
University of Pennsylvania
Institute for Environmental Studies

presents



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Overview of the U.S. Department of Energy's Waste Isolation
Pilot Plant (WIPP): A Fully Operational Geologic Repository
for Transuranic (TRU) Waste

The Waste Isolation Pilot Plant (WIPP) is a U.S. Department of Energy repository in southeast New Mexico for defense-related transuranic (TRU) waste. The repository, which opened in March 1999, is located at a subsurface depth of 2,150 ft (655 m) in the Salado Formation, a Permian bedded-salt formation. The waste to be emplaced in the WIPP comprises both contact-handled (CH) and remote-handled (RH) TRU waste. Both CH- and RH-TRU waste are now being emplaced in the WIPP.

After the rooms and access drifts are filled with the equivalent of 844,000 55-gal (208-L) drums of CH- and RH-TRU waste, and installation of panel closures is complete, creep closure of the salt will crush most of the waste containers and encapsulate the waste.

Long-term chemical reactions among WIPP brines and important TRU waste constituents (such as anoxic corrosion of Fe- and Al-base metals and possible microbial consumption of cellulosic, plastic, and rubber materials) will create favorable chemical conditions (low f_{CO_2} , low f_{O_2} , and mildly basic pH) for the immobilization of the important radioelements in TRU waste (Pu and Am and – to a lesser extent – U, Th, and Np).

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Time: NOON - 1:30 pm

Place: Carolyn Hoff Lynch Auditorium

On the Penn campus: Chemistry Building
34 & Spruce Sts. (enter on 34 St)

NO REGISTRATION REQUIRED

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