

Pu Blend Down at Savannah River Site

By: Patrick McGuire

October 13, 2016

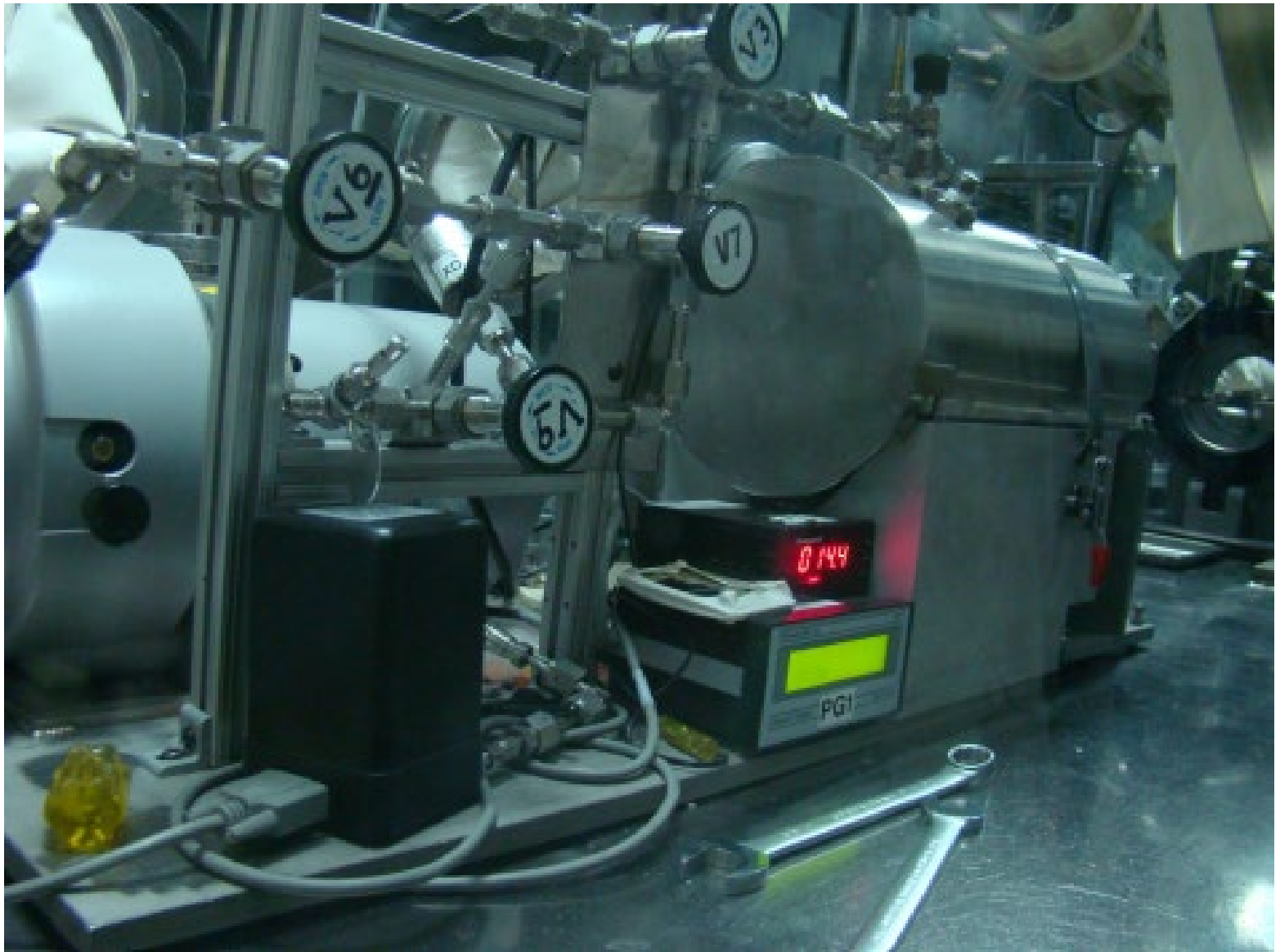
