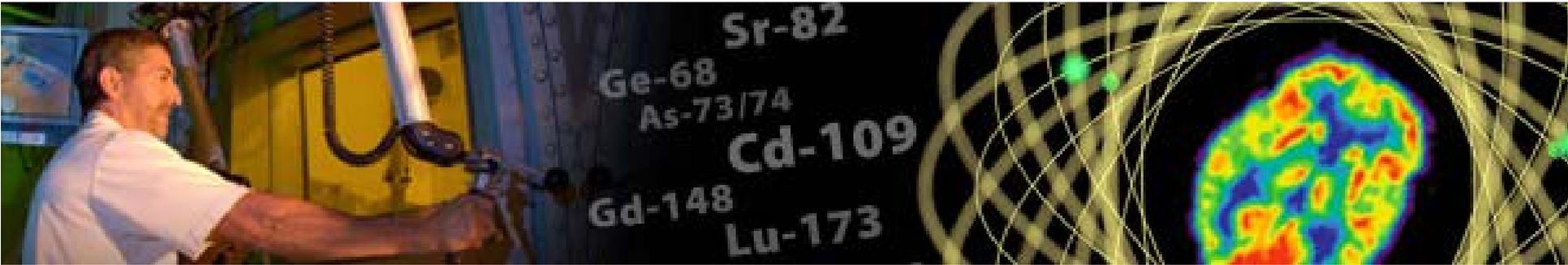




# Re-establishing a Domestic Supply Americium-241



Joel Grimm

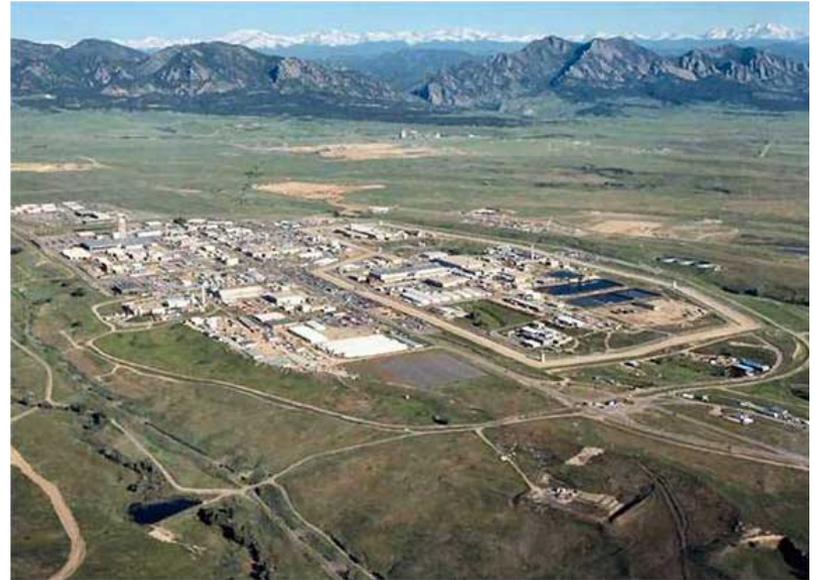
Federal Isotope Workshop

September 2013



# Origin of Americium-241

- Derived from Decay of Weapons-Grade Plutonium
- First AEC Sales in 1962
- 48 Kilograms Produced Through the 1980s
- Rocky Flats Closed in 1989; Sales Supply Exhausted in 2003
- Sealed Sources Manufacturers now Rely 100% on Russia Imports





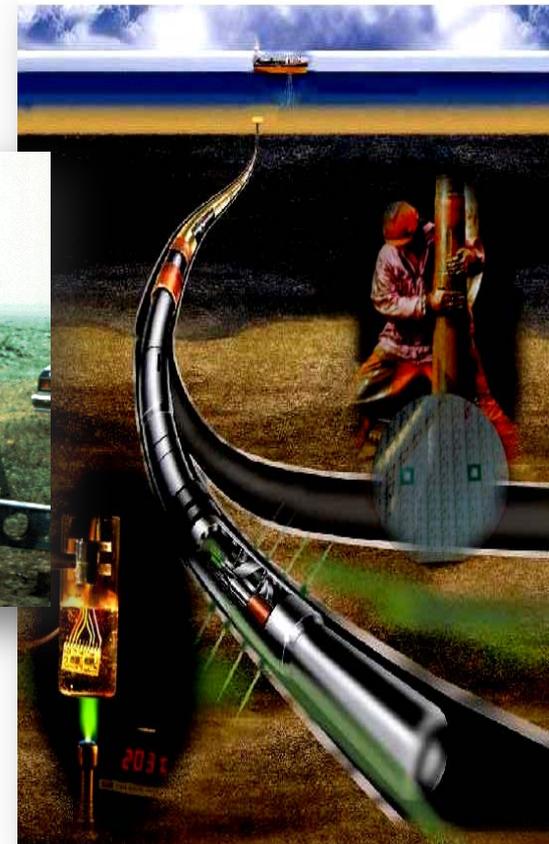
# Applications



Sealed Neutron  
Sources



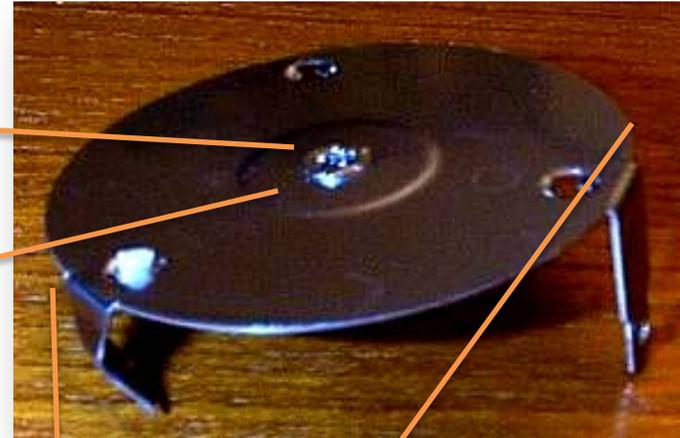
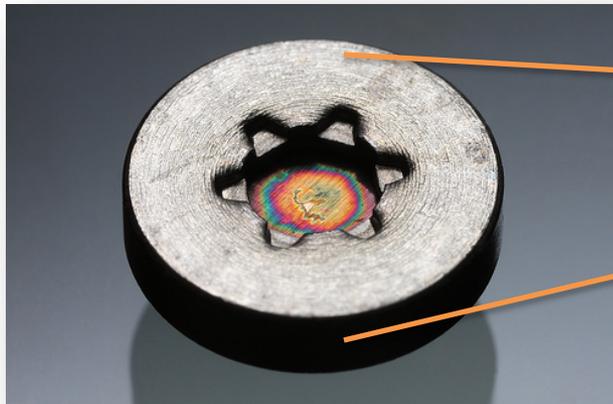
Wire-line Logging



Log-While-Drilling



# Applications



Alpha Air-ionization  
Sources – Smoke Detectors



# Applications

Gamma and Neutron Sources  
Quality-Control Gages



Highway Construction



Manufacturing and Mining



# Re-Establishing Production



- NNSA Byproduct at LANL
- Decay Product of Plutonium
- 3,500 grams
- Sealed Source Manufacturers
- NNSA Plutonium Disposition





# Schedule

