Department of Energy
Nevada Operations Office
P. O. Box 98518
Las Vegas, NV 89193-8518

WBS # 1.2.5.2.1
"QA"

NNI.881207.0086

DEC 07 1988

Paul T. Prestholt
Site Representative
U.S. Nuclear Regulatory Commission
1050 E. Flamingo Road, Suite 319
Las Vegas, NV 89119

SITE CHARACTERIZATION PLAN (SCP) REFERENCE LIST

A copy of the most recent reference list for the SCP is enclosed in accordance with your recent request.

Please contact David C. Dobson of my office at 794-7940 if you have any questions.

Maxwell Blanchard
Maxwell B. Blanchard, Director
Regulatory & Site Evaluation Division
Yucca Mountain Project Office

YMP:DCD-914

Enclosure:
SCP Reference List

cc w/o encl:
M. A. Glora, SAIC, Las Vegas, NV
J. L. Younker, SAIC, Las Vegas, NV
M. D. Voegele, SAIC, Las Vegas, NV
M. L. Brown, SAIC, Las Vegas, NV
D. C. Dobson, YMP, NV
E. L. Wilmot, YMP, NV

Received w/Ltr Dated 12/16/88

8812270215

102

NN1.881207.0088

REFERENCES FOR CHAPTER 1

Adler, H. H., 1974. Concepts of Uranium-Ore Formation in Reducing Environments in Sandstones and Other Sediments, IAEA-SM-183/43, International Atomic Energy Agency, Vienna, Austria, pp. 141-168.

Agnew, D. C., and K. E. Sieh, 1978. "A Documentary Study of the Felt Effects of the Great California Earthquake of 1857," Bulletin of the Seismological Society of America, Vol. 68, No. 6, pp. 1717-1729.

Albers, J. P., 1967. "Belt of Sigmoidal Bending and Right-Lateral Faulting in the Western Great Basin," Geological Society of America Bulletin, Vol. 78, pp. 143-156.

Albers, J. P., and J. H. Stewart, 1972. Geology and Mineral Deposits of Esmeralda County, Nevada, Nevada Bureau of Mines & Geology Bulletin 78, University of Nevada, Reno.

Algermissen, S. T., D. M. Perkins, P. C. Thenhaus, S. L. Hanson and B. L. Bender, 1982. Probabilistic Estimates of Maximum Acceleration and Velocity in Rock in the Contiguous United States, USGS-OFR-82-1033, Open-File Report, U.S. Geological Survey.

Allmendinger et al, 1987.

Anderson, L. A., 1981. Rock Property Analysis of Core Samples from the Yucca Mountain UE25a-1 Borehole, Nevada Test Site, Nevada, USGS-OFR-81-1338, Open-File Report, U.S. Geological Survey.

Anderson, L. A., 1984. Rock Property Measurements on Large-Volume Core Samples from Yucca Mountain USW GU-3/G-3 and USW G-4 Boreholes, Nevada Test Site, Nevada, USGS-OFR-84-552, Open-File Report, U.S. Geological Survey, 39 p.

Anderson, L. W., and F. F. Hawkins, 1984. "Recurrent Holocene Strike-Slip Faulting, Pyramid Lake Fault Zone, Western Nevada," Geology, Vol. 12, pp. 681-684.

Anderson, R. E., 1971. "Thin-Skin Distension in Tertiary Rocks of Southeastern Nevada," Geological Society of America Bulletin, Vol. 82, pp. 43-58.

Anderson, R. E., 1973. Large Magnitude Late Tertiary Strike-Slip Faulting North of Lake Mead, Nevada, Geological Survey Professional Paper 794, U.S. Government Printing Office, Washington, D.C.

Anderson, R. E., M. L. Zoback, and G. A. Thompson, 1983. "Implications of Selected Subsurface Data on the Structural Form and Evolution of Some Basins in the Northern Basin and Range Province, Nevada and Utah," Geological Society of America Bulletin, Vol. 94, pp. 1055-1072.

Received w/Ltr Dated 12/16/88

102

Arabasz, W. J., 1986. "Seismotectonics of the Basin and Range - Colorado Plateau Transition in Utah," Geological Society of America, Abstracts with Programs 1986, Rocky Mountain Section, Flagstaff, Arizona, April 30-May 2, 1986, Vol. 18, No. 5, p. 338.

Armstrong, R. L., 1968. "Sevier Orogenic Belt in Nevada and Utah," Geological Society of America Bulletin, Vol. 79, pp. 429-458.

Armstrong, R. L., 1974. "Magmatism, Orogenic Timing, and Orogenic Diachronism in the Cordillera from Mexico to Canada," Nature, Vol. 247, No. 5440, pp. 348-351.

Armstrong, R. L., and J. Suppe, 1973. "Potassium-Argon Geochronometry of Mesozoic Igneous Rocks in Nevada, Utah, and Southern California," Geological Society of America Bulletin, Vol. 84, pp. 1375-1392.

Ashley, R. P., 1979. "Relation Between Volcanism and Ore Deposition at Goldfield, Nevada," papers on Mineral Deposits of Western North America, J. D. Ridge (ed.), Nevada Bureau of Mines Geology Report 33, University of Nevada, Reno, pp. 77-86.

Askew, B., and S. T. Algermissen, 1983. An Earthquake Catalog for the Basin and Range Province 1803-1977, USGS-OFR-83-86, Open-File Report, U.S. Geological Survey, 40 p.

Atwater, T., 1970. "Implications of Plate Tectonics for the Cenozoic Tectonic Evolution of Western North America," Geological Society of America Bulletin, Vol. 81, No. 12, pp. 3513-3535.

Averitt, P., 1975. Coal Resources of the United States, January 1, 1974, Geological Survey Bulletin 1412, U.S. Government Printing Office, Washington, D.C., 131 p.

Babcock, J. W., 1984. "Introduction to Geologic Ore Deposit Modeling," Mining Engineering, Vol. 36, No. 12, pp. 1631-1636.

Bailey, E. H., 1964. "Mercury," Mineral and Water Resources of Nevada, U.S. Geological Survey and Nevada Bureau of Mines 88th Congress, 2nd Session, Document No. 87, U.S. Government Printing Office, Washington, D.C.

Bailey, E. H., and M. C. Blake, 1969. "Late Mesozoic Tectonic Development of Western California," Geotectonics, pp. 148-154.

Bailey, E. H., and D. A. Phoenix, 1944. Quicksilver Deposits in Nevada, University of Nevada Bulletin, Geology & Mining Series 41, Vol. 38, No. 5, Reno, Nev.

Bakun, W. H., and W. B. Joyner, 1984. "The ML Scale in Central California," Bulletin Seismological Society of America, Vol. 74, No. 5, pp. 1827-1843.

Ball, S. H., 1907. A Geologic Reconnaissance in Southwestern Nevada and Eastern California, U.S. Geological Survey Bulletin 308, Reprinted as Ball, S. H., 1983. "Mines of Silver Peak Range, Kawich Range and Other Southern Nevada Districts," Stanley Paher, Nevada Publications, Las Vegas, Nev., 218 p.

Ballard, R. L., 1985. "Statistical Summary," 1984 Bureau of Mines Minerals Yearbook, U.S. Department of the Interior, Bureau of Mines, Washington, D.C.

Barnes, H., and F. G. Poole, 1968. "Regional Thrust Fault System in Nevada Test Site and Vicinity," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 233-238.

Bartley, J. M., and B. P. Wernicke, 1984. "The Snake Range Decollement Interpreted as a Major Extensional Shear Zone," Tectonics, Vol. 3, No. 6, pp. 647-657.

Barton, C. C., 1984. "Tectonic Significance of Fractures in Welded Tuff, Yucca Mountain, Southwest Nevada," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, p. 438.

Barton, C. C., and E. Larsen, 1985. "Fractal Geometry of Two-Dimensional Fracture Networks at Yucca Mountain, Southwestern Nevada," in Proceedings of the International Symposium on Fundamentals of Rock Joints, Bjorkliden, Sweden, September 15-20, 1985, O. Stephansson (ed.), pp. 77-84.

Bateman, A. M., 1950. Economic Mineral Deposits, Second Edition, John Wiley & Sons, Inc., New York.

Bates, R. L., 1975. "Introduction," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 3-7.

Bath, G. D., and C. E. Jahren, 1984. Interpretations of Magnetic Anomalies at a Potential Repository Site Located in the Yucca Mountain Area, Nevada Test Site, USGS-OFR-84-120, Open-File Report, U.S. Geological Survey.

Bath, G. D., C. E. Jahren, J. G. Rosenbaum, and M. J. Baldwin, 1983. "Magnetic Investigations," Geologic and Geophysical Investigations of Climax Stock Intrusive, Nevada, USGS-OFR-83-377, Open-File Report, U.S. Geological Survey, pp. 40-77.

Bayer, K. C., 1973a. Seismic Data Report Southern Nevada Region December 22, 1971-December 31, 1972, Technical Memorandum ERL-ESL-24, National Oceanic & Atmospheric Administration, Earth Science Laboratories, Las Vegas, Nev.

Bayer, K. C., 1973b. A Preliminary Seismicity Study of the Southern Nevada Region Quarterly Report January-March 1973, NVO-746-12, National Oceanic & Atmospheric Administration, Earth Science Laboratories, Las Vegas, Nev.

Bayer, K. C., 1974. A Preliminary Seismicity Study of the Southern Nevada Region Quarterly Report. April-June 1973, NVO-474-1, U.S. Geological Survey.

Bayer, K. C., R. R. Mallis, and K. W. King, 1972. Earthquakes Recorded by a Seismograph Network Located in the Southern Nevada Region, January 1 to December 22, 1971, NVO-746-TM-3, U.S. Department of Commerce, Earth Sciences Laboratories, Las Vegas, Nev.

Beck, P. J., 1970. The Southern Nevada-Utah Border Earthquakes, August to December, 1966, Master's thesis, University of Utah, 62 p.

"BEST AVAILABLE COPY"

Bedinger, M. S., K. A. Sargent, and W. H. Langer (eds.), 1984. Studies of Geology and Hydrology in the Basin and Range Province, Southwestern United States, for Isolation of High-Level Radioactive Waste, Characterization of the Death Valley Region, Nevada and California, USGS-OFR-84-743, Open-File Report, U.S. Geological Survey.

Bell, E. J., and L. T. Larson, 1982. Overview of Energy and Mineral Resources for the Nevada Nuclear Waste Storage Investigations, Nevada Test Site, Nye County, Nevada, NVO-250, Nevada Operations Office, U.S. Department of Energy, Las Vegas, Nev.

Bell, E. J., and D. B. Slemmons, 1979. "Recent Crustal Movements in the Central Sierra Nevada-Walker Lane Region of California-Nevada: Part II, The Pyramid Lake Right-Slip Fault Zone Segment of the Walker Lane," Tectonophysics, Vol. 52, pp. 571-583.

Benson, L. V., and P. W. McKinley, 1985. Chemical Composition of Ground Water in the Yucca Mountain Area, Nevada, 1971-84, USGS-OFR-85-484, Open-File Report, U.S. Geological Survey.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bentley, C. B., 1984. Geohydrologic Data for Test Well USW G-4, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-84-063, Open-File Report, U.S. Geological Survey.

Bentley, C. B., J. H. Robison, and R. W. Spengler, 1983. Geohydrologic Data for Test Well USW H-5, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-83-853, Open-File Report, U.S. Geological Survey.

Berger, B. R., and P. I. Eimon, 1983. "Conceptual Models of Epithermal Precious Metal Deposits," Unconventional Mineral Deposits, W. C. Shanks, III (ed.), Society of Mining Engineers, New York, pp. 191-205.

Bethke, P. M., and P. W. Lipman, 1987. "Deep Environment of Volcanogenic Epithermal Mineralization, Proposed Research Drilling at Creede, Colorado," EOS, Transactions, American Geophysical Union, Vol. 68, No. 13, pp. 177, 187-189.

Billingsley, P., and A. Locke, 1941. "Structure of Ore Districts in the Continental Framework," Transactions of the American Institute of Mining and Metallurgical Engineers, Mining Geology, Vol. 144, New York, pp. 9-64.

Bird, D. K., P. Schiffman, W. A. Elders, A. E. Williams, and S. D. McDowell, 1984. "Calc-Silicate Mineralization in Active Geothermal Systems, Economic Geology, Vol. 79, pp. 671-695.

Bird, J. M., and J. C. Dempsey, 1955. "The Use of Radioactive Tracers Surveys in Water Injection Wells," in Proceedings of the Technical Session, Kentucky Oil and Gas Association, 19th Annual Midyear Meeting, May 26-27, 1955, Kentucky Geological Survey Special Publication No. 8, Series 9, pp. 44-54.

Bish, D. L., 1981. Detailed Mineralogical Characterization of the Bullfrog and Tram Members in USW-G1, with Emphasis on Clay Mineralogy, LA-9021-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., 1987. Evaluation of Past and Future Alterations in Tuff at Yucca Mountain, Nevada Based on the Clay Mineralogy of Drill Cores USW G-1, G-2, and G-3, LA-10667-MS, draft, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., and R. E. Semarge, 1982. "Mineralogic Variations in a Silicic Tuff Sequence: Evidence for Diagenetic and Hydrothermal Reactions," [abs.] The 19th Annual Clay Minerals Society Meeting, Hilo, Hawaii, August 8-14, 1982.

Bish, D. L., and D. T. Vaniman, 1985. Mineralogic Summary of Yucca Mountain, Nevada, LA-10543-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., F. A. Caporuscio, J. F. Copp, B. M. Crowe, J. D. Purson, J. R. Smyth, and R. G. Warren, 1981. Preliminary Stratigraphic and Petrologic Characterization of Core Samples from USW-G1, Yucca Mountain, Nevada, A. C. Waters and P. R. Carroll (eds.), LA-8840-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., D. T. Vaniman, F. M. Byers, Jr., and D. E. Broxton, 1982. Summary of the Mineralogy-Petrology of Tuffs of Yucca Mountain and the Secondary Phase Thermal Stability in Tuffs, LA-9321-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., A. E. Ogard, D. T. Vaniman, and L. Benson, 1984. "Minerology-Petrology and Groundwater Geochemistry of Yucca Mountain Tuffs," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 283-291.

Blackwell, D. D., 1978. "Heat Flow and Energy Loss in the Western United States," Cenozoic Tectonics and Regional Geophysics of the Western Cordillera, R. B. Smith and G. P. Eaton (eds.), Geological Society of America Memoir 152, pp. 175-208.

Blackwell, D. D. and D. S. Chapman, 1977. "Interpretation of Geothermal Gradient and Heat Flow Data for Basin and Range Geothermal Systems," Geothermal Resource Council, TRANSACTIONS, Vol. 1, pp. 19-20.

Blackwell et al, 1981.

Bohannon, R. G., 1979. "Strike-Slip Faults of the Lake Mead Region of Southern Nevada," Cenozoic Paleogeography Symposium 3, J. M. Armentrout, M. Cole, and H. TerBest (eds.), Pacific Section, Society of Economic Paleontologists & Mineralogists, Los Angeles, Calif., pp. 129-139.

Bohannon, R. G., 1983. "Mesozoic and Cenozoic Tectonic Development of the Muddy, North Muddy, and Northern Black Mountains, Clark County, Nevada," Tectonic and Stratigraphic Studies in the Eastern Great Basin, Geological Society of America Memoir 157, pp. 125-148.

Bohannon, R. G., 1984. Nonmarine Sedimentary Rocks of Tertiary Age in the Lake Mead Region, Southeastern Nevada and Northwestern Arizona, Geological Survey Professional Paper 1259, U.S. Government Printing Office, Washington, D.C.

Boles, J. R., 1977. "Zeolites in Deep-Sea Sediments," Mineralogy and Geology of Natural Zeolites, Mineralogical Society of America Short Course Notes, Vol. 4, pp. 137-163.

Bonham, Jr., H. F., 1984. "Reserves, Host Rocks, and Ages of Bulk-Minable, Precious-Metal Deposits in Nevada," The Nevada Mineral Industry - 1983, Nevada Bureau of Mines & Geology Special Publication MI-1983, University of Nevada, Reno, pp. 15-16.

Bonham, Jr., H. F., 1985. "Characteristics of Bulk-Minable Gold-Silver Deposits in Cordilleran and Island-Arc Settings," Geologic Characteristics of Sediment- and Volcanic-Hosted Disseminated Gold Deposits--Search for an Occurrence Model, E. W. Tooker (ed.), U.S. Geological Survey Bulletin 1646, U.S. Government Printing Office, Washington, D.C., pp. 71-77.

Bonham, Jr., H. F., 1986. Bulk-Mineable Precious-Metal Deposits and Prospects in Nevada, Nevada Bureau of Mines & Geology, Map 91, University of Nevada, Reno.

Bonham, Jr., H. F., 1987. "Production, Reserves, Host Rocks, and Ages of Bulk-Mineable, Precious Metal Deposits in Nevada," The Nevada Mineral Industry 1986, Nevada Bureau of Mines & Geology Special Publication MI-1986, University of Nevada, Reno, pp. 15-20.

Bonham Jr., H. F., 1988. "Models for Volcanic-Hosted Epithermal Precious Metal Deposits," in Bulk-Mineable Precious-Metal Deposits of the Western United States, Symposium Proceedings, R. R. Schaefer, J. J. Cooper, and P. G. Vikre (eds.), The Geological Society of Nevada, Reno, pp. 259-271.

Bonham, Jr., H. F., and J. V. Tingley, 1984. "Bulk-Minable Gold Deposits in Nevada," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, 449 p.

Bonilla, M. G., and J. M. Buchanan, 1970. Interim Report on Worldwide Historic Surface Faulting, USGS-OFR-70-34, Open-File Report, draft, U.S. Geological Survey.

Bonilla, M. G., R. K. Mark, and J. J. Lienkaemper, 1984. "Statistical Relations Among Earthquake Magnitude, Surface Rupture Length, and Surface Fault Displacement," Bulletin of the Seismological Society of America, Vol. 74, No. 6, pp. 2379-2411.

Bortz, L. C., 1983. "Hydrocarbons in the Northern Basin and Range, Nevada and Utah," The Role of Heat in the Development of Energy and Mineral Resources in the Northern Basin and Range Province, Special Report No. 13, Geothermal Resources Council, Davis, Calif., pp. 179-198.

Bortz, L. C., 1985. "Hydrocarbons in the Northern Basin and Range, Nevada and Utah," Oil and Gas Journal, November 11, 1985, pp. 117-122.

Bortz, L. C., and D. K. Murray, 1979. "Eagle Springs Oil Field, Nye County, Nevada," Basin and Range Symposium and Great Basin Field Conference, G. W. Newman and H. D. Goode (eds.), Rocky Mountain Association of Geologists and Utah Geological Association, Denver, Colo., pp. 441-454.

Bowie, S. H. U., 1974. "Where to Prospect for Uranium," in Proceedings of International Atomic Energy Agency Symposium, Athens, Greece, IAEA-TC-25/12, pp. 151-163.

Brady, B. T., 1984a. "Mineral and Energy Resources," Studies of Geology and Hydrology in the Basin and Range Province, Southwestern United States, for Isolation of High-Level Radioactive Waste, M. S. Bedinger, K. A. Sargent, and W. H. Langer (eds.), USGS-OFR-84-743, Open-File Report, U.S. Geological Survey, pp. 118-173.

Brady, B. T., 1984b. Selected Geologic and Hydrologic Characteristics of the Basin and Range Province, Western United States: Coal, Oil and Gas Wells, Seeps and Tar Sandstone Occurrences, Miscellaneous Investigations Series Map I-1522-E, Scale 1:2,500,000, U.S. Geological Survey.

Brobst, D. A., 1975. "Barium Minerals," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 427-441.

Broding, R. A., C. W. Zimmerman, E. V. Somers, E. S. Wilhelm, and A. A. Stripling, 1952. "Magnetic Well Logging," Geophysics, Vol. 17, 26 p.

Brook, C. A., R. H. Mariner, D. R. Mabey, J. R. Swanson, M. Guffanti, and L. J. P. Muffler, 1979. "Hydrothermal Convection Systems with Reservoir Temperatures >90 deg. C.," Assessment of Geothermal Resources of the United States--1978, L. J. P. Muffler (ed.), Geological Survey Circular 790, U.S. Geological Survey, pp. 18-85.

Brooks, D. B., and P. W. Andrews, 1974. "Mineral Resources, Economics Growth, and World Population," Science, Vol. 185, No. 4145, pp. 13-19.

Broxton, D. E., F. M. Byers, and R. G. Warren, 1985. "Trends in Phenocryst Chemistry in the Timber Mountain-Oasis Valley Volcanic Field, SW Nevada: Evidence for Episodic Injection of Primitive Magma into an Evolving Magma System," Geological Society of America, Abstracts with Programs, Vol. 17, No. 6, p. 345.

Broxton, D. E., R. G. Warren, R. C. Hagan, and G. Luedemann, 1986. Chemistry of Diagenetically Altered Tuffs at a Potential Nuclear Waste Repository, Yucca Mountain, Nye County, Nevada, LA-10802-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Buchanan, L. J., 1981. "Precious Metal Deposits Associated with Volcanic Environments in the Southwest," Relations of Tectonics to Ore Deposits in the Southern Cordillera, W. R. Dickinson and W. D. Payne (eds.), Arizona Geological Society Digest Vol. XIV, Tucson, Ariz., pp. 237-262.

Bucknam, R. C., S. T. Algermissen, and R. E. Andersen, 1980. Patterns of Late Quaternary Faulting in Western Utah and an Application in Earthquake Hazard Evaluation, USGS-OFR-80-801, Open-File Report, U.S. Geological Survey, 15 p.

Bull, W. B., 1984. "Tectonic Geomorphology," Journal of Geological Education, Vol. 32, pp. 310-324.

Bull, W. B., and L. D. McFadden, 1977. "Tectonic Geomorphology North and South of the Garlock Fault, California," in Geomorphology in Arid Regions, Proceedings of the 8th Annual Geomorphology Symposium Held at the State University of New York at Binghamton, September 23-24, 1977, D. O. Doehring (ed.), pp. 115-138.

Burchfiel, B. C., 1965. "Structural Geology of the Specter Range Quadrangle, Nevada, and Its Regional Significance," Geological Society of America Bulletin, Vol. 76, pp. 175-192.

Burchfiel, B. C., and G. A. Davis, 1975. "Nature and Controls of Cordilleran Orogenesis, Western United States: Extensions of an Earlier Synthesis," American Journal of Science, Vol. 275-A, pp. 363-369.

Burchfiel, B. C., and J. H. Stewart, 1966. "Pull-Apart Origin of the Central Segment of Death Valley, California," Geological Society of America Bulletin, Vol. 77, pp. 439-442.

Burchfiel, B. C., R. J. Fleck, D. T. Secor, R. R. Vincelette, and G. A. Davis, 1974. "Geology of the Spring Mountains, Nevada," Geological Society of America Bulletin, Vol. 85, pp. 1013-1022.

Butler, A. P., Jr., 1964. "Uranium," Mineral and Water Resources of Nevada, Nevada Bureau of Mines Bulletin 65, University of Nevada, Reno, pp. 161-165.

Byers, F. M., Jr., 1985. Petrochemical Variation of Topopah Spring Tuff Matrix with Depth (Stratigraphic Level), Drill Hole USW G-4 Yucca Mountain, Nevada, LA-10561-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., and H. Barnes, 1967. Geologic Map of the Paiute Ridge Quadrangle, Nye and Lincoln Counties, Nevada, Geological Quadrangle Map GQ-577, Scale 1:24,000, U.S. Geological Survey.

Byers, F. M., Jr., and R. G. Warren, 1983. Revised Volcanic Stratigraphy of Drill Hole J-13, Fortymile Wash, Nevada, Based on Petrographic Modes and Chemistry of Phenocrysts, LA-9652-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., W. J. Carr, P. P. Orkild, W. D. Quinlivan, and K. A. Sargent, 1976a. Volcanic Suites and Related Cauldrons of the Timber Mountain-Oasis Valley Caldera Complex, Southern Nevada, U.S. Geological Survey Professional Paper 919, U.S. Government Printing Office, Washington, D.C.

Byers, F. M., Jr., W. J. Carr, R. L. Christiansen, P. W. Lipman, P. P. Orkild, and W. D. Quinlivan, 1976b. Geologic Map of the Timber Mountain Caldera Area, Nye County, Nevada, Miscellaneous Investigations Series Map I-891, Scale 1:48,000, U.S. Geological Survey.

Campbell, K. W., 1980. Seismic Hazard Analysis for the NTS Spent Reactor Fuel Test Site, UCRL-15260, report prepared by TERA Corporation for Lawrence Livermore National Laboratory, Livermore, Calif.

Campbell, K. W., 1981. "Near-Source Attenuation of Peak Horizontal Acceleration," Bulletin of the Seismological Society of America, Vol. 71, No. 6, pp. 2039-2070.

Caporuscio, F. A., D. Vaniman, D. Bish, D. Broxton, D. Arney, G. Heiken, F. Byers, R. Gooley, and E. Semarge, 1982. Petrologic Studies of Drill Cores USW-G2 and UE25b-1H, Yucca Mountain, Nevada, LA-9255-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Carder, D. S., 1945. "Seismic Investigations in the Boulder Dam Area, 1940-1944, and the Influence of Reservoir Loading on Earthquake Activity", Bulletin of the Seismological Society of America, Vol. 35, pp. 175-192.

Carlos, B. A., 1985. Minerals in Fractures of the Unsaturated Zone from Drill Core USW G-4, Yucca Mountain, Nye County, Nevada, LA-10415-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Carpenter, D. W., and D. H. Chung, 1985. Effects of Earthquakes on Underground Facilities: Literature Review and Discussion, UCID-20505, Lawrence Livermore National Laboratory, Livermore, Calif.

Carr, M. D., S. J. Waddell, G. S. Vick, J. M. Stock, S. A. Monsen, A. G. Harris, B. W. Cork, and F. M. Byers, Jr., 1986. Geology of Drill Hole UE25p#1: A Test Hole into Pre-Tertiary Rocks near Yucca Mountain, Southern Nevada, USGS-OFR-86-175, Open-File Report, U.S. Geological Survey.

Carr, W. J., 1974. Summary of Tectonic and Structural Evidence for Stress Orientation at the Nevada Test Site, USGS-OFR-74-176, Open-File Report, U.S. Geological Survey.

Carr, W. J., 1982. Volcano-Tectonic History of Crater Flat, Southwestern Nevada, as Suggested by New Evidence from Drill Hole USW-VH-1 and Vicinity, USGS-OFR-82-457, Open-File Report, U.S. Geological Survey.

Carr, W. J., 1984. Regional Structural Setting of Yucca Mountain, Southwestern Nevada, and Late Cenozoic Rates of Tectonic Activity in Part of the Southwestern Basin, Nevada and California, USGS-OFR-84-854, Open-File Report, U.S. Geological Survey.

Carr, W. J., and L. D. Parrish, 1985. Geology of Drill Hole USW VH-2, and Structure of Crater Flat, Southwestern Nevada, USGS-OFR-85-475, Open-File Report, U.S. Geological Survey, 41 p.

Carr, W. J., F. M. Byers, Jr., and P. P. Orkild, 1984. Stratigraphic and Volcano-Tectonic Relations of Crater Flat Tuff and Some Older Volcanic Units, Nye County, Nevada, USGS-OFR-84-114, Open-File Report, U.S. Geological Survey.

Carr, W. J., F. M. Byers, Jr., and P. P. Orkild, 1986. Stratigraphic and Volcano-Tectonic Relations of Crater Flat Tuff and Some Older Volcanic Units, Nye County, Nevada, Geological Survey Professional Paper 1323, U.S. Government Printing Office, Washington, D.C.

Carrillo, F. V., and J. H. Schilling, 1985. "The Mineral Industry of Nevada," Mineral Yearbook, 1983, Area Reports: Domestic, Vol. II, U.S. Bureau of Mines, Washington, D.C., pp. 349-358.

Carroll, P. I., F. A. Caporuscio, and D. L. Bish, 1981. Further Description of the Petrology of the Topopah Spring Member of the Paintbrush Tuff in Drill Holes UE25a-1 and USW-G1 and of the Lithic-Rich Tuff in USW-G1, Yucca Mountain, Nevada, LA-9000-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Chamberlain, A. K., 1986. "New Paleozoic Play in East Great Basin," Oil and Gas Journal, September 22, 1986.

Chesterman, C. W., 1975. "Perlite," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 927-934.

Chipera, S. J., and D. L. Bish, 1988. Mineralogy of Drill Hole UE-25p#1 at Yucca Mountain, Nevada, LA-11292-MS Los Alamos National Laboratory, Los Alamos N. Mex. 24 p.

Christiansen, R. L., and P. W. Lipman, 1965. "Geologic Map of the Topopah Spring NW Quadrangle, Nye County, Nevada," U.S. Geological Survey Quadrangle Map GQ-444, Scale 1:24,000, U.S. Geological Survey.

Christiansen, R. L., and P. W. Lipman, 1972. "Cenozoic Volcanism and Plate Tectonics Evolution of the Western United States; Part II, Late Cenozoic," Philosophical Transactions of the Royal Society of London, Ser. A, Vol. 271, pp. 249-284.

Christiansen, R. L., and E. H. McKee, 1978. "Late Cenozoic Volcanic and Tectonic Evolution of the Great Basin and Columbia Intermontane Regions," Cenozoic Tectonics and Regional Geophysics of the Western Cordillera, R. B. Smith and G. P. Eaton (eds.), Geological Society of America Memoir 152, pp. 283-311.

Christiansen, R. L., P. W. Lipman, W. J. Carr, F. M. Byers, Jr., P. P. Orkild, and K. A. Sargent, 1977. "Timber Mountain-Oasis Valley Caldera Complex of Southern Nevada," Geological Society of America Bulletin, Vol. 88, pp. 943-959.

Cockerham, R. S., and E. J. Corbett, 1987. "The July 1986 Chalfant Valley, California, Earthquake Sequence: Preliminary Results," Seismology Society of America Bulletin, Vol. 77, No. 1, pp. 280-289.

Coffman, J. L., and C. A. von Hake, (eds.), 1973. Earthquake History of the United States, NOAA EDS-Pub 41-1/COM 74 500 35, U.S. Department of Commerce, Springfield, Va.

Cole, D. R., and L. I. Ravinsky, 1984. "Hydrothermal Alteration Zoning in the Beowave Geothermal System, Eureka and Lander Counties, Nevada," Economic Geology, Vol. 79, pp. 759-767.

Compton, R. R., V. R. Todd, R. E. Zartman, and C. W. Naeser, 1977. "Oligocene and Miocene Metamorphism, Folding, and Low-Angle Faulting in Northwestern Utah," Geological Society of America Bulletin, Vol. 88, No. 9, pp. 1237-1250.

Coney, P. J., 1972. "Cordilleran Tectonics and North American Plate Motion," American Journal of Science, Vol. 272, No. 7, pp. 603-628.

Coney, P. J., 1978. "Mesozoic-Cenozoic Cordilleran Plate Tectonics," Cenozoic Tectonics and Regional Geophysics of the Western Cordillera, R. B. Smith and G. P. Eaton (eds.), Geological Society of America Memoir 152, pp. 33-50.

Cook, D. R., 1986. "Analysis of Significant Mineral Discoveries in the Last 40 Years and Future Trends," Mining Engineering, Vol. 38, No. 2, pp. 87-94.

Cornwall, H. R., 1972. Geology and Mineral Deposits of Southern Nye County, Nevada, Nevada Bureau of Mines & Geology Bulletin 77, University of Nevada, Reno.

Cornwall, H. R., and F. J. Kleinhampl, 1961. "Geology of the Bare Mountain Quadrangle, Nevada," U.S. Geological Survey Quadrangle Map GQ-157, Scale 1:62,500, U.S. Geological Survey.

Cornwall, H. R., and F. J. Kleinhampl, 1964. Geology of the Bullfrog Quadrangle and Ore Deposits Related to the Bullfrog Hills Caldera, Nye County, Nevada and Inyo County, California, Geological Survey Professional Paper 454-J, U.S. Government Printing Office, Washington, D.C.

Craig, H., 1963. "The Isotopic Geochemistry of Water and Carbon in Geothermal Areas," Nuclear Geology on Geothermal Areas--Spoleto 1963, E. Tongiorgi (ed.), Consiglio Nazionale Delle Ricerche, Laboratorio di Geologia Nucleare, Pisa, pp. 17-53.

Craig, R. W., and K. A. Johnson, 1984. Geohydrologic Data for Test Well UE-25p#1, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-84-450, Open-File Report, U.S. Geological Survey.

Craig, R. W., and J. H. Robison, 1984. Geohydrology of Rocks Penetrated by Test Well UE-25p#1, Yucca Mountain Area, Nye County, Nevada, USGS-WRI-84-4248, Water-Resources Investigations Report, U.S. Geological Survey.

Craig, R. W., R. L. Reed, and R. W. Spengler, 1983. Geohydrologic Data for Test Well USW H-6, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-83-856, Open-File Report, U.S. Geological Survey, 35 p.

Crone, A. J., 1983. "Amount of Displacement and Estimated Age of a Holocene Surface Faulting Event, Eastern Great Basin, Millard County, Utah," Geologic Excursions in Neotectonics and Engineering Geology in Utah, K. D. Gurgel (ed.), Utah Geological & Mineralogical Survey Special Studies 62, pp. 49-55.

Crone, A. J., and S. T. Harding, 1984. "Relationship of Late Quaternary Fault Scarps to Subjacent Faults, Eastern Great Basin, Utah," Geology, Vol. 12, pp. 292-295.

Cross, T. A., and R. H. Pilger, Jr., 1978. "Constraints on Absolute Motion and Plate Interaction Inferred from Cenozoic Igneous Activity in the Western United States," American Journal of Science, Vol. 278, No. 7, pp. 865-902.

Crowder, D. F., E. H. McKee, D. C. Ross, and K. B. Krauskopf, 1973. "Granitic Rocks of the White Mountain Area, California-Nevada--Age and Regional Significance," Geological Society of America Bulletin, Vol. 84, pp. 285-296.

Crowe, B. M., 1978. "Cenozoic Volcanic Geology and Probable Age of Inception of Basin-Range Faulting in the Southeasternmost Chocolate Mountains, California," Geological Society of America Bulletin, Vol. 89, pp. 251-264.

Crowe, B. M., 1980. Disruptive Event Analysis: Volcanism and Igneous Intrusion, PNL-2882, Pacific Northwest Laboratories, Richland, Wash., 28 p.

Crowe, B. M., and W. J. Carr, 1980. Preliminary Assessment of the Risk of Volcanism at a Proposed Nuclear Waste Repository in the Southern Great Basin, USGS-OFR-80-357, Open-File Report, U.S. Geological Survey.

Crowe, B. M., and K. A. Sargent, 1979. Major-Element Geochemistry of the Silent Canyon-Black Mountain Peralkaline Volcanic Centers, Northwestern Nevada Test Site: Applications to an Assessment of Renewed Volcanism, USGS-OFR-79-926, Open-File Report, U.S. Geological Survey.

Crowe, B. M., and D. T. Vaniman, (comps.), 1985. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, January 1 - March 31, 1984, LA-10154-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., M. E. Johnson, and R. J. Beckman, 1982. "Calculation of the Probability of Volcanic Disruption of a High-Level Radioactive Waste Repository within Southern Nevada, USA," Radioactive Waste Management and the Nuclear Fuel Cycle, Vol. 3, No. 2, pp. 167-190.

Crowe, B. M., S. Self, D. Vaniman, R. Amos, and F. Perry, 1983a. "Aspects of Potential Magmatic Disruption of a High-Level Radioactive Waste Repository in Southern Nevada," Journal of Geology, Vol. 91, pp. 259-276.

Crowe, B. M., D. T. Vaniman, and W. J. Carr, 1983b. Status of Volcanic Hazard Studies for the Nevada Nuclear Waste Storage Investigations, LA-9325-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., K. H. Wohletz, D. T. Vaniman, E. Gladney, and N. Bower, 1986. Status of Volcanic Hazard Studies for the Nevada Nuclear Waste Storage Investigations, LA-9325-MS, Vol. II, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., F. V. Perry, B. D. Turrin, S. G. Wells, and L. D. MacFadden, 1988. "Volcanic Hazard Assessment for Storage of High-Level Radioactive Waste at Yucca Mountain, Nevada," Geological Society of America, Cordilleran Section, Vol. 20, No. 3, p. 153.

Crowell, J. C., 1973. "Problems Concerning the San Andreas Fault System in Southern California," Stanford University Publications in Geological Sciences, Vol. 13, pp. 125-135.

Crowell, J. C., 1975. The San Andreas Fault in Southern California, J. C. Crowell (ed.), California Division of Mines & Geology Special Report 118, pp. 7-27.

Cunningham, C. G., K. R. Ludwig, C. W. Naeser, E. K. Weiland, H. H. Mehnert, T. A. Steven, and J. D. Rasmussen, 1982. "Geochronology of Hydrothermal Uranium Deposits and Associated Igneous Rocks in the Eastern Source Area of the Mount Belknap Volcanics, Marysvale, Utah," Economic Geology, Vol. 77, pp. 453-463.

DOE (U.S. Department of Energy), 1986. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

DOE/NVO (U.S. Department of Energy/Nevada Operations Office), 1984. Report of the Investigation of the Accident at the Midas Myth/Milagro Trailer Park on Rainier Mesa at Nevada Test Site on February 15, 1984, NVO-280, Nevada Operations Office, Las Vegas, Nev.

DOE/NVO (U.S. Department of Energy/Nevada Operations Office), 1987. Announced United States Nuclear Tests, July 1945 through December 1986, NVO-209, (Rev. 7), Las Vegas, Nev.

Dahlman, O., and H. Israelson, 1977. Monitoring Underground Nuclear Explosions, Elsevier Scientific Publishing Co., New York, p. 396.

Davis, G. A., and B. C. Burchfiel, 1973. "Garlock Fault: An Intracontinental Transform Structure, Southern California," Geological Society of America Bulletin, D. G. Howell and K. A. McDougall (eds.), Vol. 84, pp. 1407-1422.

Davis, G. A., J. L. Anderson, E. G. Frost, and T. J. Shackelford, 1980. "Mylonitization and Detachment Faulting in the Whipple-Buckskin-Rawhide Mountains Terrane, Southeastern California and Western Arizona," Cordilleran Metamorphic Core Complexes, Geological Society of America Memoir 153, pp. 79-129.

Davis, G. A., J. L. Anderson, D. L. Martin, D. Krummenacher, E. G. Frost, and R. L. Armstrong, 1982. "Geologic and Geochronologic Relations in the Lower Plate of the Whipple Detachment Fault, Whipple Mountains, Southeastern California: A Progress Report," Mesozoic-Cenozoic Tectonic Evolution of the Colorado River Region, California, Arizona, and Nevada, Cordilleran Publishers, San Diego, Calif., pp. 409-432.

Dayton, S. H., 1987. "A Model Mine and Plant for Paradise Peak," Engineering and Mining Journal, pp. 18-24.

Deer, W. A., R. A. Howie, and J. Zussman, 1963. Rock-Forming Minerals: Framework Silicates, Vol. 4, John Wiley & Sons Inc., New York, p. 354.

Dickey, D. D., W. J. Carr, and W. B. Bull, 1980. "Geologic Map of the Parker NW, Parker, and Parts of the Whipple Mountains SW and Whipple Wash Quadrangles, California and Arizona," U.S. Geological Survey Miscellaneous Investigations Series Map I-1124, Scale 1:24,000, U.S. Geological Survey.

Dickinson, W. R., 1970. "Relations of Andesites, Granites, and Derivative Sandstones to Arc-Trench Tectonics," Reviews of Geophysics and Space Physics, Vol. 8, No. 4, pp. 813-860.

Dickinson, W. R., 1977. "Paleozoic Plate Tectonics and the Evolution of the Cordilleran Continental Margin," Paleozoic Paleogeography of the Western United States, C. H. Stewart and A. Fritsche (eds.), Society of Economic Paleontologists & Mineralogists, Pacific Coast Paleogeography Symposium 1, pp. 137-155.

Dickinson, W. R., and W. S. Snyder, 1979. "Geometry of Triple Junctions Related to the San Andreas Transform," Journal of Geophysical Research, Vol. 84, No. B2, pp. 561-572.

Diment, W. H., T. C. Urban, J. H. Sass, B. V. Marshall, R. J. Munroe, and A. H. Lachenbruch, 1975. "Temperatures and Heat Contents Based on Conductive Transport of Heat," Assessment of Geothermal Resources of the United States--1975, D. E. White and D. L. Williams (eds.), Geological Survey Circular 726, U.S. Geological Survey, pp. 84-103.

Dixon, J. S., 1982. "Regional Structure Synthesis, Wyoming Salient of Western Overthrust Belt," American Association of Petroleum Geologists Bulletin, Vol. 66, No. 10, pp. 1560-1580.

Dohrenwend, J. C., 1982. Surficial Geology, Walker Lake 1 deg. by 2 deg. Quadrangle, Nevada-California, U.S. Geological Survey Miscellaneous Field Studies Map MF-1382-C, Scale 1:250,000, U.S. Geological Survey.

Dohrenwend, J. C., 1984. "Nivation Landforms in the Western Great Basin and Their Paleoclimatic Significance," Quaternary Research, Vol. 22, pp. 275-288.

Dohrenwend, J. C., 1985. "Patterns and Processes of Middle and Late Quaternary Dissection in the Tecopa Basin, California," Quaternary Lakes of the Eastern Mojave Desert, California, G. R. Hale (ed.), Friends of the Pleistocene, Pacific Cell 1985 Annual Meeting Guidebook, pp. 113-144.

Dohrenwend, J. C., 1987. Morphometric Comparison of Tectonically Defined Areas within the West-Central Basin and Range, USGS-OFR-87-83, Open-File Report, U.S. Geological Survey.

Dohrenwend, J. C., 1987. "Basin and Range," Geomorphic Systems of North America W. L. Graf (ed.), The Geological Society of America, Boulder, Colo. p. 331.

Dohrenwend, J. C., S. G. Wells, B. D. Turrin, and L. D. McFadden, 1984. "Rates and Trends of Late Cenozoic Landscape Degradation in the Area of the Cima Volcanic Field, Mojave Desert, California," Surficial Geology of the Eastern Mojave Desert, California, J. D. Dohrenwend (ed.), Geological Society of America 97th Annual Meeting Guidebook, pp. 101-115.

Dohrenwend, J. C., B. D. Turrin, and M. F. Diggles, 1985. "Topographic Distribution of Dated Basaltic Lava Flows in the Reveille Range, Nye County, Nevada: Implications for Late Cenozoic Erosion of Upland Areas in the Great Basin (abs.)," Geological Society of America, Abstracts with Programs, Vol. 17, p. 351.

Doser, D. I., 1985a. "The 1983 Borah Peak, Idaho and 1959 Hebgan Lake, Montana Earthquakes: Models for Normal Fault Earthquakes in the Intermountain Seismic Belt," in Proceedings of Workshop XXVIII On Borah Peak, Idaho, Earthquake, Volume A, National Earthquake Prediction and Hazards Programs, October 3-6, 1984, R. S. Stein and R. C. Bucknam (eds.), USGS-OFR-85-290-A, Open-File Report, U.S. Geological Survey, pp. 368-384.

Doser, D. I., 1985b. "Source Parameters and Faulting Processes of the 1959 Hebgen Lake, Montana, Earthquake Sequence," Journal of Geophysical Research, Vol. 90, No. B6, pp. 4537-4555.

Doser, D. I., 1986. "Earthquake Processes in the Rainbow Mountain-Fairview Peak-Dixie Valley, Nevada, Region 1954-1959," Journal of Geophysical Research, Vol. 91, No. B12, pp. 11,572-12,586.

Doser, D. I., 1987. "Source Parameters of the December 20, 1932 Cedar Mountain, Nevada , Earthquake," Seismological Research Letters, Vol. 58, No. 1, p. 19.

Douglas, A. C., and M. R. Millett, 1978. Total Intensity Magnetometer Logging as a Stratigraphic Tool in Tertiary Volcanic Rock, UCRL-52617, Lawrence Livermore National Laboratory, Livermore, Calif.

Dresser Atlas, 1982. Well Logging and Interpretation Techniques, The Course for Home Study, Second Edition, Dresser Industries, Houston, Tex.

Dudley, W. W., Jr., 1985. Letter from W. W. Dudley Jr. (USGS) to D. L. Vieth (WMPO), October 31, 1985; regarding status of on-going neotectonic studies.

Duffield, W. A., C. R. Bacon, and G. B. Dalrymple, 1980. "Late Cenozoic Volcanism, Geochronology, and Structure of the Coso Range, Inyo County, California," Journal of Geophysical Research, Vol. 85, No. B5, pp. 2381-2404.

ERDA (U.S. Energy Research and Development Administration), 1977. Nevada Test Site, Nye County, Nevada, Final Environmental Impact Statement, ERDA-1551, Washington, D.C.

Eaton, G. P., 1979. "A Plate-Tectonic Model For Late Cenozoic Crustal Spreading in the Western United States," Rio Grande Rift: Tectonics and Magmatism, R. E. Riecker (ed.), American Geophysical Union, Washington, D.C., pp. 7-32.

Eaton, G. P., 1982. "The Basin and Range Province: Origin and Tectonic Significance," Annual Review of Earth and Planetary Science, Vol. 10, pp. 409-440.

Eckel, E. B. (ed.), 1968. Nevada Test Site, Geological Society of America Memoir 110, The Geological Society of America, Inc., Boulder, Colo.

Ekren, E. B., 1968. "Geologic Setting of Nevada Test Site and Nellis Air Force Range," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 11-19.

Ekren, E. B., and F. M. Byers, Jr., 1986. "Geologic Map of the Murphys Well, Pilot Cone, Copper Mountain, and Poinsettia Spring Quadrangles, Mineral County, Nevada," U.S. Geological Survey Miscellaneous Invetigations Series Map I-1576, Scale 1:48,000, U.G. Geological Survey.

Ekren, E. B., and K. A. Sargent, 1965. Geologic Map of the Skull Mountain Quadrangle, Nye County, Nevada, Geologic Quadrangle Map GQ-387, U.S. Geological Survey.

Ekren, E. B., C. L. Rogers, R. E. Anderson, and P. P. Orkild, 1968. "Age of Basin and Range Normal Faults in Nevada Test Site and Nellis Air Force Range, Nevada," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 247-250.

Ekren, E. B., R. E. Anderson, C. L. Rogers, and D. C. Noble, 1971. Geology of Northern Nellis Air Force Base Bombing and Gunnery Range, Nye County, Nevada, Professional Paper 651, U.S. Geological Survey.

Ekren, E. B., E. N. Hinrichs, W. D. Quinlivan, and D. L. Hoover, 1973. Geologic Map of the Moores Station Quadrangle, Nye County, Nevada, U.S. Geological Survey Miscellaneous Investigations Series Map I-756, U.S. Geological Survey.

Ekren, E. B., G. D. Bath, G. L. Dixon, D. L. Healey, and W. D. Quinlivan, 1974a. "Tertiary History of Little Fish Lake Valley, Nye County, Nevada, and Implications as to the Origin of the Great Basin," U.S. Geological Survey Journal of Research, Vol. 2, No. 1, pp. 105-118.

Ekren, E. B., W. D. Quinlivan, R. P. Snyder, and F. J. Kleinhampl, 1974b. "Stratigraphy, Structure, and Geologic History of the Lunar Lake Caldera of Northern Nye County, Nevada," U.S. Geological Survey Journal of Research, Vol. 2, No. 5, pp. 599-608.

Ekren, E. B., P. P. Orkild, K. A. Sargent, and G. L. Dixon, 1977. Geologic Map of Tertiary Rocks, Lincoln County, Nevada, Miscellaneous Investigations Series Map I-1041, Scale 1:14,000, U.S. Geological Survey.

Ellis, W. L., and J. E. Magner, 1980. Compilation of Results of Three-Dimensional Stress Determinations Made in Rainier and Aqueduct Mesas, Nevada Test Site, Nevada, USGS-OFR-80-1098, Open-File Report, U.S. Geological Survey.

Ellis, W. L., and J. E. Magner, 1982. Determination of the In Situ State of Stress at the Spent Fuel Test--Climax Site, Climax Stock, Nevada Test Site, USGS-OFR-82-458, Open-File Report, U.S. Geological Survey.

Ellis, W. L., and H. S. Swolfs, 1983. Preliminary Assessment of In Situ Geomechanical Characteristics in Drill Hole USW G-1, Yucca Mountain, Nevada, USGS-OFR-83-401, Open-File Report, U.S. Geological Survey.

Engebretson, D. C., A. Cox, and R. G. Gordon, 1985. Relative Motions between Oceanic and Continental Plates in the Pacific Basin, Geological Society of America Special Paper 206, Geological Society of America, Boulder, Colo., 59 p.

Erickson, R. L., 1973. "Crustal Abundance of Elements, and Mineral Reserves and Resources," United States Mineral Resources, D. A. Probst and W. A. Pratt (eds.), Geological Survey Professional Paper 820, U.S. Government Printing Office, Washington, D.C., pp. 21-25.

Eyde, T. H., 1986. "Zeolites," Mining Engineering, Vol. 38, No. 5, pp. 369-370.

Eyde, T. H., 1987. "Zeolites," Mining Engineering, Vol. 39, No. 6, pp. 422-423.

F & S (Fenix & Scisson, Inc.), 1982. Procedure for the Surveillance of Logging Operations, Quality Assurance Procedure QAP-9.16, Las Vegas, Nev.

