Aging Effects on the Kinetics of Cesium Desorption from Vermiculite and Contaminated Soil. A.M. BRENNAN* and D.L. SPARKS, Univ. of Delaware.

Radioactive ^{137}Cs is a worldwide environmental problem due to soil contamination from fallout and ground disposal of liquid radioactive wastes. Since ^{137}Cs remains in the soil environment for many years as a result of its strong adsorption, diffusion into clay interlayers, and long half-life (33 years), it is important to determine how aging affects ^{137}Cs desorption. This study uses a batch technique to measure ^{137}Cs sorption kinetics over extended periods of time (from one to 90 days) with Ca-saturated vermiculite ("zonolite" from Libby, MT). Additionally, the experiment uses an already contaminated soil sediment from Oak Ridge National Laboratory (TN) to measure desorption kinetics.

A.M. Brennan, (302) 831-1595