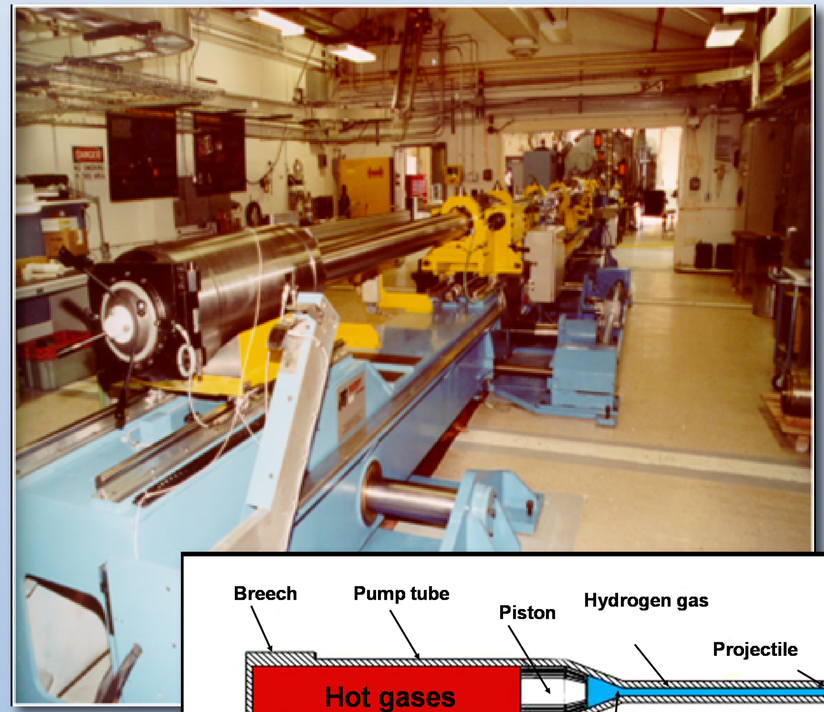
Stockpile Stewardship

Joint Actinide Shock Physics Experimental Research (JASPER)

- Two-stage gas gun experiments generate high shock pressures, temperatures, and strain rates that simulate those of a nuclear weapon
- The gas gun forces a high-velocity projectile to a target containing special nuclear material. When the projectile hits the target it produces a high-pressure shock wave
- Diagnostic equipment, triggered by the initial wave, measures the properties of the shocked material inside the target



The JASPER two-stage gas gun

National Nuclear Security Administration