F & S (Fenix & Scisson, Inc.), 1986. NNWSI Hole Histories, DOE/NV/10322-9 thru 21 & 24. Mercury, Nev.

Fenneman, N. M., 1931. "Sierra Cascade Province," Physiography of Western United States, Chapter IX, McGraw-Hill Book Co., Inc., New York, pp. 396-441.

Ferguson, H. G., 1921. The Round Mountain District, Nevada, U.S. Geological Survey Bulletin 725-I, U.S. Government Printing Office, Washington, D.C., pp. 383-406.

Fiero, B., 1986. Geology of the Great Basin, University of Nevada Press, Reno, Nev., pp. 67-96.

Fischer, F. G., P. J. Papanek, and R. M. Hamilton, 1972. The Massachusetts Mountain Earthquake of 5 August 1971 and Its Aftershocks, Nevada Test Site, USGS-474-149, U.S. Geological Survey, 20 p.

Fisk, E. L., 1968. "Cordero Mine, Opalite Mining District," Ore Deposits of the United States, 1933-1967, J. D. Ridge (ed.), The American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 1573-1591.

Fleck, R. J., 1970. "Age and Possible Origin of the Las Vegas Valley Shear Zone, Clark and Nye Counties, Nevada," Abstracts with Programs of the Geological Society of America, Rocky Mountain Section, 23rd Annual Meeting, May 6-9, 1970, Rapid City South Dakota Vol. 2, No. 5, p. 333.

Flood, 1987.

Flood, T. P., and B. C. Schuraytz, 1986. "Evolution of a Magmatic System, Geochemistry and Mineralogy of Glassy Pumices from the Pah Canyon, Yucca Mountain, and Tiva Canyon Members of the Members of the Paintbrush Tuff, Southern Nevada," EOS, Vol. 67, No. 44, p. 1261.

Forester, R. M., 1985. "Limnocythere Bradburyi N. Sp.: A Modern Ostracode from Central Mexico and a Possible Quaternary Paleoclimatic Indicator," Journal of Paleontology, Vol. 59, No. 1, pp. 8-20.

Forester, R. M., 1985. Letter from R. M. Forester (USGS) to J. Downey (USGS), WR-85-1D, October 1985; regarding fossil samples from a Quaternary Spring deposit at Nevada Test Site.

Foster, N. H., E. L. Howard, F. F. Meissner, and H. K. Veal, 1979. "The Bruffey Oil and Gas Seeps, Pine Valley, Eureka County, Nevada," Basin and Range Symposium and Great Basin Field Conference, G. W. Newman and H. D. Goode (eds.), Rocky Mountain Association of Geologists and Utah Geological Association, Denver, Colo., pp. 531-540.

Fournier, R. O., and J. J. Rowe, 1966. "Estimation of Underground Temperatures from Silica Content of Water from Hot Springs and Wet-Stream Well," American Journal of Science, Vol. 264, pp. 685-697.

Fournier, R. O., and A. H. Truesdell, 1973. "An Empirical Na-K-Ca Geothermometer for Natural Waters," Geochimica et Cosmochimica Acta, Vol. 37, pp. 1255-1275.

Fournier, R. O., M. L. Sorey, R. H. Mariner and A. H. Truesdell, 1979. "Chemical and Isotopic Prediction of Aquifer Temperatures in the Geothermal System at Long Valley, California," Journal of Volcanology and Geothermal Research, Vol. 5, Elsevier Scientific Publishing Co., Amsterdam, pp. 17-34.

Fouty, S. C., 1984. Index to Published Geologic Maps in the Region Around the Potential Yucca Mountain Nuclear Waste Repository Site, Southern Nye County, Nevada, USGS-OFR-84-524, Open-File Report, U.S. Geological Survey.

Fox, K. F., Jr., R. J. Fleck, G. H. Garniss, and C. E. Meyer, 1985. "Implications of the Northwestwardly Younger Age of the Volcanic Rocks of West-Central California," Geological Society of America Bulletin, Vol. 96, pp. 647-654.

French, D. E., 1983. "Origin of Oil in Railroad Valley, Nye County, Nevada," Earth Science Bulletin, Vol. 16, Wyoming Geological Association, pp. 9-21.

Friedman, S. A., R. W. Jones, and M. L. W. Jackson, 1985. "Developments in Coal in 1984," The American Association Petroleum Geologists Bulletin, Vol. 69, No. 10, pp. 1898-1902.

Fritz, F., 1987. "Good Fortune Found in Nevada," AAPG Explorer, January, American Association of Petroleum Geologists, Tulsa, Okla., pp. 14-15.

Gabelman, J. W., 1981. "Microscopic Distribution of Thorium and Uranium in Volcanic Rock Textures," Uranium in Volcanic and Volcanoclastic Rocks, P. C. Goodell, and A. C. Waters (eds.), Vol. 13, American Association of Petroleum Geologists Studies in Geology, pp. 23-36.

Gans, P. B., E. L. Miller, J. McCarthy, and M. L. Ouldcott, 1985. "Tertiary Extensional Faulting and Evolving Ductile-Brittle Transition Zones in the Northern Snake Range and Vicinity: New Insights from Seismic Data," Geology, Vol. 13, pp. 189-193.

Garside, L. J., 1973. Radioactive Mineral Occurrences in Nevada, Nevada Bureau of Mines & Geology Bulletin 81, University of Nevada, Reno, 121 p.

Garside, L. J., 1974. Geothermal Exploration and Development in Nevada Through 1973, Nevada Bureau of Mines & Geology Report 21, University of Nevada, Reno.

Garside, L. J., 1983a. Nevada Oil Shale, Nevada Bureau of Mining & Geology Open-File Report 83-5, University of Nevada, Reno.

Garside, L. J., 1983b. "Geothermal Energy," The Nevada Mineral Industry - 1983, Nevada Bureau of Mines & Geology Special Publication MI-1983, University of Nevada, Reno, pp. 23-25.

Garside, L. J., 1987. "Geothermal Energy," The Nevada Mineral Industry 1986, Nevada Bureau of Mines & Geology Special Publication MI-1986, University of Nevada, Reno, pp. 21-24.

Garside, L. J., and J. H. Schilling, 1979. Thermal Waters of Nevada, Nevada Bureau of Mines & Geology Bulletin 91, University of Nevada, Reno.

Garside, L. J., and Weimer, B. S., 1986. "Oil and Gas," The Nevada Mineral Industry, 1985, Nevada Bureau of Mines & Geology Special Publication MI-1985, University of Nevada, Reno, pp. 19-24.

Garside, L. J., and B. S. Weimer, 1987. "Oil and Gas," Nevada Mineral Industry 1986, Nevada Bureau of Mines & Geology Special Publication MI-1986, University of Nevada, Reno, pp. 25-30.

Garside, L. J., B. S. Weimer, and I. A. Lutsey, 1977. Oil and Gas Developments in Nevada, 1968-1976, Nevada Bureau of Mines & Geology Report 29, University of Nevada, Reno.

Garside, L. J., H. F. Bonham, Jr., and D. K. Jorgensen, 1987. Field Trip 2 Precious Metal Deposits in Southeastern California and Southern and West-Central Nevada, Geological Society of Nevada, Reno, pp. 65-142.

Gianella, V. P., and E. Callaghan, 1934. "The Earthquake of December 20, 1932, at Cedar Mountain, Nevada and Its Bearing on the Genesis of Basin Range Structure," Journal of Geology, Vol. 42, No. 1, pp. 1-22.

Gibbons, A. B., E. N. Hinrichs, and T. Botinelly, 1960. "The Role of Impermeable Rocks in Controlling Zeolitic Alteration of Tuffs," Short Papers in the Geological Sciences, Geological Survey Research 1960, Geological Survey Professional Paper 400-B, U.S. Geological Survey, pp. B473-B475.

Glanzman, V. M., 1979. Bibliography of Reports by U.S. Geological Survey Personnel on the Nevada Test Site and Related Subjects, July 1, 1977, to December 31, 1978, with Author and Subject Indexes, USGS-474-306, U.S. Geological Survey.

Glanzman, V. M., 1980. Bibliography of Reports by U.S. Geological Survey Personnel Pertaining to Underground Nuclear Testing and Radioactive Waste Disposal at the Nevada Test Site, and Radioactive Waste Disposal at the WIPP Site, New Mexico, January 1, 1979, to December 31, 1979, USGS-OFR-80-817, Open-File Report, U.S. Geological Survey.

Glanzman, V. M., 1981. Bibliography of Reports by U.S. Geological Survey Personnel Pertaining to Underground Nuclear Testing and Radioactive Waste Disposal at the Nevada Test Site, and Radioactive Waste Disposal at the Waste Isolation Pilot Plant Site, New Mexico, January 1, 1980, to December 31, 1980, USGS-OFR-81-892, Open-File Report, U.S. Geological Survey.

Glanzman, V. M., 1983. Bibliography of Reports by U.S. Geological Survey Personnel on Studies of Underground Nuclear Test Sites and on Waste Management Studies at the Nevada Test Site and the Waste Isolation Pilot Plant Site, New Mexico, January 1 to December 31, 1981, USGS-OFR-83-478, Open-File Report, U.S. Geological Survey.

Glanzman, V. M., 1984. Bibliography of Reports by U.S. Geological Survey Personnel on Studies of Underground Nuclear Test Sites and on Waste Management Studies at the Nevada Test Site and the Waste Isolation Pilot Plant Site, New Mexico, January 1 to December 31, 1982, USGS-OFR-84-23, Open-File Report, U.S. Geological Survey.

Glanzman, V. M., 1985. Bibliography of Reports by U.S. Geological Survey Personnel on Studies of Underground Nuclear Test Sites and on Waste Management Studies at the Nevada Test Site and the Waste Isolation Pilot Plant Site, New Mexico, January 1, 1983, to December 31, 1984, USGS-OFR-85-363, Open-File Report, U.S. Geological Survey.

Grant, T. A., 1986. Memo from T. A. Grant (SAIC) to J. L. Younker (SAIC), M86-RTB-TAG-015, November 11, 1986; regarding trip report on field trip to Yucca Mountain.

Greensfelder, R. W., F. C. Kintzer, and M. R. Somerville, 1980. "Seismotectonic Regionalization of the Great Basin and Comparison of Moment Rates Computed from Holocene Strain and Historic Seismicity," Geological Society of America Bulletin Part II, Vol. 91, pp. 2039-2111.

Grogan, R. M., and G. Montgomery, 1975. "Fluorspar and Cryolite," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 653-677.

Gromme, C. S., E. H. McKee, M. C. Blake, Jr., 1972. "Paleomagnetic Correlations and Potassium-Argon Dating of Middle Tertiary Ash-Flow Sheets in the Eastern Great Basin, Nevada and Utah," Geological Society of America Bulletin, Vol. 83, pp. 1619-1638.

Grose, T. L. T., and G. I. Smith, 1984. "Geology," Studies of Geology and Hydrology in the Basin and Range Province, Southwestern United States, for Isolation of High-Level Radioactive Waste, M. S. Bedinger, K. A. Sargent, and W. H. Langer (eds.), USGS-OFR-84-743, Open-File Report, U.S. Geological Survey, pp. 13-63.

Guilbert, J. M., and C. F. Park, Jr., 1986. The Geology of Ore Deposits, W. H. Freeman & Co., New York.

Guth, P. L., 1981. "Tertiary Extension North of the Las Vegas Valley Shear Zone, Sheep and Desert Ranges, Clark County, Nevada," Geological Society of America Bulletin, Part I, Vol. 92, No. 10, pp. 763-771.

Hagstrum, J. T., J. J. Daniels, and J. H. Scott, 1980a. Analysis of the Magnetic Susceptibility Well Log in Drill Hole UE25a-5, Yucca Mountain, Nevada Test Site, USGS-OFR-80-1263, Open-File Report, U.S. Geological Survey.

Hagstrum, J. T., J. J. Daniels, and J. H. Scott, 1980b. Interpretation of Geophysical Well Log Measurements in Drill Hole UE25a-1, Nevada Test Site, USGS-OFR-80-941, Open-File Report, Radioactive Waste Program, U.S. Geological Survey.

Hamilton, R. M., and J. H. Healy, 1969. "Aftershocks of the Benham Nuclear Explosion," Bulletin of the Seismological Society of America, Vol. 59, No. 6, pp. 2271-2281.

Hamilton, R. M., B. E. Smith, F. G. Fisher, and P. J. Papanek, 1971. Seismicity of the Pahute Mesa Area, Nevada Test Site, 8 December 1968 through 31 December 1970, USGS-474-138, U.S. Geological Survey.

Hamilton, R. M., B. E. Smith, F. G. Fisher, and P. J. Papanek, 1972. "Earthquakes Caused by Underground Nuclear Explosions on Pahute Mesa, Nevada Test Site," Seismological Society of America Bulletin, Vol. 62, No. 5, pp. 1319-1341.

Hamilton, W., 1978. "Mesozoic Tectonics of the Western United States," Mesozoic Paleogeography of the Western United States, Pacific Coast Paleogeography Symposium 2, D. G. Howell and K. A. McDougall (eds.), Pacific Section, Society of Economic Paleontologists & Mineralogists, pp. 33-70.

Hamilton, W., 1982. "Structural Evolution of the Big Maria Mountains, Northeastern Riverside County, Southeastern California," Mesozoic-Cenozoic Tectonic Evolution of the Colorado River Region, California, Arizona, and Nevada, E. G. Frost and D. L. Martin (eds.), Cordilleran Publishers, San Diego, Calif., pp. 1-27.

Hamilton, W., 1987. Detachment Faulting in the Death Valley Region, California and Nevada, USGS-OFR, Open-File Report, U.S. Geological Survey.

Hamilton, W., and W. B. Myers, 1966. "Cenozoic Tectonics of the Western United States," Reviews of Geophysics, Vol. 4, No. 4, pp. 509-549.

Harden, J. W., 1982. "A Quantitative Index of Soil Development from Field Descriptions: Example from a Chronosequence in Central California," Geoderma, Vol. 28, pp. 1-28.

Harden, J. W., and E. M. Taylor, 1983. "A Quantitative Comparison of Soil Development in Four Climatic Regimes," Quaternary Research, Vol. 20, pp. 342-359.

Hardyman, 1978. Volcanic Stratigraphy and Structural Geology of the Gillis Canyon Quadrangle, Northern Gillis Range, Mineral County, Nevada, unpublished Ph.D. dissertation, Mackay School of Mines, University of Nevada, Reno.

Hardyman, 1984. "Strike-slip, Normal, and Detachment Faults in the Northern Gillis Range, Walker Lane of West-Central Nevada, Western Geological Excursions, J. Lintz, Jr. (ed.), Vol. 4, Geological Society of America Guidebook, Annual Meeting, Reno, Nev., pp. 184-199.

Hardyman, R. F. E. B. Ekren, and F. M. Byers, Jr., 1975. "Cenozoic Strike-Slip, Normal, and Detachment Faults in Northern Part of the Walker Lane, West-Central Nevada," Geological Society of America Abstracts with Programs, Vol. 7 p. 1100.

Harris, A. G., B. R. Warlow, C. C. Rust and G. K. Merrill, 1980. Maps for Assessing Thermal Maturity (Conodont Color Alteration Index Maps) in Ordovician Through Triassic Rocks in Nevada and Utah and Adjacent Parts of Idaho and California, Miscellaneous Investigations Series Map I-1249, U.S. Geological Survey.

Harris, D. P., and F. P. Agterberg, 1981. "The Appraisal of Mineral Resources," Economic Geology, B. J. Skinner (ed.), Seventy-Fifth Anniversary Volume, 1905-1980, The Economic Geology Publishing Co., New Haven, Conn., pp. 897-938.

Hay, R. L., 1978. "Geologic Occurrence of Zeolites," Natural Zeolites: Occurrence, Properties, Use, L. B. Sand and F. A. Mompton (eds.), Pergamon Press, New York, pp. 135-143.

Hay, R. L., and R. A. Sheppard, 1977. "Zeolites in Open Hydrologic Systems," Mineralogy and Geology of Natural Zeolites, F. A. Mumpton (ed.), Mineralogical Society of America Short Course Notes, Vol. 4, pp. 93-102.

Hay, R. L., R. E. Pexton, T. T. Teague, and T. K. Kyser, 1986. "Spring-Related Carbonate Rocks, Mg Clays, and Associated Minerals in Pliocene Deposits of the Amargosa Desert, Nevada and California," Geological Society of America Bulletin, Vol. 97, pp. 1488-1503.

Hayba, D. O., P. M. Bethke, P. Heald, and N. K. Foley, 1985. "Geologic Mineralogic, and Geochemical Characteristics of Volcanic-Hosted Eipthermal Precious-Metal Deposits," Geology and Geochemistry of Epithermal Systems, B. R. Berger, and P. M. Bethke (eds.), Vol. 2, Society of Economic Geologists, El Paso, Tex., pp. 129-167.

Hayes, K. H., 1976. "A Discussion of the Geology of the Southeastern Canadian Cordillera and Its Comparison to the Idaho-Wyoming-Utah Fold and Thrust Belt," Symposium on Geology of the Cordilleran Hingeline, J. G. Hill (ed.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 59-82.

Heald, P., N. K. Foley, and D. O. Hayba, 1987. "Comparative Anatomy of Volcanic-Hosted Epithermal Deposits: Acid Sulfate and Adularia-Sericite Types," Economic Geology, Vol. 82, No. 1, pp. 1-26.

Healey, D. L., F. G. Clutsom, and D. A. Glover, 1984. Borehole Gravity Meter Surveys in Drill Holes USW G-3, UE-25p#1, and UE-25c#1, Yucca Mountain Area, Nevada, USGS-OFR-84-672, Open-File Report, U.S. Geological Survey.

Healy, J. H., S. H. Hickman, M. D. Zoback, and W. L. Ellis, 1984. Report on Televiewer Log and Stress Measurements in Core Hole USW-G1, Nevada Test Site, December 13-22, 1981, USGS-OFR-84-15, Open-File Report, U.S. Geological Survey.

Hearst, J. R., and P. H. Nelson, 1985. Well Logging for Physical Properties, McGraw-Hill Book Co., New York, pp. 70, 94-102, 155, 191, 234, 251, 324, 339.

Henley, R. W., and A. J. Ellis, 1983. "Geothermal Systems Ancient and Modern: A Geochemical Review," Earth Science Reviews, Vol. 19, Elsevier Scientific Publishing Co., Amsterdam, pp. 1-50.

Hewett, D. F., 1956. Geology and Mineral Resources of the Ivanpah Quadrangle, California and Nevada, U.S. Geological Survey Professional Paper 275, U.S. Government Printing Office, Washington, D.C.

Hewitt, W. P., 1968. "Western Utah, Eastern and Central Nevada," Ore Deposits in the United States, 1933-1967, Part 8: Utah and Nevada, J. D. Ridge (ed.), Vol. 1, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 857-885.

Hildreth, W., 1979. "The Bishop Tuff: Evidence for the Origin of Compositional Zonation in Silicic Magma Chambers," Ash-Flow Tuffs, C. E. Chapin and W. E. Elston (eds.), Geological Society of America Special Paper 180, The Geological Society of America, pp. 43-75.

Hill, D. P., R. E. Wallance, and R. S. Cockerham, 1985. "Review of Evidence on the Potential for Major Earthquakes and Volcanism in the Long Valley-Mono Craters-White Mountains Regions of Eastern California," Earthquake Prediction, Earthquake Prediction Research Vol. 3, No. 3-4, Terra Scientific Publishing Co., Tokyo, Japan, pp. 571-594.

Hinrichs, E. N., 1968. "Geologic Structure of Yucca Flat Area, Nevada," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 239-246.

Hoffman, L. R., and W. D. Mooney, 1983. A Seismic Study of Yucca Mountain and Vicinity, Southern Nevada; Data Report of Preliminary Results, USGS-OFR-83-588, Open-File Report, U.S. Geological Survey.

Hoover, D. B., M. P. Chornack, K. H. Nervick, and M. M. Broker, 1982. Electrical Studies at the Proposed Wahmonie and Calico Hills Nuclear Waste Sites, Nevada Test Site, Nye County, Nevada, USGS-OFR-82-466, Open-File Report, U.S. Geological Survey.

Hoover, D. L., 1968. "Genesis of Zeolites, Nevada Test Site," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 275-284.

Hoover, D. L., W C Swadley, and A. J. Gordon, 1981. Correlation Characteristics of Surficial Deposits with a Description of Surficial Stratigraphy in the Nevada Test Site Region, USGS-OFR-81-512, Open-File Report, U.S. Geological Survey.

Horton, R. C., 1964a. "Fluorspar," Mineral and Water Resources of Nevada, Nevada Bureau of Mines & Geology Bulletin 65, University of Nevada, Reno, pp. 198-202.

Horton, R. C., 1964b. "Mineral Fuels - Coal," Mineral and Water Resources of Nevada, Nevada Bureau of Mines & Geology Bulletin 65, University of Nevada, Reno, pp. 49-53.

Horton, R. C., 1964c. "Mineral Fuels - Petroleum," Mineral and Water Resources of Nevada, Nevada Bureau Mines & Geology Bulletin 65, University of Nevada, Reno, pp. 54-57.

Horton, R. C., 1966. "Statistical Studies of the Distribution of Mining Districts in Nevada," papers presented at the AIME Pacific Southwest Mineral Industry Conference, Sparks, Nevada, May 5-7, 1965, Nevada Bureau of Mines Report 13, University of Nevada, Reno, pp. 109-123.

Hulen, J. B.,and D. L. Nielson, 1988. "Hydrothermal Brecciation in the Jemez Fault Zone, Valles Caldera, New Mexico: Results From Continental Scientific Drilling Program Core Hole VC-1," Journal of Geophysical Research, Vol. 93, No. B6, pp. 6077-6089.

Hunt, C. B., 1974. Natural Regions of the United States and Canada, W. H. Freeman & Co., San Francisco, Calif.

Hunt, C. B., and D. R. Mabey, 1966. Stratigraphy and Structure, Death Valley, California, General Geology of Death Valley, California, U.S. Geological Survey Professional Paper 494-A, U.S. Goverment Printing Office, Washington, D.C.

Hunt, J. M., 1979. Petroleum Geochemistry and Geology, W. H. Freeman & Co., San Francisco, Calif.

Hutton, L. K., and D. M. Boore, 1985. "The ML Scale in Southern California," Earthquakes Notes, Seismological Society of America, Eastern Section 57th Meeting, Program and Abstracts, Knoxville, Tenn., October 16-19, 1985, Vol. 56, No. 3, p. 78.

Iwasaki, T., S. Wakabayashi, and F. Tatsuoka, 1977. "Characteristics of Underground Seismic Motions at Four Sites Around Tokyo Bay," Wind and Seismic Effects, H. S. Lew (ed.), U.S. Department of Commerce, Washington, D.C., pp. III-41 to III-56.

Izett, G. A., 1982. The Bishop Ash Bed and Some Older Compositionally Similar Ash Beds in California, Nevada, and Utah, USGS-OFR-82-582, Open-File Report, U.S. Geological Survey, 44 p.

Jefferson, G. T., 1985. "Stratigraphy and Geologic History of the Pleistocene Manix Formation, Central Mojave Desert, California," Geologic Investigations along Interstate 15, Cajon Pass to Manix Lake, California, San Bernardino County Museum, Redlands, Calif., pp. 157-170.

Jennings, C. W., 1977. Geologic Map of California, Geologic Data Map No. 2, California Geologic Data Map Series, Scale 1:750,000, California Division of Mines & Geology, Sacramento, Calif.

Johnson, J. L., and E. Abbott, 1987. A Symposium Bulk Mineable Precious Metal Deposits of the Western United States, April 6-8, 1987, Sparks, Nevada, Geological Society of Nevada, Reno.

Johnstone, J. K., R. R. Peters, and P. F. Gnirk, 1984. Unit Evaluation at Yucca Mountain, Nevada Test Site: Summary Report and Recommendation, SAND83-0372, Sandia National Laboratories, Albuquerque, N. Mex.

Jones, R. B., 1987. "Directory of Nevada Mine Operations Active During 1985 (Excluding Sand and Gravel) Active During 1985," Nevada Mineral Industry 1986, Nevada Bureau of Mines & Geology Special Publication MI-1986, University of Nevada, Reno, pp. 31-44.

Jones, R. B., and K. G. Papke, 1984. Active Mines and Oil Fields in Nevada--1983, Nevada Bureau of Mines & Geology Map 84, University of Nevada, Reno.

Joyner, W. B., and D. M. Boore, 1982. Prediction of Earthquake Response Spectra, USGS-OFR-82-977, Open-File Report, U.S. Geological Survey, 14 p.

Kanai, K., and T. Tanaka, 1951. "Observations of the Earthquake-motion at the Different Depths of the Earth," Bulletin of the Earthquake Research Institute, Vol. 29, pp. 107-113.

Kanai, K., K. Osada, and S. Yoshizawa, 1953. "Observational Study of Earthquake Motion in the Depth of the Ground, IV. (Relation between the Amplitude at Ground Surface and the Period)," Bulletin of the Earthquake Research Institute, Vol. 31, pp. 227-234.

Kanai, K., T. Tanaka, S. Yoshizawa, T. Morishita, K. Osada, T. Suzuki, 1966. "Comparative Studies of Earthquake Motions on the Ground and Underground, II.," Bulletin of the Earthquake Research Institute, Vol. 44, pp. 609-643.

Kane, M. F., and R. E. Bracken, 1983. Aeromagnetic Map of Yucca Mountain and Surrounding Regions, Southwest Nevada, USGS-OFR-83-616, Open-File Report, U.S. Geological Survey.

Keller, G. R., L. W. Braile, and P. Morgan, 1979. "Crustal Structure, Geophysical Models and Contemporary Tectonism of the Colorado Plateau," Tectonophysics, Vol. 61, Elsevier Scientific Publishing Co., Amsterdam. pp. 131-147.

Kerns, R., 1984. "Utah Tar Sands," Survey Notes, Vol. 17, No. 4, Utah Geological and Mineral Survey, pp. 4-9.

Kimball, J. K., and L. Reiter, 1985. "Current Estimates of Seismic Hazard in the Eastern United States," in Proceedings: EPRI/NRC Workshop on Nuclear Power Plant Reevaluation to Quality Seismic Margins, EPRI NP-4101-SR, Electric Power Research Institute, Palo Alto, Calif., pp. 1-1 to 1-15.

King, K. W., 1982. A Study of Surface and Subsurface Ground Motions at Calico Hills, Nevada Test Site, USGS-OFR-82-1044, Open-File Report, U.S. Geological Survey.

King, K. W., K. C. Bayer, and S. R. Brockman, 1971. Earthquakes on and around the Nevada Test Site, 1950-1971, CGS-746-12, U.S. Department of Commerce, NOAA Earth Sciences Laboratories, 32 p.

King, P. B., 1977. The Evolution of North America, revised edition, Princeton University Press, Princeton, New Jersey, pp. 136-137.

Kistler, R. W., and Z. E. Peterman, 1978. Reconstruction of Crustal Blocks of California on the Basis of Initial Strontium Isotopic Compositions of Mesozoic Granitic Rocks, Professional Paper 1071, U.S. Geological Survey, 17 p.

Kizis, J. A., Jr., and D. D. Runnells, 1984. "The Mobility of Uranium and Associated Trace Elements in the Bates Mountian Tuff, Central Nevada," Economic Geology, Vol. 79, pp. 558-564.

Kleinhampl, F. J., and J. I. Ziony, 1984. Mineral Reseources of Northern Nye County, Nevada, Nevada Bureau of Mines & Geology Bulletin 99B, University of Nevada, Reno.

Klemperer, S. L., T. A. Hauge, E. C. Hauser, J. E. Oliver, and C. J. Potter, 1986. "The Moho in the Northern Basin and Range Province, Nevada, along the COCORP 40 deg. N. Seismic-Reflection Transect," Geological Society of America Bulletin, Vol. 97, No. 5, pp. 603-618.

Knutson, C. F., and G. F. Dana, 1983. "Developments in Oil Shale in 1982," American Association of Petroleum Geologists Bulletin, Vol. 67, No. 10, pp. 2009-2030.

Kral, V. E., 1951. Mineral Resources of Nye County, Nevada, University of Nevada Bulletin, Geology and Mining Series No. 50, Vol. 45, No. 3, Nevada State Bureau of Mines and the Mackay School of Mines, Reno, Nev.

Kutina, J., 1969. "Hydrothermal Ore Deposits in the Western United States: A New Concept of Structural Control of Distribution," Science, Vol. 165, pp. 1113-1119.

Kuuskraa, V. A., and E. C. Hammershaimb, 1984. Major Tar Sand and Heavy Oil Deposits of the United States, Vol. XXV, No. 1, Interstate Oil Compact Commission, pp. 1-7.

Lachenbruch, A. H., 1970. "Crustal Temperature and Heat Production: Implications of the Linear Heat-Flow Relation," Journal of Geophysical Research, Vol. 75, No. 17, pp. 3291-3300.

Lachenbruch, A. H., and J. H. Sass, 1977. "Heat Flow in the United States and the Thermal Regime of the Crust," The Earth's Crust, Its Nature and Physical Properties, J. G. Heacock (ed.), American Geophysical Union Monograph 20, Washington, D.C., pp. 626-675.

LaCoste, L. J. B., and A. Romberg, 1942. Force Measuring Device, U.S. Patent 2,293,437. United States Patent Office, Washington, D.C.

Lahoud, R. G., D. H. Lobmeyer, and M. S. Whitfield, Jr., 1984. Geohydrology of Volcanic Tuff Penetrated by Test Well UE-25b#1, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4253, Water-Resources Investigations Report, U.S. Geological Survey.

Langenheim, R. L., Jr., and E. R. Larson, 1973. Correlation of Great Basin Stratigraphic Units, Nevada Bureau of Mines & Geology Bulletin 72, University of Nevada, Reno, 36 p.

Langkopf, B. S., and P. R. Gnirk, 1986. Rock-Mass Classification of Candidate Repository Units at Yucca Mountain, Nye County, Nevada, SAND82-2034, Sandia National Laboratories, Albuquerque, N. Mex.

Lanphere, M. A., and B. L. Reed, 1973. "Timing of Mesozoic and Cenozoic Plutonic Events in Circum Pacific North America," Geological Society of America Bulletin, Vol. 84, pp. 3773-3782.

Lappin, A. R., R. G. VanBuskirk, D. O. Enniss, S. W. Butters, F. M. Prater, C. B. Muller, and J. L. Bergosh, 1982. Thermal Conductivity, Bulk Properties, and Thermal Stratigraphy of Silicic Tuffs from the Upper Portion of Hole USW-G1, Yucca Mountain, Nye County, Nevada, SAND81-1873, Sandia National Laboratories, Albuquerque, N. Mex.

Lee, W. H. K., R. E. Bennett, and K. L. Meagher, 1972. A Method of Estimating Magnitude of Local Earthquakes from Signal Duration, Open-File Report, U.S. Geological Survey.

Levinson, A. A., 1974. Introduction to Exploration Geochemistry, 2nd edition, Applied Publishing Ltd., Wilmette, Ill., pp. 43-44.

Levy, S. S., 1984. Petrology of Samples from Drill Holes USW H-3, H-4 and H-5, Yucca Mountain, Nevada, LA-9706-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Lincoln, F. C., 1923. Mining Districts and Mineral Resources of Nevada, reprinted in 1982, Nevada Publications, Reno.

Lindsey, D. A., 1978. Geology of the Yellow Chief Mine, Thomas Range, Juab County, Utah, D. R. Shawe (ed.), Nevada Bureau of Mines Report No. 32, U.S. Geological Survey, pp. 65-68.

Link, R. L., S. E. Logan, H. S. Ng, F. A. Rockenbach, and K. J. Hong, 1982. Parametric Studies of Radiological Consequences of Basaltic Volcanism, SAND81-2375, Sandia National Laboratories, Albuquerque, N. Mex., pp. 4-347.

Lipman, P. W., and R. L. Christiansen, 1964. "Zonal Features of an Ash-Flow Sheet in the Piapi Canyon Formation, Southern Nevada," Geological Survey Research 1964, Chapter B, Professional Paper 501, U.S. Geological Survey, pp. B74-B78.

Lipman, P. W., and E. J. McKay, 1965. "Geologic Map of the Topopah Spring SW Quadrangle, Nye County, Nevada," U.S. Geological Survey Quadrangle Map GQ-439, Scale 1:24,000, U.S. Geological Survey.

Lipman, P. W., and D. R. Mullineaux (eds.), 1981. The 1980 Eruptions of Mount St. Helens, Washington, Geological Survey Professional Paper 1250, U.S. Government Printing Office, Washington, D.C.

Lipman, P. W., R. L. Christiansen, and J. T. O'Connor, 1966. A Compositionally Zoned Ash-Flow Sheet in Southern Nevada, Geological Survey Professional Paper 525-F, U.S. Geological Survey.

Lipman, P. W., H. J. Prostka, and R. L. Christiansen, 1972. "Cenozoic Volcanism and Plate-Tectonic Evolution of the Western United States; I. Early and Middle Cenozoic," Philosophical Transactions Royal Society of London, Series A, Vol. 271, pp. 217-248.

Locke, A., P. Billingsley, and E. B. Mayo, 1940. "Sierra Nevada Tectonic Patterns," Bulletin of the Geological Society of America, Vol. 51, pp. 513-540.

Longwell, C. R., 1949. "Structure of the Northern Muddy Mountain Area, Nevada," Bulletin of the Geological Society of America, Vol. 60, pp. 923-968.

Longwell, C. R., 1960. "Possible Explanation of Diverse Structural Patterns in Southern Nevada," American Journal of Science, Bradley Volume, Vol. 258-A, pp. 192-203.

Longwell, C. R., E. H. Pampeyan, B. Bowyer, and R. J. Roberts, 1965. Geology and Mineral Deposits of Clark County, Nevada, Nevada Bureau of Mines Bulletin 62, University of Nevada, Reno.

Lubetkin, L., and M. M. Clark, 1985. "Late Quaternary Activity along the Lone Pine Fault, Eastern California," in Proceedings of Workshop XXVIII on the Borah Peak Idaho Earthquake, R. S. Stein and R. C. Bucknam (eds.), USGS-OFR-85-290-A, Open-File Report, Vol. A, U.S. Geological Survey, pp. 118-140.

Lucchitta, I., 1979. "Late Cenozoic Uplift of the Southwestern Colorado Plateau and Adjacent Lower Colorado River Region," Tectonophysics, Vol. 61, pp. 63-95.

Mahon, W. A. J., 1970. "Chemistry in the Exploration and Exploitation of Hydrothermal Systems," in Proceedings of the United Nations Symposium on the Development and Utilization of Geothermal Resources, Pisa, Italy, September 22-October, 1970, Geothermics, Special Issue 2, Vol. 2, Part 2, pp. 1310-1322.

Maldonado, F. (comp.), 1985a. Geologic Map of the Jackass Flats Area, Nye County, Nevada, Miscellaneous Investigations Series Map I-1519, U.S. Geological Survey.

Maldonado, F., 1985b. "Late Tertiary Detachment Faults in the Bullfrog Hills, Southwestern Nevada [abs.]," Geological Society of America, Abstracts with Programs, Vol. 17, No. 7, p. 651.

Maldonado, F., and S. L. Koether, 1983. Stratigraphy, Structure, and Some Petrographic Features of Tertiary Volcanic Rocks at the USW G-2 Drill Hole, Yucca Mountain, Nye County, Nevada, USGS-OFR-83-732, Open-File Report, U.S. Geological Survey.

Maldonado, F., D. C. Muller, and J. N. Morrison, 1979. Preliminary Geologic and Geophysical Data of the UE25a-3 Exploratory Drill Hole, Nevada Test Site, Nevada, USGS-1543-6, U.S. Geological Survey.

Marchand, D. E., 1971. "Rates and Modes of Denudation, White Mountains, Eastern California," American Journal of Science, Vol. 270, pp. 109-135.

Mariner, R. H., and L. M. Willey, 1976. "Geochemistry of Thermal Waters in Long Valley, Mono County, California," Journal of Geophysical Research, Vol. 81, No. 5, pp. 792-800.

Mariner, R. H., C. A. Brook, M. J. Reed, J. D. Bliss, A. L. Rapport, and R. J. Lieb, 1983. "Low-Temperature Geothermal Resources of the United States," Assessment of Low-Temperature Geothermal Resources of the United States-1982, M. J. Reed (ed.), Geological Survey Circular 892, U.S. Department of the Interior, pp. 31-40.

Mark, R. K., and M. G. Bonilla, 1977. Regression Analysis of Earthquake Magnitude and Surface Fault Length Using the 1970 Data of Bonilla and Buchanan, USGS-OFR-77-614, Open-File Report, U.S. Geological Survey.

Marvin, R. F., F. M. Byers, Jr., H. H. Mehnert, P. P. Orkild, and T. W. Stern, 1970. "Radiometric Ages and Stratigraphic Sequence of Volcanic and Plutonic Rocks, Southern Nye and Western Lincoln Counties, Nevada," Geological Society of America Bulletin, Vol. 81, No. 9, pp. 2657-2676.

Marvin, R. F., H. H. Mehnert, and E. H. McKee, 1973. "A Summary of Radiometric Ages of Tertiary Volcanic Rocks in Nevada and Eastern California, Part III - Southeastern Nevada," Isochron/West, Vol. No. 6, pp. 1-30.

Mattson, S. R., 1988. "Mineral Resource Evaluation: Implications of Human Intrusion and Interference on a High Level Nuclear Waste Repository," Waste Management Eighty Eight, Vol. 2, pp. 915-924.

McDaniel, S., 1985. "Small Methane Pockets Found in Nevada," Western Oil World, Vol. 42, No. 5, p. 15.

McDonald, R. E., 1976. "Tertiary Tectonics and Sedimentary Rocks along the Transition: Basin and Range Province to Plateau and Thrust Belt Province, Utah," Geology of the Cordilleran Hingeline, Rocky Mountain Association of Geologists - 1976 Symposium, J. G. Hill (ed.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 281-317.

McFadden, L. D., S. G. Wells, and J. C. Dohrenwend, 1985. "The Influence of Eolian Flux Rates and Climatic Change on the Development of Stone Pavements and Associated Soils in the Cima Volcanic Field, Mojave Desert, California [abs.]," Geological Society of America, Abstracts and Programs, Vol. 17, 368 p.

McGovern, T. F., 1983. An Evaluation of Seismic Reflection Studies in the Yucca Mountain Area, Nevada Test Site, with an introduction by L. W. Pankratz and H. D. Ackermann, USGS-OFR-83-912, Open-File Report, U.S. Geological Survey.

McKay, E. J., and W. P. Williams, 1964. Geology of the Jackass Flats Quadrangle, Nye County, Nevada, Geological Quadrangle Map GQ-368, Scale 1:24,000, U.S. Geological Survey.

McKee, E. H., 1979. "Ash-Flow Sheets and Calderas: Their Genetic Relationship to Ore Deposits in Nevada," Geological Society of America Special Paper 180, pp. 205-211.

McKenzie, D., 1978. "Some Remarks on the Development of Sedimentary Basins," Earth and Planetary Science Letters, Vol. 40, pp. 25-32.

McKenzie, D. P., and W. J. Morgan, 1969. "Evolution of Triple Junctions," Nature, Vol. 224, pp. 125-133.

Meremonte, M. E., and A. M. Rogers, 1987. Historical Catalog of Southern Great Basin Earthquakes 1868-1978, USGS-OFR-87-80, Open-File Report, U.S. Geological Survey.

Mifflin, M. D., and M. M. Wheat, 1979. Pluvial Lakes and Estimated Pluvial Climates of Nevada, Nevada Bureau of Mines & Geology Bulletin 94, University of Nevada, Reno.

Miller, C. D., 1985. "Holocene Eruptions at the Inyo Volcanic Chain, California: Implications for Possible Eruptions in Long Valley Caldera," Geology, Vol. 13, No. 1, pp. 14-17.

Miller, E. L., P. B. Gans, and J. Garing, 1983. "The Snake Range Decollement: An Exhumed Mid-Tertiary Ductile-Brittle Transition," Tectonics, Vol. 2, pp. 239-263.

Minster, J. B., and T. H. Jordan, 1978. "Present-Day Plate Motions," Journal of Geophysical Research, Vol. 83, No. B11, pp. 5331-5354.

Mitchell, G. C., 1979. "Stratigraphy and Regional Implications of the Argonaut Energy No. 1 Federal, Millard County, Utah," 1979 Basin and Range Symposium, G. R. Newman and H. D. Goode (eds.), Rocky Mountian Association of Geologists and Utah Geological Association, pp. 503-514.

Molinari, M. P., 1984. Late Cenozoic Geology and Tectonics of Stewart and Monte Cristo Valleys, West-Central Nevada, M.S. thesis, University of Nevada, Reno, 124 p.

Morgan, W. J., 1968. "Rises, Trenches, Great Faults, and Crustal Blocks," Journal of Geophysical Research, Vol. 73, No. 6, pp. 1959-1982.

Mosier, D. L., W. D. Menzie, and F. J. Kleinhampl, 1986. Geologic and Grade-Tonnage Information on Tertiary Epithermal Precious- and Base-Metal Vein Districts Associated with Volcanic Rocks, U.S. Geological Survey Bulletin 1666, U.S. Geological Survey.

Muffler, L. J. P. (ed.), 1979. Assessment of Geothermal Resources of the United States--1978, Circular 790, U.S. Geological Survey, 163 p.

Muffler, L. J. P., and M. Guffanti, 1979. "Introduction," Assessment of Geothermal Resources of the United States--1978, L. J. P. Muffler (ed.), Geological Survey Circular 790, U.S. Geological Survey, pp. 1-7.

Mulhern, M. E., 1982. "Lacustrine, Fluvial, and Fan Sedimentation: A Record of Quaternary Climate Change and Tectonics," Zeitschrift fur Geomorphologie, Vol. 42, pp. 117-133.

Muller, D. C., and J. E. Kibler, 1983. Commercial Geophysical Well Logs from the USW G-1 Drill Hole, Nevada Test Site, Nevada, USGS-OFR-83-321, Open-File Report, U.S. Geological Survey, 7 p.

Muller, D. C., and J. E. Kibler, 1984. Preliminary Analysis of Geophysical Logs from Drill Hole UE-25p#1, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-649, Open-File Report, U.S. Geological Survey, 14 p.

Muller, D. C., and J. E. Kibler, 1985. Preliminary Analysis of Geophysical Logs from the WT Series of Drill Holes, Yucca Mountain, Nye County, Nevada, USGS-OFR-86-46, Open-File Report, U.S. Geological Survey.

Mumpton, F. A., 1975. "Commercial Utilization of Natural Zeolites," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 1262-1274.

Mumpton, F. A., 1977a. "Natural Zeolites," Mineralogy and Geology of Natural Zeolites, Mineralogical Society of America Short Course Notes, Vol. 4, pp. 1-17.

Mumpton, F. A., 1977b. "Utilization of Natural Zeolites," Mineralogy and Geology of Natural Zeolites, Mineralogical Society of America Short Course Notes, Vol. 4, pp. 177-204.

Murphy, T. D., 1975. "Silica and Silicon," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 1043-1060.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

Nathenson, M., and M. Guffanti, 1988. "Geothermal Gradients in the Conterminous United States," Journal of Geophysical Research, Vol. 93, No. B6, pp. 6437-6450.

Nathenson, M., M. Guffanti, J. H. Sass, and R. J. Munroe, 1983. "Regional Heat Flow and Temperature Gradients," Assessment of Low-Temperature Geothermal Resources of the United States--1982, M. J. Reed (ed.), Geological Survey Circular 892, U.S. Geological Survey, pp. 9-16.

Neal, J. T., 1986. Preliminary Validation of Geology at Site for Repository Surface Facilities, Yucca Mountain, Nevada, SAND85-0815, Sandia National Laboratories, Albuquerque, N. Mex.

Nelson, C. E., and D. L. Giles, 1985. "Hydrothermal Eruption Mechanisms and Hot Spring Gold Deposits," Economic Geology, Vol. 80, pp. 1633-1639.

Norris, A. E., F. M. Byers, Jr., and T. J. Merson, 1986. Fran Ridge Horizontal Coring Summary Report Hole UE-25h#1, Yucca Mountain Area, Nye County, Nevada, LA-10859-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Nur, A., H. Ron, and O. Scott, 1986. "Fault Mechanics and the Kinematics of Block Rotations", EOS, Vol. 67, No. 16, p. 358.

Oakeshott, G. B., R. W. Greensfelder, and J. E. Kahle, 1972. "One Hundred Years Later," California Geology, Vol. 25, No. 3, California Division of Mines & Geology, pp. 55-61.

O'Conner, J. T., R. E. Anderson, and P. W. Lipman, 1966. Geologic Map of the Thirsty Canyon Quadrangle, Nye County, Nevada, Geological Survey Geological Quadrangle GQ-524, U.S. Geological Survey.

Odt, D. A., 1983. Geology and Geochemistry of the Sterling Gold Deposit, Nye County, Nevada, unpublished M.S. Thesis, University of Nevada, Reno, 100 p.

Okamoto, S., 1984. Introduction of Earthquake Engineering, Second Edition, University of Tokyo Press, pp. 11-14.

Okaya, D. A., and G. A. Thompson, 1985. "Geometry of Cenozoic Extensional Faulting: Dixie Valley, Nevada," Tectonics, Vol. 4, No. 1, pp. 107-125.

Oldow, J. S., 1978. "Triassic Pamlico Formation: An Allochthonous Sequence of Volcanogenic-Carbonate Rocks in West-Central Nevada," Mesozoic Paleogeography of Western United States, Pacific Coast Paleogeography Symposium 2, D. G. Howell and K. A. McDougall (ed.), Society of Economic Paleontologists & Mineralogists, pp. 223-235.

Olson, R. H., 1975. "Zeolites," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 1235-1242.

O'Neil, J. R., 1984. Letter Report from J. R. O'Neil (USGS) to D. Vaniman (LANL), December 19, 1984; regarding stable isotope analyses of three samples from Yucca Mountain.

O'Neil, J. R., 1985. Letter Report from J. R. O'Neil (USGS) to S. Levy (LANL), April 29, 1985; regarding stable isotype analysis and oxygen isotype temperatures of samples.

Orkild, P. P., 1965. "Paintbrush Tuff and Timber Mountain Tuff of Nye County, Nevada," Changes in Stratigraphic Nomenclature by the U.S. Geological Survey 1964, G. V. Cohee and W. S. West (eds.), U.S. Geological Survey Bulletin 1224-A, U.S. Geological Survey, pp. A44-A51.

Orkild, P. P., and J. T. O'Connor, 1970. Geologic Map of the Topapah Spring Quadrangle, Nye County, Nevada, Geologic Quadrangle Map GQ-849, Scale 1:24,000, U.S. Geological Survey.

Osmond, J. C., 1962. "Stratigraphy of Devonian Sevy Dolomite in Utah and Nevada," Bulletin of the American Association of Petroleum Geologists, Vol. 46, No. 11, pp. 2033-2056.

Oversby, V. M., 1984a. Reaction of the Topopah Spring Tuff with J-13 Well Water at 90 deg. C and 150 deg. C, UCRL-53552, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., 1984b. Reaction of the Topopah Spring Tuff with J-13 Well Water at 120 deg. C, UCRL-53574, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and K. G. Knauss, 1983. Reaction of Bullfrog Tuff with J-13 Well Water at 90 deg. C and 150 deg. C, UCRL-53442, Lawrence Livermore National Laboratory, Livermore, Calif.

Owen, G. N., and R. E. Scholl, 1981. Earthquake Engineering of Large Underground Structures, FHWA/RD-80/195, U.S. Department of Transportation, Washington, D.C., pp. 171-174.

Owen, G. N., P. I. Yanev, and R. E. Scholl, 1980. Considerations for Developing Seismic Design Criteria for Nuclear Waste Storage Repositories, JAB-00099-128, URS/John A. Blume & Associates, Engineers, San Francisco, Calif.

Palmer, S. E., 1984. "Hydrocarbon Source Potential of Organic Facies of the Lacustrine Elko Formation (Eocenel Oligocene), Northeast Nevada," Hydrocarbon Source Rocks of the Greater Rocky Mountain Region, J. Woodward, F. F. Meissner, and J. L. Clayton (eds.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 491-511.

Pankratz, L. W., 1982. Reconnaissance Seismic Refraction Studies at Calico Hills, Wahmonie, and Yucca Mountain, Southwest Nevada Test Site, Nye County, Nevada, USGS-OFR-82-478, Open-File Report, U.S. Geological Survey.

Papke, K. G., 1972. Erionite and Other Associated Zeolites in Nevada, Nevada Bureau of Mines & Geology Bulletin 79, University of Nevada, Reno.

Papke, K. G., 1979. Fluorspar in Nevada, Nevada Bureau of Mines & Geology Bulletin 93, University of Nevada, Reno.

Papke, K. G., 1984. Barite in Nevada, Nevada Bureau of Mines & Geology Bulletin 98, University of Nevada, Reno.

Papke, K. G., 1985. "Industrial Minerals," The Nevada Mineral Industry--1984, Nevada Bureau of Mines & Geology Special Publication MI-1984, University of Nevada, Reno, pp. 12-14.

Papke, K. G., 1986. "Industrial Minerals," The Nevada Mineral Industry - 1985, Nevada Bureau of Mines & Geology Special Publication MI-1985, University of Nevada, Reno, pp. 15-18.

