



Contribution ID: 15

Type: poster

Secure and certify studies to work on production of "spiked" plutonium

Monday, 19 September 2011 17:30 (1h 30m)

-In the nuclear weapons sites , work on materials include non nuclear testing of components of weapons that are sitting in the sites that include fundamental physics and engineering experiments on plutonium and investigating technologies for remanufacture of plutonium parts innuclear weapons and work on production of spiked plutonium which incorporates more of the isotope plutonium 238 than would normally be found in weapons -grade plutonium, 7.5 % rather than the typical 0.036 % . As plutonium 238 is more radioactive ,the spiking process accelerates the formation of defects that occur within the metal during alpha decay of plutonium ,the new alloy ages more quickly , on the equivalent of 16 years for every year of actual aging, which makes it perfect for experiments on plutonium decay, If typical weapons-grade plutonium , plutonium 239 is spiked with some plutonium 238 , which decay more quickly , the self-irradiation process dramatically picks up speed . If 5% of plutonium 239 is replaced with plutonium 238 , the sample will age 11 times faster than normal plutonium 239 .Aging can be accelerated by a faster of 16 over normal aging processes if 7.5% of the sample is plutonium 238. A useful measure of acceleration aging is defined as the number of years required to reach a radiation dose that results in 10 displacements per atom. Weapons-grade plutonium normally takes 100 years to reach this dose but will need just 6.25 years if it is spiked with 5% plutonium 238.

In this paper(oral only), I discuss and present the advanced studies to certify a weapons test that shake , drop, heat and cool sample of fissile materials take place inside the test building.

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Session Classification: Poster Section 1

Track Classification: Nuclear Chemistry and Radiochemistry