explosion area at least temporarily uninhabited and requires selection of detonation times when wind conditions will direct the radioactivity into this controlled area. Under these conditions the radioactivity problem is manageable.

The radioactivity escaping from a nuclear excavation depends both on the total amount produced by the explosion and the fraction that escapes into the atmosphere. In the illustration of radiation patterns from fallout (Figure 5), the diagram on the left shows the pattern observed in 1962 from the 100-kiloton SEDAN experiment. Explosives development and improvements in emplacement techniques are expected to reduce the radioactivity released from nuclear excavations

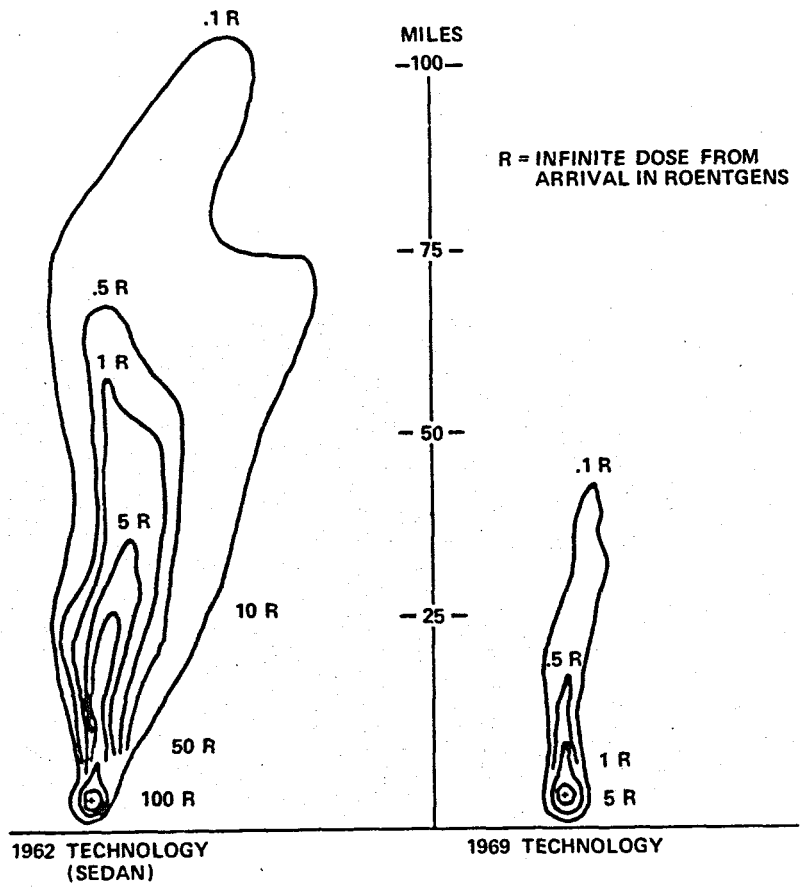

Figure 5. Reduction of radiation resulting from 100-kiloton nuclear cratering detonations in alluvium.