Perkins, D. M., P. C. Thenhaus, S. L. Hanson, and S. T. Algermissen, 1987. A Reconnaissance Assessment of Probabilistic Earthquake Accelerations at the Nevada Test Site, USGS-OFR-87-199, Open-File Report, U.S. Geological Survey. 18 p.

Peterson, E. F., 1981. Landforms of the Basin and Range Province Defined for Soil Survey, Technical Bulletin 28, Nevada Agricultural Experiment Station, University of Nevada, Reno, 52 p.

Pexton, R. E., 1984. Geology and Paleohydrology of a Part of the Amargosa Desert, Nevada, unpublished Master's thesis, University of California, Berkeley.

Plut, F. W., 1979. "Geology of the Apex Uranium Mine Near Austin, Nevada," Basin and Range Symposium and Great Basin Field Conference, G. W. Newman and H. D. Goode (eds.), Rocky Mountain Association of Geologists and Utah Geological Association, pp. 413-420.

Poole, F. G., 1974. "Flysch Deposits of Antler Foreland Basin, Western United States," Tectonics and Sedimentation, W. R. Dickinson (ed.), Society of Economic Paleontologists & Mineralogists Special Publications No. 22, pp. 58-82.

Poole, F. G., and G. E. Claypool, 1984. "Petroleum Source-Rock Potential and Crude-Oil Correlation in the Great Basin," Hydrocarbon Source Rocks of the Greater Rocky Mountain Region, J. Woodward, F. F. Meissner, and J. L. Clayton (eds.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 179-229.

Poole, F. G., D. L. Baars, H. Drewes, P. T. Hayes, K. B. Ketner, E. D. McKee, C. Teichert, and J. S. Williams, 1967. "Devonian of the Southwestern United States," International Symposium on the Devonian System, D. H. Oswald (ed.), Alberta Society of Petroleum Geologists, Calgary, Alberta, pp. 879-912.

Porter, S. C., and K. L. Pierce, and T. D. Hamilton, 1983. "Late-Wisconsin Mountain Glaciation in the Western United States," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter, Jr. (ed.), University of Minnesota Press, Minneapolis, pp. 71-114.

Pratt, H. R., W. A. Hustrulid, and D. E. Stephenson, 1978. Earthquake Damage to Underground Facilities, DP-1513, E. I. du Pont de Nemours & Co., Aiken, S.C.

Press, F., and R. Siever, 1982. Earth, Third Edition, W. H. Freeman & Co., San Francisco, Calif., p. 326.

Price, R. H., S. J. Spence, and A. K. Jones, 1984. Uniaxial Compression Test Series on Topopah Spring Tuff from USW GU-3, Yucca Mountain, Southern Nevada, SAND83-1646, Sandia National Laboratories, Albuquerque, N. Mex.

Priestley, K., 1974. "Crustal Strain Measurements in Nevada," Bulletin of the Seismological Society of America, Vol. 64, No. 4, pp. 1319-1328.

Proffett, Jr. J. M., 1977. "Cenozoic Geology of the Yerington District, Nevada, and Implications for the Nature and Origin of Basin and Range Faulting," Geological Society of America Bulletin, Vol. 88, No. 2, pp. 247-266.

Proffett, J. M., Jr., 1979. "Ore Deposits of the Western United States: A Summary," Papers on Mineral Deposits of Western North America, J. D. Ridge (ed.), Nevada Bureau of Mines & Geology Report 33, University of Nevada, Reno, pp. 13-32.

Quade, J., and J. V. Tingley, 1983. A Mineral Inventory of the Nevada Test Site, and Portions of Nellis Bombing and Gunnery Range, Southern Nye County, Nevada, DOE/NV/10295-1, U.S. Department of Energy, Nevada Operations Office, Las Vegas, Nev.

Raleigh, C. B., J. H. Healy, and J. D. Bredehoeft, 1972. "Faulting and Crustal Stress at Rangely, Colorado," Flow and Fracture of Rocks, H. C. Heard (ed.), Vol. 16, Geophysics Monograph Series, American Geophysical Union, Washington, D.C., pp. 275-284.

Ransome, F. L., 1907. Preliminary Account of Goldfield, Bullfrog, and Other Mining Districts in Southern Nevada, U.S. Geological Survey Bulletin 303, Reprinted as F. L. Ransome, 1983. "Mines of Goldfield, Bullfrog and Other Southern Nevada Districts," Nevada Publications, Reno.

Rautman, C. A., B. C. Whittet, and D. L. South, 1987. Definitions of Reference Boundaries for the Proposed Geologic Repository at the Yucca Mountain, Nevada, SAND86-2157, Sandia National Laboratories, Albuquerque, N. Mex.

Reheis, M., 1986. Preliminary Study of Quaternary Faulting on the East Side of Bare Mountain, Nye County, Nevada, USGS-OFR-86-576, Open-File Report, U.S. Geological Survey, 14 p.

Reiter, L., 1984. "Uses of Probabilistic Estimates of Seismic Hazard and Nuclear Power Plants in the U.S.," in Proceedings of the Second CSNI Specialist Meeting on Probabilistic Methods in Seismic Risk Assessment for Nuclear Power Plants, Livermore, California, May 16-18, 1983, CSNI Report No. 76, pp. 105-113.

Reiter, L., and R. E. Jackson, 1983. Seismic Hazard Review for the Systematic Evaluation Program--A Use of Probability in Decision Making, NUREG-0967, U.S. Nuclear Regulatory Commission, Washington, D.C.

Renner, J. L., D. E. White, and D. L. Williams, 1975. "Hydrothermal Convection Systems," Assessment of Geothermal Resources of the United States--1975, D. E. White and D. L. Williams (eds.), Geological Survey Circular 726, U.S. Geological Survey, pp. 5-57.

Reynolds, M. W., 1969. Stratigraphy and Structural Geology of the Titus and Titanothere Canyons Area, Death Valley, California, Ph.D. dissertation, University of California, Berkeley, 310 p.

Reynolds, M. W., 1974a. "Geology of the Grapevine Mountains, Death Valley, California: A Summary," Guidebook: Death Valley Region, California and Nevada, 70th Annual Meeting Cordilleran Section, Geological Society of America, Field Trip No. 1, pp. 91-97.

Reynolds, M. W., 1974b. "Recurrent Middle and Late Cenozoic Deformation, Northeastern Death Valley, California-Nevada," Geological Society of America Abstracts with Programs, Cordilleran Section, Vol. 6, No. 3, pp. 241-242.

Richins, W. D., R. B. Smith, C. J. Langer, J. E. Zollweg, J. J. King, and J. C. Pechman, 1985. "The 1983 Borah Peak, Idaho Earthquake: Relationship of Aftershocks to the Main Shock, Surface Faulting, and Regional Tectonics", in Proceedings of Workshop XXVIII on the Borah Peak, Idaho, Earthquake, Vol. A, R. S. Stein and R. C. Bucknam (eds.), USGS-OFR-85-290-A, Open-File Report, U.S. Geological Survey, pp. 285-310.

Richter, C. F., 1958. Elementary Seismology, W. H. Freeman & Co., San Francisco, Calif., 768 p.

Robbins, S. L., J. W. Schmoker, and T. C. Hester, 1982. Principal Facts and Density Estimates for Borehole Gravity Stations in Exploratory Wells Ue4ah, Ue7j, Uelh, Uelq, Ue2co, and USW-H1 at the Nevada Test Site, Nye County, Nevada, USGS-OFR-82-277, Open-File Report, U.S. Geological Survey.

Roberts, R. J., 1966. "Metallogenic Provinces and Mineral Belts in Nevada," papers presented at the AIME Pacific Southwest Mineral Industry Conference, Sparks, Nevada, May 5-7, 1965, Nevada Bureau of Mines Report 13, University of Nevada, Reno, pp. 47-72.

Roberts, R. J., A. S. Radtke, and R. R. Coats, 1971. "Gold-Bearing Deposits in North-Central Nevada and Southwestern Idaho," Economic Geology, Vol. 66, pp. 14-33.

Robinson, G. D., 1985. Structure of Pre-Cenozoic Rocks in the Vicinity of Yucca Mountian, Nye County, Nevada--A Potential Nuclear-Waste Disposal Site, U.S. Geological Survey Bulletin 1647, U.S. Geological Survey.

Robison, J. H., 1984. Ground-Water Level Data and Preliminary Potentiometric-Surface Maps, Yucca Mountain and Vicinity, Nye County, Nevada, USGS-WRI-84-4197, Water-Resources Investigations Report, U.S. Geological Survey.

Rogers, A. M., and W. H. K. Lee, 1976. "Seismic Study of Earthquakes in the Lake Mead, Nevada-Arizona Region," Bulletin of the Seismological Society of America, Vol. 66, No. 5, pp. 1657-1681.

Rogers, A. M., D. M. Perkins, and F. A. McKeown, 1976. A Catalog of Seismicity within 400 km of the Nevada Test Site, USGS-OFR-76-832, Open-File Report, U.S. Geological Survey.

Rogers, A. M., D. M. Perkins, and F. A. McKeown, 1977a. "A Preliminary Assessment of the Seismic Hazard of the Nevada Test Site Region," Bulletin of the Seismological Society of America, Vol. 67, No.6, pp. 1587-1606.

Rogers, A. M., G. M. Wuollet, and P. A. Covington, 1977b. Seismicity of the Pahute Mesa Area, Nevada Test Site, 8 October 1975 to 30 June 1976, USGS-474-184, U.S. Geological Survey, 63 p.

Rogers, A. M., S. C. Harmsen, and W. J. Carr, 1981. Southern Great Basin Seismological Data Report for 1980 and Preliminary Data Analysis, USGS-OFR-81-1086, Open-File Report, U.S. Geological Survey.

Rogers, A. M., S. C. Harmsen, W. J. Carr, and W. Spence, 1983. Southern Great Basin Seismological Data Report for 1981 and Preliminary Data Analysis, USGS-OFR-83-669, Open-File Report, U.S. Geological Survey.

Rogers, A. M., S. C. Harmsen, and M. E. Meremonte, 1987. Evaluation of the Seismicity of the Southern Great Basin and Its Relationship to the Tectonic Framework of the Region, USGS-OFR-87-408, Open-File Report, U.S. Geological Survey.

Romney, C., 1957. "Seismic Waves from the Dixie Valley-Fairview Peak Earthquakes," Bulletin of the Seismological Society of America Bulletin, Vol. 47, pp. 301-319.

Ron, H., R. Freund, and Z. Garfunkel, 1984. "Block Rotation by Strike-Slip Faulting: Structural and Paleomagnetic Evidence," Journal of Geophysical Research, Vol. 89, No. B7, pp. 6256-6270.

Ron, H., A. Aydin, and A. Nur, 1986. "The Role of Strike-Slip Faulting in the Deformation of Basin and Range Provinces", EOS, Vol. 67, No. 16, p. 358.

Roquemore, G. R., and J. T. Zellmer, 1986. "Neotectonic Development of the Coso Range, California [abs.]," Geological Society of America, Abstracts with Programs, Vol. 18, No. 2, p. 178.

Rosenbaum, J. G., and D. B. Snyder, 1985. Preliminary Interpretation of Paleomagnetic and Magnetic Property Data from Drill Holes USW G-1, G-2, GU-3, G-3, and VH-1 and Surface Localities in the Vicinity of Yucca Mountain, Nye County, Nevada, USGS-OFR-85-49, Open-File Report, U.S. Geological Survey.

Rosholt, J. N., Prijana, and D. C. Noble, 1971. "Mobility of Uranium and Thorium in Glassy and Crystallized Silicic Volcanic Rocks," Economic Geology, Vol. 66, pp. 1061-1069.

Rosholt, J. N., C. A. Bush, W. J. Carr, D. L. Hoover, W C Swadley, and J. R. Dooley, Jr., 1985. Uranium-Trend Dating of Quaternary Deposits in the Nevada Test Site Area, Nevada and California, USGS-OFR-85-540, Open-File Report, U.S. Geological Survey.

Ross, R. J., Jr., and C. R. Longwell, 1964. "Paleotectonic Significance of Ordovician Sections South of the Las Vegas Shear Zone," Middle and Lower Ordovician Formations in Southernmost Nevada and Adjacent California, R. J. Ross, Jr. (ed.), U.S. Geological Survey Bulletin 1180-C, pp. C88-C95.

Roy, R. F., D. D. Blackwell, and F. Birch, 1968. "Heat Generation of Plutonic Rocks and Continental Heat-Flow Provinces," Earth and Planetary Science Letters, Vol. 5, North-Holland Publishing Co., Amsterdam, pp. 1-12.

Roy, R. F., D. D. Blackwell, and E. R. Decker, 1972. "Continental Heat Flow," The Nature of the Solid Earth, E. C. Robertson (ed.), McGraw-Hill Book Co., New York, pp. 506-543.

Rush, F. E., W. Thordarson, and L. Bruckheimer, 1983. Geohydrologic and Drill-Hole Data for Test Well USW H-1, Adjacent to Nevada Test Site, Nye County, Nevada, USGS-OFR-83-141, Open-File Report, U.S. Geological Survey.

Rush, F. E., W. Thordarson, and D. G. Pyles, 1984. Geohydrology of Test Well USW H-1, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4032, Water-Resources Investigations Report, U.S. Geological Survey.

Ryall, A., and K. Priestly, 1975. "Seismicity, Secular Strain, and Maximum Magnitude in the Excelsior Mountains Area, Western Nevada and Eastern California," Geological Society of America Bulletin, Vol. 86, pp. 1585-1592.

Rytuba, J. J. and W. K. Conrad, 1981. "Petrochemical Characteristics of Volcanic Rocks Associated with Uranium Deposits in the McDermitt Caldera Complex," Uranium in Volcanic and Volcanoclastic Rocks, P. C. Goodell and A. C. Waters (eds.), Vol. 13, American Association of Petroleum Geologists Studies in Geology, pp. 63-72.

Rytuba, J. J., and E. H. McKee, 1984. "Peralkaline Ash Flow Tuffs and Calderas of the McDermitt Volcanic Field, Southeast Oregon and North Central Nevada," Journal of Geophysical Research, Vol. 89, No. B10, pp. 8616-8628.

Rytuba, J. J., R. K. Glanzman, and W. K. Conrad, 1979. "Uranium, Thorium and Mercury Distribution through the Evolution of the McDermitt Caldera Complex," Basin and Range Symposium and Great Basin Field Conference, G. W. Newman and H. D. Goode (eds.), Rocky Mountain Association of Geologists and Utah Geological Association, pp. 405-412.

SAIC (Science Application International Corporation), 1985. Tectonic Stability and Expected Ground Motion at Yucca Mountain, Report of a Workshop at SAIC - La Jolla August 7-8, 1984 and January 25-26, 1985, DOE/NV/10270-2 (Rev. 1), National Technical Information Service, U.S. Department of Commerce, Springfield, Va., pp. 3-5.

Sainsbury, C. L., and F. J. Kleinkampl, 1969. Fluorite Deposits of the Quinn Canyon Range, Nevada, Geological Survey Bulletin 1272-C, U.S. Government Printing Office, Washington, D.C.

Sammel, E. A., 1979. "Occurrence of Low-Temperature Geothermal Waters in the United States," Assessment of Geothermal Resources in the United States--1978, L. J. P. Muffler (ed.), Geological Survey Circular 790, U.S. Geological Survey, pp. 86-131.

Sandberg, C. A., 1983. "Petroleum Potential of Wilderness Lands in Nevada," Petroleum Potential of Wilderness Lands in the United States, U.S. Geological Survey Circular 902-H, U.S. Geological Survey, pp. H1-H11.

Sandberg, C. A., and R. C. Gutschick, 1984. "Distribution, Microfauna, and Source-Rock Potential of Mississippian Delle Phosphatic Member of Woodman Formation and Equivilents, Utah and Adjacent States," Hydrocarbon Source Rocks of the Greater Rocky Mountain Region, J. Woodward, F. F. Meissner, and J. L. Clayton (eds.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 135-178.

Sander, M. V., and M. T. Einaudi, 1987. "The Round Mountain Gold-Silver Mine, Nye County, Nevada," Bulk Mineable Precious Metal Deposits of the Western United States, April 6-8, 1987, J. L. Johnson (ed.), Geological Society of Nevada 1987 Symposium, Guidebook for Field Trips, Reno, Nev., pp. 130-135.

Sass, J. H., and A. H. Lachenbruch, 1982. Preliminary Interpretation of Thermal Data from the Nevada Test Site, USGS-OFR-82-973, Open-File Report, U.S. Geological Survey.

Sass, J. H., A. H. Lachenbruch, R. J. Munroe, G. W. Greene, and T. H. Moses, Jr., 1971. "Heat Flow in the Western United States," Journal of Geophysical Research, Vol. 76, No. 26, pp. 6376-6413.

Sass, J. H., W. H. Diment, A. H. Lachenbruch, B. V. Marshall, R. J. Monroe, T. H. Moses, Jr., and T. C. Urban, 1976. A New Heat-Flow Contour Map of the Conterminous United States, USGS-OFR-76-756, Open-File Report, U.S. Geological Survey.

Sass, J. H., A. H. Lachenbruch, and C. W. Mase, 1980. Analysis of Thermal Data from Drill Holes UE24a-3 and UE25a-1, Calico Hills and Yucca Mountain, Nevada Test Site, USGS-OFR-80-826, Open-File Report, U.S. Geological Survey.

Sass, J. H., D. D. Blackwell, D. S. Chapman, J. K. Costain, E. R. Decker, L. A. Lawver, and C. A. Swanberg, 1981. "Heat Flow from the Crust of the United States," Physical Properties of Rocks and Minerals, Y. S. Touloukin, W. R. Judd, and R. F. Roy (eds.), Vol. II, Chapter 13, McGraw-Hill, New York, pp. 503-540.

Sass, J., A. Lachenbruch, F. Grubb, and T. Moses, 1983. Status of Thermal Observations at Yucca Mountain, Nevada, USGS Letter Report, 10 p.

Savage, J. C., and M. Lisowski, 1984. "Deformation in the White Mountain Seismic Gap, California-Nevada, 1972-1982," Journal of Geophysical Research, Vol. 89, No. B9, pp. 7671-7687.

Savage, J. C., W. T. Kinoshita, and W. H. Prescott, 1974. "Geodetic Determination of Strain at the Nevada Test Site Following the Handley Event," Bulletin of the Seismological Society of America, Vol. 64, No. 1, pp. 115-129.

Savage, J. C., M. Liskowski, and W. H. Prescott, 1985. "Strain Accumulation in the Rocky Mountain States," Journal of Geophysical Research, Vol. 90, No. B12, pp. 10,310-10,320.

Sawkins, F. J., 1966. "Ore Genesis in the North Pennine Orefield, in the Light of Fluid Inclusion Studies," Economic Geology, Vol. 61, pp. 385-401.

Sawkins, F. J., 1984. Metal Deposits in Relation to Plate Tectonics, Springer-Verlag, Berlin, Germany, pp. 38-55 & 270-274

Schafer, R. W., and P. G. Vikre, 1988. "Introduction: Bulk-Mineable Precious-Metal Deposits: Nevada's Contribution to U.S. Gold Production," in Bulk-Mineable Precious-Metal Deposits of the Western United States, Symposium Proceedings, R. W. Schafer, J. J. Cooper, and P. G. Vikre (eds.), The Geological Society of Nevada, Reno, pp. 1-9.

Schilling, J., 1987. "Minerals," The Nevada Mineral Industry 1986, Nevada Bureau of Mines & Geology Special Publication MI-1986, University of Nevada, Reno, pp. 3-14.

Schnabel, P. B., and H. B. Seed, 1973. "Accelerations in Rock for Earthquakes in the Western United States," Bulletin of the Seismological Society of America, Vol. 63, No. 2, pp. 501-516.

Schrader, E., 1977. "Relationships Between Uranium and Trace Metal Concentrations in Volcanic Rocks from Nevada," Economic Geology, Vol. 72, No. 1, pp. 104-107.

Schuraytz, B. C., T. A. Vogel, and L. W. Younker, 1986. Geochemical Gradients in the Topopah Spring Member of the Paintbrush Tuff: Evidence for Eruption across a Magmatic Interface, UCRL-53698, Lawrence Livermore National Laboratory, Livermore, Calif.

Schweig, E. S., III, 1986. "The Inception of Basin and Range Tectonics in the Region Between Death Valley and the Sierra Nevada, California [abs.]," Geological Society of America, Abstracts with Programs, Vol. 18, No. 2, pp. 181-182.

Scott, C., and A. K. Chamberlain, 1987. "Blackburn Field, Nevada: A Case History," Oil and Gas Journal, August 17, 1987, 4 p.

Scott, R. B., 1984. "Internal Deformation of Blocks Bounded by Basin-and-Range Style Faults," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, p. 649.

Scott, R. B., 1986. "Extensional Tectonics at Yucca Mountian, Southern Nevada," Geological Society of America, Abstracts with Programs, 1986, Rocky Mountain Section, Flagstaff, Ariz., April 30-May 2, 1986, Vol. 18, No. 5, p. 411.

Scott, R. B., and J. Bonk, 1984. Preliminary Geologic Map of Yucca Mountain, Nye County, Nevada, with Geologic Sections, USGS-OFR-84-494, Open-File Report, U.S. Geological Survey.

Scott, R. B. and M. Castellanos, 1984. Stratigraphic and Structural Relations of Volcanic Rocks in Drill Holes USW GU-3 and USW G-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-491, Open-File Report, U.S. Geological Survey.

Scott, R. B., and J. G. Rosenbaum, 1986. "Evidence of Rotation About a Vertical Axis during Extension at Yucca Mountain, Southern Nevada," Transactions, American Geophysical Union, EOS, Vol. 67, No. 16, p. 358.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Scott, R. B., G. D. Bath, V. J. Flanigan, D. B. Hoover, J. G. Rosenbaum, and R. W. Spengler, 1984a. Geological and Geophysical Evidence of Structures in Northwest-Trending Washes, Yucca Mountain, Southern Nevada, and Their Possible Significance to a Nuclear Waste Repository in the Unsaturated Zone, USGS-OFR-84-567, Open-File Report, U.S. Geological Survey.

Scott, R. B., F. M. Byers, and R. G. Warren, 1984b. "Evolution of Magma below Clustered Calderas, Southwestern Nevada Volcanic Field," Transactions, American Geophysical Union, EOS, Vol. 65, No. 45, pp. 1126-1127.

Shawe, D. F., 1987. "Complex History of Precious-Metal Deposits, Southern Toquima Range, Nevada," A Symposium Bulk Mineable Precious Metal Deposits of the Western United States, April 6-8, 1987, Programs with Abstracts, Geological Society of Nevada, Reno, p. 47.

Shawe, D. R., F. G. Poole, and D. A. Brobst, 1969. "Newly Discovered Bedded Barite Deposits in East Northumberland Canyon, Nye County, Nevada," Economic Geology, Vol. 64, No. 3, pp. 245-254.

Shawe, D. R., R. F. Marvin, P. A. M. Andriessen, H. H. Mehnert, and V. M. Merritt, 1986. "Ages of Igneous and Hydrothermal Events in the Round Mountain and Manhattan Gold Districts, Nye County, Nevada," Economic Geology, Vol. 81, pp. 385-407.

Sheppard, R. A., 1975. "Zeolites in Sedimentary Rocks," Industrial Minerals and Rocks, S. J. Lefond (ed.), 4th Edition, American Institute of Mining, Metallurgical & Petroleum Engineers, Inc., New York, pp. 1257-1262.

Sherlock, M. G., and J. V. Tingley, 1985. Nevada Mineral-Resource Data: Information Available Through the U.S. Geological Survey Mineral Resource Data System, U.S. Geological Survey Circular 966, U.S. Geological Survey.

Silberman, M. L., 1985. "Geochronology of Hydrothermal Alteration and Mineralization: Tertiary Epithermal Precious-Metal Deposits in the Great Basin," Geologic Characteristics of Sediment- and Volcanic-Hosted Disseminated Gold Deposits--Search for and Occurrence Model, E. W. Tooker (ed.), U.S. Geological Survey Bulletin 1646, U.S. Government Printing Office, Washington, D.C., pp. 55-70.

Silberman, M. L., J. H. Stewart, and E. H. McKee, 1976. "Igneous Activity, Tectonics, and Hydrothermal Precious-Metal Mineralization in the Great Basin during Cenozoic Time," Society of Mining Engineers, Vol. 260, American Institute of Mining Engineers, pp. 253-263.

Sillitoe, R. H., 1977. "Metallic Mineralization Affiliated to Subaerial Volcanism--A Review," Volcanic Processes in Ore Genesis, Special Publication No. 7, The Institute of Mining & Metallurgy, and The Geological Society of London, pp. 99-116.

Singer, D. A., and D. L. Mosier, 1981. "A Review of Regional Mineral Resource Assessment Methods," Economic Geology, Vol. 76, pp. 1006-1015.

Sinnock, S., 1982. Geology of the Nevada Test Site and Nearby Areas, Southern Nevada, SAND82-2207, Sandia National Laboratories, Albuquerque, N. Mex.

Sinnock, S., and R. G. Easterling, 1983. Empirically Determined Uncertainty in Potassium-Argon Ages for Plio-Pleistocene Basalts from Crater Flat, Nye County, Nevada, SAND82-2441, Sandia National Laboratories, Albuquerque, N. Mex.

Sinnock, S., Y. T. Lin, and J. P. Brannen, 1984. Preliminary Bounds on the Expected Postclosure Performance of the Yucca Mountain Repository Site, Southern Nevada, SAND84-1492, Sandia National Laboratories, Albuquerque, N. Mex.

Slemmons, D. B., 1977. State-of-the-Art for Assessing Earthquake Hazards in the United States, Report 6, Faults and Earthquake Magnitude, Miscellaneous Paper S-73-1, Mackay School of Mines, University of Nevada, Reno, pp. 87-99.

Slemmons, D. B., and C. M. Depolo, 1986. "Evaluation of Active Faulting and Associated Hazards," Active Tectonics, National Academy Bress, Washington, D.C., pp. 45-62.

Slemmons, D. B., A. E. Jones, and J. I. Gimlett, 1965. "Catalog of Nevada Earthquakes, 1852-1960," Bulletin of the Seismological Society of America, Vol. 55, No. 2, pp. 519-566.

Smith, C., and H. P. Ross, 1982. Interpretation of Resistivity and Induced Polarization Profiles with Severe Topographic Effects, Yucca Mountain Area, Nevada Test Site, Nevada, USGS-OFR-82-182, Open-File Report, U.S. Geological Survey.

Smith, C., H. P. Ross, and R. Edquist, 1981. Interpreted Resistivity and IP Section Line W1, Wahmonie Area, Nevada Test Site, Nevada, USGS-OFR-81-1350, Open-File Report, U.S. Geological Survey.

Smith, G. I., 1962. "Large Lateral Displacement on Garlock Fault, California, as Measured from Offset Dike Swarm," Bulletin of the American Association of Petroleum Geologists, Vol. 46, No. 1, pp. 85-104.

Smith, G. I., and K. B. Ketner, 1970. "Lateral Displacement on the Garlock Fault, Southeastern California, Suggested by Offset Sections of Similar Metasedimentary Rocks," Geological Survey Research 1970, U.S. Geological Survey Professional Paper 700-D, U.S. Geological Survey, pp. D1-D9.

Smith, G. I., and F. A. Street-Perrott, 1983. "Pluvial Lakes of the Western United States," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, pp. 190-212.

Smith, H. T. U., 1967. Past Versus Present Wind Action in the Mojave Desert Region, California, AFCRL-67-0683, U.S. Air Force Cambridge Research Laboratories, Bedford, Mass. 26 p.

Smith, J. W., 1980. "Oil Shale Resources of the United States," Mineral and Energy Resources, A Review of Developments, Vol. 23, No. 6, Colorado School of Mines, Golden, Colo., pp. 1-20.

Smith, P., J. V. Tingley, J. L. Bentz, L. J. Garside, K. G. Papke, and J. Quade, 1983. A Mineral Inventory of the Esmeralda-Stateline Resource Area, Las Vegas District, Nevada, Nevada Bureau of Mines & Geology Open-File Report 83-11, University of Nevada, Reno.

Smith, R. B., 1978. "Seismicity, Crustal Structure, and Intraplate Tectonics of the Interior of the Western Cordillera," Cenozoic Tectonics and Regional Geophysics of the Western Cordillera, R. B. Smith and G. P. Eaton (eds.), Geological Society of America Memoir 152, pp. 111-144.

Smith, R. B., and R. L. Bruhn, 1984. "Intraplate Extensional Tectonics of the Eastern Basin-Range: Inferences on Structural Style from Seismic Reflection Data, Regional Tectonics, and Thermal-Mechanical Models of Brittle-Ductile Deformation," Journal of Geophysical Research, Vol. 89 No. B7, pp. 5733-5762.

Smith, R. L., 1960. Zones and Zonal Variations in Welded Ash Flows, Geological Survey Professional Paper 354, U.S. Geological Survey, pp. 149-159.

Smith, R. L., and R. G. Luedke, 1984. "Potentially Active Volcanic Lineaments and Loci in Western Conterminous United States," Explosive Volcanism: Inception, Evolution and Hazards, National Academy Press, Washington, D.C., pp. 47-66.

Smith, R. L., and H. R. Shaw, 1975. "Igneous-Related Geothermal Systems," Assessment of Geothermal Reseources of the United States--1975, D. E. White and D. L. Williams (eds.), Geological Survey Circular 726, U.S. Geological Survey, pp. 58-83.

Smith, R. L., and H. R. Shaw, 1979. "Igneous-Related Geothermal Systems," Assessment of Geothermal Resources of the United States--1978, L. J. P. Muffler (ed.), Geological Survey Circular 790, U.S. Geological Survey, pp. 12-17.

Smith, R. S. U., 1979. "Holocene Offset and Seismicity along the Panamint Valley Fault Zone, Western Basin-and-Range Province, California," Tectonophysics, Vol. 52, Elsevier Scientific Publishing Co., Amsterdam, pp. 411-415.

Smith, R. S. U., 1982. "Sand Dunes in North American Deserts," Reference Handbook on the Deserts of North America, G. L. Bender (ed.), Greenwood Press, Westport, Conn., pp. 481-526.

Smith, S. W., and R. Kind, 1972a. "Observations of Regional Strain Variations," Journal of Geophysical Research, Vol. 77, No. 26, pp. 4976-4980.

Smith, S. W., and R. Kind, 1972b. "Regional Secular Strain Fields in Southern Nevada," Tectonophysics, Vol. 14, Elsevier Publishing Co., Amsterdam, pp. 57-69.

Snyder, D. B., and W. J. Carr, 1982. Preliminary Results of Gravity Investigations at Yucca Mountain and Vicinity, Southern Nye County, Nevada, USGS-OFR-82-701, Open-File Report, U.S. Geological Survey.

Snyder, D. B., and W. J. Carr, 1984. "Interpretation of Gravity Data in a Complex Volcano-Tectonic Setting, Southwestern Nevada," Journal of Geophysical Research, Vol. 89, No. B12, pp. 10,193-10,206.

Snyder, D. B., and H. W. Oliver, 1981. Preliminary Results of Gravity Investigations of the Calico Hills, Nevada Test Site, Nye County, Nevada, USGS-OFR-81-101, Open-File Report, U.S. Geological Survey.

Sorey, M. L., M. Nathenson, and C. Smith, 1983. Methods for Assessing Low-Temperature Geothermal Resources, Assessment of Low-Temperature Geothermal Resources of the United States-1982, M. J. Reed (ed.), Geological Survey Circular 892, U.S. Department of the Interior, pp. 17-30.

Spaulding, W. G., 1985. Vegetation and Climates of the Last 45,000 Years in the Nevada Test Site and Vicinity, U.S. Geological Survey Professional Paper 1329, U.S. Government Printing Office, Washington, D.C.

Spaulding, W. G., E. B. Leopold, and T. R. Van Devender, 1983. "The Late Wisconsin Paleoecology of the American Southwest," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, pp. 259-293.

Speed, R. C., 1977. "Island-Arc and Other Paleogeographic Terranes of Late Paleozoic Age in the Western Great Basin," Paleozoic Paleogeography of the Western United States, Pacific Coast Paleogeography Symposium 1, J. H. Stewart, C. Stevens, and A. Fritsche (eds.), Society of Economic Paleontologists & Mineralogists, Pacific Section, Pacific Coast Paleogeography Symposium 1, pp. 349-362.

Speed, R. C., 1978. "Paleogeographic and Plate Tectonic Evolution of the Early Mesozoic Marine Province of the Western Great Basin," Mesozoic Paleogeography of the Western United States, D. G. Howell and K. A. McDougall (eds.), Society of Economic Paleontologists & Mineralogists, Pacific Section, Pacific Coast Paleogeography Symposium 2, pp. 253-270.

Spengler, R. W., 1986. Letter from R. W. Spengler (USGS) to S. R. Mattson (SAIC), November 3, 1986; regarding USGS laboratory report (job no. QU02).

Spengler, R. W., and M. P. Chornack, 1984. Stratigraphic and Structural Characteristics of Volcanic Rocks in Core Hole USW G-4, Yucca Mountain, Nye County, Nevada, with a section on geophysical logs by D. C. Muller and J. E. Kibler, USGS-OFR-84-789, Open-File Report, U.S. Geological Survey.

Spengler, R. W., and J. G. Rosenbaum, 1980. Preliminary Interpretations of Geologic Results Obtained from Boreholes UE25a-4, -5, -6, and -7, Yucca Mountain, Nevada Test Site, USGS-OFR-80-929, Open-File Report, U.S. Geological Survey.

Spengler, R. W., D. C. Muller, and R. B. Livermore, 1979. Preliminary Report on the Geology and Geophysics of Drill Hole UE25a-1, Yucca Mountain, Nevada Test Site, USGS-OFR-79-1244, Open-File Report, U.S. Geological Survey.

Spengler, R. W., F. M. Byers, Jr., and J. B. Warner, 1981. Stratigraphy and Structure of Volcanic Rocks in Drill Hole USW G-1, Yucca Mountain, Nye County, Nevada, USGS-OFR-81-1349, Open-File Report, U.S. Geological Survey.

Stanton, R. L., 1972. Ore Petrology, McGraw-Hill Book Co., New York, pp. 305-351, 522.

Stein, R. S., and S. E. Barrientos, 1985. "Planar High-Angle Faulting in the Basin and Range: Geodetic Analysis of the 1983 Borah Peak, Idaho, Earthquake," Journal of Geophysical Research, Vol. 90, No. B13, pp. 11,355-11,366.

Stewart, J. H., 1967. "Possible Large Right-Lateral Displacement along Fault and Shear Zones in the Death Valley-Las Vegas Area, California and Nevada," Geological Society of America Bulletin, Vol. 78, pp. 131-142.

Stewart, J. H., 1971. "Basin and Range Structure--A System of Horsts and Grabens Produced by Deep-Seated Extension," Geological Society of America Bulletin, Vol. 82, pp. 1019-1044.

Stewart, J. H., 1972. "Initial Deposits in the Cordilleran Geosyncline: Evidence of a Late Precambrian (<850 m.y.) Continental Separation," Geological Society of America Bulletin, Vol. 83, pp. 1345-1360.

Stewart, J. H., 1978. "Basin-Range Structure in Western North America: A Review," Cenozoic Tectonics and Regional Geophysics of the Western Cordillera, R. B. Smith and G. P. Eaton (eds.), Geological Society of America Memoir 152, pp. 1-31.

Stewart, J. H., 1980a. Geology of Nevada, A Discussion to Accompany the Geologic Map of Nevada, Nevada Bureau of Mines & Geology Special Publication No. 4, University of Nevada, Reno.

Stewart, J. H., 1980b. "Regional Tilt Patterns of Late Cenozoic Basin-Range Fault Blocks, Western United States," Geological Society of America Bulletin, Part I, Vol. 91, No. 8, pp. 460-464.

Stewart, J. H., 1983. "Extensional Tectonics in the Death Valley Area, California: Transport of the Panamint Range Structural Block 80 km Northwestward," Geology, Vol. 11, No. 3, pp. 153-157.

Stewart, J. H., 1985. "East-Trending Dextral Faults in the Western Great Basin: An Explanation for Anomalous Trends of Pre-Cenozoic Strata and Cenozoic Faults", Tectonics, Vol. 4, No. 6, pp. 547-564.

Stewart, J. H., 1986. "Tectonics of the Walker Lane Belt, Western Great Basin--Mesozoic and Cenozoic Deformation in a Zone of Shear," Metamorphism and Crustal Evolution of the Western United States, Vol. VII, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Stewart, J. H., and J. E. Carlson, 1976. Cenozoic Rocks of Nevada--Four Maps and Brief Description of Distribution, Lithology, Age, and Centers of Volcanism, Nevada Bureau of Mines & Geology Map 52, Scale 1:1,000,000, University of Nevada, Reno.

Stewart, J. H., and J. E. Carlson, 1978. Geologic Map of Nevada, MF-930, Scale 1:500,000, U.S. Geological Survey.

Stewart, J. H., and F. G. Poole, 1974. "Lower Paleozoic and Uppermost Precambrian Cordilleran Miogeocline, Great Basin, Western United States," Tectonics and Sedimentation, W. R. Dickinson (ed.), Society of Economic Paleontologists & Mineralogists Special Publication 22, pp. 28-57.

Stewart, J. H., J. P. Albers, and F. G. Poole, 1968. "Summary of Regional Evidence for Right-Lateral Displacement in the Western Great Basin," Geological Society of America Bulletin, Vol. 79, No. 10, pp. 1407-1414.

Stewart, J. H., W. J. Moore, and I. Zietz, 1977. "East-West Patterns of Cenozoic Igneous Rocks, Aeromagnetic Anomalies, and Mineral Deposits, Nevada and Utah," Geological Society of America Bulletin, Vol. 88, pp. 67-77.

Stock, J. M., J. H. Healy, S. H. Hickman, and M. D. Zoback, 1985. "Hydraulic Fracturing Stress Measurements at Yucca Mountain, Nevada, and Relationship to the Regional Stress Field," Journal of Geophysical Research, Vol. 90, No. B10, pp. 8691-8706.

Stuckless, J. S., 1986. Letter from J. S. Stuckless (USGS) to M. Blanchard (DOE/NVO), September 23, 1986; regarding study plan for investigating the calcite-silica deposits.

Surdam, R. C., 1977. "Zeolites in Closed Hydrologic Systems," Mineralogy and Geology of Natural Zeolites, Mineralogical Society of America Short Course Notes, Vol. 4, pp. 65-91.

Surdam, R. C., 1979. "Zeolite Deposits in the Basin and Range Province," Basin and Range Symposium and Great Basin Field Conference, G. W. Newman and H. D. Goode (eds.), Rocky Mountain Association of Geologists and Utah Geological Association, pp. 431-436.

Swadley, W C, 1983. "Map Showing Surficial Geology of the Lathrop Wells Quadrangle, Nye County, Nevada," U.S. Geological Survey Miscellaneous Investigations Series Map I-1361, Scale 1:48,000, U.S. Geological Survey.

Swadley, W C, and D. L. Hoover, 1983. Geology of Faults Exposed in Trenches in Crater Flat, Nye County, Nevada, USGS-OFR-83-608, Open-File Report, U.S. Geological Survey.

Swadley, W C, D. L. Hoover, and J. N. Rosholt, 1984. Preliminary Report on Late Cenozoic Faulting and Stratigraphy in the Vicinity of Yucca Mountain, Nye County, Nevada, USGS-OFR-84-788, Open-File Report, U.S. Geological Survey.

Swanberg, C. A., and P. Morgan, 1978. "The Linear Relation Between Temperatures Based on the Silica Content of Groundwater and Regional Heat Flow: A New Heat Flow Map of the United States," Pageoph (Pure and Applied Geophysics), Vol. 117, pp. 227-241.

Swanberg, C. A., and P. Morgan, 1981. "Heat Flow Map of the United States Based on Silica Geothermometry," Physical Properties of Rocks and Minerals, Y. S. Toulokin, W. R. Judd, and R. F. Roy (eds.), Vol. II, Chapter 13, McGraw-Hill, New York, pp. 540-544.

Sykes, M. L., G. H. Heiken, and J. R. Smyth, 1979. Mineralogy and Petrology of Tuff Units from the UE25a-1 Drill Site, Yucca Mountain, Nevada, LA-8139-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Szabo, B. J., 1984. "Uranium-Series Dating of Fault-Related Fracture- and Cavity-Filling Calcite and Opal in Drill Cores from Yucca Mountain, Southern Nevada," Geological Society of America, Abstracts with Programs, Annual Meeting, Reno, Nev., November 5-8, 1984, Vol. 16, No. 6, pp. 672-673.

Szabo, B. J., and T. K. Kyser, 1985. Uranium, Thorium Isotopic Analyses and Uranium-Series Ages of Calcite and Opal, and Stable Isotopic Compositions of Calcite from Drill Cores UE25a#1, USW G-2, and USW G-3/GU-3, Yucca Mountain, Nevada, USGS-OFR-85-224, Open-File Report, U.S. Geological Survey.

Szabo, B. J., and P. A. O'Malley, 1985. Uranium-Series Dating of Secondary Carbonate and Silica Precipitates Relating to Fault Movements in the Nevada Test Site Region and of Caliche and Travertine Samples from the Amargosa Desert, USGS-OFR-85-47, Open-File Report, U.S. Geological Survey.

Szabo, B. J., W. J. Carr, and W. C. Gottschall, 1981. Uranium-Thorium Dating of Quaternary Carbonate Accumulations in the Nevada Test Site Region, Southern Nevada, USGS-OFR-81-119, Open-File Report, U.S. Geological Survey.

Taylor, E. M., 1986. Impact of Time and Climate on Quaternary Soils in the Yucca Mountain Area of the Nevada Test Site, unpublished M.S. thesis, University of Colorado, Boulder.

Taylor, E. M., and H. E. Huckins, 1986. "Carbonate and Opaline Silica Fault-Filling on the Bow Ridge Fault, Yucca Mountain, Nevada--Deposition from Pedogenic Processes or Upwelling Ground Water?," Geological Society of America, Abstracts with Programs, Vol. 18, No. 5, p. 418.

Taylor, E. M., and R. R. Shroba, 1986. "Morphology of Secondary Carbonate and Opaline Silica in Soils of Different Ages at the Nevada Test Site, Nye County, Nevada," Geological Society of America, Abstracts with Programs, Vol. 18, No. 6, p. 769.

Taylor, R. B., and T. A. Steven, 1983. "Definition of Mineral Resource Potential," Economic Geology, Vol. 78, pp. 1268-1270.

Tendall, D. M., 1971. Epicenter Location of NTS Earthquake on August 5, 1971, Technical Memorandum SC-TM-710593, Sandia National Laboratories, Albuquerque, N. Mex., 18 p.

Theobald, P. K., 1987. "Exploration in Desert Environments," Geoexpo/86; Exploration in the North American Cordillera, May 12-14, 1986, Vancouver, British Columbia, I. L. Elliot and B. W. Smee (eds.), The Association of Exploration Geochemists, pp. 213-214.

Thompson, G. A., 1985. "Perspective from the Fairview Peak-Dixie Valley Earthquakes of 1954," in Proceedings of Workshop XXVIII on the Borah Peak, Idaho, Earthquake, Vol. A, R. S. Stein and R. C. Bucknam (eds.), USGS-OFR-85-290-A, Open-File Report, U.S. Geological Survey, pp. 27-42.

Thomson, I., 1986. "Getting It Right," Exploration Geochemistry: Design and Interpretation of Soil Surveys, J. M. Robertson (ed.), Vol. 3, Society of Economic Geologists, pp. 1-18.

Thordarson, W., 1983. Geohydrologic Data and Test Results from Well J-13, Nevada Test Site, Nye County, Nevada, USGS-WRI-83-4171, Water-Resources Investigations Report, U.S. Geological Survey.

Thordarson, W., and B. P. Robinson, 1971. Wells and Springs in California and Nevada within 100 Miles of the Point 37 deg. 15 min. N., 116 deg., 25 min. W., on Nevada Test Site, USGS-474-85, U.S. Geological Survey.

Thordarson, W., F. E. Rush, R. W. Spengler, and S. J. Waddell, 1984. Geohydrologic and Drill-Hole Data for Test Well USW H-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-149, Open-File Report, U.S. Geological Survey, 28 p.

Tingley, J. V., 1984. Trace Element Associations in Mineral Deposits, Bare Mountain (Fluorine) Mining District, Southern Nye County, Nevada, Nevada Bureau of Mines & Geology Report 39, University of Nevada, Reno.

Tingley, J. V., and B. R. Berger, 1985. Lode Gold Deposits of Round Mountain, Nevada, Nevada Bureau of Mines & Geology Bulletin 100, University of Nevada, Reno, 62 p.

Tooker, E. W. (ed.), 1985. Geologic Characteristics of Sediment- and Volcanic-Hosted Disseminated Gold Deposits--Search for an Occurrence Model, U.S. Geological Survey Bulletin 1646, U.S. Government Printing Office, Washington, D.C.

Trask, N. J., 1982. Performance Assessments for Radioactive Waste Repositories: The Rate of Movement of Faults, USGS-OFR-82-972, Open-File Report, U.S. Geological Survey.

Travis, B. J., S. W. Hodson, H. E. Nuttall, T. L. Cook, and R. S. Rundberg, 1984. Preliminary Estimates of Water Flow and Radionuclide Transport in Yucca Mountain, LA-UR-84-40 (Rev.), Los Alamos National Laboratory, Los Alamos, N. Mex.

Trexler, D. T., T. Flynn, and B. A. Koenig, 1979. Assessment of Low-to-Moderate Temperature Geothermal Resources of Nevada, Final Report for the Period April 1978-June 1979, NVO/01556-1, Nevada Bureau of Mines & Geology, University of Nevada, Reno.

Turrin, B. D., and J. C. Dohrenwend, 1984. "K-Ar Ages of Basaltic Volcanism in the Lunar Crater Volcanic Field, Northern Nye County, Nevada: Implications for Quaternary Tectonism in the Central Great Basin [abs.]," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, p. 679.

URS/John A. Blume & Associates, 1986. Ground Motion Evaluations at Yucca Mountain, Nevada with Applications to Repository Conceptual Design and Siting, SAND85-7104, Sandia National Laboratories, Albuquerque, N. Mex.

USBM (U.S. Bureau of Mines), 1985. Mineral Facts and Problems, 1985 Edition, Bureau of Mines Bulletin 675, U.S. Government Printing Office, Washington, D.C.

USBM/USGS (U.S. Bureau of Mines/U.S. Geological Survey), 1980. Principles of a Resource/Reserve Classification for Minerals, Geological Survey Circular 831, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1952a. Big Dune Quadrangle, Nevada-California, U.S. Geological Survey 15 Minute Series (Topographic), Scale 1:62,500, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1952b. Topopah Spring Quadrangle Map, Nevada-Nye County, U.S. Geological Survey 15 Minute Series (Topographic), Scale 1:62,500, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1954. Bare Mountain Quadrangle, Nevada, U.S. Geological Survey 15 Minute Series (Topographic), 1:62,500, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1961a. Lathrop Wells Quadrangle, Nevada-Nye County, U.S. Geological Survey 7.5 Minute Series (Topographic), Scale 1:24,000, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1961b. Lathrop Wells Quadrangle, Nevada-Nye County, Nevada, U.S. Geological Survey 15 Minute Series (Topographic), Scale 1:62,500, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1961c. Topopah Spring Quadrangle, Nevada-Nye County, U.S. Geologic Survey 7.5 Minute Series (Topographic), Scale 1:24,000, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1983. Busted Butte Quadrangle, Nevada-Nye County, U.S. Geological Survey 7.5 Minute Series (Topographic), Scale 1:24,000, U.S. Geological Survey.

USGS (U.S. Geological Survey) (comp.), 1984. A Summary of Geologic Studies through January 1, 1983, of a Potential High-Level Radioactive Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-84-792, Open-File Report, U.S. Geological Survey.

USGS/NBM (U.S. Geological Survey/Nevada Bureau of Mines), 1964. Mineral and Water Resources of Nevada, Nevada Bureau of Mines Bulletin 65, University of Nevada, Reno.

Van Alstine, R. E., 1976. "Continental Rifts and Lineaments Associated with Major Fluorspar Districts," Economic Geology, Vol. 71, No. 6, pp. 977-987.

Vaniman, D., and B. Crowe, 1981. Geology and Petrology of the Basalts of Crater Flat: Applications to Volcanic Risk Assessment for the Nevada Nuclear Waste Storage Investigations, LA-8845-MS, Los Alamos National Laboratory, Los Alamos, N. Mex., 67 p.

Vaniman, D. T., B. M. Crowe, and E. S. Gladney, 1982. "Petrology and Geochemistry of Hawaiite Lavas from Crater Flat, Nevada," Contributions to Mineralogy and Petrology, Vol. 80, Springer-Verlag, pp. 341-357.

Vaniman, D. T., D. Bish, D. Broxton, F. Byers, G. Heiken, B. Carlos, E. Semarge, F. Caporuscio, and R. Gooley, 1984a. Variations in Authigenic Mineralogy and Sorptive Zeolite Abundance at Yucca Mountain, Nevada, Based on Studies of Drill Cores USW GU-3 and G-3, LA-9707-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Vaniman, D., D. Bish, and S. Levy, 1984b. Progress Report: Studies on the Origin of Soil and Fault-Related Mineralogy in the Vicinity of Yucca Mountain, TWS-ESS-1-11/84-22. Los Alamos National Laboratory, Los Alamos, N. Mex.

