

Pantex Key Facility Descriptions

Zone 12S contains Bays, Cells and Pit Staging and Requalification. Bays are used primarily for the assembly and disassembly of assigned nuclear weapons, as well as Special Purpose operations. Special purpose bay operations include radiography, vacuum and leak check and mass properties. Cells are used primarily for the assembly and disassembly of the main charge high explosives and pit, but can also be used for assembly and disassembly of an entire weapon. The **12-116** facility stages pits in an environmentally pristine atmosphere for long term staging. The facility supports pit surveillance activities, pit requalification activities as well as other nuclear material operations. Building **12-86** supports assembly of nuclear explosive like assemblies and additional pit requalification activities.

The Zone 4 MAA staging facilities consist of 42 Steel Arch Construction (SAC) and 18 Modified Richmond (MR) magazines. The MR and SAC magazines were constructed and modified from the 1940s through the 1990s. MR and SAC magazines are used for the temporary storage of Nuclear Explosives (NE), Nuclear-Explosive-Like-Assemblies (NELA), containerized pits, and Canned Subassemblies (CSA). The Zone 4 MAA staging facilities will require updates or construction of replacement facilities to meet current and future requirements for safe, secure storage.

The High Explosives Pressing Facility combines high explosive processes from several older facilities into one modern facility. Construction on the facility was complete in 2018. The facility is in full rate production for pressing of high explosive materials in support of nuclear weapons assembly. HEPF allows for improved safety, security, quality, and increased production efficiency of high explosives at Pantex.

Zone 11 facilities are a complex of facilities on the west end of the plant that support explosive formulation, research and development and surveillance of materials in support of stockpile certification. A number of these facilities are 1950's vintage.

The Pantex Plant has a significant number of completed infrastructure improvement initiatives and many more underway in order to ensure the capability of the plant to meet mission need into the next decade and beyond. Several key initiatives are listed below:

The High Explosive Science and Engineering line item project is currently in the construction phase which will serve to consolidate High Explosive Laboratory, office space and material staging into one campus type facility and will eliminate the need to operate in 1950's vintage facilities. The approximately \$290 million dollar project is scheduled to be ready for occupancy in late 2028.

Pantex Recapitalization Projects: There are three key recapitalization projects ongoing at Pantex. These include upgrades to the bays and cells high pressure fire loop facility connections,

installation of new Infra-red flame detection systems in all bays and cells and installation of new Radiation Safety Monitoring systems. These projects are funded at approximately \$25 million dollars per year through fiscal year 2027.

The **John C. Drummond office complex** is a leased facility put in service in 2018 with the capability to hold approximately 1100 personnel. It also houses a 300 person auditorium, the Pantex Site Occupational Medicine facility and a large cafeteria. It is located just off the main plant site under a lease that is to be renewed in August of 2023 and every five years thereafter.

High Explosive Synthesis, Formulaiton and Production Facility (HESFP) is a line item project that will allow the Pantex plant to formulate, synthesize, and produce critical explosives of the necessary quality and quantity needed for support of nuclear weapons production through the next decade. This project has achieved CD-3 but was placed on hold until FY27.

The **Material Staging Facility(MSF)** is a line item project that would serve as a replacement for the Zone 4 staging area for nuclear explosives and special nuclear material. The project is currently on hold at the CD-0 stage due to the unavailability of funding in the NNSA budget, but it may receive funding during the term of this contract.