K-Area Glovebox



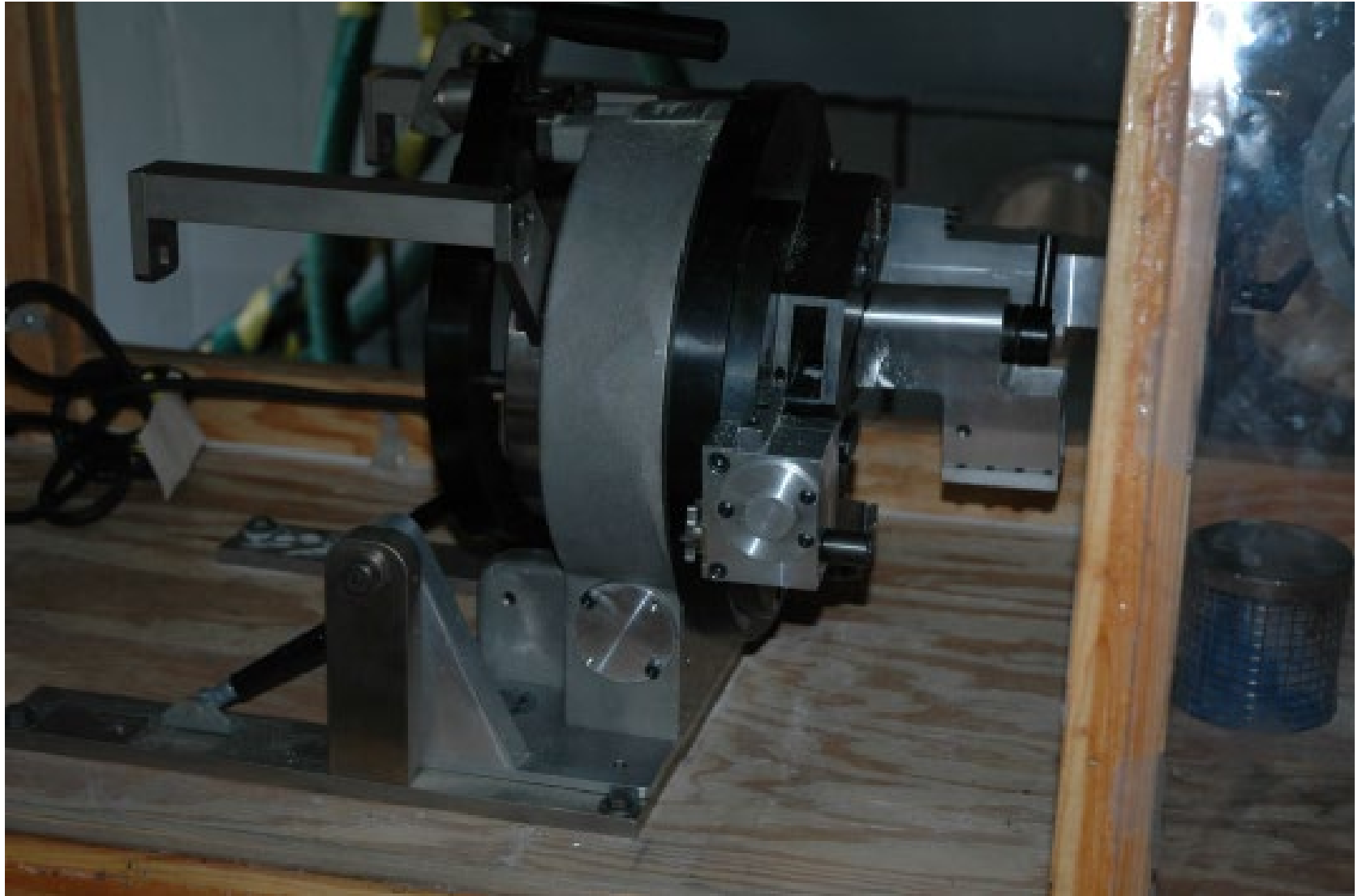
First Can of Plutonium for Blend Down in K Area



