

### Deactivation Furnace System (DFS)

Disposal of the munitions' explosive and propellant components is accomplished by incineration in the DFS kiln. Bursters and rocket propellants are preprocessed through a mechanical shear. This shear reduces the size of the material and exposes additional surface area to facilitate controlled combustion rather than detonation. Fuzes, booster pellets, and supplementary charges are fed to the furnace intact.

The deactivation furnace consists of a 310 stainless steel rotary kiln, controlled at 1,000°F at the burner end, and a heated discharge conveyor, operated at 1,000°F. Residence time of the explosives inside the kiln is at least 12 minutes - sufficient to allow complete burning of all energetic material. Upon exiting the kiln, the non-combustible components travel on the heated discharge conveyor for an additional 15 minutes to insure complete thermal decontamination of any residual agent. The DFS is capable of processing approximately 150 lbs/hr of explosives.

The exhaust of the deactivation furnace exits through a blast attenuation duct prior to entry into an afterburner. The DFS afterburner has been designed to the same criteria as the LIC secondary chamber (fume burner). The deactivation furnace room was designed to provide containment of all fragments, overpressure, and agent in the event of an accidental detonation during the incineration process.

### Metal Parts Furnace (MPF)

In addition to the agent and explosives, the munition metal parts constitute a third category of hazardous waste. Metal that has been in contact with liquid agent has been shown to release agent vapors when subjected to elevated temperatures, even after the metal has been chemically decontaminated. For this reason, all metal parts are thermally decontaminated to a criteria of 15 minutes at 1,000°F prior to discharge from the process areas. Metal parts from projectiles and bulk items are