Vaniman et al, 1988.

Veal, H. K., H. D. Duey, L. C. Bortz, and N. H. Foster, 1988a. "Grant Canyon and Bacon Flat Oil Fields, Railroad Valley, Nye County, Nevada," Oil and Gas Journal, Vol. 86, No. 13, pp. 67-70.

Veal, H. K., H. D. Duey, L. C. Bortz, and N. H. Foster, 1988b. "Basin and Range May Hold More Big Fields," Oil and Gas Journal, Vol. 86, No. 13, pp. 56-59.

Vetter, U. R., and A. S. Ryall, 1983. "Systematic Change of Focal Mechanism with Depth in the Western Great Basin," Journal of Geophysical Research, Vol. 88, No. B10, pp. 8237-8250.

Voegele, M. D., 1986a. Letter from M. D. Voegele (SAIC) to M. B. Blanchard (DOE/NVO), L86-TPD-SM-81; regarding final summary of workshop on calcite-silica deposits near Yucca Mountain held on February 28, 1986.

Voegele, M. D., 1986b. Letter from M. D. Voegele (SAIC) to M. B. Blanchard (DOE/NVO), L86-TPO-SRM-93; regarding summary of workshop on calcite-silica deposits near Yucca Mountain held on April 28, 1986.

von Hake, C. A, and W. K. Cloud, 1968. United States Earthquakes - 1966, COM 74 10712; NOAA-74030414, Environmental Science Services Administration, Coast & Geodetic Survey, National Earthquake Information Center, Washington, D.C., 110 p.

Vortman, L. J., 1979. Prediction of Ground Motion from Nuclear Weapons Tests at NTS, SAND79-1002, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., 1980. Prediction of Ground Motion from Underground Nuclear Weapons Tests as It Relates to Siting of a Nuclear Waste Storage Facility at NTS and Compatibility with the Weapons Test Program, SAND80-1020/1, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., 1982. Ground Motion from Earthquakes and Underground Nuclear Weapons Tests: A Comparison as It Relates to Siting a Nuclear Waste Storage Facility at NTS, SAND81-2214, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., 1986. Ground Motion Produced at Yucca Mountain from Pahute Mesa Underground Nuclear Explosions, SAND85-1605, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., and J. W. Long, 1982a. Effects of Repository Depth on Ground Motion-The Pahute Mesa Data, SAND82-0174, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., and J. W. Long, 1982b. Effects of Ground Motion on Repository Depth, The Yucca Flat Data, SAND82-1647, Sandia National Laboratories, Albuquerque, N. Mex.

Walker, G. P. L., 1973. "Lengths of Lava Flows," Philosophical Transactions of the Royal Society of London, Series A, Vol. 274, Royal Society, London, pp. 107-118.

Wallace, R. E., 1979. "Earthquakes and the Prefractured State of the Western Part of the North American Continent," in Proceedings of the International Research Conference on Intra-Continental Earthquakes, September 17-21, 1979, Ohrid, Yugoslavia, pp. 69-81.

Wallace, R. E., 1981. "Active Faults, Paleoseismology and Earthquake Hazards in the Western United States," Earthquake Prediction--An International Review, D. W. Simpson and P. G. Richards (eds.), America Geophysical Union, Maurice Ewing Series 4, Washington, D.C., pp. 209-216.

Wallace, R. E., 1984. "Patterns and Timing of Late Quaternary Faulting in the Great Basin Province and Relation to Some Regional Tectonic Features," Journal of Geophysical Research, Vol. 89, No. B7, pp. 5763-5769.

Wallace, R. E., 1985. "Variations in Slip Rates, Migration, and Grouping of Slip Events on Faults in the Great Basin Province," in Proceedings of Workshop XXVIII on the Borah Peak, Idaho, Earthquake, R. S. Stein and R. C. Bucknam (eds.), USGS-OFR-85-290-A, Open-File Report, U.S. Geological Survey, pp. 17-26.

Wallace, T. C., D. V. Helmberger, and G. R. Engen, 1983. "Evidence for Tectonic Release from Underground Nuclear Explosions in Long-Period P Waves," Bulletin of the Seismological Society of America, Vol. 73, No. 2, pp. 593-613.

Wallace, T. C., D. V. Helmberger, and G. R. Engen, 1985. "Evidence of Tectonic Release from Underground Nuclear Explosions in Long-Period S Waves," Bulletin of the Seismological Society of America, Vol. 75, No. 1, pp. 157-174.

Walter, A. W., and C. S. Weaver, 1980. "Seismicity of the Coso Range, California," Journal of Geophysical Research, Vol. 85, No. B5, pp. 2441-2458.

Waples, D. W., 1984. "Modern Approaches in Source-Rock Evaluation," Hydrocarbon Source Rocks of the Greater Rocky Mountain Region, J. Woodward, F. F. Meissner, and J. L. Clayton (eds.), Rocky Mountain Association of Geologists, Denver, Colo., pp. 35-49.

Warren, R. G., and F. M. Byers, Jr., 1986. Letter from R. G. Warren and F. M. Byers, Jr. (LLNL) to J. T. Neal (SNL), October 21, 1986; regarding post-Tpc stratigraphic sequence.

Warren, R. G., F. M. Byers, and F. A. Caporuscio, 1984. Petrography and Mineral Chemistry of Units of the Topopah Spring, Calico Hills and Crater Flat Tuffs, and Older Volcanic Units, with Emphasis on Samples from Drill Hole USW G-1, Yucca Mountain, Nevada Test Site, LA-10003-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wasserburg, G. J., G. W. Wetherill, and L. A. Wright, 1959. "Ages in the Precambrian Terrane of Death Valley, California," Journal of Geology, Vol. 67, pp. 702-708.

Waters, A. C., and P. R. Carroll (eds.) 1981. Preliminary Stratigraphic and Petrologic Characterization of Core Samples from USW-G1, Yucca Mountain, Nevada, LA-8840-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Weeks, E. P., and W. E. Wilson, 1984. Preliminary Evaluation of Hydrologic Properties of Cores of Unsaturated Tuff, Test Well USW H-1, Yucca Mountain, Nevada, USGS-WRI-84-4193, Water-Resources Investigations Report, U.S. Geological Survey.

Wells, S. G., J. C. Dohrenwend, L. D. McFadden, B. D. Turrin, and K. D. Mahrer, 1985a. "Late Cenozoic Landscape Evolution on Lava Flow Surfaces of the Cima Volcanic Field, Mojave Desert, California," Geological Society of America Bulletin, Vol. 96, No. 12, pp. 1518-1529.

Wells, S. G., L. D. McFadden, J. C. Dohrenwend, T. F. Bullard, B. F. Feilberg, R. L. Ford, J. P. Grimm, J. R. Miller, S. M. Orbock, and J. D. Pickle, 1985b. "Late Quaternary Geomorphic History of the Silver Lake Area, Eastern Mojave Desert, California: An Example of the Influence of Climatic Change on Desert Piedmonts," Quaternary Lakes of the Eastern Mojave Desert, California, Friends of the Pleistocene, Pacific Cell, 1985 Annual Meeting, Field Trip Guidebook, G. R. Hale (ed.), pp. 82-100.

Wells, S. G., L. D. McFadden, C. Renault, and B. M. Crowe, 1988. "A Geomorphic Assessment of Quaternary Volcanism in the Yucca Mountain Area, Nevada Test Site, Southern Nevada," Geological Society of America, Cordilleran Section, Vol. 20, No. 3 p. 242.

Wernicke, B., 1981. "Low-Angle Normal Faults in the Basin and Range Province: Nappe Tectonics in an Extending Orogen," Nature, Vol. 291, pp. 645-648.

Wernicke, B., and B. C. Burchfiel, 1982. "Modes of Extensional Tectonics," Journal of Structural Geology, Vol. 4, No. 2, pp. 105-115.

Wernicke, B., J. E. Spencer, B. C. Burchfiel, and P. L. Guth, 1982. "Magnitude of Crustal Extension in the Southern Great Basin," Geology, Vol. 10, pp. 499-502.

White, D. E., 1970. "Geochemistry Applied to the Discovery, Evaluation, and Exploitation of Geothermal Energy Resources," in Proceedings of the United Nations Symposium on the Development and Utilization of Geothermal Resources, Pisa, Italy, Septmber 22-October 1, 1970, Geothermics, Special Issue 2, E. Barbier (ed.), Vol. 1, pp. 58-80.

White, D. E., 1973. "Characteristics of Geothermal Resources," Geothermal Energy, Resources, Production, Stimulation, P. Kruger and C. Otte (eds.), Stanford University Press, Stanford, Calif.

White, D. E., 1985. "Vein and Disseminated Gold-Silver Deposits of the Great Basin through Space and Time," Geologic Characteristics of Sediment- and Volcanic-Hosted Disseminated Gold Deposits -- Search for an Occurrence Model, E. W. Tooker (ed.), U.S. Geological Survey Bulletin 1646, U.S. Government Printing Office, Washington, D.C., pp. 5-14.

White, D. E., L. J. P. Muffler, and A. H. Truesdell, 1971. "Vapor-Dominated Hydrothermal Systems Compared with Hot-Water Systems," Economic Geology, Vol. 66, pp. 75-97.

Whitfield, M. S., W. Thordarson, and E. P. Eshom, 1984. Geohydrologic and Drill-Hole Data for Test Well USW H-4, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-449, Open-File Report, U.S. Geological Survey.

Whitney, J. W., W C Swadley, and R. R. Shroba, 1985. "Middle Quaternary Sand Ramps in the Southern Great Basin, California and Nevada [abs.]," Geological Society of America, Abstracts with Programs, Vol. 17, No. 7, p. 750.

Whitney, J. W., R. R. Shroba, F. W. Simonds, and S. T. Harding, 1986. "Recurrent Quaternary Movement on the Windy Wash Fault, Nye County, Nevada [abs.]," Geological Society of America, Abstracts with Programs, Vol. 18, No. 6, p. 787.

Willis, D. E., R. W. Taylor, R. D. Torfin, P. T. Tater, K. L. Revock, R. G. Poetzl, G. D. George, and C. G. Bufe, 1974. Explosion-Induced Ground Motion, Tidal and Tectonic Forces and Their Relationship to Natural Seismicity, COO-2138-13, Department of Geological Sciences, University of Wisconsin, Milwaukee.

Wilson, W. E., 1985. Letter from W. E. Wilson (USGS) to D. L. Vieth (DOE/NVO), December 24, 1985; regarding unsaturated zone flux.

Winchester, D. E., 1923. Oil Shale of the Rocky Mountain Region, U.S. Geological Survey Bulletin 729, U.S. Government Printing Office, Washington, D.C., pp. 7-11, 91-103.

Winograd, I. J., and B. J. Szabo, 1986. Water-Table Decline in the South-Central Great Basin during the Quaternary Period: Implications for Toxic-Waste Disposal, USGS-OFR-85-697, Open-File Report, U.S. Geological Survey.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

Winograd, I. J., B. Szabo, T. B. Coplen, and G. C. Doty, 1983. "Pliocene and Pleistocene Calcitic Veins as Indicators of Paleohydrologic, Paleoclimatologic, and Neotectonic Events, Southern Great Basin: An Initial Appraisal," Paleoclimate and Mineral Deposits, T. M. Cronin, W. F. Cannon, and R. Z. Poore (eds.), Geological Survey Circular 822, U.S. Geological Survey, pp. 8-9.

Wise, D. U., 1963. "An Outrageous Hypothesis for the Tectonic Pattern of the North American Cordillera," Geological Society of America Bulletin, Vol. 74, pp. 357-362.

Wolfsberg, K., B. P. Bayhurst, B. M. Crowe, W. R. Daniels, B. R. Erdal, F. O. Lawrence, A. E. Norris, and J. R. Smyth, 1979. Sorption-Desorption Studies on Tuff; I. Initial Studies with Samples from the J-13 Drill Site, Jackass Flats, Nevada, LA-7480-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wollenberg, H. A., 1982. "Geothermal Resource Exploration," Recent Trends in Hydrogeology, Geological Society of America Special Paper 189, Geological Society of America, Boulder, Colo., pp. 375-386.

Wood, C. A., 1980. "Morphometric Evolution of Cinder Cones," Journal of Volcanology and Geothermal Research, Vol. 7, Elsevier Scientific Publishing Co., Amsterdam, pp. 387-413.

Wood, J. D., 1988. "Geology of the Sleeper Gold Deposit, Humbolt County, Nevada," in Bulk-Mineable Precious-Metal Deposits of the Western United States, Symposium Proceedings, R. W. Schafer, J. J. Cooper, and P. G. Vikre (eds.), The Geological Society of Nevada, Reno, pp. 293-302.

Young, R. A., 1972. Water Supply for the Nuclear Rocket Development Station at the U.S. Atomic Energy Commission's Nevada Test Site, USGS-WSP-1938, Water-Supply Paper, U.S. Geological Survey.

Yount, J. C., R. R. Shroba, C. R. McMasters, H. E. Huckins, and E. A. Rodriguez, 1987. Trench Logs from a Strand of the Rock Valley Fault System, Nevada Test Site, Nye County, Nevada, U.S. Geological Survey Miscellaneous Field Investigations Report Map MF-1824, U.S. Geological Survey.

Zielinski, R. A., 1981. "Experimental Leaching of Volcanic Glass: Implications for Evaluation of Glassy Volcanic Rocks as Sources of Uranium," Uranium in Volcanic and Volcanoclastic Rocks, P. C. Goodell, and A. C. Waters (eds.), Vol. 13, American Association of Petroleum Geologists Studies in Geology, pp. 1-11.

Zielinski, R. A., 1983. Evaluation of Ash-Flow Tuffs as Hosts for Radioactive Waste: Criteria Based on Selective Leaching of Manganese Oxides, USGS-OFR-83-480, Open-File Report, U.S. Geological Survey.

Zietz, I., F. P. Gilbert, and J. R. Kirby, 1978. "Aeromagnetic Map of Nevada: Color Coded Intensities," U.S. Geological Survey Geophysical Investigations Map GP-922, Scale 1:1,000,000, U.S. Geological Survey.

Zoback, M. D., D. Moos, L. Mastin, and R. N. Anderson, 1985. "Well Bore Breakouts and in Situ Stress," Journal of Geophysical Research, Vol. 90, No. B7, pp. 5523-5530.

Zoback, M. L., and G. A. Thompson, 1978. "Basin and Range Rifting in Northern Nevada: Clues from a Mid-Miocene Rift and Its Subsequent Offsets," Geology, Vol. 6, No. 2, pp. 111-116.

Zoback, M. L., and M. D. Zoback, 1980a. "Faulting Patterns in North-Central Nevada and Strength of the Crust," Journal of Geophysical Resources, Vol. 85, No. B1, pp. 275-284.

Zoback, M. L., and M. D. Zoback, 1980b. "State of Stress in the Conterminous United States," Journal of Geophysical Research, Vol. 85, No. B11, pp. 6113-6156.

Zoback, M. L., R. E. Anderson, and G. A. Thompson, 1981. "Cainozoic Evolution of the State of Stress and Style of Tectonism of the Basin and Range Province of the Western United States," Philosophical Transactions of the Royal Society of London, Ser. A, Vol. 300, pp. 407-434.

Zohdy, A. A. R., and R. J. Bisdorf, 1979. Schlumberger Soundings and Geoelectric Cross Sections in Yucca Lake, Nevada Test Site, Nevada, USGS-OFR-79-220, Open-File Report, U.S. Geological Survey.

Zwartendyk, J., 1981. "Economic Issues in Mineral Resource Adequacy and in the Long-Term Supply of Minerals," Economic Geology, Vol. 76, No. 5, pp. 999-1005.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.

NN1.881207.0089

REFERENCES FOR CHAPTER 2

ASTM (American Society for Testing and Materials), 1966. "True Specific Gravity of Refractory Material by Water Immersion," Standard Test Method, Reapproved 1976, ASTM C 135-66, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1971. "Linear Thermal Expansion of Rigid Solids with a Vitreous Silica Dilatometer," Standard Test Method, ASTM E 228-71, Philadelphia, Penn.

ASTM (American Standard Test Methods), 1978. "Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54-kg) Rammer and 18-in. (457 mm) Drop," Standard Test Methods, ANSI/ASTM D 1557-78, Philadelphia, Penn., pp. 270-276.

ASTM (American Society for Testing and Materials), 1979a. "True Specific Gravity of Refractory Materials by Gas-Comparison Pycnometer," Standard Test Method, ASTM C 604-79, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1979b. "Unconfined Compressive Strength of Intact Rock Core Specimens," Standard Test Method, ANSI/ASTM D 2938-79, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1980a. "Triaxial Compressive Strength of Undrained Rock Core Specimens without Pore Pressure Measurements," Standard Test Method, ASTM D 2664-80, Philadelphia, Penn.

ASTM (American Society for Testing amd Materials), 1980b. "Elastic Moduli of Intact Rock Core Specimens in Uniaxial Compression," Standard Test Method, ANSI/ASTM D 3148-80, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1981a. "Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)," ASTM D 2922-81, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1981b. "Splitting Tensile Strength of Intact Rock Core Specimens," Standard Test Method, ASTM D 3967-81, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1982. "Density of Soil in Place by the Sand-Cone Method," ASTM D 1556-82, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1983a. "Absorption and Bulk Specific Gravity of Natural Building Stone," Standard Test Method, ASTM C 97-83, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1983b. "Laboratory Determination of Pulse Velocities and Ultrasonic Elastic Constants of Rock," Standard Test Method, ASTM D 2845-83, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1983c. "Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens," Standard Test Method, ASTM D 1188-83, Philadelphia, Penn.

ASTM (American Society for Testing and Materials), 1984. "Thermal Conductivity of Refractory Brick," Standard Test Method, ASTM C 202-84, Philadelphia, Penn.

Agapito, J. F. T., H. N. Maleki, J. R. Aggson, and L. A. Weakly, 1984. "Impact of Excavation Technique on Strength of Oil Shale Pillars," International Journal of Mining Engineers, Vol. 2, pp. 93-105.

Bandis, S., A. C. Lumsden, and N. R. Barton, 1981. "Experimental Studies of Scale Effects on the Shear Behavior of Rock Joints," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 18, pp. 1-21.

Barton, N., 1973. "Review of New Shear-Strength Criterion for Rock Joints," Engineering Geology, Vol. 7, pp. 287-332.

Barton, N., R. Lien, and J. Lunde, 1974a. Analysis of Rock Mass Quality and Support Practice in Tunneling and a Guide for Estimating Support Requirements, Internal Report 54206, Norwegian Geotechnical Institute, Oslo, Norway.

Barton, N., R. Lien, and J. Lunde, 1974b. "Engineering Classification of Rock Masses for the Design of Tunnel Support," Rock Mechanics, Vol. 6, No. 4, pp. 189-236.

Bauer, S. J., and J. Handin, 1983. "Thermal Expansion and Cracking of Three Confined, Water-Saturated Rocks to 800 deg. C," Rock Mechanics and Rock Engineering, Vol. 16, pp. 181-198.

Bauer, S. J., J. F. Holland, and D. K. Parrish, 1985. "Implications About In Situ Stress at Yucca Mountain," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Vol II, Rapid City, South Dakota, pp. 1113-1120.

Bieniawski, Z. T., 1976. "Rock Mass Classifications in Rock Engineering," in Proceedings of the Symposium on Exploration for Rock Engineering, Johannesburg, 1-5 November 1976, Z. T. Bieniawski (ed.), Vol. 1, A. A. Balkema, Cape Town, South Africa, pp. 97-106.

Bieniawski, Z. T., and W. L. Van Heerden, 1975. "The Significance of In Situ Tests on Large Rock Specimens," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 12, Pergamon Press, Great Britian, pp. 101-113.

Bish, D. L., 1981. Detailed Mineralogical Characterization of the Bullfrog and Tram Members in USW-G1, with Emphasis on Clay Mineralogy, LA-9021-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blacic, J., and R. Andersen, 1983. Methodology for Determining Time-Dependent Mechanical Properties of Tuff Subjected to Near-Field Repository Conditions, LA-9322-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blacic, J., J. Carter, P. Halleck, P. Johnson, T. Shankland, R. Andersen, K. Spicochi, and A. Heller, 1982. Effects of Long-Term Exposure of Tuffs to High-Level Nuclear Waste Repository Conditions, LA-9174-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blanford, M. L., 1982. Heated Block Test Conceptual Design Calculations, SAND81-1841, Sandia National Laboratories, Albuquerque, N. Mex.

Board, M. P., M. L. Wilson, and M. D. Voegele, 1987. Laboratory Determination of the Mechanical, Ultrasonic and Hydrologic Properties of Welded Tuff from the Grouse Canyon Heated Block Site, SAND86-7130, Sandia National Laboratories, Albuquerque, N. Mex.

Broxton, D. E., D. T. Vaniman, F. Caporuscio, B. Arney, and G. Heiken, 1982. Detailed Petrographic Descriptions and Microprobe Data for Drill Holes USW-G2 and UE25b-1H, Yucca Mountain, Nevada, LA-9324-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byerlee, J., 1978. "Friction of Rocks," Pageoph (Pure and Applied Geophysics), Vol. 116, pp. 615-626.

Carlsson, H., 1978. A Pilot Heater Test in the Stripa Granite, Swedish-American Cooperative Program on Radioactive Waste Storage in Mined Caverns in Crystalline Rock, Technical Project Report No. 6, LBL-7086, Lawrence Berkeley Laboratory, Berkeley, Calif.

Carr, W. J., 1974. Summary of Tectonic and Structural Evidence for Stress Orientation at the Nevada Test Site, USGS-OFR-74-176, Open-File Report, U.S. Geological Survey.

Chen, E. P., 1987. A Computational Model for Jointed Media with Orthogonal Sets of Joints, SAND86-1122, Sandia National Laboratories, Albuquerque, N. Mex.

Cook, N. G. W., P. A. Witherspoon, E. L. Wilson, and L. R. Myer, 1983. "Progress with Thermomechanical Investigations of the Stripa Site," in Proceedings of the Workshop on the Geological Disposal of Radioactive Waste In Situ Experiments in Granite, Stockholm, Sweden, October 25-27, 1983, pp. 19-31.

Costin, L. S., 1983. "A Microcrack Model for the Deformation and Failure of Brittle Rock," Journal of Geophysical Research, Vol. 88, No. B11, pp. 9485-9492.

Dieterich, J. H., 1978. "Time-Dependent Friction and the Mechanics of Stick-Slip," Pageoph (Pure and Applied Geophysics), Vol. 116, pp. 790-806.

Dischler, S. A., and K. Kim, 1985. "Determination of Rock Mass Deformation Modulus during Hydraulic Fracturing," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, South Dakota, June 26-28, 1985, E. Ashworth (ed.), A. A. Balkema, Boston, Mass., pp. 363-373.

Doe, T., K. Ingevald, L. Strindell, B. Haimson, and H. Carlsson, 1981. "Hydraulic Fracturing and Overcoring Stress Measurements in a Deep Borehole at the Stripa Test Mine, Sweden," in Proceedings of the 22nd U.S. Symposium on Rock Mechanics, Massachusetts Institute of Technology, Cambridge, Mass., pp. 373-378.

Doe, T. W., K. Ingevald, L. Strindell, B. Leijon, W. Hustrulid, E. Majer, and H. Carlsson, 1983. In Situ Stress Measurements at the Stripa Mine, Sweden, LBL-15009, Lawrence Berkeley Laboratory, Berkeley, Calif.

Eaton, R. R., D. E. Larson, and C. M. Korbin, 1981. "Sensitivity of Calculated Pore-Fluid Pressure to Repository Fracture Geometry," Scientific Basis for Nuclear Waste Management, J. G. Moore (ed.), Vol. 3, Plenum Press, New York, pp. 591-598.

Ellis, W. L., and J. R. Ege, 1976. Determination of In Situ Stress in U12g Tunnel, Rainier Mesa, Nevada Test Site, Nevada, USGS-474-219, U.S. Geological Survey.

Ellis, W. L., and J. E. Magner, 1980. Compilation of Results of Three-Dimensional Stress Determinations Made in Rainier and Aqueduct Mesas, Nevada Test Site, Nevada, USGS-OFR-80-1098, Open-File Report, U.S. Geological Survey.

Ellis, W. L., and H. S. Swolfs, 1983. Preliminary Assessment of In Situ Geomechanical Characteristics in Drill Hole USW G-1, Yucca Mountain, Nevada, USGS-OFR-83-401, Open-File Report, U.S. Geological Survey.

Erickson, J. R., and R. K. Waddell, 1985. Identification and Characterization of Hydrologic Properties of Fractured Tuff using Hydraulic and Tracer Tests--Test Well USW H-4, Yucca Mountain, Nye County, Nevada, USGS-WRI-85-4066, Water-Resources Investigations Report, U.S. Geological Survey.

Fernandez, J. A., and M. D. Freshley, 1984. Repository Sealing Concepts for the Nevada Nuclear Waste Storage Investigations Project, SAND83-1778, Sandia National Laboratories, Albuquerque, N. Mex.

Fischer, F. G., P. J. Papanek, and R. M. Hamilton, 1972. The Massachusetts Mountain Earthquake of 5 August 1971 and Its Aftershocks, Nevada Test Site, USGS-474-149, U.S. Geological Survey, 20 p.

Flores, R. J., 1986. Retrievability: Strategy for Compliance Demonstration, SAND84-2242, Sandia National Laboratories, Albuquerque, N. Mex.

Goodman, L. E., and C. B. Brown, 1963. "Dead Load Stresses and the Instability of Slopes," in Journal of the Soil Mechanics and Foundations Divisions, Proceedings of the American Society of Civil Engineers, May 1963, pp. 103-134.

Goodman, R. E., 1980. Introduction to Rock Mechanics, John Wiley & Sons, Inc., New York.

Gregory, E. C., and K. Kim, 1981. "Preliminary Results from the Full-Scale Heater Tests at the Near-Surface Test Facility," in Proceedings of the 22nd U.S. Symposium on Rock Mechanics, Massachusetts Institute of Technology, Cambridge, Mass., pp. 137-142.

Gurr, C. G., T. J. Marshall, and J. T. Hutton, 1952. "Movement of Water in Soil Due to a Temperature Gradient," Soil Science, Vol. 74, No. 5, pp. 335-345.

Guzowski, R. V., F. B. Nimick, M. D. Siegel, and N. C. Finley, 1983. Repository Site Data Report for Tuff: Yucca Mountain, Nevada, NUREG/CR-2937, SAND82-2105, U.S. Nuclear Regulatory Commission, Washington, D.C.

"BEST AVAILABLE COPY"

Haimson, B. C., 1981. "Confirmation of Hydrofracturing Results Through Comparisons with Other Stress Measurements," in Proceedings of the 22nd U.S. Symposium on Rock Mechanics, Massachusetts Institute of Technology, Cambridge, Mass., pp. 379-385.

Haimson, B. C., J. Lacomb, A. H. Jones, and S. J. Green, 1974. "Deep Stress Measurements in Tuff at the Nevada Test Site," Advances in Rock Mechanics, Vol. II, Part A, National Academy of Science, Washington, D.C. pp. 557-561.

Handin, J., R. V. Hager, M. Friedman, and J. N. Feather, 1963. "Experimental Deformation of Sedimentary Rocks Under Confining Pressure: Pore Pressure Tests," Bulletin of the American Association of Petroleum Geologists, Vol. 47, No. 5, pp. 717-755.

Hardin, E., N. Barton, M. Voegele, M. Board, R. Lingle, H. Pratt, and W. Ubbes, 1982. "Measuring the Thermomechanical and Transport Properties of a Rockmass Using the Heated Block Test," in Proceedings 23rd U.S. Symposium on Rock Mechanics, Society of Mining Engineers, New York, pp. 802-813.

Hardin, E. L., M. D. Voegele, M. P. Board, and H. R. Pratt, 1985. "Development of a Test Series to Determine In Situ Thermomechanical and Transport Properties," Measurement of Rock Properties at Elevated Pressures and Temperatures, H. J. Pincus and E. R. Hoskins (eds.), ASTM STP 869, American Society for Testing and Materials, Philadelphia, Penn., pp. 128-153.

Hart, R. D., P. A. Cundall, and M. L. Cramer, 1985. "Analysis of a Loading Test on a Large Basalt Block," in Proceedings of the 26th Symposium on Rock Mechanics, Rapid City, South Dakota, 26-28 June, 1985, pp. 759-768.

Heuze, E. H., and A. Salem, 1977. "Rock Deformability Measured In Situ, Problems and Solutions," in Proceedings of the Field Measurements in Rock Mechanics, International Symposium, Zurich, Switzerland, April 4-6, 1977, Vol. 1, A. A. Balkema, Rotterdam, pp. 375-387.

Heuze, F. E., 1980. "Scale Effects in the Determination of Rock Mass Strength and Deformability," Rock Mechanics, Vol. 12, pp. 167-192.

Heuze, F. E., and B. Amadei, 1985. "The NX-Borehole Jack: A Lesson in Trials and Errors," International Journal on Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 22, No. 2, pp. 105-112.

Heuze, F. E., W. C. Patrick, R. V. De la Cruz, and C. F. Voss, 1981. In Situ Geomechanics, Climax Granite, Nevada Test Site, UCRL-53076, Lawrence Livermore National Laboratory, Livermore, Calif.

Ho, D. M., R. L. Sayre and C. L. Wu, 1986. Suitability of Natural Soils for Foundations for Surface Facilities at the Prospective Yucca Mountain Nuclear Waste Repository, SAND85-7107, Sandia National Laboratories, Albuquerque, N. Mex.

Holland, J., and S. J. Bauer, 1984. Calculation of Overburden-Induced Stresses at Rainier Mesa, Nevada, SAND84-1592A, Sandia National Laboratories, Albuquerque, N. Mex.

Hooker, V. E., and D. L. Bickel, 1974. Overcoring Equipment and Techniques Used in Rock Stress Determination, U.S. Bureau of Mines Information Circular 8618, Washington, D.C.

Hooker, V. E., J. R. Aggson, and D. L. Bickel, 1971. Report on In Situ Determination of Stresses, Rainier Mesa, Nevada Test Site, U.S. Bureau of Mines Report, Denver Mining Research Center, Denver, Colo.

Hubbert, M. K., and D. G. Willis, 1957. "Mechanics of Hydraulic Fracturing," Journal of Petroleum Technology, Vol. 210, pp. 153-168.

Hustrulid, W. A., 1976. "An Analysis of the Goodman Jack," Monograph 1 on Rock Mechanies Application in Mining, papers presented at the 17th U.S. Symposium on Rock Mechanics, Snowbird, Utah, August, 1976, W. S. Brown, S J. Green, and W. A. Hustrulid (eds.), pp. 4B10-4 to 4B10-8

ISRM (International Society for Rock Mechanics), 1978. "Suggested Methods for Determining Tensile Strength of Rock Materials," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 15, pp. 99-103.

ISRM (International Society for Rock Mechanics), 1979a. "Suggested Methods for Determining the Uniaxial Compressive Strength and Deformability of Rock Materials," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 16, pp. 135-140.

ISRM (International Society for Rock Mechanics), 1979b. "Suggested Methods for Determining Water Content, Porosity, Density, Absorption and Related Properties and Swelling and Slake-Durability Index Properties," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 16, pp. 141-156.

Jaeger, J. C., and N. G. W. Cook, 1979. Fundamentals of Rock Mechanics, Chapman and Hall, London, England, pp. 390-391, 405.

Jeffry, J. A., T. Chan, N. G. W. Cook, and P. A. Witherspoon, 1979. Determination of In-Situ Thermal Properties of Stripa Granite from Temperature Measurements in the Full-Scale Heater Experiments: Method and Preliminary Results, Swedish-American Cooperative Program on Radioactive Waste Storage in Mined Caverns in Crystalline Rock, Technical Information Report No. 24, LBL-8423, Lawrence Berkeley Laboratory, Berkeley, Calif.

Johnson, B., and A. F. Gangi, 1980. "Thermal Cracking of Nonuniformly Heated Thick-Walled Cylinders of Westerly Granite," in Proceedings of the 21st U.S. Symposium of Rock Mechanics, University of Rolla, Missouri, pp. 197-206.

Johnstone, J. K., R. R. Peters, and P. F. Gnirk, 1984. Unit Evaluation at Yucca Mountain, Nevada Test Site: Summary Report and Recommendation, SAND83-0372, Sandia National Laboratories, Albuquerque, N. Mex.

Johnstone, J. K., G. R. Hadley, and D. R. Waymire, 1985. In Situ Tuff Water Migration/Heater Experiment: Final Report, SAND81-1918, Sandia National Laboratories, Albuquerque, N. Mex.

Kelsall, P. C., J. B. Case, and C. R. Chabannes, 1982. A Preliminary Evaluation of the Rock Mass Disturbance Resulting from Shaft, Tunnel, or Borehole Excavation, ONWI-411, Office of Nuclear Waste Isolation, Columbus, Ohio.

Kim, K., and W. M. McCabe, 1984. "Geomechanics Characterization of a Proposed Nuclear Waste Repository Site in Basalt," in Proceedings of the 25th U.S. Symposium on Rock Mechanics, Evanston, Ill., pp. 1126-1135.

Kingery, W. D., H. K. Bowen, and D. R. Uhlmann, 1976. Introduction to Ceramics, Second Edition, John Wiley & Sons, New York, p. 608.

Kovari, K., A. Tisa, H. H. Einstein, and J. A. Franklin, 1983. "Suggested Methods for Determining the Strength of Rock Materials in Triaxial Compression: Revised Version," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 20, No. 6, pp. 283-290.

Kuszyk, J. A., and R. C. Bradt, 1973. "Influence of Grain Size on Effects of Thermal Expansion Anisotropy in MgTi205," Journal of the American Ceramic Society, Vol. 56, No. 8, pp. 420-423.

Lama, R. D., and V. S. Vutukuri, 1978. Handbook on Mechanical Properties of Rocks - Testing Techniques and Results - Volume II, Trans Tech Publications, Clausthal, Germany, pp. 231-236.

Langkopf, B. S., and P. R. Gnirk, 1986. Rock-Mass Classification of Candidate Repository Units at Yucca Mountain, Nye County, Nevada, SAND82-2034, Sandia National Laboratories, Albuquerque, N. Mex.

Lanigan, D. C., M. L. Cramer, and K. Kim, 1983. "Determination of Rock Mass Deformation Modulus in Closely Jointed Columbia River Basalt," EOS, Transactions American Geophysical Union, Vol. 64, No. 9, p. 87.

Lappin, A. R., 1980a. Preliminary Thermal Expansion Screening Data for Tuffs, SAND78-1147, Sandia National Laboratories, Albuquerque, N. Mex.

Lappin, A. R., 1980b. Thermal Conductivity of Silicic Tuffs: Predictive Formalism and Comparisons with Preliminary Experimental Results, SAND80-0769, Sandia National Laboratories, Albuquerque, N. Mex.

Lappin, A. R., and F. B. Nimick, 1985a. Bulk and Thermal Properties of the Functional Tuffaceous Beds in Holes USW G-1, UE-25a#1, and USW G-2, Yucca Mountain, Nevada, SAND82-1434, Sandia National Laboratories, Albuquerque, N. Mex.

Lappin, A. R., and F. B. Nimick, 1985b. Thermal Properties of the Grouse Canyon Member of the Belted Range Tuff and of Tunnel Bed 5, G-Tunnel, Nevada Test Site, SAND82-2203, Sandia National Laboratories, Albuquerque, N. Mex.

Lappin, A. R., R. K. Thomas, and D. F. McVey, 1981. Eleana Near-Surface Heater Experiment Final Report, SAND80-2137, Sandia National Laboratories, Albuquerque, N. Mex.

Lappin, A. R., R. G. VanBuskirk, D. O. Enniss, S. W. Butters, F. M. Prater, C. B. Muller, and J. L. Bergosh, 1982. Thermal Conductivity, Bulk Properties, and Thermal Stratigraphy of Silicic Tuffs from the Upper Portion of Hole USW-G1, Yucca Mountain, Nye County, Nevada, SAND81-1873, Sandia National Laboratories, Albuquerque, N. Mex.

Leeman, E. R., 1964. "The Measurement of Stress in Rock, Part II: Borehole Rock Stress Measuring Instruments," Journal of the South African Institute of Mining and Metallurgy, September, 1964, pp. 82-114.

McWilliams, J. R., 1966. "The Role of Microstructure in the Physical Properties of Rocks," Testing Techniques for Rock Mechanics, ASTM STP 402, American Society for Testing and Materials, Philadelphia, Penn., pp. 175-189.

Miller, C. H., 1976. A Method for Stress Determination in N, E, and T Tunnels, Nevada Test Site, by Hydraulic Fracturing, with a Comparison of Overcoring Methods, USGS-474-222, U.S. Geological Survey.

Mondy, L. A., R. K. Wilson, and N. E. Bixler, 1983. Comparison of Waste Emplacement Configurations for a Nuclear Waste Repository in Tuff, IV. Thermo-Hydrological Analysis, SAND83-0757, Sandia National Laboratories, Albuquerque, N. Mex.

Montan D. N., and W. E. Bradkin, 1984. Heater Test 1, Climax Stock Granite, Nevada, UCRL-53496, Lawrence Livermore National Laboratory, Livermore, Calif.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Morrow, C., and J. Byerlee, 1984. "Frictional Sliding and Fracture Behavior of Some Nevada Test Site Tuffs," in Rock Mechanics in Productivity and Protection, Proceedings of the 25th Symposium on Rock Mechanics, Evanston, Illinois, June 25-27, 1984, Chapter 49, Society of Mining Engineers, New York, pp. 467-474.

Morrow, C. A., L. Q. Shi, and J. D. Byerlee, 1982. "Strain Hardening and Strength of Clay-Rich Fault Gouges," Journal of Geophysical Research, Vol. 87, No. B8, pp. 6771-6780.

Moss, M., J. A. Koski, and G. M. Haseman, 1982a. Measurement of Thermal Conductivity by the Comparative Method, SAND82-0109, Sandia National Laboratories, Albuquerque, N. Mex.

Moss, M., J. A. Koski, G. M. Haseman, and T. V. Tormey, 1982b. The Effects of Composition, Porosity, Bedding Plane Orientation, Water Content, and a Joint on the Thermal Conductivity of Tuff, SAND82-1164, Sandia National Laboratories, Albuquerque, N. Mex.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

Neal, J. T., 1985. Location Recommendation for Surface Facilities for the Prospective Yucca Mountain Waste Repository, SAND84-2015, Sandia National Laboratories, Albuquerque, N. Mex.

Nelson, P. H., and R. Rachiele, 1982. "Water Migration Induced by Thermal Loading of a Granitic Rock Mass," International Journal of Rock Mechanics, Mineral Sciences and Geomechanical Abstracts, Vol. 19, No. 6, pp. 353-359.

Nimick, F. B. (comp.), 1987. Technical Correspondence in Support of the Site Characterization Plan, SAND87-0115, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., and A. R. Lappin, 1985. Thermal Conductivity of Silicic Tuffs from Yucca Mountain and Rainier Mesa, Nye County, Nevada, SAND83-1711/1J, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., and B. M. Schwartz, 1987. Bulk, Thermal, and Mechanical Properties of the Topopah Spring Member of the Paintbrush Tuff, Yucca Mountain, Nevada, SAND85-0762, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., R. H. Price, R. G. Van Buskirk, and J. R. Goodell, 1985. Uniaxial and Triaxial Compression Test Series on Topopah Spring Tuff from USW G-4, Yucca Mountain, Nevada, SAND84-1101, Sandia National Laboratories, Albuquerque, N. Mex.

Nishida, T., 1982. "Excavation of an Inclined Tunnel by Tunnel-Boring Machine," Tunnelling '82, M. J. Jones (ed.), Institution of Mining & Metallurgy, pp. 145-152.

Olsson, W. A., 1982. Effects of Elevated Temperature and Pore Pressure on the Mechanical Behavior of Bullfrog Tuff, SAND81-1664, Sandia National Laboratories, Albuquerque, N. Mex.

Olsson, W. A., 1987. Rock Joint Compliance Studies, SAND86-0177, Sandia National Laboratories, Albuquerque, N. Mex.

Olsson, W. A., and A. K. Jones, 1980. Rock Mechanics Properties of Volcanic Tuffs from the Nevada Test Site, SAND80-1453, Sandia National Laboratories, Albuquerque, N. Mex.

Ortiz, T. S., R. L. Williams, F. B. Nimick, B. C. Whittet, and D. L. South, 1985. A Three-Dimensional Model of Reference Thermal/Mechanical and Hydrological Stratigraphy at Yucca Mountain, Southern Nevada, SAND84-1076, Sandia National Laboratories, Albuquerque, N. Mex.

Paterson, M. S., 1978. Experimental Rock Deformation - The Brittle Field, Springer-Verlag, New York, pp. 90-92, 99-111.

Patton, F. D., 1966. "Multiple Modes of Shear Failure in Rock," in Proceedings of the First Congress of the International Society of Rock Mechanics, pp. 509-513.

Pratt, H. R., A. D. Black, W. S. Brown, and W. F. Brace, 1972. "The Effect of Specimen Size on the Mechanical Properties of Unjointed Diorite," International Journal of Rock Mechanics and Mining Science, Vol. 9, No. 4, pp. 513-529.

Price, R. H., 1983. Analysis of Rock Mechanics Properties of Volcanic Tuff Units from Yucca Mountain, Nevada Test Site, SAND82-1315, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., 1986. Effects of Sample Size on the Mechanical Behavior of Topopah Spring Tuff, SAND85-0709, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., and S. J. Bauer, 1985. "Analysis of the Elastic and Strength Properties of Yucca Mountain Tuff, Nevada," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, A. A. Balkema, Boston, Mass., pp. 89-96.

Price, R. H., and A. K. Jones, 1982. Uniaxial and Triaxial Compression Test Series on Calico Hills Tuff, SAND82-1314, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., and K. G. Nimick, 1982. Uniaxial Compression Test Series on Tram Tuff, SAND82-1055, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., A. K. Jones, and K. G. Nimick, 1982a. Uniaxial Compression Test Series on Bullfrog Tuff, SAND82-0481, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., K. G. Nimick, and J. A. Zirzow, 1982b. Uniaxial and Triaxial Compression Test Series on Topopah Spring Tuff, SAND82-1723, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., S. J. Spence, and A. K. Jones, 1984. Uniaxial Compression Test Series on Topopah Spring Tuff from USW GU-3, Yucca Mountain, Southern Nevada, SAND83-1646, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., F. B. Nimick, J. R. Connolly, K. Keil, B. M. Schwartz, and S. J. Spence, 1985. Preliminary Characterization of the Petrologic, Bulk, and Mechanical Properties of a Lithophysal Zone within the Topopah Spring Member of the Paintbrush Tuff, SAND84-0860, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., J. R. Connolly, and K. Keil, 1987. Petrologic and Mechanical Properties of Outcrop Samples of the Welded, Devitrified Topopah Spring Member of the Paintbrush Tuff, SAND86-1131, Sandia National Laboratories, Albuquerque, N. Mex.

Pruess, K., Y. W. Tsang, and J. S. Y. Wang, 1984. Numerical Studies of Fluid and Heat Flow Near High-Level Nuclear Waste Packages Emplaced in Partially Saturated Fractured Tuff, LBL-18552, Lawrence Berkeley Laboratory, Berkeley, Calif.

Richardson, A. M., W. Hustrulid, S. Brown, and W. Ubbes, 1985. "In-Situ Load-Deformation Characterization of the CSM/OCRD Jointed Test Block," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, S.D., June 26-28, 1985, pp. 777-784.

Rocha, M., 1970. "New Techniques in Deformability Testing of In Situ Rock Masses," Determination of the In-Situ Modulus of Deformation of Rock, ASTM, ASTM STP 477, American Society for Testing and Materials, Philadelphia, Penn., pp. 39-57.

Scott, R. B. and M. Castellanos, 1984. Stratigraphic and Structural Relations of Volcanic Rocks in Drill Holes USW GU-3 and USW G-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-491, Open-File Report, U.S. Geological Survey.

Shimamoto, T., and J. M. Logan, 1981. "Effects of Simulated Clay Gouges on the Sliding Behavior of Tennessee Sandstone," Tectonophysics, Vol. 75, pp. 243-255.

Smith, C., W. C. Vollendorf, and W. E. Warren, 1981. In-Situ Stress from Hydraulic Fracture Measurements in G-Tunnel, Nevada Test Site, SAND80-1138, Sandia National Laboratories, Albuquerque, N. Mex.

Somerton, W. H., 1982. "Porous Rock-Fluid Systems at Elevated Temperatures and Pressures," Recent Trends in Hydrogeology, T. N. Narasimhan (ed.), Geological Society of America Special Paper 189, pp. 183-197.

Spengler, R. W., and M. P. Chornack, 1984. Stratigraphic and Structural Characteristics of Volcanic Rocks in Core Hole USW G-4, Yucca Mountain, Nye County, Nevada, with a section on geophysical logs by D. C. Muller and J. E. Kibler, USGS-OFR-84-789, Open-File Report, U.S. Geological Survey.

Springer, J. E., R. K. Thorpe, and H. L. McKague, 1984. Borehole Elongation and Its Relation to Tectonic Stress at the Nevada Test Site, UCRL-53528, Lawrence Livermore National Laboratory, Livermore, Calif.

Stock, J. M., J. H. Healy, and S. H. Hickman, 1984. Report on Televiewer Log and Stress Measurements in Core Hole USW G-2, Nevada Test Site, October-November 1982, USGS-OFR-84-172, U.S. Geological Survey.

Stock, J. M., J. H. Healy, S. H. Hickman, and M. D. Zoback, 1985. "Hydraulic Fracturing Stress Measurements at Yucca Mountain, Nevada, and Relationship to the Regional Stress Field," Journal of Geophysical Research, Vol. 90, No. B10, pp. 8691-8706.

Sun, Z., C. Gerrard, and O. Stephansson, 1985. "Rock Joint Compliance Tests for Compression and Shear Loads," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 22, No. 4, pp. 197-213.

Svanholm, B. O., P. A. Persson, and B. Larsson, 1977. "Smooth Blasting for Reliable Underground Openings," in Proceedings of the First International Symposium Storage in Excavated Rock Caverns, Stockholm, 5-8 September 1977, M. Bergman (ed.), Vol. 3, Pergamon Press, New York, pp. 573-579.

Swolfs, H. S., and W. Z. Savage, 1985. "Topography, Stresses, and Stability at Yucca Mountain, Nevada," in Proceedings of the 26th Symposium on Rock Mechanics, Rapid City, South Dakota, 26-28 June, 1985, pp. 1121-1129.

Teufel, L. W., 1981. Frictional Properties of Jointed Welded Tuff, SAND81-0212, Sandia National Laboratories, Albuquerque, N. Mex.

Teufel, L. W., and J. M. Logan, 1978. "Effect of Displacement Rate on the Real Area of Contact and Temperatures Generated during Frictional Sliding of Tennessee Sandstone," Pageoph (Pure and Applied Geophysics), Vol. 116, pp. 840-865.

Thomas, R. K., 1982. A Continuum Description for Jointed Media, SAND81-2615, Sandia National Laboratories, Albuquerque, N. Mex.

Tibbs, H., 1985. Letter from H. Tibbs (F&S) to J. J. D'Lugosz (DOE/NVO), September 23, 1985; regarding mining experience through faulted welded tuff beds in U12G Tunnel "Rock Mechanics" drift.

Tillerson, J. R., and F. B. Nimick, 1984. Geoengineering Properties of Potential Repository Units at Yucca Mountain, Southern Nevada, SAND84-0221, Sandia National Laboratories, Albuquerque, N. Mex.

Tyler, L. D., and W. C. Vollendorf, 1975. Physical Observations and Mapping of Cracks Resulting from Hydraulic Fracturing In Situ Stress Measurements, Paper SPE-5542, Society of Petroleum Engineers of American Institute of Mechanical Engineers, Dallas, Tex.

USGS (U.S. Geological Survey) (comp.), 1984. A Summary of Geologic Studies through January 1, 1983, of a Potential High-Level Radioactive Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-84-792, Open-File Report, U.S. Geological Survey.

Van Buskirk, R., D. Enniss, and J. Schutz, 1985. "Measurement of Thermal Conductivity and Thermal Expansion at Elevated Temperatures and Pressures," Measurement of Rock Properties at Elevated Pressures and Temperatures, H. J. Pincus and E. R. Hoskins (eds.), ASTM STP 869, American Society for Testing and Materials, Philadelphia, Penn., pp. 108-127.

Warpinski, N. R., D. A. Northrop, R. A. Schmidt, W. C. Vollendorf, and S. J. Finley, 1981. The Formation Interface Fracturing Experiment: An In Situ Investigation of Hydraulic Fracture Behavior Near a Material Property Interface, SAND81-0938, Sandia National Laboratories, Albuquerque, N. Mex.

Waters, A. C., and P. R. Carroll (eds.) 1981. Preliminary Stratigraphic and Petrologic Characterization of Core Samples from USW-G1, Yucca Mountain, Nevada, LA-8840-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Zimmerman, R. M., 1983. "First Phase of Small Diameter Heater Experiments in Tuff," in Proceedings of the 24th U.S. Symposium on Rock Mechanics, June 1983, pp. 271-282.

Zimmerman, R. M., and W. C. Vollendorf, 1982. Geotechnical Field Measurements, G-Tunnel, Nevada Test Site, SAND81-1971, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., M. P. Board, E. L. Hardin, and M. D. Voegele, 1984a. "Ambient Temperature Testing of the G-Tunnel Heated Block," in Proceedings of the 25th U.S. Rock Mechanics Symposium, Northwest University, Evanston, Ill., June 25-27, 1984, Society of Mining Engineers, New York, pp. 281-295.

