish interagency coordination and collaboration on strategic supply chain risk	s •

Legend:

- = Fully or substantially followed—NNSA took actions that addressed most or all aspects of the key questions GAO examined for the practice
- $_{\odot}$ = Partially followed—NNSA took actions that addressed some, but not most, aspects of the key questions GAO examined for the practice
- \circ = Not followed—NNSA did not take actions that addressed aspects of the key questions GAO examined for the practice

Source: GAO analysis of National Nuclear Security Administration (NNSA) documents and interviews. | GAO-25-107016