



MAP SHOWING FAULT ACTIVITY IN THE YUCCA MOUNTAIN AREA, NYE COUNTY, NEVADA By F.W. Simonds, J.W. Whitney, K.F. Fox, A.R. Ramelli, J.C. Yount, M.D. Carr, C.M. Menges, R.P. Dickerson, and R.B. Scott

EXPLANATION Known late Quaternary fault movement... Symbols for faults, topography, and mapping responsibility.

INTRODUCTION Defining the distribution and age of faulting is an important part of the characterization plan to evaluate the geologic engineering and repository for the Nevada Test Site.

GEOLOGIC SETTING The bedrock at Yucca Mountain consists of Miocene porphyritic andesite deposits that were erupted from the southern Nevada Midway Fault.

METHODS Surface characteristics of the mapped lava field investigations conducted in 1993-95 along known faults in bedrock and along proposed fault trends.

FAULT CATEGORIES Faults shown on the map have been classified as follows on the basis of their Quaternary fault characteristics and the available evidence for Quaternary activity.

MAJOR FAULTS The drainage pattern of Yucca Mountain is largely controlled by faults, and consequently most major faults are named for the drainage in which they occur.

CRATER PLATE FAULT SYSTEM Several bedrock faults and associated Quaternary faults in the West of Yucca Mountain along the northeastern edge of Crater Flat.

INDEX SHOWING AREAS OF MAPPING RESPONSIBILITY An understanding of the distribution, age, and recurrence of Quaternary faulting is needed to assess potential fault-displacement ground-motion hazards at the potential surface facilities and underground repository at Yucca Mountain.

CONVERSION FACTORS Multiplicity 2.54 centimeters (in) = 1 inch (in) 0.3048 meters (m) = 1 foot (ft) 1.6093 kilometers (km) = 1 mile (mi)

REFERENCES CITED Dickerson, R.P., and Carr, H.H., 1987. Geologic map of the Yucca Mountain area, Nye County, Nevada. U.S. Geological Survey Professional Paper 1167, scale 1:48,000.

Table 1. Quaternary boundary dates of the Nevada Test site area. Table 2. Summary of fault characteristics of major faults at Yucca Mountain, Nevada.