

## **Summary of Inspection Report on “Issues Related to the Production of Components for the W76 Weapon System at Sandia National Laboratory – New Mexico”**

A primary mission of the Department of Energy’s Sandia National Laboratory-New Mexico (Sandia) is ensuring that the U.S. nuclear arsenal is safe, secure, and reliable and that it can fully support the Nation’s deterrence policy. In the early 1990s, Sandia undertook to design a replacement neutron generator for the W76 nuclear warhead.

The Office of Inspector General received an anonymous letter alleging serious problems with regard to the sourcing, fabrication, and qualification of certain W76 components. As a result, we initiated an inspection to review the facts and circumstances surrounding the issues raised regarding procurement, contract management and quality assurance.

### Results of Inspection

We determined that in April 2001, after disagreements between Sandia and the existing supplier over production costs, Sandia competed the production contracts for these components. The 2001 contract transition by Sandia shifted the production from a supplier that had successfully produced the components to a new supplier that had no experience producing these particular War Reserve components. This action was taken even though there was only one production build left, resulting in substantial additional costs. We also found that there were problems with the execution of established policies and procedures in the procurement, contract management and quality assurance processes associated with Sandia and the new supplier. Taken together, these issues raised questions about the overall effectiveness of Sandia’s quality management system for nuclear weapon products. Specifically:

- During the contract award process, Sandia’s review of the technical proposals and its review of price/cost reasonableness did not adhere to procedures intended to provide assurance that the production contracts were awarded to suppliers that were technically qualified and fully understood the quality requirements for the production of the components.
- For one of the components, Sandia eliminated a required phase of “pilot” production intended to screen out problems in equipment, production processes and documentation. In addition, Sandia did not adhere to prescribed policies related to product acceptance.
- During production of the same component, the independence of Quality Engineers was not maintained in a manner consistent with the quality requirements of the Nuclear Weapons Complex. We found that the Quality Engineers were removed from the production effort over internal disagreements regarding their roles and responsibilities. In addition, Sandia was not effective in establishing a quality management system for the production of the components.

After our inspection was underway, a Sandia official raised concerns regarding the effectiveness of the overall quality management system Sandia used to design and procure nuclear weapon products and initiated a series of corrective actions to address these issues. Further, the Site Office evaluated Sandia’s performance for Fiscal Year 2007 and identified the need for improvements that would enable the early identification and correction of quality issues by Sandia.

This is a summary of report S06IS038, which has not been published in its entirety because it is considered Official Use Only (OUO). This summary is not considered OUO.