Zimmerman, R. M., F. B. Nimick, and M. P. Board, 1984b. "Geoengineering Characterization of Welded Tuffs from Laboratory and Field Investigations," in Proceedings of the Material Resources Society Annual Meeting, Boston, Massachusetts, November, 1984.

Zimmerman, R. M., M. L. Wilson, M. P. Board, M. E. Hall, and R. L. Schuch, 1985. "Thermal Cycle Testing of the G-Tunnel Heated Block," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, South Dakota, E. Ashworth (ed.), A. A. Balkema, Boston, Mass., pp. 749-758.

Zimmerman, R. M., R. L. Schuch, D. S. Mason, M. L. Wilson, M. E. Hall, M. P. Board, R. P. Bellman, M. L. Blanford, 1986. Final Report: G-Tunnel Heated Block Experiment, SAND84-2620, Sandia National Laboratories, Albuquerque, N. Mex.

Zoback, M. L., and M. D. Zoback, 1980. "State of Stress in the Conterminous United States," Journal of Geophysical Research, Vol. 85, No. B11, pp. 6113-6156.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

NNI.881207.0090

REFERENCES FOR CHAPTER 3

ANSI/ANS (American National Standard Institute/American Nuclear Society), 1981. "American National Standard for Determining Design Basis Flooding at Power Reactor Sites," ANSI/ANS-2.8-1981, American Nuclear Society, La Grange Park, Ill.

Amyx, J. W., D. M. Bass, Jr., and R. L. Whiting, 1960. Petroleum Reservoir Engineering, Physical Properties, McGraw-Hill Book Co., New York. pp. 91-96.

Anderson, L. A., 1981. Rock Property Analysis of Core Samples from the Yucca Mountain UE25a-1 Borehole, Nevada Test Site, Nevada, USGS-OFR-81-1338, Open-File Report, U.S. Geological Survey.

Axelrod, D. I., 1979. Age and Origin of Sonoran Desert Vegetation, Occasional Papers of the California Academy of Sciences, No. 132, San Francisco, Calif., 74 p.

Barr, G. E., 1985. Reduction of the Well Test Data for Test Well USW H-1, Adjacent to Nevada Test Site, Nye County, Nevada, SAND84-0637, Sandia National Laboratories, Albuuerque, N. Mex.

Bates, R. L., and J. A. Jackson, 1980. Glossary of Geology, Second Edition, American Geological Institute, Falls Church, Va., p. 257.

Bear, J., 1972. Dynamics of Fluids in Porous Media, Part 1, University Microfilms International, Ann Arbor, Mich., p. 7.

Bedmar, A. P., 1983. "Single Well Techniques Using Radioactive Tracers," in Tracer Methods in Isotope Hydrology, Proceedings of an Advisory Group Meeting Organized by the International Atomic Energy Agency and Held in Vienna, 27 September to 1 October 1982, IAEA-TECDOC-291, International Atomic Energy Agency, Vienna, Austria, pp. 17-46.

Benson, L. V., and P. W. McKinley, 1985. Chemical Composition of Ground Water in the Yucca Mountain Area, Nevada, 1971-84, USGS-OFR-85-484, Open-File Report, U.S. Geological Survey.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bentley, C. B., 1984. Geohydrologic Data for Test Well USW G-4, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-84-063, Open-File Report, U.S. Geological Survey.

Bentley, C. B., J. H. Robison, and R. W. Spengler, 1983. Geohydrologic Data for Test Well USW H-5, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-83-853, Open-File Report, U.S. Geological Survey.

Bish, D. L., and D. T. Vaniman, 1985. Mineralogic Summary of Yucca Mountain, Nevada, LA-10543-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blankennagel, R. K., and J. E. Weir, Jr., 1973. Geohydrology of the Eastern Part of Pahute Mesa, Nevada Test Site, Nye County, Nevada, U.S. Geological Survey Professional Paper 712-B, U.S. Goverment Printing Office, Washington, D.C.

Bradley, R. S., 1985. Quaternary Paleoclimatology, Methods of Paleoclimatic Reconstruction, Allen & Unwin, Boston, Mass., pp. 72-78.

Bredehoeft, J. D., and I. S. Papadopulos, 1965. "Rates of Vertical Groundwater Movement Estimated from the Earth's Thermal Profile," Water Resources Research, Vol. 1, No. 2, pp. 325-328.

Brobst, R. B., and P. M. Buszka, 1986. "The Effect of Three Drilling Fluids on Ground Water Sample Chemistry," Ground Water Monitoring Review, Vol. 6, No. 1, pp. 62-70.

Brooks, R. H., and A. T. Corey, 1964. Hydraulic Properties of Porous Media, Hydrology Paper No. 3, Colorado State University, Fort Collins, Colo.

Bullard, K. L., 1986. PMF (Probable Maximum Flood) Study for Nevada Nuclear Waste Storage Investigations Project, GR-87-8, U.S. Department of the Interior, Bureau of Reclamation, Washington, D.C.

Carr, W. J., 1974. Summary of Tectonic and Structural Evidence for Stress Orientation at the Nevada Test Site, USGS-OFR-74-176, Open-File Report, U.S. Geological Survey.

Case, C. M., M. Kautsky, P. M. Kearl, D. M. Nork, T. F. Panian, and S. L. Raker, 1984. "Unsaturated Flow Through the Alluvium at the Nevada Test Site," Geological Society of America Abstracts with Programs, Vol. 16, No. 6, p. 465.

Christensen, R. C., and N. E. Spahr, 1980. Flood Potential of Topopah Wash and Tributaries, Eastern Part of Jackass Flats, Nevada Test Site, Southern Nevada, USGS-OFR-80-963, Open File Report, U.S. Geological Survey, 22 p.

Claassen, H. C., 1973. Water Quality and Physical Characteristics of Nevada Test Site Water-Supply Wells, USGS-474-158, U.S. Geological Survey.

Claassen, H. C., 1985. Sources and Mechanisms of Recharge for Ground Water in the West-Central Amargosa Desert, Nevada--A Geochemical Interpretation, U.S. Geological Survey Professional Paper 712-F, U.S. Government Printing Office, Washington, D.C.

Claassen, H. C., 1986. "Late-Wisconsin Paleohydrology of the West-Central Amargosa Desert, Nevada, U.S.A.," Chemical Geology (Isotope Geoscience Section), Vol. 58, pp. 311-323.

Claassen, H. C., and A. F. White, 1979. "Application of Geochemical Kinetic Data to Ground-water Systems, A Tuffaceous-Rock System in Southern Nevada," Symposium on Chemical Modeling in Aqueous Systems, Speciation, Sorption, Solubility, and Kinetics, E. A. Jenne (ed.), Symposium Series Book 93, American Chemical Society, Washington, D.C., pp. 771-793.

Coache, R., 1986. "Amargosa Valley Basin 230-1985 Groundwater Pumpage Inventory," tabular material on water use, State of Nevada, Department of Conservation and Natural Resources, Water Resources Division, Las Vegas, Nev.

Collins, E., and T. P. O'Farrell, 1985. 1984 Biotic Studies of Yucca Mountain, Nevada Test Site, Nye County, Nevada, EGG 10282-2057, EG&G, Inc., Goleta, Calif.

Collins, E., T. P. O'Farrell, and W. A. Rhoads, 1982. Biologic Overview for the Nevada Nuclear Waste Storage Investigations, Nevada Test Site, Nye County, Nevada, EGG 1183-2460, EG&G, Inc., Goleta, Calif.

Cowart, J. B., 1979. "Uranium Isotopes in the Paleozoic Carbonate Aquifer of South Central Nevada and Adjacent California," Geological Society of America Abstracts with Programs, Vol. 11, No. 7. 405 p.

Craig, R. G. with contributions from B. L. Roberts and M. Singer, 1984. Climates and Lakes of the Death Valley Drainage System during the Last Glacial Maximum, unpublished paper, available from the Department of Geology, Kent State University, Kent, Ohio.

Craig, R. W., and J. H. Robison, 1984. Geohydrology of Rocks Penetrated by Test Well UE-25p#1, Yucca Mountain Area, Nye County, Nevada, USGS-WRI-84-4248, Water-Resources Investigations Report, U.S. Geological Survey.

Crippen, J. R. and C. D. Bue, 1977. Maximum Flood Flows in the Conterminous United States, USGS-WSP-1887, Water-Supply Paper, U.S. Geological Survey.

Crosthwaite, E. G., 1969. Water Resources of the Salmon Falls Creek Basin, Idaho-Nevada, USGS-WSP-1879-D, Water-Supply Paper, U.S. Geological Survey, pp. D18-D21.

Czarnecki, J. B., 1985. Simulated Effects of Increased Recharge on the Ground-Water Flow System of Yucca Mountain and Vicinity, Nevada-California, USGS-WRI-84-4344, Water-Resources Investigations Report, U.S. Geological Survey.

Czarnecki, J. B., and R. K. Waddell, 1984. Finite-Element Simulation of Ground-Water Flow in the Vicinity of Yucca Mountain, Nevada-California, USGS-WRI-84-4349, Water-Resources Investigations Report, U.S. Geological Survey.

DOE (U.S. Department of Energy), 1986. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

Decker, J. P., and J. D. Wien, 1957. "An Infrared Apparatus for Measurement of Transpiration," Symposium on Phreatophyes, Pacific Southwest Regional Meeting American Geophysical Union, Sacramento, California, February 14, 15, 1957, Phreatophyte Subcommittee of Pacific Southwest Inter-Agency Committee, American Geophysical Union, Sacramento, Calif., pp. 32-41.

Denny, C. S., and H. Drewes, 1965. Geology of the Ash Meadows Quadrangle, Nevada-California, Geological Survey Bulletin 1181-L, U.S. Government Printing Office, Washington, D.C.

Dettinger, M. D., and J. L. Wilson, 1981. "First Order Analysis of Uncertainty in Numerical Models of Groundwater Flow, Part 1, Mathematical Development," Water Resources Research, Vol. 17, No. 1, pp. 149-161.

Dorn, R. I., 1983. "Cation-Ratio Dating: A New Rock Varnish Age-Determination Technique," Quaternary Research, Vol. 20, pp. 49-73.

Doty, G. C., and W. Thordarson, 1983. Water Table in Rocks of Cenozoic and Paleozoic Age, 1980, Yucca Flat, Nevada Test Site, Nevada, USGS-WRI-83-4067, Water Resources Investigations Report, U.S. Geological Survey.

Dudley, W. W., Jr., and J. D. Larson, 1976. Effect of Irrigation Pumping on Desert Pupfish Habitats in Ash Meadows, Nye County, Nevada, U.S. Geological Survey Professional Paper 927, U.S. Goverment Printing Office, Washington, D.C.

Eakin, T. E., G. B. Maxey, T. W. Robinson, J. C. Fredericks, and O. J. Loeltz, 1951. Contributions to the Hydrology of Eastern Nevada, Water Resources Bulletin No. 12, Office of the State Engineer, State of Nevada, Carson City. 171 p.

Eakin, T. E., S. L. Schoff, and P. Cohen, 1963. Regional Hydrology of a Part of Southern Nevada: A Reconnaissance, USGS-TEI-833, Trace-Elements Investigations Report, U.S. Geological Survey.

Erickson, J. R., and R. K. Waddell, 1985. Identification and Characterization of Hydrologic Properties of Fractured Tuff using Hydraulic and Tracer Tests--Test Well USW H-4, Yucca Mountain, Nye County, Nevada, USGS-WRI-85-4066, Water-Resources Investigations Report, U.S. Geological Survey.

Faust, C. R., and J. W. Mercer, 1977. Theoretical Analysis of Fluid Flow and Energy Transport in Hydrothermal Systems, USGS-OFR-77-60, Open-File Report, U.S. Geological Survey.

Fetter, C. W., Jr., 1980. Applied Hydrogeology, Charles E. Merrill Publishing Co., Columbus, Ohio., p. 381.

Fontes, J-C., and J-M. Garnier, 1979. "Determination of the Initial 14-C Activity of the Total Dissolved Carbon: A Review of the Existing Models and a New Approach," Water Resources Research, Vol. 15, No. 2, pp. 399-413.

Freeze, R. A., and J. A. Cherry, 1979. Groundwater, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 389-390, 551-552

French, R. H., A. Elzeftawy, J. Bird, and B. Elliot, 1984. Hydrology and Water Resources Overview for the Nevada Nuclear Waste Storage Investigations, Nevada Test Site, Nye County, Nevada, NVO-284, Desert Research Institute, Las Vegas, Nev.

Garside, L. J., and J. H. Schilling, 1979. Thermal Waters of Nevada, Nevada Bureau of Mines & Geology Bulletin 91, University of Nevada, Reno.

Giampaoli, M. C., 1986. Trip Report: Hydrologic Field Reconnaissance Led by Robert Coache, Water Resources Division, Nevada Department of Conservation and Natural Resources, April 24, 1986, M86-GEO-MEG-054, Science Applications International Corporation, Las Vegas, Nev.

Glancy, P. A., and L. Harmsen, 1975. A Hydrologic Assessment of the September 14, 1974, Flood in Eldorado Canyon, Nevada, Geological Survey Professional Paper 930, U.S. Government Printing Office, Washington, D.C.

Gram, A. L., 1985. Development of Water Sources for the Town of Beatty, Beatty Water and Sanitation District, Beatty, Nev.

Gregg, S. J., and K. S. W. Sing, 1967. Adsorption, Surface Area and Porosity, Academic Press, London, p. 182.

Haas, H. H., D. W. Fisher, D. C. Thorstenson, and E. P. Weeks, 1983. "13CO2 and 14CO2 Measurements on Soil Atmosphere Sampled in the Sub-surface Unsaturated Zone in the Western Great Plains of the U.S." Radiocarbon, Vol. 25, No. 2, pp. 301-314.

Hale, G. R., 1985. "Mid-Pleistocene Overflow of Death Valley Toward the Colorado River," Quaternary Lakes of the Eastern Mohave Desert, California, Friends of the Pleistocene, Pacific Cell, Field Trip Guide, October 25-27, 1985, G. R. Hale (ed.), pp. 36-81.

Hanson, R. L., and D. R. Dawdy, 1976. Accuracy of Evapotranspiration Rates Determined by the Water-Budget Method, Gila River Flood Plain, Southeast Arizona, Geological Survey Professional Paper 655-L, U.S. Government Printing Office, Washington, D.C.

Harrill, J. R., 1982. Ground-Water Storage Depletion in Pahrump Valley, Nevada-California, 1962-1975, USGS-OFR-81-635, Open-File Report, U.S. Geological Survey.

Harrill, J. R., A. H. Welch, D. E. Prudic, J. M. Thomas, R. L. Carman, R. W. Plume, J. S. Gates, and J. L. Mason, 1983. Aquifer Systems in the Great Basin Region of Nevada, Utah, and Adjacent States: A Study Plan, USGS-OFR-82-445, Open-File Report, U.S. Geological Survey, pp. 1, 9, 46-49.

Hassler, G. L., and E. Brunner, 1945. "Measurement of Capillary Pressures in Small Core Samples," Transactions of the American Institute of Mining and Metallurgical Engineers, Petroleum Development and Technology 1945, Vol. 160, pp. 114-123.

Hay, R. L., R. E. Pexton, T. T. Teague, and T. K. Kyser, 1986. "Spring-Related Carbonate Rocks, Mg Clays, and Associated Minerals in Pliocene Deposits of the Amargosa Desert, Nevada and California," Geological Society of America Bulletin, Vol. 97, pp. 1488-1503.

Healey, D. L., and C. H. Miller, 1971. Gravity Survey of the Amargosa Desert Area of Nevada and California, USGS-474-136, U.S. Geological Survey.

Heath, R. C., 1984. Ground-Water Regions of the United States, Geological Survey Water Supply Paper 2242, U.S. Geological Survey.

Hillel, D., 1980. Fundamentals of Soil Physics, Academic Press, Inc., New York, 413 p.

Hooke, R. L., 1972. "Geomorphic Evidence for Late-Wisconsin and Holocene Tectonic Deformation, Death Valley, California," Geological Society of America Bulletin, Vol. 83, No. 7, pp. 2073-2098.

Hoover, D. L., 1968. "Genesis of Zeolites, Nevada Test Site," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 275-284.

Hoover, D. L., W C Swadley, and A. J. Gordon, 1981. Correlation Characteristics of Surficial Deposits with a Description of Surficial Stratigraphy in the Nevada Test Site Region, USGS-OFR-81-512, Open-File Report, U.S. Geological Survey.

Huber, N. K., 1981. Amount and Timing of Late Cenozoic Uplift and Tilt of the Central Sierra Nevada, California--Evidence from the Upper San Joaquin River Basin, U.S. Geological Survey Professional Paper 1197, U.S. Goverment Printing Office, Washington, D.C.

Hughes, G. H., and C. C. McDonald, 1966. "Determination of Water Use by Phreatophytes and Hydrophytes," in Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers, Vol. 92, No. HY2, pp. 63-81.

Hull, A. C., Jr., and G. J. Klomp, 1974. Yield of Crested Wheatgrass Under Four Densities of Big Sagebrush in Southern Idaho, Technical Bulletin No. 1483, U.S. Department of Agriculture, Washington, D.C.

Hunt, C. B., and D. R. Mabey, 1966. Stratigraphy and Structure, Death Valley, California, General Geology of Death Valley, California, U.S. Geological Survey Professional Paper 494-A, U.S. Goverment Printing Office, Washington, D.C.

Hunt, C. B., T. W. Robinson, W. A. Bowles, and A. L. Washburn, 1966. Hydrologic Basin, Death Valley, California, U.S. Geological Survey Professional Paper 494-B, U.S. Goverment Printing Office, Washington, D.C.

IAEA (International Atomic Energy Agency), 1983. "Radiocarbon (14-C)," Isotope Techniques in the Hydrogeological Assessment of Potential Sites for the Disposal of High-Level Radioactive Wastes, Technical Reports Series No. 228, Vienna, Austria, pp. 70-87.

Katzer, T. L., P. A. Glancy, and L. Harmsen, 1976. A Brief Hydrologic Appraisal of the July 3-4, 1975, Flash Flood in Las Vegas Valley, Nevada, Clark County Flood Control Division, Department of Public Works, Las Vegas, Nev.

Kerrisk, J. F., 1987. Groundwater Chemistry at Yucca Mountain, Nevada, and Vicinity, LA-10929-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Khoury, H. N., D. D. Eberl, and B. F. Jones, 1982. "Origin of Magnesium Clays from the Amargosa Desert, Nevada," Clays and Clay Minerals, Vol. 30, No. 5, The Clay Minerals Society, pp. 327-336.

Klavetter, E. A., and R. R. Peters, 1986. Fluid Flow in a Fractured Rock Mass, SAND85-0855, Sandia National Laboratories, Albuquerque, N. Mex.

Klinkenberg, L. J., 1941. "The Permeability of Porous Media to Liquids and Gases," Drilling and Production Practice, American Petroleum Institute, pp. 200-213.

Kohler, M. A., T. J. Nordenson, and D. R. Baker, 1959. Evaporation Maps for the United States, U.S. Weather Service, U.S. Department of Commerce, Technical Paper No. 37, U.S. Government Printing Office, Washington, D.C.

Lahoud, R. G., D. H. Lobmeyer, and M. S. Whitfield, Jr., 1984. Geohydrology of Volcanic Tuff Penetrated by Test Well UE-25b#1, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4253, Water-Resources Investigations Report, U.S. Geological Survey.

Lin, W., 1978. Measuring the Permeability of Eleana Argillite from Area 17, Nevada Test Site, Using the Transient Method, UCRL-52604, Lawrence Livermore National Laboratory, Livermore, Calif.

Loeltz, O. J., 1960. "Source of Water Issuing from Springs in Ash Meadow Valley, Nye County, Nevada," Geological Society of America Bulletin, Vol. 71, No. 12, Part 2, pp. 1917-1918.

Malmberg, G. T., 1967. Hydrology of the Valley-Fill and Carbonate-Rock Reservoirs, Pahrump Valley, Nevada-California, Geological Survey Water-Supply Paper, USGS-WSP-1832, U.S. Government Printing Office, Washington, D.C.

Malmberg, G. T., and T. E. Eakin, 1962. Ground-Water Appraisal of Sarcobatus Flat and Oasis Valley, Nye and Esmeralda Counties, Nevada, Department of Conservation and Natural Resources Ground-Water Resources Reconnaissance Series Report 10, State of Nevada, Carson City.

Maxey, G. B., and T. E. Eakin, 1949. Ground Water in White River Valley, White Pine, Nye, and Lincoln Counties, Nevada, Water Resources Bulletin No. 8, State of Nevada, Office of the State Engineer, Carson City.

Maxey, G. B., and C. H. Jameson, 1948. Geology and Water Resources of Las Vegas, Pahrump, and Indian Spring Valleys, Clark and Nye Counties, Nevada, Office of the State Engineer Water Resources Bulletin No. 5, State of Nevada, Carson City.

Meinzer, O. E., 1923. Outline of Ground-Water Hydrology with Definitions, U.S. Geological Survey Water-Supply Paper 494, Government Printing Office, Washington, D.C., 71 p.

Mifflin, M. D., 1968. Delineation of Ground-Water Flow Systems in Nevada, Technical Report Series H-W Hydrology and Water Resources Publication No. 4, Desert Research Institute, Reno, Nev.

Mifflin, M. D., and M. M. Wheat, 1979. Pluvial Lakes and Estimated Pluvial Climates of Nevada, Nevada Bureau of Mines & Geology Bulletin 94, University of Nevada, Reno.

Miller, G. A., 1977. Appraisal of the Water Resources of Death Valley, California-Nevada, USGS-OFR-77-728, Open-File Report, U.S. Geological Survey.

Moench, A. F., 1984. "Double-Porosity Models for a Fissured Groundwater Reservoir with Fracture Skin," Water Resources Research, Vol. 20, No. 7, pp. 831-846.

Montazer, P., and P. E. Harrold, 1985. "Theoretical Calculation of Hydraulic Properties of Unsaturated Fractures from Roughness Profiles," Transactions of the American Geophysical Union, Abstract H12C-05, Vol. 66, No. 46, p. 883.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Montazer, P., E. P. Weeks, F. Thamir, S. N. Yard, and P. B. Hofrichter, 1986. "Monitoring the Vadose Zone in Fractured Tuff, Yucca Mountain, Nevada," in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, November 19-21, 1985, Denver, Colo., National Water Well Association, Worthington, Ohio, pp. 439-469.

Mook, W. G., 1976. "The Dissolution-Exchange Model for Dating Groundwater with 14-C," in Interpretation of Environmental Isotope and Hydrochemical Data in Groundwater Hydrology, Proceedings of an Advisory Group Meeting Organized by the IAEA, Vienna, January 27-31, 1975, International Atomic Energy Agency, Vienna, Austria, pp. 213-225.

Mook, W. G., 1980. Handbook of Environmental Isotope Geochemistry, Vol. 1, P. Fritz and J. C. Fontes (eds.), Chapter 2, Elsevier Scientific Publishing Co., New York, pp. 49-74.

Morales, A. R. (comp.), 1986. Technical Correspondence in Support of the Final Environmental Assessment, SAND85-2509, Sandia National Laboratories, Albuquerque, N. Mex.

Morros, P. G., 1982a. Nevada Water Laws, Title 48--Water, Division of Water Resources, State of Nevada.

Morros, P. G., 1982b. "Ruling in the Matter of Applications 34760...45090 Filed to Appropriate Waters from an Underground Source in the Amargosa Desert Ground Water Basin, Nye County, Nevada," Office of the Nevada State Engineer, Carson City.

Mualem, Y., 1976. "A New Model for Predicting the Hydraulic Conductivity of Unsaturated Porous Materials," Water Resources Research, Vol. 12, No. 3, American Geophysical Union, Washington, D.C., pp. 513-522.

Muller, A. B., and A. L. Mayo, 1986. "13C Variation in Limestone on an Aquifer-Wide Scale and Its Effects on Groundwater 14C Dating Models," Radiocarbon, Vol. 28, No. 3, pp. 1041-1054.

"BEST AVAILABLE COPY"

NRC (U.S. Nuclear Regulatory Commission), 1983. Draft Site Characterization Analysis of the Site Characterization Report for the Basalt Waste Isolation Project, NUREG-0960, Vol. 2, Appendices F and I, Washington, D.C., pp. F1-F17, I1-I4.

NRC (U.S. Nuclear Regulatory Commission), 1986a. "Disposal of High-Level Radioactive Wastes in Geologic Repositories; Conforming Amendments," Federal Register, Vol. 51, Washington, D.C., pp. 22288-22300.

NRC (U.S. Nuclear Regulatory Commission), 1986b. Draft Generic Technical Position: Interpretation and Identification of the Extent of the Disturbed Zone in the High-Level Waste Rule (10 CFR 60), M. Gordon, N. Tanious, J. Bradbury, L. Kovack and R. Codell (eds.), Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

Naff, R. L., G. B. Maxey, and R. F. Kaufmann, 1974. Interbasin Ground-Water Flow in Southern Nevada, Nevada Bureau of Mines & Geology Report 20, University of Nevada, Reno.

Nichols, W. D., 1986. Geohydrology of the Unsaturated Zone at the Burial Site for Low-Level Radioactive Waste Near Beatty, Nye County, Nevada, USGS-OFR-85-198, Open-File Report, U.S. Geological Survey.

Nichols, W. D., and J. P. Akers, 1985. Water-Level Declines in the Amargosa Valley Area, Nye County, Nevada, 1962-84, USGS-WRI-85-4273, Water Resources Investigations Report, U.S. Geological Survey.

O'Farrell, T. P., and E. Collins, 1983. 1982 Biotic Survey of Yucca Mountain, Nevada Test Site, Nye County, Nevada, EGG-10282-2004, EG&G, Inc., Goleta, Calif.

O'Farrell, T. P., and E. Collins, 1984. 1983 Biotic Studies of Yucca Mountain, Nevada Test Site, Nye County, Nevada, EGG-10282-2031, EG&G, Inc., Goleta, Calif.

O'Farrell, T. P., and L. A. Emery, 1976. Ecology of the Nevada Test Site: A Narrative Summary and Annotated Bibliography, NVO-167, U.S. Department of Energy, Nevada Operations Office, Las Vegas, Nev.

Office of the State Engineer, 1974. Water for Nevada, Forecasts for the Future, Agriculture, Water Planning Report No. 8, Department of Conservation and Natural Resources, State of Nevada, Carson City.

Ortiz, T. S., R. L. Williams, F. B. Nimick, B. C. Whittet, and D. L. South, 1985. A Three-Dimensional Model of Reference Thermal/Mechanical and Hydrological Stratigraphy at Yucca Mountain, Southern Nevada, SAND84-1076, Sandia National Laboratories, Albuquerque, N. Mex.

Pahrump Valley Times-Star, 1986. "ABC to Close Mine April 12, Mill in June." March 14, 1986, Pahrump, Nev., pp. 1, 4.

Papendick, R. I., and G. S. Campbell, 1981. "Theory and Measurement of Water Potential," Water Potential Relations in Soils Microbiology, SSSA Special Publication No. 9, Soil Science Society of America, Madison, Wis., pp. 1-22.

Pedalino, J. P., 1986. Letter from J. D. Pedalino (H&N) to M. C. Giampaoli (SAIC), NTS:TPO:86-128, December 5, 1986; regarding request for support on the NNWSI Project Site Characterization Plan for Yucca Mountain.

Peters, R. R., E. A. Klavetter, I. J. Hall, S. C. Blair, P. R. Heller and G. W. Gee, 1984. Fracture and Matrix Hydrologic Characteristics of Tuffaceous Materials from Yucca Mountain, Nye County, Nevada, SAND84-1471, Sandia National Laboratories, Albuquerque, N. Mex.

Peters, R. R., J. H. Gauthier, and A. L. Dudley, 1986. The Effect of Percolation Rate on Water-Travel Time in Deep, Partially Saturated Zones, SAND85-0854, Sandia National Laboratories, Albuquerque, N. Mex.

Pexton, R. E., 1984. Geology and Paleohydrology of a Part of the Amargosa Desert, Nevada, unpublished Master's thesis, University of California, Berkeley.

Pistrang, M. A., and F. Kunkel, 1964. A Brief Geologic and Hydrologic Reconnaissance of the Furnace Creek Wash Area, Death Valley National Monument, California, USGS-WSP-1779-Y, Water-Supply Paper, U.S. Geological Survey.

Quade, J., 1986. "Late Quaternary Environmental Changes in the Upper Las Vegas Valley, Nevada," Quaternary Research, Vol. 26, pp. 340-357.

Quiring, R. F., 1983. Precipitation Climatology of the Nevada Test Site, WSNSO 351-88, National Weather Service, U.S. Department of Commerce, Las Vegas, Nev.

Rantz, S. E., 1968. "A Suggested Method for Estimating Evapotranspiration by Native Phreatophytes," Geological Survey Research 1968, U.S. Geological Survey Professional Paper 600-D, U.S. Government Printing Office, Washington, D.C., pp. D10-D12.

Rao, S. M., 1983. "Use of Radioactive Tracers in Studies on Infiltration Through Unsaturated Zone," in Tracer Methods in Isotope Hydrology, Proceedings of an Advisory Group Meeting Organized by the International Atomic Energy Agency and Held in Vienna, 27 September to 1 October 1982, IAEA-TECDOC-291, International Atomic Energy Agency, Vienna, Austria, pp. 47-66.

Raven, P. H., and D. I. Axelrod, 1978. Origin and Relationships of the California Flora, University of California Publications in Botany, Vol. 72, University of California Press, Berkeley.

Reda, D. C., 1985a. "Slip-Flow Experiments in Welded Tuff: The Knudsen Diffusion Problem," International Symposium on Coupled Processes Affecting the Performance of a Nuclear Waste Repository, September 18-20, 1985, Lawrence Berkeley Laboratory, Berkeley, Calif., pp. 191-196.

Reda, D. C., 1985b. Liquid Permeability Measurements on Densely Welded Tuff Over the Temperature Range 25 deg. to 90 deg. C, SAND85-2482, Sandia National Laboratories, Albuquerque, N. Mex.

Rice, W. A., 1984. Preliminary Two-Dimensional Regional Hydrologic Model of the Nevada Test Site and Vicinity, SAND83-7466, Sandia National Laboratories, Albuquerque, N. Mex.

Riggs, A. C., 1984. "Major Carbon-14 Deficiency in Modern Snail Shells from Southern Nevada Springs," Science, Vol. 224, pp. 58-61.

Ripple, C. D., J. Rubin, and T. E. A. van Hylckama, 1972. Estimating Steady-State Evaporation Rates from Bare Soils Under Conditions of High Water Table, USGS-WSP-2019-A, Water-Supply Paper, U.S. Geological Survey.

Robinson, T. W., 1957. "The Phreatophyte Problem," Symposium on Phraetophytes, Pacific Southwest Regional Meeting, American Geophysical Union, Sacramento, California, February 14, 15, 1957, Phreatophyte Subcommittee of Pacific Southwest Inter-Agency Committee, American Geophysical Union, Sacramento, Calif. pp. 1-11.

Robinson, T. W., 1970. Evapotranspiration by Woody Phreatophytes in the Humbolt River Valley Near Winnemucca, Nevada, U.S. Geological Survey Professional Paper 491-D, U.S. Government Printing Office, Washington, D.C.

Robison, J. H., 1984. Ground-Water Level Data and Preliminary Potentiometric-Surface Maps, Yucca Mountain and Vicinity, Nye County, Nevada, USGS-WRI-84-4197, Water-Resources Investigations Report, U.S. Geological Survey.

Robison, J. H., 1986. Letter from J. H. Robison (USGS) to D. L. Vieth (DOE/NVO), September 17, 1986; regarding revisions of Yucca Mountain water levels.

Rosholt, J. N., C. A. Bush, W. J. Carr, D. L. Hoover, W C Swadley, and J. R. Dooley, Jr., 1985. Uranium-Trend Dating of Quaternary Deposits in the Nevada Test Site Area, Nevada and California, USGS-OFR-85-540, Open-File Report, U.S. Geological Survey.

Ross, B., 1984. "A Conceptual Model of Deep Unsaturated Zones with Negligible Recharge," Water Resources Research, Vol. 20, No. 11, pp. 1627-1629.

Rulon, J., G. S. Bodvarsson, and P. Montazer, 1986. Preliminary Numerical Simulations of Groundwater Flow in the Unsaturated Zone, Yucca Mountain, Nevada, LBL-20553, Lawrence Berkeley Laboratory, Berkeley, Calif.

Rush, F. E., 1968. Index of Hydrographic Areas in Nevada, Department of Conservation and Natural Resources Water Resources-Information Series Report 6, State of Nevada, Carson City.

Rush, F. E., 1970. Regional Ground-Water Systems in the Nevada Test Site Area, Nye, Lincoln, and Clark Counties, Nevada, Department of Conservation and Natural Resources, Water Resources Reconnaissance Series Report 54, State of Nevada, Carson City.

Rush, F. E., W. Thordarson, and L. Bruckheimer, 1983. Geohydrologic and Drill-Hole Data for Test Well USW H-1, Adjacent to Nevada Test Site, Nye County, Nevada, USGS-OFR-83-141, Open-File Report, U.S. Geological Survey.

Rush, F. E., W. Thordarson, and D. G. Pyles, 1984. Geohydrology of Test Well USW H-1, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4032, Water-Resources Investigations Report, U.S. Geological Survey.

Russell, B., 1948. Human Knowledge, Its Scope and Limits, Simon and Schuster, New York, p. 311.

Russell, M. B., and L. A. Richards, 1938. "The Determination of Soil Moisture Energy Relations by Centrifugation," in Proceedings of the Soil Science Society of America, Washington, D.C., November 16-18, 1938, Morgantown, West Va., pp. 65-69.

SAIC (Science Application International Corporation), 1986. Preliminary Socioeconomic Profile of Nye County, Nevada: Community Services, DOE/NV/10270-3, Las Vegas, Nev.

SNL (Sandia National Laboratories), 1985. System 2000 Tuff Data Base, Version 11,002, Sandia National Laboratories, Department 6310, Albuquerque, N. Mex.

Sammis, T. W., and L. W. Gay, 1979. "Evapotranspiration from an Arid Zone Plant Community," Journal of Arid Environments, Vol. 2, pp. 313-321.

Sass, J. H., and A. H. Lachenbruch, 1982. Preliminary Interpretation of Thermal Data from the Nevada Test Site, USGS-OFR-82-973, Open-File Report, U.S. Geological Survey.

Sass, J. H., A. H. Lachenbruch, and C. W. Mase, 1980. Analysis of Thermal Data from Drill Holes UE24a-3 and UE25a-1, Calico Hills and Yucca Mountain, Nevada Test Site, USGS-OFR-80-826, Open-File Report, U.S. Geological Survey.

Schoff, S. L., and J. E. Moore (comps.), 1964. Chemistry and Movement of Ground Water, Nevada Test Site, USGS-TEI-838, Trace-Elements Investigations Report, U.S. Geological Survey.

Scott, B. R., T. J. Smales, F. E. Rush, and A. S. Van Denburgh, 1971. Water for Nevada, Water Planning Report 3, Nevada Department of Conservation and Natural Resources, Division of Water Resources, Carson City, Nev.

Scott, R. B., and J. Bonk, 1984. Preliminary Geologic Map of Yucca Mountain, Nye County, Nevada, with Geologic Sections, USGS-OFR-84-494, Open-File Report, U.S. Geological Survey.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Sinnock, S., Y. T. Lin, and J. P. Brannen, 1984. Preliminary Bounds on the Expected Postclosure Performance of the Yucca Mountain Repository Site, Southern Nevada, SAND84-1492, Sandia National Laboratories, Albuquerque, N. Mex.

Sinnock, S. (ed.), Y. T. Lin, and M. S. Tierney, 1986. Preliminary Estimates of Groundwater Travel Time and Radionuclide Transport at the Yucca Mountain Repository Site, SAND85-2701, Sandia National Laboratories, Albuquerque, N. Mex.

Smith, D. D., and J. S. Coogan, 1984. Population Distribution Around the Nevada Test Site - 1984, EPA-600/4-84-067, U.S. Environmental Protection Agency, Las Vegas, Nev.

Smith, G. I., and F. A. Street-Perrott, 1983. "Pluvial Lakes of the Western United States," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, pp. 190-212.

Spaulding, W. G., S. W. Robinson, and F. L. Paillet, 1984. Preliminary Assessment of Climatic Change during Late Wisconsin Time, Southern Great Basin and Vicinity, Arizona, California, and Nevada, USGS-WRI-84-4328, Water-Resources Investigations Report, U.S. Geological Survey.

Squires, R. R., and R. L. Young, 1984. Flood Potential of Fortymile Wash and Its Principal Southwestern Tributaries, Nevada Test Site, Southern Nevada, USGS-WRI-83-4001, Water-Resources Investigations Report, U.S. Geological Survey.

Stewart, J. H., and F. G. Poole, 1974. "Lower Paleozoic and Uppermost Precambrian Cordilleran Miogeocline, Great Basin, Western United States," Tectonics and Sedimentation, W. R. Dickinson (ed.), Society of Economic Paleontologists & Mineralogists Special Publication 22, pp. 28-57.

Swadley, W C, 1983. "Map Showing Surficial Geology of the Lathrop Wells Quadrangle, Nye County, Nevada," U.S. Geological Survey Miscellaneous Investigations Series Map I-1361, Scale 1:48,000, U.S. Geological Survey.

Swadley, W C, and D. L. Hoover, 1983. Geology of Faults Exposed in Trenches in Crater Flat, Nye County, Nevada, USGS-OFR-83-608, Open-File Report, U.S. Geological Survey.

Swadley, W C, D. L. Hoover, and J. N. Rosholt, 1984. Preliminary Report on Late Cenozoic Faulting and Stratigraphy in the Vicinity of Yucca Mountain, Nye County, Nevada, USGS-OFR-84-788, Open-File Report, U.S. Geological Survey.

Szabo, B. J., W. J. Carr, and W. C. Gottschall, 1981. Uranium-Thorium Dating of Quaternary Carbonate Accumulations in the Nevada Test Site Region, Southern Nevada, USGS-OFR-81-119, Open-File Report, U.S. Geological Survey.

Tamers, M. A., 1967. "Surface-Water Infiltration and Groundwater Movement in Arid Zones of Venezuela," in Isotopes in Hydrology, Proceedings of the Symposium on Isotopes in Hydrology, Vienna, 14-18 November, 1966, International Atomic Energy Agency, Vienna, Austria, pp. 339-353.

Taylor, E. M., and H. E. Huckins, 1986. "Carbonate and Opaline Silica Fault-Filling on the Bow Ridge Fault, Yucca Mountain, Nevada--Deposition from Pedogenic Processes or Upwelling Ground Water?," Geological Society of America, Abstracts with Programs, Vol. 18, No. 5, p. 418.

Taylor, E. M., and R. R. Shroba, 1986. "Morphology of Secondary Carbonate and Opaline Silica in Soils of Different Ages at the Nevada Test Site, Nye County, Nevada," Geological Society of America, Abstracts with Programs, Vol. 18, No. 6, p. 769.

Thamir, F., and C. M. McBride, 1985. "Measurements of Matric and Water Potentials in Unsaturated Tuff at Yucca Mountain, Nevada;" in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, National Water Well Association, Dublin, Ohio, pp. 470-487.

Thordarson, W., 1983. Geohydrologic Data and Test Results from Well J-13, Nevada Test Site, Nye County, Nevada, USGS-WRI-83-4171, Water-Resources Investigations Report, U.S. Geological Survey.

Thordarson, W., and B. P. Robinson, 1971. Wells and Springs in California and Nevada within 100 Miles of the Point 37 deg. 15 min. N., 116 deg., 25 min. W., on Nevada Test Site, USGS-474-85, U.S. Geological Survey.

Thordarson, W., R. A. Young, and I. J. Winograd, 1967. Records of Wells and Test Holes in the Nevada Test Site and Vicinity (through December, 1966), USGS-TEI-872, Trace-Elements Investigations Report, U.S. Geological Survey.

Thordarson, W., F. E. Rush, R. W. Spengler, and S. J. Waddell, 1984. Geohydrologic and Drill-Hole Data for Test Well USW H-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-149, Open-File Report, U.S. Geological Survey, 28 p.

Thordarson, W., F. E. Rush, and S. J. Waddell, 1985. Geohydrology of Test Well USW H-3, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4272, Water-Resources Investigations Report, U.S. Geological Survey.

Tien, P-L, M. D. Siegel, C. D. Updegraff, K. K. Wahi, and R. V. Guzowski, 1985. Repository Site Data Report For Unsaturated Tuff, Yucca Mountain, Nevada, NUREG/CR-4110, U.S. Nuclear Regulatory Commission, Washington, D.C.

Todd, D. K., 1980. Groundwater Hydrology, Second Edition, John Wiley & Sons, New York. pp. 362-368.

Toth, J. A., 1963. "A Theoretical Analysis of Ground-Water Flow in Small Drainage Basins," Journal of Geophysical Research, Vol. 68, No. 16, pp. 4795-4812.

Travis, B. J., 1986. Stochastic Methodology, Milestone Report - R368, (Mimeo), Los Alamos National Laboratory, Los Alamos, N. Mex.

USGS (U.S. Geological Survey), 1978. Hydrologic Unit Map, 1978, State of California, Scale 1:500,000, U.S. Water Resources Council, Reston, Va.

USGS (U.S. Geological Survey) (comp.), 1984. A Summary of Geologic Studies through January 1, 1983, of a Potential High-Level Radioactive Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-84-792, Open-File Report, U.S. Geological Survey.

van Genuchten, M. Th., 1980. "A Closed-Form Equation for Predicting the Hydraulic Conductivity of Unsaturated Soils," Soil Science Society of America Journal, Vol. 44, No. 4, pp. 892-898.

van Genuchten, R., 1978. Calculating the Unsaturated Hydraulic Conductivity with a New Closed-Form Analytical Model, Water Resources Bulletin, Research Report 78-WR-08, Princeton University Press, Princeton, New Jersey.

Vaniman, D., J. Downey, D. Bish, J. O'Neil, and S. Levy, 1985. Letter from D. Vaniman (LANL), J. Downey (USGS), D. Bish (LANL), J. O'Neil (USGS), and S. Levy (LANL) to D. L. Vieth (DOE/NVO), TWS-ESS-1-7/85-20, July 17, 1985; discussing impact of fault-related mineral deposits at Yucca Mountain.

Voegele, M. D., 1986a. Letter from M. D. Voegele (SAIC) to M. B. Blanchard (DOE/NVO), L86-TPD-SM-81; regarding final summary of workshop on calcite-silica deposits near Yucca Mountain held on February 28, 1986.

Voegele, M. D., 1986b. Letter from M. D. Voegele (SAIC) to M. B. Blanchard (DOE/NVO), L86-TPO-SRM-93; regarding summary of workshop on calcite-silica deposits near Yucca Mountain held on April 28, 1986.

Waddell, R. K., 1982. Two-Dimensional, Steady-State Model of Ground-Water Flow, Nevada Test Site and Vicinity, Nevada-California, USGS-WRI-82-4085, Water-Resources Investigations Report, U.S. Geological Survey.

Waddell, R. K., 1984. "Solute-Transport Characteristics of Fractured Tuffs at Yucca Mountain, Nevada Test Site--A Preliminary Assessment," Geological Society of America Abstracts with Programs, Vol. 16, No. 6, p. 684.

Waddell, R. K., 1985. Hydrologic and Drill-Hole Data for Test Wells UE29a#1 and UE29a#2, Fortymile Canyon, Nevada Test Site, USGS-OFR-84-142, Open-File Report, U.S. Geological Survey.

Waddell, R. K., J. H. Robison, and R. K. Blankennagel, 1984. Hydrology of Yucca Mountain and Vicinity, Nevada-California--Investigative Results Through Mid-1983, USGS-WRI-84-4267, Water-Resources Investigations Report, U.S. Geological Survey.

Walker, G. E., and T. E. Eakin, 1963. Geology and Ground Water of Amargosa Desert, Nevada-California, Department of Conservation and Natural Resources, Ground-Water Resources Reconnaissance Series Report 14, State of Nevada, Carson City.

Wang, J. S. Y., and T. N. Narasimhan, 1984. Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured, Porous Tuff at Yucca Mountain, LBL-18473, Lawrence Berkeley Laboratory, Berkeley, Calif.

Wang, J. S. Y., and T. N. Narasimhan, 1985. Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured Porous Tuff at Yucca Mountain, SAND84-7202, Sandia National Laboratories, Albuquerque, N. Mex.

Wang, J. S. Y., and T. N. Narasimhan, 1986. Hydrologic Mechanisms Governing Partially Saturated Fluid Flow in Fractured Welded Units and Porous Non-Welded Units at Yucca Mountain, SAND85-7114, Sandia National Laboratories, Albuquerque, N. Mex.

Watson, P., P. Sinclair, and R. Waggoner, 1976. "Quantitative Evaluation of a Method for Estimating Recharge to the Desert Basins of Nevada," Journal of Hydrology, Vol. 31, Elsevier Scientific Publishng Co., Amsterdam, pp. 335-357.

Weeks, E. P., 1978. Field Determination of Vertical Permeability to Air in the Unsaturated Zone, Geological Survey Professional Paper 1051, U.S. Government Printing Office, Washington, D.C.

Weeks, E. P., and W. E. Wilson, 1984. Preliminary Evaluation of Hydrologic Properties of Cores of Unsaturated Tuff, Test Well USW H-1, Yucca Mountain, Nevada, USGS-WRI-84-4193, Water-Resources Investigations Report, U.S. Geological Survey.

West, N. E., and G. F. Gifford, 1976. "Rainfall Interception by Cool-desert Shrubs," Journal of Range Management, Vol. 29, No. 2, pp. 171-172.

White, A. F., 1979. Geochemistry of Ground Water Associated with Tuffaceous Rocks, Oasis Valley, Nevada, U.S. Geological Survey Professional Paper 712-E, U.S. Geological Survey.

White, A. F., and H. C. Claassen, 1980. "Kinetic Model for the Short-Term Dissolution of a Rhyolitic Glass," Chemical Geology, Vol. 28, pp. 91-109.

White, A. F., H. C. Claassen, and L. V. Benson, 1980. The Effect of Dissolution of Volcanic Glass on the Water Chemistry in a Tuffaceous Aquifer, Rainier Mesa, Nevada, USGS-WSP-1535-Q, Water-Supply Paper, U.S. Geological Survey.

White, D. E., 1973. "Characteristics of Geothermal Resources," Geothermal Energy, Resources, Production, Stimulation, P. Kruger and C. Otte (eds.), Stanford University Press, Stanford, Calif.

Whitfield, M. S., 1985. "Vacuum Drilling of Unsaturated Tuffs at a Potential Radioactive-Waste Repository, Yucca Mountain, Nevada," Characterization and Monitoring of the Vadose Zone, National Water Well Association Symposium, Denver, Colorado, November 19-21, 1985.

Whitfield, M. S., Jr., E. P. Eshom, W. Thordarson, and D. H. Schaefer, 1985. Geohydrology of Rocks Penetrated by Test Well USW H-4, Yucca Mountain, Nye County, Nevada, USGS-WRI-85-4030, Water-Resources Investigations Report, U.S. Geological Survey.

Wilson, W. E., 1985. Letter from W. E. Wilson (USGS) to D. L. Vieth (DOE/NVO), December 24, 1985; regarding unsaturated zone flux.

Winograd, I. J., 1962a. Interbasin Movement of Ground Water at the Nevada Test Site, USGS-TEI-807, Trace-Elements Investigations Report, U.S. Geological Survey.

Winograd, I. J., 1962b. "Interbasin Movement of Ground Water of the Site, Nevada," Geological Survey Research 1962, U.S. Geological Survey Professional Paper 450-C, U.S. Geological Survey.

Winograd, I. J., 1981. "Radioactive Waste Disposal in Thick Unsaturated Zones," Science, Vol. 212, No. 4502, pp. 1457-1464.

Winograd, I. J., and G. C. Doty, 1980. Paleohydrology of the Southern Great Basin, with Special Reference to Water Table Fluctuations Beneath the Nevada Test Site during the Late(?) Pleistocene, USGS-OFR-80-569, Open-File Report, U.S. Geological Survey.

Winograd, I. J., and I. Friedman, 1972. "Deuterium as a Tracer of Regional Ground-water Flow, Southern Great Basin, Nevada and California," Geological Society of America Bulletin, Vol. 83, No. 12, pp. 3691-3708.

Winograd, I. J., and F. J. Pearson, Jr., 1976. "Major Carbon-14 Anomaly in a Regional Carbonate Aquifer: Possible Evidence for Megascale Channeling, South Central Great Basin," Water Resources Research, Vol. 12, No. 6, pp. 1125-1143.

Winograd, I. J. and A. C. Riggs, 1984. "Recharge to the Spring Mountains, Nevada: Isotopic Evidence," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, p. 698.

Winograd, I. J., and B. J. Szabo, 1986. Water-Table Decline in the South-Central Great Basin during the Quaternary Period: Implications for Toxic-Waste Disposal, USGS-OFR-85-697, Open-File Report, U.S. Geological Survey.

