

The Plutonium Landscape at Los Alamos
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Abstract:

Los Alamos maintains the Nation's only remaining multi-function, multi-program, high-security, plutonium facility. Key programmatic activities currently planned for the plutonium facility include pit manufacturing, pit disassembly and conversion, Pu-238 component fabrication, and certification/science. This talk will focus on the pit-related topical areas, as there are many options available to the US in executing these programs, many of which strong proponents and opponents. Modern pit fabrication was performed at the Rocky Flats Plant near Denver until 1989; Los Alamos was assigned the mission to recapture the capability in the mid-1990s, culminating in the first stockpile-quality pit being fabricated in 2007. The talk will describe the operations at both Rocky Flats and Los Alamos, consider some of the hazards of working with plutonium, and discuss the interesting political landscape that currently exists in the plutonium world.

Bio:

Drew Kornreich started his career at Los Alamos twenty-two years ago with a post-doctoral appointment to model operational dose during plutonium operations in PF-4. He has been in the Process Modeling and Analysis Group, which performs systems engineering analyses, during his tenure at the Laboratory. He generally focuses on actinide-related programmatic activities by examining requirements, performing alternatives analyses, and high-level risk analyses for the pit manufacturing, pit disassembly, americium production, plutonium heat source, materials supply, analytical chemistry, and waste management program areas. Drew received his three degrees in nuclear engineering from the University of Arizona, with an M.S. thesis related to criticality experiments and a Ph.D. thesis related to neutral particle transport theory benchmarking. His interests also include system analysis of dose and criticality safety policy, and the costs thereof.