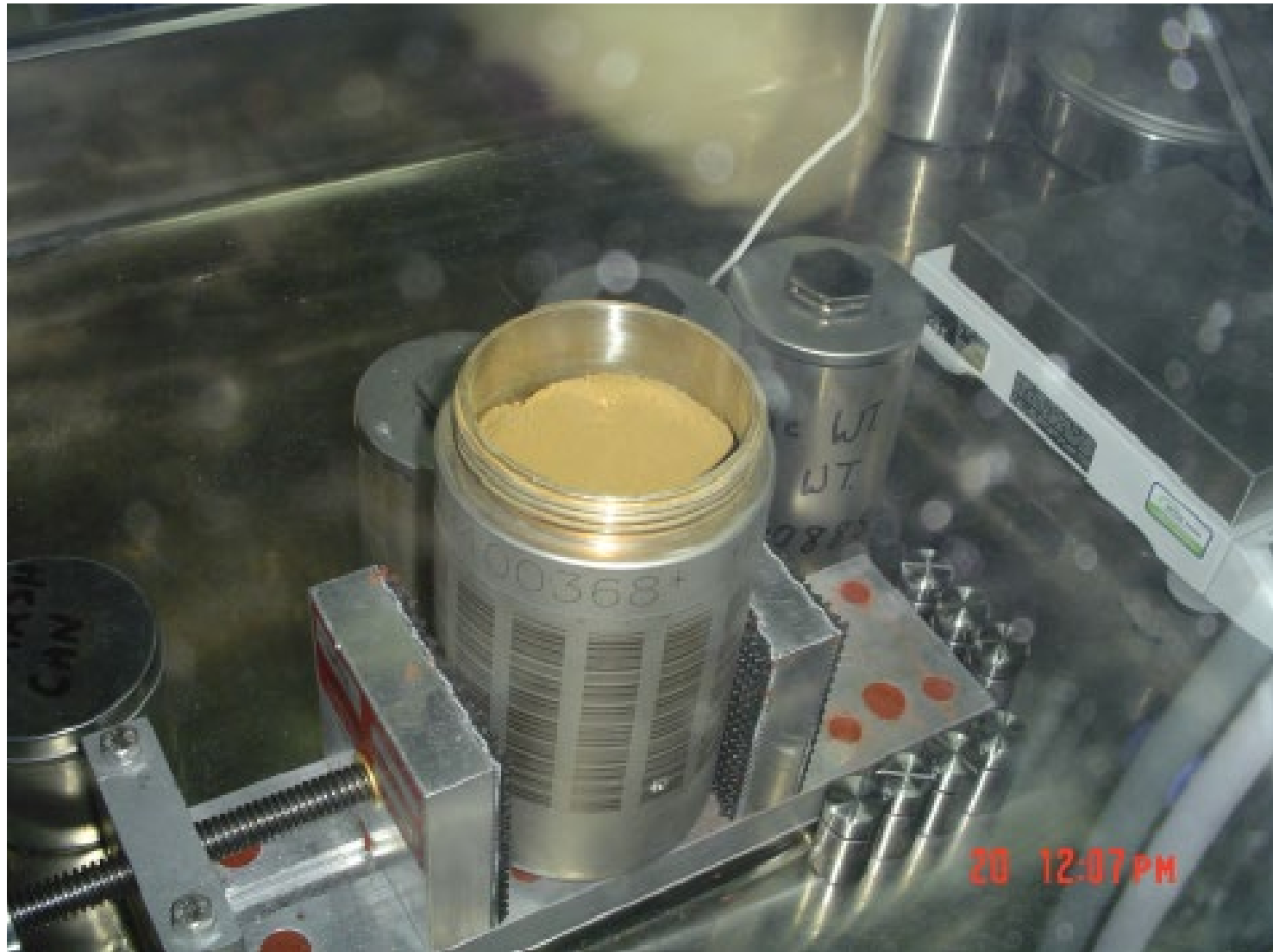
K-Area Glovebox can puncture device



3013 Can Cutter (industrial style pipe cutter) inside K-Area glovebox mockup



Plutonium oxide in opened convenience can



Plutonium oxide in weighing/inspection pan on digital scale



Pu oxide processing tools: (a) Mortar and Pestle (b) Manual Pulverizer (c) Grinder for Breaking Large Pieces



(a)



(b)



(c)

K-Area Inner Blend Can



K-Area Plutonium Inner Blend Can Mixer



Inner blend can in filtered bag-out sleeve being inserted into outer blend can



Criticality Control Over-pack (CCO)

- CCO designed as an improved payload container to the pipe over-pack component
- Pipe Over-pack Component (POC) developed by/for RFETS limited to <200 FGE
- IC3 design:
 - Eliminate unnecessary components (i.e., rigid liner)
 - Replace soft Celotex™ dunnage with CDX laminated plywood
 - Raise fissile limit: ~380 FGE