Winograd, I. J., and W. Thordarson, 1968. "Structural Control of Ground-Water Movement in Miogeosynclinal Rocks of South-Central Nevada," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 35-48.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

Winograd, I. J., B. J. Szabo, T. B. Coplen, A. C. Riggs, and P. T. Kolesar, 1985. "Two-Million-Year Record of Deuterium Depletion in Great Basin Ground Waters," Science, Vol. 227, pp. 519-522.

Witherill, V., 1986. Letter from V. F. Witherill (DOE/NTS) to M. D. Tuebner (SAIC), June 4, 1986, DOE/NTSO-8450; regarding water supply information for the Nevada Test Site.

Wu, S. S. C., 1985. Topographic Maps of Yucca Mountain Area, Nye County, Nevada, USGS-OFR-85-620, Open-File Report, Scale 1:5,000, U.S. Geological Survey.

Yang, A., 1986. Summary of Progress Report, Unsaturated Zone Hydrochemistry, February 12, 1986, U.S. Geological Survey.

Yang, I. C., H. H. Haas, E. P. Weeks, and D. C. Thorstenson, 1985. "Analysis of Gaseous-Phase Stable and Radioactive Isotopes in the Unsaturated Zone, Yucca Mountain, Nevada," in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, National Water Well Association, Dublin, Ohio, pp. 488-506.

Young, R. A., 1972. Water Supply for the Nuclear Rocket Development Station at the U.S. Atomic Energy Commission's Nevada Test Site, USGS-WSP-1938, Water-Supply Paper, U.S. Geological Survey.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

NNI.881207.0091

REFERENCES FOR CHAPTER 4

Airey, P. L., D. Roman, C. Golian, S. Short, T. Nightingale, R. T. Lowson and G. E. Calf, 1984. Radionuclide Migration Around Uranium Ore Bodies - Analogue of Radioactive Waste Repositories, Annual Report, 1982-83, AAEC/C40, Australian Atomic Energy Commission Research Establishment, Lucas Heights Research Laboratories, University of Sydney.

Airey, P. L., D. Roman, C. Golian, S. Short, T. Nightingale, T. Payne, R. T. Lowson and P. Duerden, 1985. Radionuclide Migration Around Uranium Ore Bodies - Analogue of Radioactive Waste Repositories, Annual Report 1983-84, AAEC/C45, Australian Atomic Energy Commission Research Establishment, Lucas Heights Research Laboratories, University of Sydney.

Allard, B., 1983. Actinide Solution Equilibria and Solubilities in Geologic Systems, KBS-TR-83-35, Svensk Karnbransleforsorjning AB/Avdelning KBS, Stockholm, Sweden.

Allard, B., and B. Torstenfelt, 1983. On the Solubility of Technetium in Geochemical Systems, KBS-TR-83-60, Svensk Karnbransleforsorjning AB/Avdelning KBS, Stockholm, Sweden.

Apps, J. A., C. L. Carnahan, P. C. Lichtner, M. C. Michel, D. Perry, R. J. Silva, O. Weres, and A. F. White, 1983. Status of Geochemical Problems Relating to the Burial of High-Level Radioactive Waste, 1982, NUREG/CR-3062, U.S. Nuclear Regulatory Commission, Washington, D.C.

Ausloos, P., 1969. Fundamental Processes in Radiation Chemistry, Interscience Publishers, New York, pp. 651-685.

Avogadro, A., and G. De Marsily, 1984. "The Role of Colloids in Nuclear Waste Disposal," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 405-505.

Avogadro, A., and F. Lanza, 1982. "Relationship Between Glass Leaching Mechanism and Geochemical Transport of Radionuclides," in Scientific Basis for Nuclear Waste Management V, Materials Research Society Symposia Proceedings, Berlin, Germany, June 7-10, 1982, W. Lutze (ed.), Vol. 5, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 103-112.

Baes, C. F., and R. E. Mesmer, 1976. The Hydrolysis of Cations, A Wiley-Interscience Publication, John Wiley & Sons, New York, pp. 1, 6-7, 176-177, 180-181, 184-191.

Bargar, K. E., and M. H. Beeson, 1981. "Hydrothermal Alteration in Research Drill Hole Y-2, Lower Geyser Basin, Yellowstone National Park, Wyoming," The American Mineralogist, Vol. 66, No. 5-6, Mineralogical Society of America, pp. 473-490.

Bargar, K. E., and M. H. Beeson, 1984a. "Hydrothermal Mineralogy in Research Drill Hole Y-3, Yellowstone National Park, Wyoming," Geothermal Resources Council Transactions, Vol. 8, pp. 111-117.

Bargar, K. E., and M. H. Beeson, 1984b. Hydrothermal Alteration in Research Drill Hole Y-6, Upper Firehole River, Yellowstone National Park, Wyoming, U.S. Geological Survey Professional Paper 1054-B, U.S. Government Printing Office, Washington, D.C.

Bargar, K. E., and T. E. C. Keith, 1984. Hydrothermal Alteration Mineralogy in Newberry 2 Drill Core, Newberry Volcano, Oregon, USGS-OFR-84-92, Open-File Report, U.S. Geological Survey.

Bargar, K. E., and L. J. P. Muffler, 1982. "Hydrothermal Alteration in Research Drill Hole Y-11 from a Vapor-Dominated Geothermal System at Mud Volcano, Yellowstone National Park, Wyoming," Thirty-Third Annual Field Conference, Wyoming Geological Association Guidebook, pp. 139-152.

Bazan, F., and J. Rego, 1985. Parametric Testing of a DWPF Glass, UCRL-53606, Lawrence Livermore National Laboratory, Livermore, Calif.

Benson, L. V., and L. S. Teague, 1980. A Tabulation of Thermodynamic Data for Chemical Reactions Involving 58 Elements Common to Radioactive Waste Package Systems, LBL-11448, Lawrence Berkeley Laboratory, Berkeley, Calif.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bentley, C. B., J. H. Robison, and R. W. Spengler, 1983. Geohydrologic Data for Test Well USW H-5, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-83-853, Open-File Report, U.S. Geological Survey.

Bernkopf, M. F., and J. I. Kim, 1984. Hydrolysereaktionen und Karbonatkomplexierung von Dreiwertigem Americium in Naturlichen Aquatischen System, RCM-02884, Institut fur Radiochemie der Technischen Universitat Munchen, Federal Republic of Germany.

Bidoglio, G., A. De Plano, and A. Chatt, 1983. "Studies on Speciation of Americium, Technecium, and Neptunium in Simulated Vitrified-Waste Leachates," in Scientific Basis for Nuclear Waste Management VI, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1982, G. Brookins (ed.), Vol. 15, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 373-382.

Bish, D. L., 1981. Detailed Mineralogical Characterization of the Bullfrog and Tram Members in USW-G1, with Emphasis on Clay Mineralogy, LA-9021-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., 1984. "Effects of Exchangeable Cation Composition on the Thermal Expansion/Contraction of Clinoptilolite," Clays and Clay Minerals, Vol. 32, No. 6, pp. 444-452.

Bish, D. L., 1985. "Effects of Composition on the Dehydration Behavior of Clinoptilolite and Heulandite," in Proceedings of the International Conference on the Occurrence, Properties, and Utilization of Neutral Zeolites, Budapest, Hungary, August 1985.

Bish, D. L., 1987. Evaluation of Past and Future Alterations in Tuff at Yucca Mountain, Nevada Based on the Clay Mineralogy of Drill Cores USW G-1, G-2, and G-3, LA-10667-MS, draft, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., and S. J. Chipera, 1986. Mineralogy of Drill Holes J-13, UE-25A#1, and USW G-1 at Yucca Mountain, Nevada, LA-10764-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., and D. T. Vaniman, 1985. Mineralogic Summary of Yucca Mountain, Nevada, LA-10543-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., F. A. Caporuscio, J. F. Copp, B. M. Crowe, J. D. Purson, J. R. Smyth, and R. G. Warren, 1981. Preliminary Stratigraphic and Petrologic Characterization of Core Samples from USW-G1, Yucca Mountain, Nevada, A. C. Waters and P. R. Carroll (eds.), LA-8840-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., D. T. Vaniman, F. M. Byers, Jr., and D. E. Broxton, 1982. Summary of the Mineralogy-Petrology of Tuffs of Yucca Mountain and the Secondary Phase Thermal Stability in Tuffs, LA-9321-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bish, D. L., A. E. Ogard, D. T. Vaniman, and L. Benson, 1984. "Minerology-Petrology and Groundwater Geochemistry of Yucca Mountain Tuffs," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 283-291.

Blacic, J. D., D. T. Vaniman, D. L. Bish, C. J. Duffy, and R. C. Gooley, 1986. Effects of Long-Term Exposure of Tuffs to High-Level Nuclear Waste Repository Conditions: Final Report, LA-9330-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blake, C. A., C. F. Coleman, K. B. Brown, D. G. Hill, R. S. Lowrie, and J. M. Schmitt, 1956. "Studies in the Carbonate-Uranium System," Journal of American Chemical Society, Vol. 78, pp. 5978-5983.

Boersma, M. D., 1984. Letter from M. D. Boersma (Savannah River Laboratory) to J. F. Kerrisk (Los Alamos National Laboratory), October 8, 1984; with enclosure tables of "DWFP Product Glass Isotopes and Radioactivity."

Branche, G., F. Chantret, A. Guillemaut, and R. Pouget, 1975. "Donnees Chimiques et Mineralogiques sur le Gisement d'Oklo," Le Phenomene d'Oklo, STI/PUB/405, International Atomic Energy Agency, pp. 119-132.

Breck, D. W., 1974. Zeolite Molecular Sieves, John Wiley & Sons, New York, pp. 529-592.

Broxton, D. E., D. T. Vaniman, F. Caporuscio, B. Arney, and G. Heiken, 1982. Detailed Petrographic Descriptions and Microprobe Data for Drill Holes USW-G2 and UE25b-1H, Yucca Mountain, Nevada, LA-9324-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Broxton, D. E., R. G. Warren, R. C. Hagan, and G. Luedemann, 1986. Chemistry of Diagenetically Altered Tuffs at a Potential Nuclear Waste Repository, Yucca Mountain, Nye County, Nevada, LA-10802-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bryant, E. A., and D. T. Vaniman (comps.), 1984. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, July 1 - September 30, 1983, LA-10006-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., 1985. Petrochemical Variation of Topopah Spring Tuff Matrix with Depth (Stratigraphic Level), Drill Hole USW G-4 Yucca Mountain, Nevada, LA-10561-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., and R. G. Warren, 1983. Revised Volcanic Stratigraphy of Drill Hole J-13, Fortymile Wash, Nevada, Based on Petrographic Modes and Chemistry of Phenocrysts, LA-9652-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., W. J. Carr, P. P. Orkild, W. D. Quinlivan, and K. A. Sargent, 1976. Volcanic Suites and Related Cauldrons of the Timber Mountain-Oasis Valley Caldera Complex, Southern Nevada, U.S. Geological Survey Professional Paper 919, U.S. Government Printing Office, Washington, D.C.

Caporuscio, F. A., and D. T. Vaniman, 1985. Iron and Manganese in Oxide Minerals and in Glasses: Preliminary Consideration of Eh Buffering Potential at Yucca Mountain, Nevada, LA-10369-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Caporuscio, F. A., D. Vaniman, D. Bish, D. Broxton, D. Arney, G. Heiken, F. Byers, R. Gooley, and E. Semarge, 1982. Petrologic Studies of Drill Cores USW-G2 and UE25b-1H, Yucca Mountain, Nevada, LA-9255-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Carlos, B. A., 1985. Minerals in Fractures of the Unsaturated Zone from Drill Core USW G-4, Yucca Mountain, Nye County, Nevada, LA-10415-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Carroll, P. I., F. A. Caporuscio, and D. L. Bish, 1981. Further Description of the Petrology of the Topopah Spring Member of the Paintbrush Tuff in Drill Holes UE25a-1 and USW-G1 and of the Lithic-Rich Tuff in USW-G1, Yucca Mountain, Nevada, LA-9000-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Champ, D. R., W. F. Merritt, and J. L. Young, 1982. "Potential for the Rapid Transport of Plutonium in Groundwater as Demonstrated by Core Column Studies," in Scientific Basis for Nuclear Waste Management V, Materials Research Society Symposia Proceedings, Berlin, Germany, June 7-10, 1982, W. Lutze (ed.), Vol. 5, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 745-754.

Christiansen, R. L., and H. R. Blank, Jr., 1972. Volcanic Stratigraphy of the Quaternary Rhyolite Plateau in Yellowstone National Park, Geological Survey Professional Paper 729-B, U.S. Geological Survey.

Claassen, H. C., 1973. Water Quality and Physical Characteristics of Nevada Test Site Water-Supply Wells, USGS-474-158, U.S. Geological Survey.

Claassen, H. C., 1985. Sources and Mechanisms of Recharge for Ground Water in the West-Central Amargosa Desert, Nevada--A Geochemical Interpretation, U.S. Geological Survey Professional Paper 712-F, U.S. Government Printing Office, Washington, D.C.

Coles, D. G., and L. D. Ramspott, 1982. "Migration of Ruthenium-106 in a Nevada Test Site Aquifer: Discrepancy Between Field and Laboratory Results," Science, Vol. 215, pp. 1235-1237.

Couture, R. A., 1985. "Rapid Increases in Permeability and Porosity of Bentonite-Sand Mixtures Due to Alteration by Water Vapor," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Materials Research Society, Pittsburgh, Penn., pp. 515-522.

Craig, R. W., R. L. Reed, and R. W. Spengler, 1983. Geohydrologic Data for Test Well USW H-6, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-83-856, Open-File Report, U.S. Geological Survey, 35 p.

Crank, J., 1975. The Mathematics of Diffusion, Second Edition, Oxford University Press, London, pp. 121-146, 331-333

Croff, A. G., and C. W. Alexander, 1980. Decay Characteristics of Once-Through LWR and LMFBR Spent Fuels, High-Level Wastes, and Fuel-Assembly Structural Material Waste, ORNL/TM-7431, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Crowe, B. M., and D. T. Vaniman, (comps.), 1985. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, January 1 - March 31, 1984, LA-10154-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., M. E. Johnson, and R. J. Beckman, 1982. "Calculation of the Probability of Volcanic Disruption of a High-Level Radioactive Waste Repository within Southern Nevada, USA," Radioactive Waste Management and the Nuclear Fuel Cycle, Vol. 3, No. 2, pp. 167-190.

Curtis, D. B., 1985. The Chemical Coherence of Natural Spent Fuel at the Oklo Nuclear Reactors, Technical Report 85-04, Svensk Karnbranslenhantering AB., Swedish Nuclear Fuel & Waste Management Co.

Curtis, D. B., and A. J. Gancarz, 1983. Radiolysis in Nature: Evidence from the Oklo Natural Reactors, Technical Report 83-10, Svensk Karnbransleforsorjning/Avdelning KBS.

DOE (U.S. Department of Energy), 1986. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

Daniels, W. R. (comp.), 1981. Laboratory and Field Studies Related to the Radionuclide Migration Project, October 1, 1979-September 30, 1980, LA-8670-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Daniels, W. R., and J. L. Thompson (comps.), 1984. Laboratory and Field Studies Related to the Radionuclide Migration Project, October 1, 1982 - September 30, 1983, LA-10121-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Daniels, W. R., K. Wolfsberg, R. S. Rundberg, with others, 1982. Summary Report on the Geochemistry of Yucca Mountain and Environs, J. Heiken (ed.), LA-9328-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Daniels, W. R., B. R. Erdal, and D. T. Vaniman (comps.), 1983. Research and Development Related to the Nevada Nuclear Waste Storage Investigations: July 1-September 30, 1982, LA-9577-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Drever, J. I., 1982. "Colloid Properties," The Geochemistry of Natural Waters, Prentice Hall, New Jersey, pp. 78-89.

EPA (U.S. Environmental Protection Agency), 1976. Environmental Monitoring Report for the Nevada Test Site and Other Test Areas Used for Underground Nuclear Detonations, January through December, 1975, EMSL-LV-539-4, Las Vegas, Nev., p. 62.

Eisenbud, M., K. Krauskopf, E. P. Franca, W. Lei, R. Ballad, P. Linsalata, and K. Fujimori, 1984. "Natural Analogues for the Transuranic Actinide Elements: An Investigation in Minas Gerais, Brazil," Environmental Geological Water Science, Vol. 6, No. 1, pp. 1-9.

Freeze, R. A., and J. A. Cherry, 1979. Groundwater, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 389-390, 551-552

Fried, S. M., A. M. Friedman, J. J. Hines, and L. A. Quarterman, 1975. Annual Report on DWMT Project AN0115A, FY 1975, ANL-75-64, Argonne National Laboratory, Argonne, Ill.

Gancarz, A. J., 1978. "U-Pb age (2.05 x 10-9 years) of the Oklo Uranium Deposit," in Natural Fission Reactors, Symposium Proceedings, Paris, 1977, STI/PUB/475, International Atomic Energy Agency, Vienna, Austria, pp. 513-520.

Garrels, R. M., and C. L. Christ, 1965. Solutions, Minerals, and Equilibria, Freeman, Cooper & Company, San Francisco, Calif., pp. 12-15, 50-51, 70-71, 262-263.

Gayer, K. H., and H. Leider, 1955. "The Solubility of Uranium Trioxide, UO3H2O, in Solutions of Sodium Hydroxide and Perchloric Acid at 25 deg. C," Journal of American Chemical Society, Vol. 77, pp. 1448-1450.

Goff, F. E., and C. O. Grigsby, 1982. "Valles Caldera Geothermal Systems, New Mexico, U.S.A.," Journal of Hydrology, Vol. 56, pp. 119-136.

Goff, F. E., and S. Sayer, 1980. A Geothermal Investigation of Spring and Well Waters of the Los Alamos Region, New Mexico, LA-8326-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Goff, F. E., C. O. Grigsby, P. E. Trujillo, Jr., D. Counce, and A. Kron, 1981. "Geology, Water Chemistry and Geothermal Potential of the Jemez Springs Area, Canon de San Diego, New Mexico," Journal of Volcanology and Geothermal Research, Vol. 10, Elsevier Scientific Publishing Co., Amsterdam, pp. 227-244.

Goff, F. E., T. McCormick, P. E. Trujillo, Jr., D. Counce, and C. O. Grigsby, 1982. Geochemical Data for 95 Thermal and Nonthermal Waters of the Valles Caldera - Southern Jemez Mountains Region, New Mexico, LA-9367-OBES, Los Alamos National Laboratory, Los Alamos, N. Mex.

Hay, R. L., 1978. "Geologic Occurrence of Zeolites," Natural Zeolites: Occurrence, Properties, Use, L. B. Sand and F. A. Mompton (eds.), Pergamon Press, New York, pp. 135-143.

Hay, R. L., and R. A. Sheppard, 1977. "Zeolites in Open Hydrologic Systems," Mineralogy and Geology of Natural Zeolites, F. A. Mumpton (ed.), Mineralogical Society of America Short Course Notes, Vol. 4, pp. 93-102.

Heiken, G. H., and M. L. Bevier, 1979. Petrology of Tuff Units from the J-13 Drill Site, Jackass Flats, Nevada, LA-7563-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Hoffman, D. C., and W. R. Daniels, 1981. Assessment of the Potential for Radionuclide Migration from a Nuclear Explosion Cavity, LA-UR-81-3181; CONF-811211--1; Los Alamos National Laboratory, Los Alamos, N. Mex.

Hoffman, D. C., R. Stone, and W. W. Dudley, Jr., 1977. Radioactivity in the Underground Environment of the Cambric Nuclear Explosion at the Nevada Test Site, LA-6877-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Honda, S., and L. J. P. Muffler, 1970. "Hydrothermal Alteration in Core from Research Drill Hole Y-1, Upper Geyser Basin, Yellowstone National Park, Wyoming," The American Mineralogist, Vol. 55, pp. 1714-1737.

Hulen, J. B., and D. L. Nielson, 1985. "Hydrothermal Alteration in the Baca Geothermal System, Redondo Dome, Valles Caldera, New Mexico," Journal of Geophysical Research.

Isherwood, D., 1985. Application of the Ruthenium and Technetium Thermodynamic Data Bases Used in the EQ3/6 Geochemical Codes, UCRL-53594, Lawrence Livermore National Laboratory, Livermore, Calif.

Johnston, H. S., 1966. Gas Phase Reaction Rate Theory, The Ronald Press Co., New York, pp. 102-103.

Keith, T. E. C., and L. J. P. Muffler, 1978. "Minerals Produced during Cooling and Hydrothermal Alteration of Ash Flow Tuff from Yellowstone Drill Hole Y-5," Journal of Volcanology and Geothermal Research, Vol. 3, pp. 373-402.

Keith, T. E. C., D. E. White, and M. H. Beeson, 1978. Hydrothermal Alteration and Self-Sealing in Y-7 and Y-8 Drill Holes in Northern Part of Upper Geyser Basin, Yellowstone National Park, Wyoming, Geological Survey Professional Paper 1054-A, U.S. Geological Survey.

Keith, T. E. C., J. M. Thompson, and R. E. Mays, 1983. "Selective Concentration of Cesium in Analcime during Hydrothermal Alteration, Yellowstone National Park, Wyoming," Geochimica et Cosmochimica Acta, Vol. 47, pp. 795-804.

Keith, T. E. C., K. E. Bargar, S. S. Howe, W. W. Carothers, and I. Barnes, 1984a. "Mineralogical Studies of the Hydrothermal System in Newberry Volcano Drill Hole 2, Oregon," Geothermal Resources Council Transactions, Vol. 8, pp. 125-128.

Keith, T. E. C., R. H. Mariner, K. E. Bargar, W. C. Evans, and T. S. Presser, 1984b. "Hydrothermal Alteration in Oregon's Newberry Volcano No. 2: Fluid Chemistry and Secondary Mineral Distribution," Geothermal Resources Council Bulletin, April, pp. 9-17.

Kerrisk, J. F., 1983. Reaction-Path Calculations of Groundwater Chemistry and Mineral Formation at Rainier Mesa, Nevada, LA-9912-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kerrisk, J. F., 1984a. Americium Thermodynamic Data for the EQ3/6 Database, LA-10040-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kerrisk, J. F., 1984b. Solubility Limits on Radionuclide Dissolution at a Yucca Mountain Repository, LA-9995-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kerrisk, J. F., 1985. An Assessment of the Important Radionuclides Nuclear Waste, LA-10414-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kerrisk, J. F., 1987. Groundwater Chemistry at Yucca Mountain, Nevada, and Vicinity, LA-10929-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kim, J. I., CH. Lierse, and F. Baumgartner, 1983. "Complexation of Plutonium(IV) Ion in Carbonate-Bicarbonate Solutions," Plutonium Chemistry, W. T. Carnall and G. R. Choppin (eds.), American Chemical Society Symposium Series 216, pp. 317-334.

Kim, J. I., G. Backua, F. Baumgartner, H. C. Moon, and D. Lux, 1984a. "Colloid Generation and Actinide Migration in Gorleben Groundwaters," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 31-40.

Kim, J. I., M. Bernkopf, CH. Lierse, and F. Koppold, 1984b. "Hydrolysis Reactions of Am(III) and Pu(VI) Ions in Near-Neutral Solutions," Geochemical Behavior of Disposed Radioactive Waste, 185th Meeting of the American Chemical Society, Seattle, Wash., March 20-25, 1983, G. S. Barney, J. D. Navratil and W. W. Schulz (eds.), ACS Symposium Series 246, American Chemical Society, Washington, D.C., pp. 115-134.

Kistler, R. W., 1968. "Potassium-Argon Ages of Volcanic Rocks in Nye and Esmeralda Counties," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, Boulder, Colo., pp. 251-262.

Knauss, K. G., and W. B. Beiriger, 1984. Report on Static Hydrothermal Alteration Studies of Topopah Spring Tuff Wafers in J-13 Water at 150 deg. C, UCRL-53576, Lawrence Livermore National Laboratory, Livermore, Calif.

Koster van Groos, A. F., and S. Guggenheim, 1984. "The Effect of Pressure on the Dehydration Reaction of Interlayer in Na-Montmorillonite (SWy-1)," American Mineralogist, Vol. 69, pp. 872-879.

Koster van Groos, A. F., and S. Guggenheim, 1986. "Dehydration of K-Exchanged Montmorillonite at Elevated Temperatures and Pressures," Clays and Clay Minerals, Vol. 34, No. 3, pp. 281-286.

Krupka, K. M., D. Rai, R. W. Fulton, and R. C. Strickert, 1984. Solubility Data for U(VI) Hydroxide and Np(IV) Hydrous Oxide: Application of MCC-3 Methodology, PNL-SA-12324, Pacific Northwest Laboratory, Richland, Wash.

Lemire, R. J., and P. R. Tremaine, 1980. "Uranium and Plutonium in Equilibria in Aqueous Solutions to 200 deg. C," Journal of Chemical and Engineering Data, Vol. 25, No. 4, pp. 361-370.

Le Page, Y., and G. Donnay, 1976. "Refinement of the Crystal Structure of Low-Quartz," Acta Crystallographica, Vol. B32, pp. 2456-2459.

Levy, S. S., 1984a. Petrology of Samples from Drill Holes USW H-3, H-4 and H-5, Yucca Mountain, Nevada, LA-9706-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Levy, S. S., 1984b. "Studies of Altered Vitrophyre for the Protection of Nuclear Waste Repository-Induced Thermal Alteration at Yucca Mountain, Nevada," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 959-966.

Levy, S. S., 1987. Alteration Products and Processes in the Lower Topopah Spring Member of the Paintbrush Tuff, Yucca Mountain, and Vicinity, Nevada, LA-10677-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Lindberg, R. D., and D. D. Runnells, 1984. "Ground Water Redox Reactions: An Analysis of Equilibrium State Applied to Eh Measurements and Geochemical Modeling," Science, Vol. 225, pp. 925-927.

Link, R. L., S. E. Logan, H. S. Ng, F. A. Rockenbach, and K. J. Hong, 1982. Parametric Studies of Radiological Consequences of Basaltic Volcanism, SAND81-2375, Sandia National Laboratories, Albuquerque, N. Mex., pp. 4-347.

Lipman, P. W., R. L. Christiansen, and J. T. O'Connor, 1966. A Compositionally Zoned Ash-Flow Sheet in Southern Nevada, Geological Survey Professional Paper 525-F, U.S. Geological Survey.

Lundqvist, R., 1982. "Hydrophilic Complexes of the Actinides. I. Carbonates of Trivalent Americium and Europium," Acta Chemica Scandinavica, Vol. A 36, pp. 741-750.

MacEwan, D. M. C., 1972. "Montmorillonite Minerals" The X-ray Identification and Crystal Structures of Clay Minerals, G. Brown (ed.), Chapter IV, Mineralogical Society, London.

Means, J. L., A. S. Maest, and D. A. Crerar, 1983. Organic Geochemistry of Deep Ground Waters and Radionuclide Partitioning Experiments Under Hydrothermal Conditions, ONWI-448, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

Meyer, R. E., W. D. Arnold, J. G. Blencoe, G. D. O'Kelley, R. I. Case, J. F. Land, and G. K. Jacobs, 1986. Progress in Evaluation of Radionuclide Geochemical Information Developed by DOE High-Level Nuclear Waste Repository Site Projects: Semi-Annual Report for October 1985 - March 1986, NUREG/CR-4708, Vol. 1, No. 1, U.S. Nuclear Regulatory Commission, Washington, D.C.

Miller, L. J., 1958. "The Chemical Environment of Pitchblende," Economic Geology, Vol. 53, pp. 521-545.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Mumpton, F. A., 1960. "Clinoptilolite Redefined" American Mineralogist, Vol. 45, pp. 351-369.

NRC (U.S. Nuclear Regulatory Commission), 1984. Determination of Radionuclide Solubility in Groundwater for Assessment of High-Level Waste Isolation, U.S. Nuclear Regulatory Commission Technical Position, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

Naudet, R., 1978. "Synthese Des Donnees Concernant La Stabilite Et Les Remobilisations De L'Uranium Et Des Terres Rares," in Le Ruacteurs de Fission Naturels, Symposium Proceedings, Paris, 1977, STI/PUB/475/IAEA-TC-119/25 International Atomic Energy Agency, Vienna, Austria, pp. 643-676.

Needham, R. S., and P. G. Stuart-Smith, 1980. "Geology of the Alligator Rivers Uranium Field," in Proceedings of the International Uranium Symposium on the Pine Creek Geosyncline, Sydney, 1979, J. Ferguson and A. B. Goloby (eds.), STI/PUB/555, International Atomic Energy Agency, Vienna, Austria, pp. 233-257.

Neretnieks, I., 1980. "Transport Mechanisms and Rates of Transport of Radionuclides in the Geosphere as Related to the Swedish KBS Concept," in Underground Disposal of Radioactive Wastes, Vol. II, Proceedings of a Symposium, Otaniemi, 2-6 July 1979, IAEA-SM-243/108, International Atomic Energy Agency (IAEA), Vienna, Austria, pp. 315 & 339.

Newton, T. W., and V. L. Rundberg, 1984. "Disproportionation and Polymerization of Plutonium(IV) in Dilute Aqueous Solutions," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing, Inc., New York, pp. 867-873.

Nitsche, H., and N. M. Edelstein, 1985. Determination of Solubilities and Complexation of Waste Radionuclides Pertinent to Geologic Disposal at the Nevada Tuff Site, LBL-18900, Lawrence Berkeley Laboratory, Berkeley, Calif.

Nyhan, J. W., B. J. Drennon, W. V. Abeele, M. L. Wheeler, W. D. Purtymun, G. Trujillo, W. J. Herrera, and J. W. Booth, 1985. "Distribution of Plutonium and Americium Beneath a 33-yr-old Liquid Waste Disposal Site," Journal of Environmental Quality, Vol. 14, pp. 501-509.

Ogard, A. E., and J. F. Kerrisk, 1984. Groundwater Chemistry Along Flow Paths Between a Proposed Repository Site and the Accessible Environment, LA-10188-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Ogard, A. E., and D. T. Vaniman (comps.), 1985. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, July 1 - September 30, 1984, LA-10299-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Ogard, A. E., W. R. Daniels, and D. T. Vaniman (comps.) 1983a. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, October 1-December 31, 1982, LA-9666-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Ogard, A. E., K. Wolfsberg, and D. T. Vaniman (comps.) 1983b. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, April 1-June 30, 1983, LA-9846-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Olofsson, U., B. Allard, K. Andersson, and B. Torstenfelt, 1981. Formation and Properties of Radiocolloids in Aqueous Solution--A Literature Survey, National Council for Radioactive Waste Report Prav 4.25, Department of Nuclear Chemistry, Chalmers University of Technology, Goteborg, Sweden.

Olofsson, U., B. Allard, B. Torstenfelt, and K. Andersson, 1982a. "Properties and Mobilities of Actinide Colloids in Geologic Systems," in Scientific Basis for Nuclear Waste Management V, Materials Research Society Symposia Proceedings, Berlin, Germany, June 7-10, 1982, W. Lutze (ed.), Vol. 5, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 755-764.

Olofsson, U., B. Allard, K. Andersson, and B. Torstenfelt, 1982b. "Formation and Properties of Americium Colloids in Aqueous Systems," in Scientific Basis for Nuclear Waste Management, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1981, S. Topp (ed.), Vol. 6, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 191-198.

Olofsson, U., M. Bengtsson, and B. Allard, 1984. "Generation and Transport Properties of Colloidal Tri- and Tetravalent Actinide Species in Geologic Environments," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 859-866.

Orkild, P. P., 1965. "Paintbrush Tuff and Timber Mountain Tuff of Nye County, Nevada," Changes in Stratigraphic Nomenclature by the U.S. Geological Survey 1964, G. V. Cohee and W. S. West (eds.), U.S. Geological Survey Bulletin 1224-A, U.S. Geological Survey, pp. A44-A51.

Osmond, J. K., and J. B. Cowart, 1981. Uranium-Series Disequilibrium in Ground Water and Core Composite Samples from the San Juan Basin and Copper Mountain Research Sites, Report GJBX 364(81), Department of Geology, Florida State University, Tallahassee.

Peacor, D. R., 1973. "High-Temperature Single-Crystal Study of the Cristobalite Inversion," Zeitschrift fur Kristallographie, Vol. 138, pp. 274-298.

Perkins, B., B. Travis, and G. DePoorter, 1985. Validation of the TRACR3D Code for Soil Water Flow Under Saturated/Unsaturated Conditions in Three Experiments, LA-10263-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Phillips, F. M., F. Goff, F. Vautaz, H. W. Bentley, D. Elmore, and H. E. Gove, 1984. "36-Cl as a Tracer in Geothermal Systems: Example from Valles Caldera, New Mexico," Geophysical Research Letters, Vol. 11, No. 12, pp. 1227-1230.

Rai, D., 1984. "Solubility Product of Pu(IV) Hydrous Oxide and Equilibrium Constants of Pu(IV)/Pu(V), Pu(IV)/Pu(VI), and Pu(V)/Pu(VI) Couples," Radiochimica Acta, Vol. 35, pp. 97-106.

Rai, D., and J. L. Ryan, 1982. "Crystallinity and Solubility of Pu(IV) Oxide and Hydrous Oxide in Aged Aqueous Suspensions," Radiochimica Acta, Vol. 30, pp. 213-216.

Rai, D., and J. L. Ryan, 1984. "Solubility Constraint: An Important Consideration in Safety Assessment of Nuclear Waste Disposal," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 805-815.

Rai, D., and R. J. Serne, 1978. Solid Phases and Solution Species of Different Elements in Geologic Environments, PNL-2651, Pacific Northwest Laboratory, Richland, Wash.

Rai, D., and J. L. Swanson, 1981. "Properties of Plutonium (IV), Polymer of Environmental Importance," Nuclear Technology, Vol. 54, No. 1, pp. 107-112.

Rai, D., R. J. Serne, and D. A. Moore, 1980. "Solubility of Plutonium Compounds and Their Behavior in Soils," Soil Science Society of America Journal, Vol. 44, pp. 490-495.

Rai, D., R. G. Strickert, D. A. Moore, and J. L. Ryan, 1983. "Am(III) Hydrolysis Constants and Solubility of Am(III) Hydroxide," Radiochimica Acta, Vol. 33, pp. 201-206.

Rard, J. A., 1983. Critical Review of the Chemistry and Thermodynamics of Technetium and Some of Its Inorganic Compounds and Aqueous Species, UCRL-53440, Lawrence Livermore National Laboratory, Livermore, Calif.

Robins, R. G., 1966. "Hydrolysis of Uranyl Nitrate Solutions at Elevated Temperatures," Journal of Inorganic and Nuclear Chemistry, Vol. 28, pp. 119-123.

Rossotti, F. J. C., and H. Rossotti, 1961. The Determination of Stability Constants and Other Equilibrium Constants in Solution, McGraw-Hill Book Co., New York, pp. 270-271.

Ruffenach, J. C., R. Hagemann, and E. Roth, 1980. "Isotopic Abundances Measurements a Key to Understanding the Oklo Phenomenon," Z. Naturforsch, Vol. 35a, pp. 171-179.

Rundberg, R. S., 1985. Assessment Report on the Kinetics of Radionuclide Adsorption on Yucca Mountain Tuff, Los Alamos National Laboratory, Los Alamos, N. Mex.

Rundberg, R. S., A. E. Ogard, and D. T. Vaniman, 1985. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, April 1-June 30, 1984, LA-10297-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Sass, J. H., and A. H. Lachenbruch, 1982. Preliminary Interpretation of Thermal Data from the Nevada Test Site, USGS-OFR-82-973, Open-File Report, U.S. Geological Survey.

Sauty, J.-P., 1980. "An Analysis of Hydrodispersive Transfer in Aquifers," Water Resources Research, Vol. 16, No. 1, pp. 145-158

Scott, R. B., and J. Bonk, 1984. Preliminary Geologic Map of Yucca Mountain, Nye County, Nevada, with Geologic Sections, USGS-OFR-84-494, Open-File Report, U.S. Geological Survey.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Sergeyeva, E. I., A. A. Nikitin, I. L. Khodakovskiy, and G. B. Naumov, 1972. "Experimental Investigation of Equilibria in the System UO3-CO2-H2O in 25-200 deg. C Temperature Interval," Geochemistry International, Vol. 9, pp. 900-910.

Shepard, A. O., and H. C. Starkey, 1966. "The Effects of Exchanged Cations on the Thermal Behavior of Heulandite and Clinoptilolite," Papers from the Fourth General Meeting of the International Mineralogical Association, Mineralogical Society of India, pp. 155-158.

Sherry, H. S., 1969. "The Ion Exchange Properties of Zeolites" Advances in Ion Exchange, J. A. Marinsky (ed.), Vol. 2, Marcel Dekker, Inc., New York.

Silva, R. J., and H. Nitsche, 1983. "Thermodynamic Properties of Chemical Species of Waste Radionuclides," NRC Nuclear Waste Geochemistry '83, D. H. Alexander and G. F. Birchard (eds.), NUREG/CP-0052, U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 70-93.

Silva, R. J., and H. Nitsche, 1985. "Carbonate Complexation of Pu(IV) in Aqueous Solution," Abstracts of Papers 189th American Chemical Society National Meeting, Miami Beach, Florida, April 28-May 3, 1985, Paper No. 44.

Silva, R. J., and A. W. Yee, 1981. Uranium (VI) Retardation Mechanisms, draft, WRIT 81-3, Lawrence Berkeley Laboratory, Berkeley, Calif.

Smyth, J. R., 1982. "Zeolite Stability Constraints on Radioactive Waste Isolation in Zeolite-Bearing Volcanic Rocks," Journal of Geology, Vol. 90, pp. 195-201.

Smyth, J. R., and F. A. Caporuscio, 1981. Review of the Thermal Stability and Cation Exchange Properties of the Zeolite Minerals Clinoptilolite, Mordenite, and Analcime: Applications to Radioactive Waste Isolation in Silicic Tuff, LA-8841-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Sposito, G., 1981. The Thermodynamics of Soil Solutions, Oxford Clarendon Press, New York, pp. 66-69, 95.

Stumm, W., and J. J. Morgan, 1981. Aquatic Chemistry, A Wiley-Interscience Publication, John Wiley & Sons, New York, pp. 8-9, 68-73, 94-95, 230-237, 248-263, 274-275, 323-325, 331-333, 348-351, 356-357, 366-367, 418-421.

Sudicky, E. A., and E. O. Frind, 1982. "Contaminant Transport in Fractured Porous Media: Analytical Solutions for a System of Parallel Fractures," Water Resources Research, Vol. 18, No. 6, pp. 1634-1642.

Sykes, M. L., G. H. Heiken, and J. R. Smyth, 1979. Mineralogy and Petrology of Tuff Units from the UE25a-1 Drill Site, Yucca Mountain, Nevada, LA-8139-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Thompson, J. L. (comp.), 1985. Laboratory and Field Studies Related to the Radionuclide Migration Project, October 1, 1983-September 30, 1984, LA-10372-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Thompson, J. M., and S. Yadav, 1979. Chemical Analyses of Waters from Geysers, Hot Springs and Pools in Yellowstone National Park, Wyoming from 1974 to 1978, USGS-OFR-79-704, Open-File Report, U.S. Geological Survey.

Thompson, J. M., T. S. Presser, R. B. Barnes, and D. B. Bird, 1975. Chemical Analysis of the Waters of Yellowstone National Park, Wyoming from 1965 to 1973, USGS-OFR-75-25, Open-File Report, U.S. Geological Survey.

Thordarson, W., 1983. Geohydrologic Data and Test Results from Well J-13, Nevada Test Site, Nye County, Nevada, USGS-WRI-83-4171, Water-Resources Investigations Report, U.S. Geological Survey.

Travis, B. J., 1984. TRACR3D: A Model of Flow and Transport in Porous/Fractured Media, LA-9667-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., 1985. WAFE: A Model for Two-Phase, Multicomponent Mass and Heat Transport in Porous/Fractured Media LA-10488-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., and H. E. Nuttall, 1987. Two-Dimensional Numerical Simulation of Geochemical Transport in Yucca Mountain, LA-10532-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., S. W. Hodson, H. E. Nuttall, T. L. Cook, and R. S. Rundberg, 1984. Preliminary Estimates of Water Flow and Radionuclide Transport in Yucca Mountain, LA-UR-84-40 (Rev.), Los Alamos National Laboratory, Los Alamos, N. Mex.

Treher, E. N., and N. A. Raybold, 1982. The Elution of Radionuclides Through Columns of Crushed Rock from the Nevada Test Site, LA-9329-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Tripathi, V. S., 1984. Uranium(VI) Transport Modeling: Geochemical Data and Submodels, Ph.D. dissertation, Appendix I, Stanford University, pp. 173-234.

Vaniman, D. T., 1987. Progress Report: Research Conducted by the Earth and Space Science Division, Los Alamos National Laboratory, in Support of the Nevada Nuclear Waste Storage Investigations, January-June 1985, LA-10987-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Vaniman, D. T., D. Bish, D. Broxton, F. Byers, G. Heiken, B. Carlos, E. Semarge, F. Caporuscio, and R. Gooley, 1984. Variations in Authigenic Mineralogy and Sorptive Zeolite Abundance at Yucca Mountain, Nevada, Based on Studies of Drill Cores USW GU-3 and G-3, LA-9707-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Vaughan, D. E. W., 1978. "Properties of Natural Zeolites," Natural Zeolites: Occurrence, Properties, Use, L. B. Sand and F. A. Mumpton (eds.), Pergamon Press, London, pp. 353-371.

Walter, G. R., 1982. Theoretical and Experimental Determination of Matrix Diffusion and Related Solute Transport Properties of Fractured Tuffs from the Nevada Test Site, LA-9471-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Warren, R. G., F. M. Byers, and F. A. Caporuscio, 1984. Petrography and Mineral Chemistry of Units of the Topopah Spring, Calico Hills and Crater Flat Tuffs, and Older Volcanic Units, with Emphasis on Samples from Drill Hole USW G-1, Yucca Mountain, Nevada Test Site, LA-10003-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

West, J. M., and I. G. McKinley, 1984. "The Geomicrobiology of Nuclear Waste Disposal," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., New York, pp. 487-494.

White, A. F., and H. C. Claassen, 1979. "Dissolution Kinetics of Silicate Rocks-Application to Solute Modeling," Chemical Modeling in Aqueous Systems: Speciation, Sorption, Solubility, and Kinetics: Chapter 22, ACS Symposium Series, E. A. Jenne (ed.), Vol. 93, American Chemical Society, Washington, D.C., pp. 447-474.

White, A. F., and H. C. Claassen, 1980. "Kinetic Model for the Short-Term Dissolution of a Rhyolitic Glass," Chemical Geology, Vol. 28, pp. 91-109.

White, A. F., H. C. Claassen, and L. V. Benson, 1980. The Effect of Dissolution of Volcanic Glass on the Water Chemistry in a Tuffaceous Aquifer, Rainier Mesa, Nevada, USGS-WSP-1535-Q, Water-Supply Paper, U.S. Geological Survey.

Wilson, C. N., and V. M. Oversby, 1985. Radionuclide Release from PWR Fuels in a Reference Tuff Repository Groundwater, UCRL-91464, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Winograd, I. J., and G. C. Doty, 1980. Paleohydrology of the Southern Great Basin, with Special Reference to Water Table Fluctuations Beneath the Nevada Test Site during the Late(?) Pleistocene, USGS-OFR-80-569, Open-File Report, U.S. Geological Survey.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

Wolery, T. J., 1983. EQ3NR, A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: User's Guide and Documentation, UCRL-53414, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolfsberg, K., 1978. Sorption-Desorption Studies of Nevada Test Site Alluvium and Leaching Studies of Nuclear Test Debris, LA-7216-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., and D. T. Vaniman, (Comps.), 1984. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, October 1--December 31, 1983, LA-10032-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., B. P. Bayhurst, B. M. Crowe, W. R. Daniels, B. R. Erdal, F. O. Lawrence, A. E. Norris, and J. R. Smyth, 1979. Sorption-Desorption Studies on Tuff; I. Initial Studies with Samples from the J-13 Drill Site, Jackass Flats, Nevada, LA-7480-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., R. Aguilar, B. Bayhurst, W. Daniels, S. Devilliers, B. Erdal, F. Lawrence, S. Maestas, A. Mitchell, P. Oliver, N. Raybold, R. Rundberg, J. L. Thompson, and E. Vine, 1981. Sorption-Desorption Studies on Tuff: III. A Continuation of Studies with Samples from Jackass Flats and Yucca Mountain, Nevada, LA-8747-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., W. R. Daniels, B. R. Erdal, and D. T. Vaniman (comps.), 1982a. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, April 1-June 30, 1982, LA-9484-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., W. R. Daniels, D. T. Vaniman, and B. R. Erdal (compilers), 1982b. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, October 1-December 31, 1981, LA-9225-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Wolfsberg, K., D. T. Vaniman, and A. E. Ogard, 1983. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, January 1-March 31, 1983, LA-9793-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Zielinski, R. A., 1983. Evaluation of Ash-Flow Tuffs as Hosts for Radioactive Waste: Criteria Based on Selective Leaching of Manganese Oxides, USGS-OFR-83-480, Open-File Report, U.S. Geological Survey.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.

NN1.881207.0092

REFERENCES FOR CHAPTER 5

Adam, D. P., 1967. "Late-Pleistocene and Recent Palynology in the Central Sierra Nevada, California," Quaternary Paleoecology, E. J. Cushing and H. E. Wright, Jr. (eds.), Yale University Press, New Haven, Conn., pp. 275-301.

Antevs, E., 1948. "Climatic Changes and Pre-White Man," The Great Basin, with Emphasis on Glacial and Postglacial Times, Bulletin of the University of Utah, Vol. 38, No. 20, pp. 168-191.

Anthes, R. A., 1983. "Regional Models of the Atmosphere in Middle Latitudes," Monthly Weather Review, Vol. 111, pp. 1306-1335.

Arnow, T., 1984. Water-Level and Water Quality Changes in Great Salt Lake, Utah, 1847-1983, Geological Survey Circular 913, Alexandria, Va.

Atwater, B. F., D. P. Adam, J. P. Bradbury, R. M. Forester, R. K. Mark, W. R. Lettis, G. R. Fischer, K. W. Gobalet, and S. W. Robinson, 1986. "A Fan Dam for Tulare Lake, California, and Implications for the Wisconsin Glacial History of the Sierra Nevada," Geological Society of America Bulletin, Vol. 97, pp. 97-109.

Bartlein, P. J., 1982. "Streamflow Anomaly Patterns in the U.S.A. and Southern Canada - 1951 - 1970," Journal of Hydrology, Vol. 57, Elsevier Scientific Publishing Co., Amsterdam, pp. 49-63.

Bartlein, P. J., and T. Webb, III, 1985. "Mean July Temperature at 6,000 Yr B.P. in Eastern North America: Regression Equations for Estimates from Fossil-Pollen Data," Climatic Change in Canada 5: Critical Periods in the Quaternary Climatic History of Northern North America, C. R. Harington (ed.), pp. 301-342.

Bartlein, P. J., T. Webb, III, and E. Fleri, 1984. "Holocene Climatic Change in the Northern Midwest: Pollen-Derived Estimates," Quaternary Research, Vol. 22, pp. 361-374.

Bartlein, P. J., I. C. Prentice, T. Webb, III, 1986. "Climatic Response Surfaces from Pollen Data for Some Eastern North American Taxa," Journal of Biogeography, Vol. 13, pp. 35-57.

Benson, L. V., 1978. "Fluctuation in the Level of Pluvial Lake Lahontan during the Last 40,000 Years," Quaternary Research, Vol. 9, pp. 300-318.

Benson, L. V., 1981. "Paleoclimatic Significance of Lake-Level Fluctuations in the Lahontan Basin," Quarternary Research, Vol. 16, pp. 390-403.

Benson, L. V., 1986. The Sensitivity of Evaporation Rate to Climate Change--Results of an Energy-Balance Approach, USGS-WRI-86-4148, Water-Resources Investigations Report, U.S. Geological Survey.

Benson, L. V., and P. W. McKinley, 1985. Chemical Composition of Ground Water in the Yucca Mountain Area, Nevada, 1971-84, USGS-OFR-85-484, Open-File Report, U.S. Geological Survey.

Benson, L. V., and M. D. Mifflin, 1986. Reconnaissance Bathymetry of Basins Occupied by Pleistocene Lake Lahontan, Nevada and California, USGS-WRI-85-4262, Water-Resources Investigations Report, U.S. Geological Survey.

Benson, L. V., and R. S. Thompson, 1987. The Physical Record of Lakes in the Great Basin, North America and Adjacent Oceans during the Last Deglaciation, W. F. Ruddiman and H. E. Wright, Jr. (eds.), Vol. K-3, Chapter 11, Geological Society of America, Boulder, Colo., pp. 241-260.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bischoff, J. L., R. J. Rosenbauer, and G. I. Smith, 1985. "Uranium-Series Dating of Sediments from Searles Lake: Differences Between Continental and Marine Climate Records," Science, Vol. 227, pp. 1222-1224.

Blackwelder, E., 1931. "Pleistocene Glaciation in the Sierra Nevada and Basin Ranges," Bulletin of the Geological Society of America, Vol. 42, pp. 865-922.

Blaney, H. F., 1957. "Evaporation Study at Silver Lake in the Mojave Desert, California," Transactions, American Geophysical Union, Vol. 38, No. 2, pp. 209-215.

Bloom, A. L., 1983. "Sea Level and Coastal Morphology of the United States Through the Late Wisconsin Glacial Maximum," Late-Quaternary Environments of the United States, Volume 1, The Late Pleistocene, S. C. Porter (ed.), Chapter 11, University of Minnesota Press, Minneapolis, pp. 215-229.

