

FEDERAL
COORDINATING
OFFICE

MOUNT ST. HELENS
TECHNICAL INFORMATION
NETWORK

federal emergency
management agency

Monday, June 2, 1980

BULLETIN #8 - "Physical and Chemical Characteristics of the
Mt. St. Helens Deposits of May 18, 1980."

The major amount of ash from the May 18 eruption fell in a belt that extended east-northeast from Mt.St.Helens across the Ellensburg-Yakima area, then to the Ritzville-Sprague area, and then decreasingly into Idaho and western Montana. One might expect the thickness of such a deposit to decrease steadily with distance downwind. Predictably, the thickness of the deposit from this eruption decreased to about three-fourths inch in the Yakima Valley (about 80 miles from Mt.St.Helens), but then increased to a maximum of about three inches in the vicinity of Ritzville, some 100 miles further downwind, before again decreasing in the usual manner.

The rains of May 25-26 packed the initial loose deposit of the Ritzville area into a tight layer, leaving it only about one-third of its original thickness. If it remains as is, this tight layer can be expected to cause runoff and erosion in future rains. Likewise, rain and irrigation water will have difficulty seeping through to the old soil below. Such effects are typical of this type of volcanic material.

The particle-size of the ash that fell near Yakima ranges from smaller than 0.001 millimeter (about 0.00004 inch) to about 0.3 millimeters. Ash near Ritzville was correspondingly finer-grained, with a markedly larger proportion of impalpable (so fine that it can't be felt) dust-size particles and a maximum particle size near 0.05 milli-

-MORE-