

Pantex INFO

Plutonium Pit Storage

As a result of arms reduction initiatives and an increase in the volume of nuclear weapons dismantlements, Pantex Plant has been designated as an interim storage site for plutonium pits.

A pit is a component made of plutonium metal and is the heart of a nuclear weapon. A non-nuclear, metallic cladding surrounding the pit is one of the safeguards used to protect workers from direct contact with plutonium.

Sealed Inserts

After removal from nuclear weapons, pits are packaged in storage containers. Each pit is secured in a leak-tight stainless steel vessel and is then placed in steel storage overpack drums. This Sealed Insert system, in operation since 1999, uses a safe and reliable container that allows for operations at a substantially reduced cost and with greater safety than previous container designs. Although pits currently in storage in older containers are safe and secure, they are, nonetheless, being repackaged into the new sealed insert system for even greater protection.

Safety and Security

After a final safety check, containers are placed in secure storage locations designated for special nuclear material. These storage areas are among the most closely guarded at the plant. The pits in storage are regularly inventoried and monitored. Additionally, the pits and containers are included in a routine surveillance program to ensure their physical integrity.

Plutonium pit storage is a long-standing practice at Pantex due to assembly and dismantlement operations. Interim storage at Pantex is intended to continue until final pit disposition at the Pit Disassembly and Conversion Facility at the Savannah River Site, when it is completed.

The Plant is authorized to store up to 20,000 plutonium pits. Currently, approximately 14,000 are in interim storage at Pantex.