Born, S. M., 1972. Late Quaternary History, Deltaic Sedimentation, and Mudlump Formation at Pyramid Lake, Nevada, Center for Water Resources Research, Desert Research Institute, University of Nevada System.

Bowen, J. L., and R. T. Egami, 1983. Atmospheric Overview for the Nevada Nuclear Waste Storage Investigations, Nevada Test Site, Nye County, Nevada, NVO-269, Nevada Operations Office, U.S. Department of Energy, Las Vegas, Nev.

Brakenridge, G. R., 1978. "Evidence for a Cold, Dry Full-Glacial Climate in the American Southwest," Quaternary Research, Vol. 9, pp. 22-40.

Broecker, W. S., and A. Kaufman, 1965. "Radiocarbon Chronology of Lake Lahontan and Lake Bonneville II, Great Basin," Geological Society of America Bulletin, Vol. 76, pp. 537-566.

Broecker, W. S., and P. C. Orr, 1958. "Radiocarbon Chronology of Lake Lahonton and Lake Bonneville," Bulletin of the Geological Society of America, Vol. 69, pp. 1009-1032.

Broecker, W. S., and A. Walton, 1959. "The Geochemistry of C-14 in Fresh-Water Systems," Geochimica et Cosmochimica Acta, Vol. 16, pp. 15-38.

Brubaker, L. B., and E. R. Cook, 1983. "Tree-Ring Studies of Holocene Environments," Late Quaternary Environments of the United States, Volume II, The Holocene, H. E. Wright, Jr. (ed.), University of Minnesota Press, Minneapolis, pp. 222-235.

Budd, W. F., and I. N. Smith, 1981. "The Growth and Retreat of Ice Sheets in Response to Orbital Radiation Changes," in Sea Level, Ice, and Climatic Changes, Proceedings of the Symposium Held December 7-8, 1979, during the 17th General Assembly of the International Union of Geodesy and Geophysics, Canberra, IAHS Publication No. 13, pp. 369-409.

Burke, R. M., and P. W. Birkeland, 1983. "Holocene Glaciation in the Mountain Ranges of the Western United States," Late-Quaternary Environments of the United States, The Holocene, Vol. 2, Chapter 1, H. E. Wright, Jr. (ed.), University of Minnesota Press, Minneapolis, pp. 3-11.

Butler, P. R., 1986. "Fluvial Response to Ongoing Tectonism, Lower Amargosa River, Southern Death Valley, California, Field Guide, Pacific Cell, Friends of the Pleistocene October 31-November 2, 1986," Quaternary Tectonics of Southern Death Valley, B. W. Troxel (ed.), Shoshone, Calif. pp. 17-23.

CLIMAP Project Members, 1981. Seasonal Reconstructions of the Earth's Surface at the Last Glacial Maximum, Map and Chart Series, MC-36, Geological Society of America, Boulder, Colo.

Chu, J. -H., 1986. Atmospheric Phenomena at Yucca Mountain, Nevada Test Site, unpublished tabular material, National Oceanic and Atmospheric Administration,

Claassen, H. C., 1985. Sources and Mechanisms of Recharge for Ground Water in the West-Central Amargosa Desert, Nevada--A Geochemical Interpretation, U.S. Geological Survey Professional Paper 712-F, U.S. Government Printing Office, Washington, D.C.

Cole, K., 1983. "Late Pleistocene Vegetation of Kings Canyon, Sierra Nevada, California," Quaternary Research, Vol. 19, pp. 117-129.

Craig, R. G. with contributions from B. L. Roberts and M. Singer, 1984. Climates and Lakes of the Death Valley Drainage System during the Last Glacial Maximum, unpublished paper, available from the Department of Geology, Kent State University, Kent, Ohio.

Critchfield, H. J., 1983. "Climatic Classification," General Climatology, Chapter 6, Prentice Hall, Englewood Cliffs, New Jersey, pp. 141-155.

Crowley, T. J., 1983. "The Geologic Record of Climatic Change," Reviews of Geophysics and Space Physics, Vol. 21, No. 4, pp. 828-877.

Currey, D. R., 1980. "Coastal Geomorphology of Great Salt Lake and Vicinity," Utah Geological and Mineral Survey Bulletin, Vol. 116, pp. 69-82.

Currey, D. R., and C. G. Oviatt, 1985. "Durations, Average Rates, and Probable Causes of Lake Bonneville Expansions, Stillstands, and Contractions during the Last Deep-Lake Cycle, 32,000 to 10,000 Years Ago," Problems of and Prospects for Predicting Great Salt Lake Levels, P. A. Kay and H. F. Diaz (eds.), Center for Public Affairs and Administration, University of Utah.

DOC (U.S. Department of Commerce), 1986. Monthly and Annual Wind Distribution by Pasquill Stability Classes, Star Program, 6 Classes, Job No. 01775, National Climatic Data Center, Federal Building, Asheville, N.C.

Davis, J. O., R. Elston, and G. Townsend, 1976. "Coastal Geomorphology of the South Shore of Lake Tahoe: Suggestion of an Altithermal Lowstand," Holocene Environmental Change in the Great Basin, R. Elston (ed.), Nevada Archeological Survey Research Paper No. 6, pp. 41-65.

Davis, O. K., R. S. Anderson, P. L. Fall, M. K. O'Rourke, and R. S. Thompson, 1985. "Palynological Evidence for Early Holocene Aridity in the Southern Sierra Nevada, California," Quaternary Research, Vol. 24, pp. 322-332.

Denton, G. H., and T. J. Hughes, 1981. The Last Great Ice Sheets, J. Wiley & Sons, New York, 484 p.

Dohrenwend, J. C., 1984. "Nivation Landforms in the Western Great Basin and Their Paleoclimatic Significance," Quaternary Research, Vol. 22, pp. 275-288.

Dorn, R. I., M. J. DeNiro, and H. O. Aije, 1987. "Isotopic Evidence for Climatic Influence on Alluvial-Fan Development in Death Valley, California," Geology, Vol. 15, pp. 108-110.

EPA (U.S. Environmental Protection Agency), 1980. Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-80-012, Office of Air Quality Planning and Standards, Research Triangle Park, N.C.

Eardley, A. J., V. Gvosdetsky, and R. E. Marsell, 1957. "Hydrology of Lake Bonneville and Sediments and Soils of Its Basin," Bulletin of the Geological Society of America, Vol. 68, pp. 1141-1201.

Eglinton, T. W., and R. J. Dreicer, 1984. Meteorological Design Parameters for the Candidate Site of a Radioactive-Waste Repository at Yucca Mountain, Nevada, SAND84-0440/2, Sandia National Laboratories, Albuquerque, N. Mex.

Everett, D. E., and F. E. Rush, 1967. A Brief Appraisal of the Water Resources of the Walker Lake Area, Mineral, Lyon, and Churchill Counties, Nevada, Water Resources-Reconnaissance Series Report 40, State of Nevada, Department of Conservation & Natural Resources, Carson City.

Forester, R. M., 1987. "Late-Quaternary Paleoclimate Records from Lacustrine Ostracodes," North America and Adjacent Oceans during the Last Deglaciation, W. F. Ruddiman and H. E. Wright, Jr. (eds.), Geological Society of America.

GSA (Geological Society of America), 1983. The Decade of North American Geology 1983 Geologic Time Scale, Geology, Vol. 11, pp. 503-504.

Gale, H. S., 1914. "Salines in the Owens, Searles, and Panamint Basins, Southeastern California," Contributions to Economic Geology, Part I.--Metals and Nonmetals Except Fuels, Geological Survey Bulletin 580, U.S. Government Printing Office, Washington, D.C., pp. 251-323.

Galloway, R. W., 1970. "The Full-Glacial Climate in the Southwestern United States," Association of American Geographers Annual, Vol. 60, pp. 245-256.

Gates, W. L., 1976a. "Modeling the Ice-Age Climate," Science, Vol. 191, pp. 1138-1144.

Gates, W. L., 1976b. "The Numerical Simulation of Ice-Age Climate with a Global General Circulation Model," Journal of the Atmosperic Sciences, Vol. 33, pp. 1844-1873.

Gates, W. L., 1985. "Modeling as a Means of Studying the Climate System," Projecting the Climatic Effects of Increasing Carbon Dioxide, M. C. MacCracken, and F. M. Luther (eds.), DOE/ER-0237, U.S. Department of Energy, Washington, D.C., pp. 59-79.

Gilbert, G. K., 1890. "Lake Bonneville," U.S. Geological Survey Monograph 1, U.S. Geological Survey, Washington, D.C., 438 p.

Harding, S. T., 1965. Recent Variations in the Water Supply of the Western Great Basin, Archives Series Report No. 16, Water Resources Center Archives, University of California, Berkeley, pp. 99, 107, 145, 159.

Haynes, C. V., 1967. "Quaternary Geology of the Tule Springs Area, Clark County, Nevada," Pleistocene Studies in Southern Nevada, H. M. Wormington and D. Ellis (eds.), Nevada State Museum Anthropological Papers No. 13, Carson City, Nev., pp. 15-104.

Hays, J. D., J. Imbrie, and N. J. Shackleton, 1976. Variations in the Earth's Orbit: Pacemaker of the Ice Ages, Science, Vol. 194, No. 4270, pp. 1121-1132.

Hershfield, B. M., 1961. Rainfall Frequency Atlas of the United States for Durations from 30 Minutes to 24 Hours and Return Periods from 1 to 100 Years, U.S. Weather Bureau Technical Paper No. 40, Department of Commerce, Washington, D.C.

Hirschboeck, K. K., 1980. "A New Worldwide Chronology of Volcanic Eruptions," Palaeogeography, Palaeoclimatology, Palaeoecology, Vol. 29, pp. 223-241.

Hooke, R. L., 1972. "Geomorphic Evidence for Late-Wisconsin and Holocene Tectonic Deformation, Death Valley, California," Geological Society of America Bulletin, Vol. 83, No. 7, pp. 2073-2098.

Houghton, J. G., C. M. Sakamoto, and R. O. Gifford, 1975. Nevada's Weather and Climate, Nevada Bureau of Mines & Geology Special Publication Number 2, Mackay School of Mines, University of Nevada, Reno.

Howe, S., and T. Webb, III, 1983. "Calibrating Pollen Data in Climatic Terms: Improving the Methods," Quarternary Science Reviews, Vol. 2, pp. 17-51.

Hughes, T. J., G. H. Denton, B. G. Andersen, D. H. Schilling, J. L. Fastook, C. S. Lingle, 1981. "The Last Great Ice Sheets: A Global View," The Last Great Ice Sheets, G. H. Denton and T. J. Hughes (eds.), John Wiley & Sons, New York, pp. 263-317.

Hunt, C. B., and D. R. Mabey, 1966. Stratigraphy and Structure, Death Valley, California, General Geology of Death Valley, California, U.S. Geological Survey Professional Paper 494-A, U.S. Goverment Printing Office, Washington, D.C.

Huschke, R. E. (ed.), 1959. Glossary of Meteorology, American Meteorological Society, Boston, Mass., pp. 581-582.

Imbrie, J., 1985. "A Theoretical Framework for the Pleistocene Ice Ages," Journal of the Geological Society of London, Vol. 142, Northern Ireland, pp. 417-432.

Imbrie, J., and J. Z. Imbrie, 1980. "Modeling the Climatic Response to Orbital Variations," Science, Vol. 207, pp. 943-953.

Imbrie, J., A. McIntyre, and T. C. Moore, Jr., 1983. "The Ocean Around North America at the Last Glacial Maximum," Late Quaternary Environments of the United States, The Pleistocene, S. C. Porter (ed.), Vol. I, Chapter 12, University of Minnesota Press, Minneapolis, pp. 230-236.

Imbrie, J. H., J. D. Hays, D. G. Martinson, A. McIntyre, A. C. Mix, J. J. Morely, N. G. Pisias, W. L. Prell, and N. J. Shackleton, 1984. "The Orbital Theory of Pleistocene Climate: Support from a Revised Chronology of the Marine 18-0 Record," Milankovitch and Climates, Part 1, A. Berger, J. Imbrie, J. Hays, G. Kukla, and B. Saltzman (eds.), D. Reidel Publishing Co., Boston, Mass., pp. 269-305.

Kay, P. A., and J. T. Andrews, 1983. "Re-evaluation of Pollen-Climate Transfer Functions in Keewatin, Northern Canada," Annals, Association of American Geographers, Vol. 73, pp. 550-559.

Kim, J. -W., J. -T. Chang, N. L. Baker, D. S. Wilks, and W. L. Gates, 1984. "The Statistical Problem of Climate Inversion: Determination of the Relationship between Local and Large-Scale Climate," Monthly Weather Review, Vol. 112, pp. 2069-2077.

Knighton, D. A., 1984. Fluvial Forms and Processes, Edward Arnold Publishers, London, pp. 68-71.

Kutzbach, J. E., 1981. "Monsoon Climate of the Early Holocene: Climate Experiment with the Earth's Orbital Parameters for 9,000 Years Ago," Science, Vol. 214, pp. 59-61.

Kutzbach, J. E., 1985. "Modeling of Paleoclimates," Advances in Geophysics, Vol. 28A, pp. 159-196.

Kutzbach, J. E., and P. J. Guetter, 1984. "Sensitivity of Late-Glacial and Holocene Climates to the Combined Effects of Orbital Parameter Changes and Lower Boundary Condition Changes," Annals of Glaciology, Vol. 5, pp. 85-87.

Kutzbach, J. E., and P. J. Guetter, 1986. "The Influence of Changing Orbital Parameters and Surface Boundary Conditions on Climate Simulations for the Past 18,000 Years," Journal of the Atmospheric Sciences, Vol. 43, No. 16, pp. 1726-1759..

Kutzbach, J. E., and F. A. Street-Perrott, 1985. "Milankovitch Forcing of Fluctuations in the Level of Tropical Lakes from 18 to 0 kyr BP," Nature, Vol. 317, pp. 130-134.

Kutzbach, J. E., and H. E. Wright, Jr., 1985. "Simulation of the Climate of 18,000 Years BP: Results for the North American/North Atlantic/European Sector and Comparison with the Geologic Record of North America," Quaternary Science Reviews, Vol. 4, pp. 147-187.

Lajoie, K. R., 1963. Late Quaternary Stratigraphy and Geologic History of Mono Basin, Eastern California, Ph.D. dissertation, University of California, Berkeley.

LaMarche, V. C., Jr., 1974. "Paleoclimatic Inferences from Long Tree-Ring Records," Science, Vol. 183, pp. 1043-1048.

LaMarche, V. C., Jr., and H. A. Mooney, 1972. "Recent Climatic Change and Development of the Bristlecone Pine (P. longaeva Bailey) Krummholz Zone, Mt. Washington, Nevada," Arctic and Alpine Research, Vol. 4, No. 1, pp. 61-72.

Langbein, W. B., and Others, 1949. Annual Runoff in the United States, Geological Survey Circular 52, U.S. Geological Survey.

Leopold, E. B., 1967. "Summary of Palynological Data from Searles Lake," Guidebook For Friends of the Pleistocene Pacific Coast Section, pp. 51-66.

Leopold, L. B., 1951. "Pleistocene Climate in New Mexico," American Journal of Science, Vol. 249, pp. 152-168.

Lloyd, C. R., 1984. "Pre-Pleistocene Paleoclimate: The Geological and Paleontological Evidence, Modeling Strategies, Boundary Conditions, and Some Preliminary Results," Advances in Geophysics, Vol. 26, pp. 35-140.

Ludlum, D. M., 1982. The American Weather Book, Houghton Mifflin Co., Boston, Mass., pp. 93-105.

MacCracken, M. C., and F. M. Luther, 1985. "Projecting The Climatic Effects of Increasing Carbon Dioxide," Carbon Dioxide And Climate Change: Background And Overview, M. C. MacCracken and F. M. Luther (eds.), DOE/ER-0237, U.S. Department of Energy, Washington, D.C., pp. 3-23.

Madsen, D. B., and D. R. Currey, 1979. "Late Quaternary Glacial and Vegetation Changes, Little Cottonwood Canyon Area, Wasatch Mountains, Utah," Quaternary Research, Vol. 12, pp. 254-270.

Mahaffy, M. W., 1976. "A Three-Dimensional Numerical Model of Ice Sheets: Tests on the Barnes Ice Cap, Northwest Territories," Journal of Geophysical Research, Vol. 81, No. 6, pp. 1059-1066.

Manabe, S., and A. J. Broccoli, 1985. "The Influence of Continental Ice Sheets on the Climate of an Ice Age," Journal of Geophysical Research, Vol. 90, No. D1, pp. 2167-2190.

Manabe, S., and D. G. Hahn, 1977. "Simulation of the Tropical Climate of an Ice Age," Journal of Geophysical Research, Vol. 82, No. 27, pp. 3889-3911.

Manabe, S., and R. T. Wetherald, 1985. "CO2 and Hydrology," Advances in Geophysics, Vol. 28A, pp. 131-157.

Martin, P. S., 1963. The Last 10,000 Years - A Fossil Pollen Record of the American Southwest, University of Arizona Press, Tucson, 87 p.

Mason, D. T., 1967. "Limnology of Mono Lake, California," University of California Publications in Zoology, Vol. 83, University of California Press, Berkeley, and Los Angeles, 110 p.

Maxey, G. B., and T. E. Eakin, 1949. Ground Water in White River Valley, White Pine, Nye, and Lincoln Counties, Nevada, Water Resources Bulletin No. 8, State of Nevada, Office of the State Engineer, Carson City.

Mayewski, P. A., G. H. Denton, and T. J. Hughes, 1981. "Late Wisconsin Ice Sheets of North America," The Last Great Ice Sheets, G. H. Denton and T. J. Hughes (ed.), Chapter 2, John Wiley & Sons, New York, pp. 132-158.

Meehl, G. A., 1984. "Modeling the Earth's Climate," Climatic Change, Vol. 6, pp. 259-286.

Mehringer, P. J., Jr., 1967. "Pollen Analysis of the Tule Springs Area, Nevada," Nevada State Museum Anthropological Papers, No. 13, pp. 130-200.

Mehringer, P. J., Jr., and C. W. Ferguson, 1969. "Pluvial Occurrence of Bristlecone Pine (Pinus Aristata) in a Mohave Desert Mountain Range," Journal of the Arizona Academy of Science, Vol. 5, No. 4, pp. 284-292.

Mehringer, P. J., Jr., and C. N. Warren, 1976. "Marsh, Dune and Archaeological Chronology, Ash Meadows, Amargosa Desert, Nevada," Holocene Environmental Change in the Great Basin, R. Elston (ed.), Nevada Archeological Survey Research Paper 6, Reno, Nev., pp. 120-150.

Meko, D. M., and C. W. Stockton, 1984. "Secular Variations in Streamflow in the Western United States," Journal of Climate and Applied Meteorology, Vol. 23, American Meteorological Society, pp. 889-897.

Mifflin, M. D., and M. M. Wheat, 1979. Pluvial Lakes and Estimated Pluvial Climates of Nevada, Nevada Bureau of Mines & Geology Bulletin 94, University of Nevada, Reno.

Morrison, R. B., 1964. Lake Lahontan: Geology of Southern Carson Desert, Nevada, Geological Survey Professional Paper 401, U.S. Geological Survey.

Morrison, R. B., 1965. "Quaternary Geology of the Great Basin," The Quaternary of the United States, H. E. Wright, Jr., and D. G. Frey (eds.), Princeton University Press, Princeton, New Jersey, pp. 265-286.

Morrison, R. B., and J. C. Frye, 1965. Correlation of the Middle and Late Quaternary Successions of the Lake Lahontan, Lake Bonneville, Rocky Mountain (Wasatch Range), Southern Great Plains, and Eastern Midwest Areas, Nevada Bureau of Mines, Report No. 9, University of Nevada, Reno, 45 p.

Morton, F. I., 1986. "Practical Estimates of Lake Evaporation," Journal of Climate and Applied Meteorology, Vol. 25, pp. 371-387.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

Namias, J., 1975. "Remarks on the Potential for Long-Range Forecasting," pp. 242-251.

Nichols, W. D., 1986. Geohydrology of the Unsaturated Zone at the Burial Site for Low-Level Radioactive Waste Near Beatty, Nye County, Nevada, USGS-OFR-85-198, Open-File Report, U.S. Geological Survey.

Oerlemans, J., 1982. "Glacial Cycles and Ice-Sheet Modelling," Climatic Change, Vol. 4, pp. 353-374.

Ore, H. T., and C. N. Warren, 1971. "Late Pleistocene-Early Holocene Geomorphic History of Lake Mojave, California," Geological Society of America Bulletin, Vol. 82, pp. 2553-2562.

Pollard, D., 1983. "Ice-Age Simulations with a Calving Ice-Sheet Model," Quaternary Research, Vol. 20, pp. 30-48.

Porter, S. C., and K. L. Pierce, and T. D. Hamilton, 1983. "Late-Wisconsin Mountain Glaciation in the Western United States," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter, Jr. (ed.), University of Minnesota Press, Minneapolis, pp. 71-114.

Prentice, I. C., 1983. "Postglacial Climatic Change: Vegetation Dynamics and the Pollen Record," pp. 273-286.

Quade, J., 1986. "Late Quaternary Environmental Changes in the Upper Las Vegas Valley, Nevada," Quaternary Research, Vol. 26, pp. 340-357.

Quiring, R. F., 1968. Climatological Data, Nevada Test Site and Nuclear Rocket Development Station, ESSA Technical Memorandum ARL-7, Environmental Sciences Service Administration, U.S. Department of Commerce, Las Vegas, Nev.

Quiring, R. F., 1983. Precipitation Climatology of the Nevada Test Site, WSNSO 351-88, National Weather Service, U.S. Department of Commerce, Las Vegas, Nev.

Ruddiman, W. F., and A. McIntyre, 1981. "Oceanic Mechanisms for Amplification of the 23,000-Year Ice Volume Cycle," Science, Vol. 212, No. 4495, pp. 617-627.

Russell, I. C., 1885. Geological History of Lake Lahontan, a Quaternary Lake of Northwestern Nevada, U.S. Geological Survey Monograph Volume XI, Government Printing Office, Washington, D.C.

SAIC (Science Applications International Corporation), 1985. Meteorological Monitoring Plan for the Nevada Nuclear Waste Storage Investigations Project, Yucca Mountain Site, DOE/NV/10270-5, Las Vegas, Nev.

Saltzman, B., 1985. "Paleoclimatic Modeling," Chapter 8, pp. 341-396.

Saltzman, B., and A. Sutera, 1984. "A Model of the Internal Feedback System Involved in Late Quaternary Climatic Variations," Journal of the Atmospheric Science, Vol. 41, No. 5, pp. 736-745.

Saltzman, B., A. R. Hansen, and K. A. Maasch, 1984. "The Late Quaternary Glaciations as the Response of a Three-Component Feedback System to Earth-Orbital Forcing," Journal of the Atmospheric Sciences, Vol. 41, No. 23, pp. 3380-3389.

Schlesinger, M. E., 1984. "Climate Model Simulations of C02-Induced Climatic Change," Advances in Geophysics, Vol. 26, pp. 141-235.

Schneider, S. H., and R. E. Dickinson, 1974. "Climate Modeling," Reviews of Geophysics and Space Physics, Vol. 12, No. 3, pp. 447-493.

Schumm, S. A., 1965. "Quaternary Paleohydrology," The Quaternary of the United States, H. E. Wright, Jr., and D. G. Frey (eds.), Princeton University Press, Princeton, New Jersey, pp. 783-794.

Scott, W. E., W. D. McCoy, R. R. Shroba, and M. Rubin, 1983. "Reinterpretation of the Exposed Record of the Last Two Cycles of Lake Bonneville, Western United States," Quaternary Research, Vol. 20, pp. 261-285.

Shackleton, N. J., M. A. Hall, J. Line, and C. Shuxi, 1983. "Carbon Isotope Data in Core V19-30 Confirm Reduced Carbon Dioxide Concentration in the Ice Age Atmosphere," Nature, Vol. 306, pp. 319-322.

Shackleton, N., J. Bachman, H. Zimmerman, D. Kent, M. Hall, D. Roberts, D. Schnitker, with others, 1984. "Oxygen Isotope Calibration of the Onset of Ice-Rafting and History of Glaciation in the North Atlantic Region," Nature, Vol. 307, pp. 620-623.

Sharp, R. P., 1938. "Pleistocene Glaciation in the Ruby-East Humboldt Range, Northeastern Nevada," Journal of Geomorphology, pp. 296-323.

Sheppard, R. A., and A. J. Gude, 3rd, 1968. Distribution and Genesis of Authigenic Silicate Minerals in Tuffs of Pleistocene Lake Tecopa, Inyo County, California, Geological Survey Professional Paper 579, U.S. Government Printing Office, Washington, D.C.

Smith, G. I., 1979. Subsurface Stratigraphy and Geochemistry of Late Quaternary Evaporites, Searles Lake, California, Geological Survey Professional Paper 1043, U.S. Geological Survey, 130 p.

"BEST AVAILABLE COPY"

Smith, G. I., and W. P. Pratt, 1957. Core Logs from Owens, China, Searles, and Panamint Basins, California, Geological Survey Bulletin 1045-A, U.S. Government Printing Office, Washington, D.C.

Smith, G. I., and F. A. Street-Perrott, 1983. "Pluvial Lakes of the Western United States," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, pp. 190-212.

Snyder, C. T., and W. B. Langbein, 1962. "The Pleistocene Lake in Spring Valley, Nevada, and Its Climatic Implications," Journal of Geophysical Resources, Vol. 67, No. 6, pp. 2385-2394.

Solomon, A. M., and T. Webb, III, 1985. "Computer-aided Reconstruction of Late-Quaternary Landscape Dynamics," Annual Review of Ecology Systematics, Vol. 16, pp. 63-84.

Spaulding, W. G., 1981. The Late Quaternary Vegetation of a Southern Nevada Mountain Range, Ph.D. dissertation, University of Arizona, Department of Geosciences, Tuscon, 271 p.

Spaulding, W. G., 1983. Vegetation and Climates of the Last 45,000 Years in the Vicinity of the Nevada Test Site, South-Central Nevada, USGS-OFR-83-535, Open-File Report, U.S. Geological Survey.

Spaulding, W. G., 1985. Vegetation and Climates of the Last 45,000 Years in the Nevada Test Site and Vicinity, U.S. Geological Survey Professional Paper 1329, U.S. Government Printing Office, Washington, D.C.

Spaulding, W. G., and L. J. Graumlich, 1986. "The Last Pluvial Climatic Episodes in the Deserts of Southwestern North America," Nature, Vol. 320, pp. 441-444.

Spaulding, W. G., E. B. Leopold, and T. R. Van Devender, 1983. "The Late Wisconsin Paleoecology of the American Southwest," Late-Quaternary Environments of the United States, Volume I, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, pp. 259-293.

Spaulding, W. G., S. W. Robinson, and F. L. Paillet, 1984. Preliminary Assessment of Climatic Change during Late Wisconsin Time, Southern Great Basin and Vicinity, Arizona, California, and Nevada, USGS-WRI-84-4328, Water-Resources Investigations Report, U.S. Geological Survey.

Spencer, R. J., M. J. Baedecker, H. P. Eugster, R. M. Forester, M. B. Goldhaber, B. F. Jones, K. Kelts, J. Mckenzie, D. B. Madsen, S. L. Rettig, M. Rubin, and C. J. Bowser, 1984. "Great Salt Lake, and Precursors, Utah: The Last 30,000 Years," Contributions to Mineralogy and Petrology, Vol. 86, pp. 321-334.

Stauffer, N. E., Jr., 1985. "Great Salt Lake Water Balance Model," in Proceedings of Conference on Problems of and Prospects for Predicting Great Salt Lake Levels, March 26-28, 1985, Salt Lake City, Utah, University of Utah Center for Public Affairs and Administration, Salt Lake City, pp. 168-178.

Street-Perrott, F. A., and S. P. Harrison, 1984. "Temporal Variations in Lake Levels Since 30,000 Yr BP - An Index of the Global Hydrological Cycle," Geophysical Monograph, Vol. 29, pp. 118-129.

Stuiver, M., and G. I. Smith, 1979. "Radiocarbon Ages of Stratigraphic Units," Subsurface Stratigraphy and Geochemistry of Late Quaternary Evaporites, Searles Lake, California, G. I. Smith, (ed.), Geological Survey Professional Paper 1043, U.S. Government Printing Office, Washington, D.C., pp. 68-73.

Stuiver, M., G. H. Denton, T. J. Hughes, J. L. Fastook, 1981. "History of the Marine Ice Sheet in West Antarctica during the Last Glaciation: A Working Hypothesis," The Last Great Ice Sheets, G. H. Denton and T. J. Hughes (eds.), John Wiley & Sons, New York, pp. 319-436.

Sugden, D. E., 1977. "Reconstruction of the Morphology, Dynamics, and Thermal Characteristics of the Laurentide Ice Sheet at Its Maximum," Arctic and Alpine Research, Vol. 9, No. 1, pp. 21-47.

Ter Braak, C. J. F., and L. G. Barendregt, 1986. "Weighted Averaging of Species Indicator Values: Its Efficiency in Environmental Calibration," Mathematical Biosciences, Vol. 78, pp. 57-72.

Thompson, R. S., 1984. "Late Pleistocene and Holocene Environments in the Great Basin, unpublished Ph.D. thesis, University of Arizona, Department of Geosciences, Tucson, 256 p.

Thompson, R. S., and E. M. Hattori, 1983. "Packrat (Neotoma) Middens from Gatecliff Shelter and Holocene Migrations of Woodland Plants," Anthropological Papers of the American Museum of Natural History, Vol. 59, pp. 157-167.

Thompson, R. S., and J. I. Mead, 1982. "Late Quaternary Environments and Biogeography in the Great Basin," Quaternary Research, Vol. 17, pp. 39-55.

Thompson, R. S., L. Benson, and E. M. Hattori, 1986. "A Revised Chronology for the Last Pleistocene Lake Cycle in the Central Lahonton Basin," Quaternary Research, Vol. 25, pp. 1-9.

USGS (U.S. Geological Survey), 1954. Water-Loss Investigations Lake Hefner Studies, Technical Report, Geological Survey Professional Paper 269, U.S. Government Printing Office, Washington, D.C., 158 p.

USGS (U.S. Geological Survey), 1970 - 1984. Water Resources Data for California, Part 1. Surface Water Records, Volume 1: Colorado River Basin, Southern Great Basin, and Pacific Slope Basins Excluding Central Valley, Water-Data Reports, published annually, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1980 - 1984. Water Resources Data for Nevada, published annually, USGS-WDR-NV-80 to 84-1, Water-Data Report, U.S. Geological Survey.

Van Devender, T. R., and W. G. Spaulding, 1979. "Development of Vegetation and Climate in the Southwestern United States," Science, Vol. 204, pp. 701-710.

Van Devender, T. R., R. S. Thompson, and J. L. Betancourt, 1987. "Vegetation History of the Deserts of Southwestern North America: The Nature and Timing of the Late Wisconsin - Holocene Transition," North America and Adjacent Oceans during the Last Deglaciation, W. F. Ruddiman and H. E. Wright, Jr. (eds.), Geological Society of America, Boulder, Colo., pp. 1-56.

Von Neumann, J., 1960. "Some Remarks on the Problem of Forecasting Climatic Fluctuations," Dynamics of Climate, R. L. Pfeffer (ed.), Pergamon Press, New York, pp. 9-11.

Waitt, R. B., Jr., and R. M. Thorson, 1983. "The Cordilleran Ice Sheet in Washington, Idaho, and Montana," Late Quaternary Environments of the United States, Vol. I, Chapter 3, pp. 53-70.

Wallace, J. M., and P. V. Hobbs, 1977. Atmospheric Science: An Introductory Survey, Academic Press, New York, pp. 71-81.

Wang, W. -C., D. J. Wuebbles, W. M. Washington, R. G. Isaacs, and G. Molnar, 1986. "Trace Gases and Other Potential Perturbations to Global Climate," Reviews of Geophysics, Vol. 24, No. 1, pp. 110-140.

Wayne, W. J., 1984. "Glacial Chronology of the Ruby Mountains - East Humboldt Range, Nevada," Quaternary Research, Vol. 21, pp. 286-303.

Weast, R. C. (ed.), 1972. Handbook of Chemistry and Physics, 53rd Edition, The Chemical Rubber Co., Cleveland, Ohio, p. E-39.

Webb, T., III, 1980. "The Reconstruction of Climatic Sequences from Botanical Data," Journal of Interdisciplinary History, Vol. 4, pp. 749-772.

Webb, T., III, 1985. "Holocene Palynology and Climate," Paleoclimatic Analysis and Modeling, A. D. Hecht (ed.), John Wiley & Sons, New York, pp. 163-195.

Webb, T., III, and R. A. Bryson, 1972. "Late- and Postglacial Climatic Change in the Northern Midwest, USA: Quantitative Estimates Derived from Fossil Pollen Spectra by Multivariate Statistical Analysis," Quaternary Research, Vol. 2, pp. 70-115.

Webb, T., III, J. Kutzbach, and F. A. Street-Perrott, 1985. "20,000 Years of Global Climatic Change: Paleoclimatic Research Plan," pp. 182-218.

Wells, P. V., 1979. "An Equable Glaciopluvial in the West: Pleniglacial Evidence of Increased Precipitation on a Gradient from the Great Basin to the Sonoran and Chihuahuan Deserts," Quaternary Research, Vol. 12, pp. 311-325.

Wells, P. V., 1983. "Paleobiogeography of Montane Islands in the Great Basin Since the Last Glaciopluvial," Ecological Monographs, Vol. 53(4), pp. 341-382.

Wells, P. V., and R. Berger, 1967. "Late Pleistocene History of Coniferous Woodland in the Mohave Desert," Science, Vol. 155, pp. 1640-1647.

Wells, P. V., and C. D. Jorgensen, 1964. "Pleistocene Wood Rat Middens and Climatic Change in Mohave Desert: A Record of Junifer Woodlands," Science, Vol. 143, pp. 1171-1174.

Wells, S. G., L. D. McFadden, T. F. Bullard, B. F. Feilberg, R. L. Ford, J. P. Grimm, J. R. Miller, S. M. Orbock, J. D. Pickle, and J. C. Dohrenwend, 1984. "Late Quaternary Geomorphic History of the Silver Lake Area, Eastern Mojave Desert, California: An Example of the Influence of Climatic Change on Desert Piedmonts," pp. 122-136.

Wells, S. G., L. D. McFadden, and J. C. Dohrenwend, 1987. "Influence of Late Quaternary Climatic Changes on Geomorphic and Pedogenic Processes on a Desert Piedmont, Eastern Mojave Desert, California," Quaternary Research, Vol. 27, pp. 130-146.

Whitaker, G. L., 1971. "Changes in the Elevation of Great Salt Lake Caused by Man's Activities in the Drainage Basin," Geological Survey Research 1971, U.S. Geological Survey Professional Paper 750-D, U.S. Governmant Printing Office, Washington, D.C. pp. D187-D189.

Williams, J., R. G. Barry, and W. M. Washington, 1974. "Simulation of the Atmospheric Circulation Using the NCAR Global Circulation Model with Ice Age Boundary Conditions," Journal of Applied Meteorology, Vol. 13, No. 13, pp. 305-317.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

NNI.881207.0093

REFERENCES FOR CHAPTER 6

ANSI (American National Standards Institute), 1982. Minimum Design Loads for Buildings and Other Structures, ANSI A58.1-1982, National Bureau of Standards, New York.

ANSI/ANS (American National Standard Institute/American Nuclear Society), 1981. "American National Standard for Determining Design Basis Flooding at Power Reactor Sites," ANSI/ANS-2.8-1981, American Nuclear Society, La Grange Park, Ill.

ANSI/ANS (American National Standards Institute/American Nuclear Society), 1983. American National Standard for Estimating Tornado and Extreme Wind Characteristics at Nuclear Power Sites, ANSI/ANS-2.3-1983, La Grange Park, Ill.

Arulmoli, K., and C. M. St. John, 1987. Analysis of Horizontal Waste Emplacement Boreholes of a Nuclear Waste Repository in Tuff, SAND86-7133, Sandia National Laboratories, Albuquerque, N. Mex.

BEIR (Committee on the Biological Effects of Ionizing Radiations), 1980. The Effects on Populations of Exposure to Low Levels of Ionizing Radiation: 1980, Division of Medical Sciences, Assembly of Life Sciences, National Research Council, National Academy Press, Washington, D.C.

Barton, N., 1982. Modelling Rock Joint Behavior from In Situ Block Tests: Implications for Nuclear Waste Repository Design, ONWI-308, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

Barton, N., R. Lien, and J. Lunde, 1974a. Analysis of Rock Mass Quality and Support Practice in Tunneling and a Guide for Estimating Support Requirements, Internal Report 54206, Norwegian Geotechnical Institute, Oslo, Norway.

Barton, N., R. Lien, and J. Lunde, 1974b. "Engineering Classification of Rock Masses for the Design of Tunnel Support," Rock Mechanics, Vol. 6, No. 4, pp. 189-236.

Bathe, K-J., 1975. ADINA: A Finite Element Program for Automatic Dynamic Incremental Nonlinear Analysis, Report 82448-1, Massachusetts Institute of Technology, Acoustics and Vibration Laboratory, Mechanical Engineering Department, Cambridge.

Bathe, K-J., 1977. ADINAT: Finite Element Program for Automatic Dynamic Incremental Nonlinear Analysis of Temperature, Report 82448-5, Massachusetts Institute of Technology, Cambridge.

Bauer, S. J., J. F. Holland, and D. K. Parrish, 1985a. "Implications About In Situ Stress at Yucca Mountain," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Vol II, Rapid City, South Dakota, pp. 1113-1120.

Bauer, S. J., R. K. Thomas, and L. M. Ford, 1985b. "Measurement and Calculation of the Mechanical Response of a Highly Fractured Rock," in Research & Engineering Applications in Rock Masses, Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, South Dakota, June 26-28, 1985, South Dakota School of Mines & Technology, Rapid City, pp. 523-530.

Bieniawski, Z. T., 1974. "Geomechanics Classification of Rock Masses and Its Application in Tunneling," Advances in Rock Mechanics, Vol. II, Part A, Proceedings of the Third Congress of the International Society of Rock Mechanics, National Academy of Sciences, Washington, D.C., pp. 27-38.

Biffle, J. H., 1984. JAC--A Two-Dimensional Finite Element Computer Program for the Non-Linear Quasistatic Response of Solids with the Conjugate Gradient Method, SAND81-0998, Sandia National Laboratories, Albuquerque, N. Mex.

Blanford, M. L., and J. D. Osnes, 1987. Numerical Analyses of the G-Tunnel Small-Diameter Heater Experiments, SAND85-7115, prepared by RE/SPEC, Inc., for Sandia National Laboratories, Albuquerque, N. Mex.

Brady, B. H. G., 1980. HEFF: A Boundry Element Code for Two-Dimensional Thermal Elastic Analysis of a Rock Mass Subject to Constant or Decaying Thermal Loading - Users' Guide and Manual, RHO-BWI-C-80, prepared by University of Minnesota, Minneapolis, for Rockwell Hanford Operations, Richland, Wash.

Branstetter, L. J., 1983. Pretest Parametric Calculations for the Heated Pillar Experiment in the WIPP In Situ Experimental Area, SAND82-2781, Sandia National Laboratories, Albuquerque, N. Mex.

California Administrative Code, 1981a. Title 8. "Industrial Relations," Chapter 4. "Division of Industrial Safety," Subchapter 20. "Tunnel Safety Orders," Article 11. "Change Houses and Sanitation," Office of Administrative Hearings, Department of General Services, State of California, North Highlands.

California Administrative Code, 1981b. Title 8, "Industrial Relations," Subchapter 17, "Mine Safety Orders," Article 18, "Conveyors and Tramways," pp. 650.3-650.7.

Carpenter, D. W., and D. H. Chung, 1985. Effects of Earthquakes on Underground Facilities: Literature Review and Discussion, UCID-20505, Lawrence Livermore National Laboratory, Livermore, Calif.

Carr, W. J., 1974. Summary of Tectonic and Structural Evidence for Stress Orientation at the Nevada Test Site, USGS-OFR-74-176, Open-File Report, U.S. Geological Survey.

Case, J. B., and P. C. Kelsall, 1987. Modification of Rock Mass Permeability in the Zone Surrounding a Shaft in Fractured, Welded Tuff, SAND86-7001, Sandia National Laboratories, Albuquerque, N. Mex.

Chen, E. P., 1987. A Computational Model for Jointed Media with Orthogonal Sets of Joints, SAND86-1122, Sandia National Laboratories, Albuquerque, N. Mex.

Christianson, M. C., 1979. TEMP3D: A Computer Program for Determining Temperatures Around Single or Arrays of Constant or Decaying Heat Sources - Users' Guide and Manual, RHO-BWI-C-71, prepared by University of Minnesota, Minneapolis, for Rockwell Hanford Operations, Richland, Wash.

Crippen, J. R. and C. D. Bue, 1977. Maximum Flood Flows in the Conterminous United States, USGS-WSP-1887, Water-Supply Paper, U.S. Geological Survey.

Croff, A. G., 1980. A User's Manual for the ORIGEN2 Computer Code, ORNL-TM-7175, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Czarnecki, J. B., 1985. Simulated Effects of Increased Recharge on the Ground-Water Flow System of Yucca Mountain and Vicinity, Nevada-California, USGS-WRI-84-4344, Water-Resources Investigations Report, U.S. Geological Survey.

DOE (U.S. Department of Energy), 1982. "Implementation of the National Environmental Policy Act," DOE Order 5440.1B, Washington, D.C.

DOE (U.S. Department of Energy), 1983a. "General Design Criteria Manual," DOE Order 6430.1, Washington, D.C.

DOE (U.S. Department of Energy), 1983b. "Management of Construction Projects," DOE Order 6410.1, Washington, D.C.

DOE (U.S. Department of Energy), 1983c. "Site Development and Facility Utilization Planning," DOE Order 4320.1A, Washington, D.C.

DOE (U.S. Department of Energy), 1984a. "Environmental Protection, Safety, and Health Protection Standards," DOE Order 5480.4, Washington, D.C.

DOE (U.S. Department of Energy), 1984b. Generic Requirements for a Mined Geologic Disposal System, DOE/NE/44301-1, Washington, D.C.

DOE (U.S. Department of Energy), 1985a. Mission Plan for the Civilian Radioactive Waste Management Program, Overview and Current Program Plans, DOE/RW-0005, three volumes, Washington, D.C.

DOE (U.S. Department of Energy), 1985b. "Safety Requirements for the Packaging and Transportation of Hazardous Materials, Hazardous Substances, and Hazardous Wastes," DOE Order 5480.3, Washington, D.C.

DOE (U.S. Department of Energy), 1986a. "Department of Energy Position on Retrievability and Retrieval for a Geologic Repository," Washington, D.C., pp. D1-D19.

DOE (U.S. Department of Energy), 1986b. "Environment, Safety, and Health Program for Department of Energy Operations," DOE Order 5480.1B, Washington, D.C.

DOE (U.S. Department of Energy), 1986c. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

DOE (U.S. Department of Energy), 1986d. Generic Requirements for a Mined Geologic Disposal System, DOE/NE/44301-1, Washington, D.C.

DOE (U.S. Department of Energy), 1987a. Analysis of the Total System Life Cycle Cost for the Civilian Radioactive Waste Management Program, DOE/RW-0047, 2 volumes, Washington, D.C.

DOE (U.S. Department of Energy), 1987b. Draft Mission Plan Amendment, DOE/RW-0128, Office of Civilian Radioactive Waste Management, Washington, D.C.

DOE (U.S. Department of Energy), 1987c. Guidance for Developing the SCP-CDR and SCP Q-Lists.

DOE (U.S. Departemnt of Energy), 1987d. Nuclear Waste Fund Fee Adequacy: An Assessment, DOE/RW-0020, Washington, D.C.

Dennis, A. W., 1983. Design Considerations for Occupational Exposure for a Potential Repository at Yucca Mountain, SAND83-0247C, Sandia National Laboratories, Albuquerque, N. Mex.

Dennis, A. W., and Dravo Engineers, 1985. Surface-to-Underground Access Study for the Prospective Yucca Mountain Nuclear Waste Repository, SAND84-0840, Sandia National Laboratories, Albuquerque, N. Mex.

Dennis, A. W., J. C. Frostenson, and K. J. Hong, 1984a. NNWSI Repository Worker Radiation Exposure, Vol. I, Spent Fuel and High-Level Waste Operations in a Geologic Repository in Tuff, SAND83-7436/1, Sandia National Laboratories, Albuquerque, N. Mex.

Dennis, A. W., R. Mulkin, and J. C. Frostenson, 1984b. Operational Procedures for Receiving, Packaging, Emplacing, SAND83-1982C, Sandia National Laboratories, Albuquerque, N. Mex.

Dennis, A. W., P. D. O'Brien, R. Mulkin, and D. C. Frostenson, 1984c. NNWSI Repository Operational Procedures for Receiving, Packaging, Emplacing, and Retrieving High-Level and Transuranic Waste, SAND83-1166, Sandia National Laboratories, Albuquerque, N. Mex.

Dieterich, J. H., 1972a. "Time-Dependent Friction in Rocks," Journal of Geophysical Research, Vol. 77, No. 20, pp. 3690-3697.

Dieterich, J. H., 1972b. "Time-Dependent Friction as a Possible Mechanism for Aftershocks," Journal of Geophysical Research, Vol. 77, No. 20, pp. 3771-3781.

Dravo Engineers, Inc., 1984. Effect of Variations in the Geologic Data Base on Mining at Yucca Mountain for NNWSI, SAND84-7125, Sandia National Laboratories, Albuquerque, N. Mex.

Duffey, T. A., 1980. Final Report - The Salt Block I Test: Experimental Details and Comparison with Theory, SAND79-7050, Sandia National Laboratories, Albuquerque, N. Mex.

Eaton, R. R., D. K. Gartling, and D. E. Larson, 1983. SAGUARO - A Finite Element Computer Program for Partially Saturated Porous Flow Problems, SAND82-2772, Sandia National Laboratories, Albuquerque, N. Mex.

Ehgartner, B. L., 1987. Sensitivity Analyses of Underground Drift Temperature, Stresses, and Safety Factors to Variation in the Rock Mass Properties of Tuff for a Nuclear Waste Repository Located at Yucca Mountain, Nevada, SAND86-1250, Sandia National Laboratories, Albuquerque, N. Mex.

Ellis, W. L., and H. S. Swolfs, 1983. Preliminary Assessment of In Situ Geomechanical Characteristics in Drill Hole USW G-1, Yucca Mountain, Nevada, USGS-OFR-83-401, Open-File Report, U.S. Geological Survey.

Fernandez, J. A., 1985. Repository Sealing Plan for the Nevada Nuclear Waste Storage Investigations Project Fiscal Year 1984 Through 1990, SAND84-0910, Sandia National Laboratories, Albuquerque, N. Mex.

Fernandez, J. A., and M. D. Freshley, 1984. Repository Sealing Concepts for the Nevada Nuclear Waste Storage Investigations Project, SAND83-1778, Sandia National Laboratories, Albuquerque, N. Mex.

Fisk, A. T., P., de Bakker, B. J. Doherty, J. P. Pokorski, and J. Spector, 1985. Conceptual Engineering Studies and Design for Three Different Machines for Nuclear Waste Transporting, Emplacement, and Retrieval, SAND83-7089, Sandia National Laboratories, Albuquerque, N. Mex.

Flores, R. J., 1986. Retrievability: Strategy for Compliance Demonstration, SAND84-2242, Sandia National Laboratories, Albuquerque, N. Mex.

Freshley, M. D., F. H. Dove, and J. A. Fernandez, 1985a. Hydrologic Calculations to Evaluate Backfilling Shafts and Drifts for a Prospective Nuclear Waste Repository in Unsaturated Tuff, SAND83-2465, Sandia National Laboratories, Albuquerque, N. Mex.

Freshley, M. D., F. H. Dove, and J. A. Fernandez, 1985b. Numerical Analyses to Evaluate Backfilling Repository Drifts in Unsaturated Tuff, SAND84-1661C, Sandia National Laboratories, Albuquerque, N. Mex.

Friant, J. E., and P. B. Dowden, 1987. Design of a Machine to Bore and Line a Long Horizontal Hole in Tuff, SAND86-7004, Sandia National Laboratories, Albuquerque, N. Mex.

Friedman, M., M. Logan, and L. A. Rigert, 1974. "Glass-Indurated Quartz Gouge in Sliding-Friction Experiments on Sandstone," Geological Society of America Bulletin, Vol. 85, pp. 937-942.

Gartling, D. K., 1982. COYOTE - A Finite Element Computer Program for Nonlinear Heat Conduction Problems, SAND77-1332, Sandia National Laboratories, Albuquerque, N. Mex.

Gartling, D. K., R. R. Eaton, and R. K. Thomas, 1981. Preliminary Thermal Analyses for a Nuclear Waste Repository in Tuff, SAND80-2813, Sandia National Laboratories, Albuquerque, N. Mex.

Ghosh, S., and E. L. Wilson, 1975. ASHSD2: Dynamic Stress Analysis of Axisymmetric Structures Under Arbitrary Loading, Report No. EERC 69-10, Earthquake Engineering Research Center, University of California, Berkeley.

Gruer, E. R., M. E. Fowler, and G. A. Rocha, 1987. Cost Estimate of the Yucca Mountain Repository Based on the Site Characterization Plan Conceptual Design, SAND85-1964, Sandia National Laboratories, Albuquerque, N. Mex.

Handin, J., and N. Carter, 1981. "Rheological Properties of Rocks at High Temperatures," pp. 97-106.

Hibbitt, Karlsson, and Sorensen, Inc., 1982. ABAQUS - Example Problems Manual, Providence, Rhode Island.

Hill, J., 1985. Structural Analysis of the NNWSI Exploratory Shaft, SAND84-2354, Sandia National Laboratories, Albuquerque, N. Mex.

Ho, D. M., R. L. Sayre and C. L. Wu, 1986. Suitability of Natural Soils for Foundations for Surface Facilities at the Prospective Yucca Mountain Nuclear Waste Repository, SAND85-7107, Sandia National Laboratories, Albuquerque, N. Mex.

Hoek, E., and E. T. Brown, 1980. Underground Excavations in Rock, Institution of Mining & Metallurgy, London, pp. 137-139, 285-298

Holden, J. T., 1972. "On the Finite Deflections of Thin Beams," International Journal of Solids and Structures, Vol. 8, Pergamon Press, Great Britain, pp. 1051-1055.

Holmberg, R., and P. -A. Persson, 1979. "Design of Tunnel Perimeter Blasthole-Patterns to Prevent Rock Damage," Tunneling '79, pp. 280-283.

Hustrulid, W., 1984a. Lining Considerations for a Circular Vertical Shaft in Generic Tuff, SAND83-7068, Sandia National Laboratories, Albuquerque, N. Mex.

Hustrulid, W., 1984b. Preliminary Stability Analysis for the Exploratory Shaft, SAND83-7069, Sandia National Laboratories, Albuquerque, N. Mex.

Jackson, J. L. (comp.), 1984. Nevada Nuclear Waste Storage Investigations Preliminary Repository Concepts Report, SAND83-1877, Sandia National Laboratories, Albuquerque, N. Mex.

Jackson, J. L., H. F. Gram, K. J. Hong, H. S. Ng, and A. M. Pendergrass, 1984. Preliminary Safety Assessment Study for the Conceptual Design of a Repository in Tuff at Yucca Mountain, SAND83-1504, Sandia National Laboratories, Albuquerque, N. Mex.

Jaeger, J. C., and N. G. W. Cook, 1979. Fundamentals of Rock Mechanics, Chapman and Hall, London, England, pp. 390-391, 405.

Johnson, R. L., 1981. Thermo-Mechanical Scoping Calculations for a High Level Nuclear Waste Repository in Tuff, SAND81-0629, Sandia National Laboratories, Albuquerque, N. Mex.

Johnson, R. L., and S. J. Bauer, 1987. Unit Evaluation at Yucca Mountain, Nevada Test Site: Near-Field Thermal and Mechanical Calculations Using the SANDIA-ADINA Code, SAND83-0030, Sandia National Laboratories, Albuquerque, N. Mex.

Johnstone, J. K., R. R. Peters, and P. F. Gnirk, 1984. Unit Evaluation at Yucca Mountain, Nevada Test Site: Summary Report and Recommendation, SAND83-0372, Sandia National Laboratories, Albuquerque, N. Mex.

Kenny Construction Company, 1987. Installation of Steel Liner in Blind Hole Study, SAND85-7111, Sandia National Laboratories, Albuquerque, N. Mex.

Labreche, D. A., 1985. "Calculation of Laboratory Stress-Strain Behavior Using a Compliant Joint Model," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, South Dakota, June 26-28, 1985.

Labreche, D. A., and S. V. Petney, 1987. The SPECTROM-31 Compliant Joint Model: A Preliminary Description and Feasibility Study, SAND85-7100, Sandia National Laboratories, Albuquerque, N. Mex.

Langkopf, B. S., and P. R. Gnirk, 1986. Rock-Mass Classification of Candidate Repository Units at Yucca Mountain, Nye County, Nevada, SAND82-2034, Sandia National Laboratories, Albuquerque, N. Mex.

Lysmer, J., T. Udaka, C. Tsai, and H. B. Seed, 1975. FLUSH: A Computer Program for Approximate 3-D Analysis of Soil-Structure Interaction Problems, Report No. EERC 75-30, College of Engineering, University of California, Berkeley.

Maldonado, F., and S. L. Koether, 1983. Stratigraphy, Structure, and Some Petrographic Features of Tertiary Volcanic Rocks at the USW G-2 Drill Hole, Yucca Mountain, Nye County, Nevada, USGS-OFR-83-732, Open-File Report, U.S. Geological Survey.

Mansure, A. J., 1985. Underground Facility Area Requirements for a Radioactive Waste Repository at Yucca Mountain, SAND84-1153, Sandia National Laboratories, Albuquerque, N. Mex.

Mansure, A. J., and T. S. Ortiz, 1984. Preliminary Evaluation of the Subsurface Area Available for a Potential Nuclear Waste Repository at Yucca Mountain, SAND84-0175, Sandia National Laboratories, Albuquerque, N. Mex.

Mine Ventilation Services, Inc., 1986a. VNETPC (2.0), Mine Ventilation Services, Inc., Lafayette, Calif.

Mine Ventilation Services, Inc., 1986b. CLIMSIM (Version 2.0), Mine Ventilation Services, Inc., Lafayette, Calif.

Mondy, L. A., B. L. Baker, and R. R. Eaton, 1985. Vadose Water Flow Around a Backfilled Drift Located in Tuff, SAND84-0369, Sandia National Laboratories, Albuquerque, N. Mex.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Moore, R. E., C. F. Baes, III, L. M. McDowell-Boyer, A. P. Watson, F. O. Hoffman, J. C. Pleasant, and C. W. Miller, 1979. AIRDOS-EPA: A Computerized Methodology for Estimating Environmental Concentrations and Dose to Man from Airborne Releases of Radionuclides, ORNL-5532, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Morgan, H. S., R. D. Krieg, and R. V. Matalucci, 1981. Comparative Analysis of Nine Structural Codes Used in the Second WIPP Benchmark Problem, SAND81-1389, Sandia National Laboratories, Albuquerque, N. Mex.

Morrow, C., and J. Byerlee, 1984. "Frictional Sliding and Fracture Behavior of Some Nevada Test Site Tuffs," in Rock Mechanics in Productivity and Protection, Proceedings of the 25th Symposium on Rock Mechanics, Evanston, Illinois, June 25-27, 1984, Chapter 49, Society of Mining Engineers, New York, pp. 467-474.

Morrow, C. A., L. Q. Shi, and J. D. Byerlee, 1982. "Strain Hardening and Strength of Clay-Rich Fault Gouges," Journal of Geophysical Research, Vol. 87, No. B8, pp. 6771-6780.

Mualem, Y., 1976. A Catalogue of the Hydraulic Properties of Unsaturated Soils, Technion Research and Development Foundation, Ltd., Technion Israel Institute of Technology, Jerusalem, Israel, 100 p.

NRC (U.S. Nuclear Regulatory Commission), 1983. PRA Procedures Guide: A Guide to the Performance of Probabalistic Risk Assessments for Nuclear Power Plants, NUREG/CR-2300, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

NWPA (Nuclear Waste Policy Act), 1983. "Nuclear Waste Policy Act of 1982," Public Law 97-425, 42 USC 10101-10226, Washington, D.C.

National Materials Advisory Board, 1980. Measurement and Control of Respirable Dust in Mines, Report of the Committee on Measurement and Control of Respirable Dust, National Academy Sciences, Washington, D.C.

Neal, J. T., 1985. Location Recommendation for Surface Facilities for the Prospective Yucca Mountain Waste Repository, SAND84-2015, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., and R. L. Williams, 1984. A Three-Dimensional Geologic Model of Yucca Mountain, Southern Nevada, SAND83-2593, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., S. J. Bauer, and J. R. Tillerson, 1984. "Recommended Matrix and Rock Mass Bulk, Mechanical, and Thermal Properties for Thermomechanical Stratigraphy of Yucca Mountain," Keystone Document 6310-85-1, Version 1, Sandia National Laboratories, Albuquerque, N. Mex.

O'Brien, P. D., 1984. Preliminary Reference Waste Descriptions for a Repository at Yucca Mountain, Nevada, SAND83-1805, Sandia National Laboratories, Albuquerque, N. Mex.

O'Brien, P. D., 1985. Reference Nuclear Waste Descriptions for a Geologic Repository at Yucca Mountain, Nevada, SAND84-1848, Sandia National Laboratories, Albuquerque, N. Mex.

O'Brien, P. D., and C. S. Shirley, 1984. "The Effect of Waste Age on the Design of a Geologic Repository," in Waste Management '84, Waste Isolation in the U.S., Proceedings of the Symposium on Waste Management at Tucson, Arizona, March 11-15, 1984, R. G. Post (ed.), Vol. 1, University of Arizona, Tucson, pp. 527-529.

Olsson, W. A., 1982. Effects of Elevated Temperature and Pore Pressure on the Mechanical Behavior of Bullfrog Tuff, SAND81-1664, Sandia National Laboratories, Albuquerque, N. Mex.

Olsson, W. A., 1987. Rock Joint Compliance Studies, SAND86-0177, Sandia National Laboratories, Albuquerque, N. Mex.

Olsson, W. A., and A. K. Jones, 1980. Rock Mechanics Properties of Volcanic Tuffs from the Nevada Test Site, SAND80-1453, Sandia National Laboratories, Albuquerque, N. Mex.

Ortiz, T. S., R. L. Williams, F. B. Nimick, B. C. Whittet, and D. L. South, 1985. A Three-Dimensional Model of Reference Thermal/Mechanical and Hydrological Stratigraphy at Yucca Mountain, Southern Nevada, SAND84-1076, Sandia National Laboratories, Albuquerque, N. Mex.

Paterson, M. S., 1978. Experimental Rock Deformation - The Brittle Field, Springer-Verlag, New York, pp. 90-92, 99-111.

Patrick, W. C., 1985. Operational and Technical Results from the Spent Fuel Test - Climax, UCRL-92065, Lawrence Livermore National Laboratory, Livermore, Calif.

Peters, R. R., E. A. Klavetter, I. J. Hall, S. C. Blair, P. R. Heller and G. W. Gee, 1984. Fracture and Matrix Hydrologic Characteristics of Tuffaceous Materials from Yucca Mountain, Nye County, Nevada, SAND84-1471, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., 1983. Analysis of Rock Mechanics Properties of Volcanic Tuff Units from Yucca Mountain, Nevada Test Site, SAND82-1315, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., 1986. Effects of Sample Size on the Mechanical Behavior of Topopah Spring Tuff, SAND85-0709, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., and S. J. Bauer, 1985. "Analysis of the Elastic and Strength Properties of Yucca Mountain Tuff, Nevada," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, A. A. Balkema, Boston, Mass., pp. 89-96.

Price, R. H., K. G. Nimick, and J. A. Zirzow, 1982. Uniaxial and Triaxial Compression Test Series on Topopah Spring Tuff, SAND82-1723, Sandia National Laboratories, Albuquerque, N. Mex.

Price, R. H., F. B. Nimick, J. R. Connolly, K. Keil, B. M. Schwartz, and S. J. Spence, 1985. Preliminary Characterization of the Petrologic, Bulk, and Mechanical Properties of a Lithophysal Zone within the Topopah Spring Member of the Paintbrush Tuff, SAND84-0860, Sandia National Laboratories, Albuquerque, N. Mex.

Reed, J. W., R. L. Sharpe, and F. A. Webster, 1979. "An Analysis of a Nuclear Test Reactor for Surface Rupture Offset," paper presented at American Society Chemical Engineering Meeting, April 1-6, 1979, Boston, Mass.

Reisenauer, A. E., K. T. Key, T. N. Narasimhan, and R. W. Nelson, 1982. TRUST: A Computer Program for Variably Saturated Flow in Multidimensional, Deformable Media, NUREG/CR-2360, U.S. Nuclear Regulatory Commission, Washington, D.C.

Robbins Company, 1984a. Repository Drilled Hole Methods Study, SAND83-7085, Sandia National Laboratories, Albuquerque, N. Mex.

Robbins Company, 1984b. Small Diameter Horizontal Hole Drilling--State of Technology, SAND84-7103, Sandia National Laboratories, Albuquerque, N. Mex.

Robbins Company, 1985. Feasibility Studies and Conceptual Design for Placing Steel Liner in Long, Horizontal Boreholes for a Prospective Nuclear Waste Repository in Tuff, SAND84-7209, Sandia National Laboratories, Albuquerque, N. Mex.

Runchal, A. K., 1982. PORFLOW-R: A Mathematical Model for Coupled Ground Water Flow, Heat Transfer, and Radionuclide Transport in Porous Media, ACRI/TN-006/Draft, Analytic and Computational Research, Inc., West Los Angeles, Calif.

Rush, F. E., W. Thordarson, and D. G. Pyles, 1984. Geohydrology of Test Well USW H-1, Yucca Mountain, Nye County, Nevada, USGS-WRI-84-4032, Water-Resources Investigations Report, U.S. Geological Survey.

SNL (Sandia National Laboratories), 1986. Two-Stage Repository Development at Yucca Mountain: An Engineering Feasibility Study, SAND84-1351 (Rev. 1), Sandia National Laboratories, Albuquerque, N. Mex.

SNL (Sandia National Laboratories), 1987. Site Characterization Plan Conceptual Design Report, SAND84-2641, 6 Vol., Sandia National Laboratories, Albuquerque, N. Mex.

Sass, J. H., and A. H. Lachenbruch, 1982. Preliminary Interpretation of Thermal Data from the Nevada Test Site, USGS-OFR-82-973, Open-File Report, U.S. Geological Survey.

Scholz, C. H., and J. T. Engelder, 1976. "The Role of Asperity Indentation and Ploughing in Rock Friction -- I. Asperity Creep and Stick Slip," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 13, pp. 149-154.

Scholz, C., P. Molnar, and T. Johnson, 1972. "Detailed Studies of Frictional Sliding of Granite and Implications for the Earthquake Mechanism," Journal of Geophysical Research, Vol. 77, No. 32, pp. 6392-6406.

Scott, R. B., and J. Bonk, 1984. Preliminary Geologic Map of Yucca Mountain, Nye County, Nevada, with Geologic Sections, USGS-OFR-84-494, Open-File Report, U.S. Geological Survey.

Scott, R. B. and M. Castellanos, 1984. Stratigraphic and Structural Relations of Volcanic Rocks in Drill Holes USW GU-3 and USW G-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-491, Open-File Report, U.S. Geological Survey.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Shimamoto, T., and J. M. Logan, 1981. "Effects of Simulated Clay Gouges on the Sliding Behavior of Tennessee Sandstone," Tectonophysics, Vol. 75, pp. 243-255.

Sinnock, S., and J. A. Fernandez, 1982. Summary and Conclusions of the NNWSI Area-to-Location Screening Activity, NVO-247, Nevada Operations Office, U.S. Department of Energy, Las Vegas, Nev.

Sinnock, S., Y. T. Lin, and J. P. Brannen, 1984. Preliminary Bounds on the Expected Postclosure Performance of the Yucca Mountain Repository Site, Southern Nevada, SAND84-1492, Sandia National Laboratories, Albuquerque, N. Mex.

Spengler, R. W., and M. P. Chornack, 1984. Stratigraphic and Structural Characteristics of Volcanic Rocks in Core Hole USW G-4, Yucca Mountain, Nye County, Nevada, with a section on geophysical logs by D. C. Muller and J. E. Kibler, USGS-OFR-84-789, Open-File Report, U.S. Geological Survey.

Spengler, R. W., F. M. Byers, Jr., and J. B. Warner, 1981. Stratigraphy and Structure of Volcanic Rocks in Drill Hole USW G-1, Yucca Mountain, Nye County, Nevada, USGS-OFR-81-1349, Open-File Report, U.S. Geological Survey.

Squires, R. R., and R. L. Young, 1984. Flood Potential of Fortymile Wash and Its Principal Southwestern Tributaries, Nevada Test Site, Southern Nevada, USGS-WRI-83-4001, Water-Resources Investigations Report, U.S. Geological Survey.

St. John, C. M., 1985. Thermal Analysis of Spent Fuel Disposal in Vertical Emplacement Boreholes in a Welded Tuff Repository, SAND84-7207, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1986. LINED: Static Analysis of a Tunnel with Liner or Damaged Annulus, R-8227-5534, J. F. T. Agapito & Associates, Inc., Los Angeles, Calif.

St. John, C. M., 1987a. Interaction of Nuclear Waste Panels with Shafts and Access Ramps for a Potential Repository at Yucca Mountain, SAND84-7213, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987b. Investigative Study of the Underground Excavations for a Nuclear Waste Repository in Tuff, SAND83-7451, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987c. Reference Thermal and Thermal/Mechanical Analyses of Drifts for Vertical and Horizontal Emplacement of Nuclear Waste in a Repository in Tuff, SAND86-7005, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987d. Thermomechanical Analysis of Underground Excavations in the Vicinity of a Nuclear Waste Isolation Panel, SAND84-7208, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., and M. Christianson, 1980. STRESS3D: A Computer Program for Determining Temperatures, Stresses, and Displacements Around Single or Arrays of Constant or Decaying Heat Sources, RHO-BWI-C-78, prepared by the University of Minnesota, Minneapolis, for Rockwell Hanford Operations, Richland, Wash.

St. John, C. M., and S. J. Mitchell, 1987. Investigation of Excavation Stability in a Finite Repository, SAND86-7011, Sandia National Laboratories, Albuquerque, N. Mex.

Stein, R., 1986. Memorandum from R. Stein (DOE/HQ) to S. Mann (CRP), L. Olson (BWIP), D. Vieth (NNWSI), and J. Neff (SRP), March 24, 1986; regarding issues, issue resolution strategy, and design information for the SCP.

Stein, R., 1987. Memorandum from R. Stein (DOE/HQ) to D. Vieth (NNWSI), J. Neff (SRPO), and J. Anttonen (BWIP), April 10, 1987; regarding SCP use of January, 1987 Waste Acceptance Schedule.

Stephens, D. B., and S. P. Neuman, 1982a. "Vadose Zone Permeability Tests: Summary," in Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers, Vol. 108, No. HY5, New York, pp. 623-639.

Stephens, D. B., and S. P. Neuman, 1982b. "Vadose Zone Permeability Tests: Steady State Results," in Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers, Vol. 108, No. HY5, pp. 640-659.

Stinebaugh, R. E., and J. C. Frostenson, 1986. Disposal of Radioactive Waste Packages in Vertical Boreholes--A Description of the Operations and Equipment for Emplacement and Retrieval, SAND84-1010, Sandia National Laboratories, Albuquerque, N. Mex.

Stinebaugh, R. E., and J. C. Frostenson, 1987. Worker Radiation Doses during Vertical Emplacement and Retrieval of Spent Fuel at the Tuff Repository, SAND84-2275, Sandia National Laboratories, Albuquerque, N. Mex.

Stinebaugh, R. E., and R. M. Robb, 1987. Cost Comparison of Horizontal and Vertical Waste Emplacement Methods for a Repository in Tuff, SAND85-1580, Sandia National Laboratories, Albuquerque, N. Mex.

Stinebaugh, R. E., I. B. White, and J. C. Frostenson, 1986. Disposal of Radioactive Waste Packages in Horizonal Boreholes--A Description of the Operations and Equipment for Emplacement and Retrieval, SAND84-2640, Sandia National Laboratories, Albuquerque, N. Mex.

Stock, J. M., J. H. Healy, and S. H. Hickman, 1984. Report on Televiewer Log and Stress Measurements in Core Hole USW G-2, Nevada Test Site, October-November 1982, USGS-OFR-84-172, U.S. Geological Survey.

Stock, J. M., J. H. Healy, S. H. Hickman, and M. D. Zoback, 1985. "Hydraulic Fracturing Stress Measurements at Yucca Mountain, Nevada, and Relationship to the Regional Stress Field," Journal of Geophysical Research, Vol. 90, No. B10, pp. 8691-8706.

Stone, C. M., R. D. Krieg, and Z. E. Beisinger, 1985. SANCHO - A Finite Element Computer Program for the Quasistatic, Large Deformation, Inelastic Response of Two-Dimensional Solids, SAND84-2618, Sandia National Laboratories, Albuquerque, N. Mex.

Sun, Z., C. Gerrard, and O. Stephansson, 1985. "Rock Joint Compliance Tests for Compression and Shear Loads," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 22, No. 4, pp. 197-213.

Sutherland, H. J., R. A. Schmidt, K. W. Schuler, and S. E. Benzley, 1979. "Physical Simulations of Subsidence by Centrifuge Techniques," in Proceedings of the 20th U.S. Symposium on Rock Mechanics, Austin, Texas, June 4-6, 1979, pp. 279-286.

Svalstad, D. K., 1983. User's Manual for SPECTROM-41: A Finite-Element Heat Transfer Program, ONWI-326, RE/SPEC, Inc., for the Office of Nuclear Waste Isolation, Columbus, Ohio.

Svalstad, D. K., and T. Brandshaug, 1983. Forced Ventilation Analysis of a Commercial High-Level Nuclear Waste Repository in Tuff, Topical Report RSI-0175, SAND81-7206, Sandia National Laboratories, Albuquerque, N. Mex.

Teufel, L. W., 1981. Frictional Properties of Jointed Welded Tuff, SAND81-0212, Sandia National Laboratories, Albuquerque, N. Mex.

Teufel, L. W., and J. M. Logan, 1978. "Effect of Displacement Rate on the Real Area of Contact and Temperatures Generated during Frictional Sliding of Tennessee Sandstone," Pageoph (Pure and Applied Geophysics), Vol. 116, pp. 840-865.

Thomas, R. K., 1982. A Continuum Description for Jointed Media, SAND81-2615, Sandia National Laboratories, Albuquerque, N. Mex.

Thomas, R. K., 1987. Near Field Mechanical Calculations Using a Continuum Jointed Rock Model in the JAC Code, SAND83-0070, Sandia National Laboratories, Albuquerque, N. Mex.

Thordarson, W., 1983. Geohydrologic Data and Test Results from Well J-13, Nevada Test Site, Nye County, Nevada, USGS-WRI-83-4171, Water-Resources Investigations Report, U.S. Geological Survey.

Tillerson, J. R., and F. B. Nimick, 1984. Geoengineering Properties of Potential Repository Units at Yucca Mountain, Southern Nevada, SAND84-0221, Sandia National Laboratories, Albuquerque, N. Mex.

URS/John A. Blume & Associates, 1986. Ground Motion Evaluations at Yucca Mountain, Nevada with Applications to Repository Conceptual Design and Siting, SAND85-7104, Sandia National Laboratories, Albuquerque, N. Mex.

USGS (U.S. Geological Survey) (comp.), 1984. A Summary of Geologic Studies through January 1, 1983, of a Potential High-Level Radioactive Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-84-792, Open-File Report, U.S. Geological Survey.

Van Dillen, D. E., R. W. Fellner, and R. D. Ewing, 1981. Modernization of the BMINES Computer Code, Vol. I: User's Guide, U-7910-5117, prepared by Agbabian Associates, El Segundo, Calif., for U.S. Department of the Interior, Bureau of Mines, Denver, Colo.

Waddell, R. K., 1982. Two-Dimensional, Steady-State Model of Ground-Water Flow, Nevada Test Site and Vicinity, Nevada-California, USGS-WRI-82-4085, Water-Resources Investigations Report, U.S. Geological Survey.

Waddell, R. K., J. H. Robison, and R. K. Blankennagel, 1984. Hydrology of Yucca Mountain and Vicinity, Nevada-California--Investigative Results Through Mid-1983, USGS-WRI-84-4267, Water-Resources Investigations Report, U.S. Geological Survey.

Wart, R. J., E. L. Skiba, and R. H. Curtis, 1984. Benchmark Problems for Repository Design Models, NUREG/CR-3636, U.S. Nuclear Regulatory Commission, Washington, D.C.

White, I. B., R. E. Graham, and J. C. Frostenson, 1986. One-Twelfth-Scale Model of Horizontal Emplacement and Retrieval Equipment for Radioactive Waste Packages at the Proposed Repository in Tuff, SAND86-7135, Sandia National Laboratories, Albuquerque, N. Mex.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

Zimmerman, R. M., 1983. "First Phase of Small Diameter Heater Experiments in Tuff," in Proceedings of the 24th U.S. Symposium on Rock Mechanics, June 1983, pp. 271-282.

Zimmerman, R. M., and R. E. Finley, 1987. Summary of Geomechanical Measurements Taken In and Around the G-Tunnel Underground Facility, NTS, SAND86-1015, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., and W. C. Vollendorf, 1982. Geotechnical Field Measurements, G-Tunnel, Nevada Test Site, SAND81-1971, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., M. P. Board, E. L. Hardin, and M. D. Voegele, 1984. "Ambient Temperature Testing of the G-Tunnel Heated Block," in Proceedings of the 25th U.S. Rock Mechanics Symposium, Northwest University, Evanston, Ill., June 25-27, 1984, Society of Mining Engineers, New York, pp. 281-295.

Zimmerman, R. M., M. L. Wilson, M. P. Board, M. E. Hall, and R. L. Schuch, 1985. "Thermal Cycle Testing of the G-Tunnel Heated Block," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Rapid City, South Dakota, E. Ashworth (ed.), A. A. Balkema, Boston, Mass., pp. 749-758.

Zimmerman, R. M., R. L. Schuch, D. S. Mason, M. L. Wilson, M. E. Hall, M. P. Board, R. P. Bellman, M. L. Blanford, 1986a. Final Report: G-Tunnel Heated Block Experiment, SAND84-2620, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., M. L. Blanford, J. F. Holland, R. L. Schuch, and W. H. Barrett, 1986b. Final Report, G-Tunnel Small-Diameter Heater Experiments, SAND84-2621, Sandia National Laboratories, Albuquerque, N. Mex.

CODES AND REGULATIONS

10 CFR Part 20 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 20, "Standards for Protection Against Radiation," U.S. Government Printing Office, Washington, D.C., pp. 247-285.

10 CFR Part 50, Appendix B (Code of Federal Regulations), 1987. Title 10, "Energy," Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," U.S. Government Printing Office, Washington, D.C.

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

30 CFR Part 57 (Code of Federal Regulations), 1986. Title 30, "Mineral Resources," Subchapter N, "Metal and Nonmetal Mine Safety and Health," Part 57, "Safety and Health Standards - Underground Metal and Nonmental Mines," U.S. Government Printing Office, Washington, D.C.

40 CFR Part 141 (Code of Federal Regulations), 1986. Title 40, "Protection of the Environment," Part 141, "National Primary Drinking Water Regulations," U.S. Government Printing Office, Washington, D.C.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.

49 CFR Part 171 (Code of Federal Regulations), 1985. Title 49, "Transportation," Part 171, "General Information, Regulations, and Definitions," U.S. Government Printing Office, Washington, D.C.

NNI.881207.0094

REFERENCES FOR CHAPTER 7

ASME (America Society of Mechanical Engineers), 1983. "Analysis of Piping Products," ASME Boiler and Pressure Vessel Code, Rules for Construction of Nuclear Power Plant Components, ANS Section III, Section NB-3650, New York.

ASTM (American Society for Testing and Materials), 1986. "Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steel," Annual Book of ASTM Standards, A 262-81, Part 10, Philadelphia, Penn., pp. 1-29.

Aagaard, P., and H. C. Helgeson, 1982. "Thermodynamic and Kinetic Constraints on Reaction Rates Among Minerals and Aqueous Solutions. I. Theoretical Considerations," American Journal of Science, Vol. 282, pp. 237-285.

Abe, S., T. Ogawa, S. Iwasaki, K. Hattori, M. Akashi, and R. Kume, 1982. "Development of SCC Resistant 347LP," Predictive Methods for Assessing Corrosion Damage to BWR Piping and PWR Steam Generators, H. Okada and R. Staehle (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 179-186.

Abrajano, T., J. Bates, W. Ebert, and T. Gerding, 1986. The Effect of Gamma Radiation on Groundwater Chemistry and Glass Leaching as Related to the NNWSI Repository Site, UCRL-15825, Lawrence Livermore National Laboratory, Livermore, Calif.

Acton, C. F., and R. D. McCright, 1986. Feasibility Assessment of Copper-Base Waste Package Container Materials in a Tuff Repository, UCID-20847, Lawrence Livermore National Laboratory, Livermore, Calif.

Aines, R. D., 1986. Estimates of Radionuclide Release from Glass Waste Forms in a Tuff Repository and the Effects on Regulatory Compliance, UCRL-93735, Lawrence Livermore National Laboratory, Livermore, Calif.

Alexander, C. W., C. W. Kee, A. G. Croff, and J. O. Blomeke, 1977. Projections of Spent Fuel to be Discharged by the U.S. Nuclear Power Industry, ORNL/TM-6008, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Apted, M. J., and R. Adiga, 1985. "The Effect of Groundwater on Release Rate Behavior of Borosilicate Glass," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, Materials Research Society, Pittsburgh, Penn., pp. 163-170.

Aronson, S., R. B. Roof, Jr., and J. Belle, 1957. "Kinetic Study of the Oxidation of Uranium Dioxide," The Journal Chemical Physics, Vol. 27, No. 1, pp. 137-144.

Atkinson, A., D. J. Goult, J. A. Hearne, 1985. "An Assessment of the Long-Term Durability of Concrete in Radioactive Waste Repositories," in Scientific Basis for Nuclear Waste Management IX, Materials Research Society Symposia Proceedings, Stockholm, Sweden, September 9-11, 1985, L. O. Werme (ed.), Vol. 50, Materials Research Society, Pittsburgh, Penn., pp. 239-246.

Baker, C., 1977. "Fission Gas Bubble Distribution in Uranium Dioxide from High Temperature Irradiated SGHWR Fuel Pins," Journal of Nuclear Material, Vol. 66, pp. 283-291.

Bandy, R., and D. Van Rooyen, 1985. "Properties of Nitrogen-Containing Stainless Alloy Designed for High Resistance to Pitting," Corrosion, Vol. 41, No. 4, National Association of Corrosion Engineers, pp. 228-233.

Barkatt, A., P. B. Macedo, W. Sousanpour, A. Barkatt, M. A. Boroomand, P. Szoke, and V. L. Rogers, 1983. "Correlation Between Dynamic Leach Test Results and Geochemical Observations," in Scientific Basis for Nuclear Waste Management VI, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1982, D. G. Brookins (ed.), Vol. 15, North Holland, New York, pp. 227-234.

Barkatt, A., B. C. Gibson, and M. Brandys, 1985. "A Kinetic Model of Nuclear Waste Glass Dissolution in Flowing Water Environments," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, Materials Research Society, Pittsburgh, Penn., pp. 229-236.

Barnartt, S., 1977. "Electrochemical Nature of Corrosion," Electrochemical Techniques for Corrosion, R. Baboian (ed.), National Association of Corrosion Engineers, Houston, Tex., pp. 1-10.

Barner, J. O., 1984. Characterization of LWR Spent Fuel MCC-Approved Testing Material - ATM-101, PNL-5109, Battelle Pacific Northwest Laboratories, Richland, Wash.

Bates, J. K., and T. J. Gerding, 1985. NNWSI Phase II Materials Interaction Test Procedure and Preliminary Results, ANL-84-81, Argonne National Laboratory, Argonne, Ill.

Bates, J. K., and T. Gerding, 1986. One-Year Results of the NNWSI Unsaturated Test Procedure: SRL 165 Glass Application, ANL-85-41, Argonne National Laboratory, Argonne, Ill.

Bates, J. K., and V. M. Oversby, 1984. The Behavior of Actinide Containing Glasses during Gamma-Irradiation in a Satuated Tuff Environment, UCRL-90818, Lawrence Livermore National Laboratory, Livermore, Calif.

Bates, J. K., L. J. Jardine, and M. J. Steindler, 1982. "Hydration Aging of Nuclear Waste Glass," Science, Vol. 218, pp. 51-53.

Bates, J. K., D. F. Fischer, and T. J. Gerding, 1986a. The Reaction of Glass during Gamma Irradiation in a Saturated Tuff Environment: Part 1, SRL 165 Glass, ANL-85-62, Argonne National Laboratory, Argonne, Ill.

Bates, J. K., T. J. Gerding, T. A. Abrajano, Jr., and W. Ebert, 1986b. NNWSI Waste Form Testing at Argonne National Laboratory: Semiannual Report, July-December, 1985, UCRL-15801, Lawrence Livermore National Laboratory, Livermore, Calif.

Baxter, R. G., 1983. Description of Defense Waste Processing Facility Reference Waste Form and Canister, DP-1606, Rev. 1, E. I. du Pont de Nemours & Co., Savannah River Laboratory, Aiken, S.C.

Bazan, F., and J. Rego, 1985. Parametric Testing of a DWPF Glass, UCRL-53606, Lawrence Livermore National Laboratory, Livermore, Calif.

Bazan, F., and J. H. Rego, 1986. The Tuff Reaction Vessel Experiment, UCRL-53735, Lawrence Livermore National Laboratory, Livermore, Calif.

Beattie, I. R., 1967. "Nitrogen Dioxide and Dionitrogen Tetroxide," Mellor's Comprehensive Treatise on Inorganic and Theoretical Chemistry, Vol. VIII, Suppl. II, J. Wiley & Sons, New York, pp. 247-268.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bianchi, G., A. Cerquetti, F. Mazza, and S. Torchio, 1974. "Pitting Corrosion of Austenitic Stainless Steel and Properties of Surface Oxide Films," Localized Corrosion NACE-3, R. W. Staehle, B. Brown, J. Kruger and A. Agrawal (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 399-409.

Bibler, N. E., 1986. Leaching Fully Radioactive SRP Nuclear Waste Glass in Tuff Groundwater in Stainless Steel Vessels, DP-MS-85-141, E. I. du Pont de Nemours & Co., Savannah River Plant, Aiken, S.C.

Bibler, N. E., G. G. Wicks, and V. M. Oversby, 1984. Leaching Savannah River Plant Nuclear Glass in a Saturated Tuff Environment, UCRL-91258, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Bickford, D. F., and C. M. Jantzen, 1984. "Devitrification Behavior of SRL Defense Waste Glass," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 557-566.

Bickford, D. F., and D. J. Pellarin, 1986. "Large-Scale Leach Testing of DWPF Canister Sections, DP-MS-86-72, E. I. du Pont de Nemours & Co., Savannah River Laboratory, Aiken, S.C.

Bish, D. L., F. A. Caporuscio, J. F. Copp, B. M. Crowe, J. D. Purson, J. R. Smyth, and R. G. Warren, 1981. Preliminary Stratigraphic and Petrologic Characterization of Core Samples from USW-G1, Yucca Mountain, Nevada, A. C. Waters and P. R. Carroll (eds.), LA-8840-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Bourcier, W. L., 1985. Improvements in the Solid Solution Modeling Capabilities of the EQ3/6 Geochemical Code, UCID-20587, Lawrence Livermore National Laboratory, Livermore, Calif.

Bradley, D. J., C. O. Harvey, and R. P. Turcotte, 1979. Leaching of Actinides and Technetium from Simulated High-Level Waste Glass, PNL-3152, Pacific Northwest Laboratories, Waste Isolation Safety Assessment Program, Richland, Wash.

Bradley, D. J., D. G. Coles, F. N. Hodges, G. L. McVay, and R. E. Westerman, 1983. Nuclear Waste Package Materials Testing Report: Basaltic and Tuffaceous Environments, PNL-4452, Pacific Northwest Laboratory, Richland, Wash.

Briant, C. L., 1982. Effects of Nitrogen and Cold Work on the Sensitization of Austenitic Stainless Steels, Final Report NP-2457, EPRI Research Project 1574-1, Palo Alto, Calif.

Briant, C. L., R. A. Mulford, and E. L. Hall, 1982. "Sensitization of Austenitic Stainless Steels, I. Controlled Purity Alloys," Corrosion, Vol. 38, No. 9, pp. 468-477.

Bruemmer, S. M., and A. B. Johnson, Jr., 1984. "Effect of Chloride, Thiosulfate, and Fluoride Additions on the IGSCC Resistance of Type 304 Stainless Steel in Low Temperature Water," in Proceedings of International Symposim on Environmental Degradation of Materials in Nuclear Power Systems-Water Reactors, August 22-25, 1983, Myrtle Beach, S. Carolina, National Association of Corrosion Engineers, Houston, Tex., pp. 571-582.

Burns, P. J., 1982. TACO2D - A Finite Element Heat Transfer Code, UCID-17980, Rev. 2, Lawrence Livermore National Laboratory, Livermore, Calif.

Burns, W. G., A. E. Hughes, J. A. C. Marples, R. S. Nelson, and A. M. Stoneham, 1982. "Effects of Radiation on the Leach Rates of Vitrified Radioactive Waste," Journal of Nuclear Materials, Vol. 107, North-Holland Publishing Company, pp. 245-270.

CDA (Copper Development Association), 1986. Application Data Sheet, Standard Designations for Copper and Copper Alloys, Greenwich, Conn.

Carlos, B. A., 1985. Minerals in Fractures of the Unsaturated Zone from Drill Core USW G-4, Yucca Mountain, Nye County, Nevada, LA-10415-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Clarke, W. L., R. L. Cowan, and W. L. Walker, 1978. "Comparative Methods for Measuring Degree of Sensitization in Stainless Steel," Intergranular Corrosion of Stainless Alloys, R. F. Steigerwald (ed.), ASTM STP 656, American Society for Testing and Materials, Philadelphia, Penn., pp. 99-132.

Coffman, W., D. Vogt, and M. Mills, 1984. A Summary of Computer Codes for Waste Package Performance Assessment, NUREG/CR-3699, U.S. Nuclear Regulatory Commission, Washington, D.C.

Conca, J. L., 1985. Differential Weathering Effects and Mechanisms, Ph.D. dissertation, California Institute of Technology, Pasadena.

Cowan, R. L., II, and G. M. Gordon, 1977. "Intergranular Stress Corrosion Cracking and Grain Boundary Composition of Fe-Ni-Cr Alloys," Stress Corrosion Cracking and Hydrogen Embrittlement of Iron Base Alloys NACE-5, R. W. Staehle, J. Hochmann, R. D. McCright and J. E. Slater (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 1023-1070.

Croff, A. G., 1980. A User's Manual for the ORIGEN2 Computer Code, ORNL-TM-7175, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Croff, A. G., and C. W. Alexander, 1980. Decay Characteristics of Once-Through LWR and LMFBR Spent Fuels, High-Level Wastes, and Fuel-Assembly Structural Material Waste, ORNL/TM-7431, Oak Ridge National Laboratory, Oak Ridge, Tenn.

DOE (U.S. Department of Energy), 1984b. Generic Requirements for a Mined Geologic Disposal System, DOE/NE/44301-1, Washington, D.C.

DaCasa, C., V. B. Nileshwar, and D. A. Melford, 1969. "M23C6 Precipitation in Unstabilized Austenitic Stainless Steel," Journal of the Iron and Steel Institute, October, pp. 1325-1332.

Daily, W., W. Lin, and T. Buscheck, 1986. Hydrological Properties of Topopah Spring Tuff - Laboratory Measurements, UCRL-94363, Lawrence Livermore National Laboratory, Livermore, Calif.

Danko, J. C., 1984. "Recent Observations of Cracks in Large Diameter BWR Piping: Analysis and Remedial Actions," in Proceedings of the International Symposium on Environmental Degradation of Materials in Nuclear Power Systems-Water Reactors, National Association of Corrosion Engineers, Houston, Tex., pp. 209-222.

Davis, R. B., and V. Pasupathi, 1981. Data Summary Report for the Destructive Examination of Rods G7, G9, J8, I9 and H6 from Turkey Point Fuel Assembly B17, HEDL-TME-80-85, Hanford Engineering Development Laboratory, Richland, Wash.

Delany, J. M., 1985. Reaction of Topopah Spring Tuff with J-13 Water: A Geochemical Modeling Approach Using the EQ3/6 Reaction Path Code, UCRL-53631, Lawrence Livermore National Laboratory, Livermore, Calif.

Delany, J. M., and T. J. Wolery, 1984. Fixed-Fugacity Option for the EQ6 Geochemical Reaction Path Code, UCRL-53598, Lawrence Livermore National Laboratory, Livermore, Calif.

Delany, J. M., I. Puigdomenech, and T. J. Wolery, 1986. Precipitation Kinetics Option for the EQ6 Geochemical Reaction Path Code, UCRL-53642, Lawrence Livermore National Laboratory, Livermore, Calif.

DePoorter, G. L., 1986. Letter from G. L. DePoorter (LANL) to M. D. Valentine (DOE/NV), TWS-ES-NP/01-86-28, January 17, 1986; regarding adjustment for correct mole fraction by dividing solute concentration by 55.5.

Duhaj, P., J. Ivan, and F. Makovicky, 1968. "Sigma Phase Precipitation in Austenitic Steels," Journal of the Iron and Steel Institute, December, pp. 1245-1251.

Durham, W. B., J. M. Beiriger, M. Axelrod, and S. Trettenero, 1985. The Effect of Gamma Irradiation on the Strength and Elasticity of Climax Stock and Westerly Granites, UCRL-92526, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Ebert, W. L., J. K. Bates, T. J. Gerding, and R. A. Van Konynenburg, 1986. The Effects of Gamma Radiation on Groundwater Chemistry and Glass Reaction in a Saturated Tuff Environment, UCRL-95884, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Einziger, R. E., 1985. Technical Test Description of Activities to Determine the Potential for Spent Fuel Oxidation in a Tuff Repository, HEDL-7540, Hanford Engineering Development Laboratory, Richland, Wash.

Einziger, R. E., 1986. Test Plan for Long-Term, Low-Temperature Oxidation of Spent Fuel, Series 1, HEDL-7560, Hanford Engineering Development Laboratory, Richland, Wash.

Einziger, R. E., and J. A. Cook, 1984. LWR Spent Fuel Dry Storage Behavior at 229 deg. C, NUREG/CR-3708, U.S. Nuclear Regulatory Commission, Washington, D.C. pp. 90-92.

Einziger, R. E., and R. Kohli, 1984. "Low-Temperature Rupture Behavior of Zircaloy-Clad Pressurized Water Reactor Spent Fuel Rods Under Dry Storage Conditions," Nuclear Technology, Vol. 67, 107 p.

Einziger, R. E., and R. V. Strain, 1984. "Effect of Cladding Defect Size on the Oxidation of Irradiated Spent LWR Fuel Below 360 deg. C," in Proceedings of International Workshop on Irradiated Fuel Storage, Toronto, Canada, October 17-18, 1984, pp. 599-625.

Einziger, R. E., and R. E. Woodley, 1985a. Evaluation of the Potential for Spent Fuel Oxidation Under Tuff Repository Conditions, HEDL-7452, Hanford Engineering Development Laboratory, Richland, Wash.

Einziger, R. E., and R. E. Woodley, 1985b. Low Temperature Spent Fuel Oxidation Under Tuff Repository Conditions, HEDL SA-3271, Hanford Engineering Development Laboratory, Richland, Wash.

Einziger, R. E., and R. E. Woodley, 1986. Test Plan for Series 2 Thermogravimetric Analyses of Spent Fuel Oxidation, HEDL-7556, Hanford Engineering Development Laboratory, Richland, Wash.

Eisenstatt, L. R., 1986. Description of the West Valley Project Reference High-Level Waste Form and Canister, WVDP-056, Rev. 0, West Valley Demonstration Project, West Valley, New York.

Eklund, U., and R. Forsyth, 1978. Leaching of Irradiated Uranium Oxide Fuel, KBS Technical Report No. 70, Swedish Nuclear Fuel Supply Co., Karnbranslesakerhet, Stockholm, Sweden.

Fontana, M. G., and N. D. Greene, 1978. Corrosion Engineering, McGraw-Hill Book Co., New York. pp. 125-127.

Forsyth, R. S., K. Svanberg, and L. Werme, 1984. "The Corrosion of Spent UO2-Fuel in Synthetic Groundwater," in Proceedings of the Third Spent Fuel Workshop, L. Werme (ed.), SKBF Technical Report 83-76, Swedish Nuclear Fuel Supply Co., Kaernbraenslesaekerhet, Stockholm, Sweden, pp. 1-12.

Forsyth, R. S., L. O. Werme, and J. Bruno, 1985. The Corrosion of Spent UO2 Fuel in Synthetic Groundwater, SKB Technical Report 85-16, Swedish Nuclear Fuel and Waste Management Co., Stockholm, Sweden.

Forsythe, W. R., and W. F. Giauque, 1942. "The Entropies of Nitric Acid and Its Mono-and Tri-hydrates," Journal American Chemical Society, Vol. 64, pp. 48-61.

Fox, M. J., and R. D. McCright, 1983. An Overview of Low Temperature Sensitization, UCRL-15619, Lawrence Livermore National Laboratory, Livermore, Calif.

Freude, E., B. Grambow, W. Lutze, H. Rabe, and R. C. Ewing, 1985. "Long-Term Release from High Level Waste Glass - Part IV: The Effect of Leaching Mechanism," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, Materials Research Society, Pittsburgh, Penn., pp. 99-106.

Fujita, N., M. Akiyama, and T. Tamura, 1981. "Stress Corrosion Cracking of Sensitized Type 304 Stainless Steel in High Temperature Water Under Gamma Ray Irridation," Corrosion, Vol. 37, No. 6, National Association of Corrosion Engineers, Houston, Tex., pp. 335-341.

Gane, C., and T. Sarson, 1979. Structured Systems Analysis: Tools and Techniques, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 8-24.

Garrels, R. M., and P. Howard, 1957. "Reactions of Feldspar and Mica with Water at Low Temperature and Pressure," in Proceedings of the Sixth National Conference on Clays and Clay Minerals, August 19-23, 1957, Berkeley, California, Pergamon Press, New York.

Glass, R. S., G. E. Overturf, R. E. Garrison, and R. D. McCright, 1984. Electrochemical Determination of the Corrosion Behavior of Candidate Alloys Proposed for Containment of High Level Nuclear Waste in Tuff, UCID-20174, Lawrence Livermore National Laboratory, Livermore, Calif.

Glass, R. S., G. E. Overturf III, R. A. Van Konynenburg, and R. D. McCright, 1985. Gamma Radiation Effects on Corrosion: I. Electrochemical Mechanisms for the Aqueous Corrosion Processes of Austenitic Stainless Steels, UCRL-92311, Lawrence Livermore National Laboratory, Livermore, Calif.

Glassley, W. E., 1986. Reference Waste Package Environment Report, UCRL-53726, Lawrence Livermore National Laboratory, Livermore, Calif.

Grambow, B., 1984. "A Physical-Chemical Model for the Mechanism of Glass Corrosion - with Particular Consideration of Simulated Radioactive Waste Glasses," Dissertation, Freien Universitaet, Berlin, Germany, DP-tr-78, Available in translation from NTIS.

Grambow, B., 1985. "A General Rate Equation for Nuclear Waste Glass Corrosion," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, Materials Research Society, Pittsburgh, Penn., pp. 15-27.

Grambow, B., H. P. Hermansson, I. K. Bjorner, and L. Werme, 1985. "Glass/Waste Reaction With and Without Bentonite Present - Experiment and Model," in Scientific Basis for Nuclear Waste Management IX, Materials Research Society Symposia Proceedings, Stockholm, Sweden, September 9-11, 1985, L. O. Werme (ed.), Vol. 50, Materials Research Society, Pittsburgh, Penn., pp. 187-194.

Grambow, B., H. U. Zwicky, G. Bart, I. K. Bjorner, and L. O. Werme, 1987. "Modeling of the Effect of Iron Corrosion Products on Nuclear Waste Glass Performance," in Scientific Basis for Nuclear Waste Management X, Materials Research Society Symposia Proceedings, December 1-4, 1986, Boston, Massachusetts, J. K. Bates and W. B. Seefeldt (eds.), Vol. 84, Materials Research Society, Pittsburgh, Penn., pp. 471-481.

Grasse, D., O. Kocar, J. Peisl, and S. C. Moss, 1982. "Diffuse X-Ray Scattering from Neutron Irradiated Crystalline Quartz," Radiation Effects, Vol. 66, pp. 61-71.

Hallquist, J. O., 1983. NIKE2D - A Vectorized, Implicit, Finite Deformation, Finite Element Code for Analyzing the Static and Dynamic Response of 2-D Solids, UCID-19677, Lawrence Livermore National Laboratory, Livermore, Calif.

Hastings, I. J., and J. Novak, 1984. "Behavior in Air at 175-250 deg. C of UO2 Fuel Fragments Extracted from Irradiated Elements," in Proceedings of the U.S. Nuclear Regulatory Commission Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. W. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C.

Hastings, I. J., and J. Novak, 1986. Air Oxidation of UO2 Fuel: Chalk River Studies, AECL-9182, Atomic Energy of Canada Limited, Chalk River Nuclear Laboratories, Chalk River, Ontario, Canada.

Helgeson, H. C., 1968. "Evaluation of Irreversible Reactions in Geochemical Processes Involving Minerals and Aqueous Solutions - I. Thermodynamic Relations," Geochimica et Cosmochimica Acta, Vol. 32, pp. 853-857.

Helgeson, H. C., and W. M. Murphy, 1983. "Calculation of Mass Transfer Among Minerals and Aqueous Solutions as a Function of Time and Surface Area in Geochemical Processes, I. Computational Approach," Mathematical Geology, Vol. 15, No. 1, pp. 109-130.

Helgeson, H. C., T. H. Brown, A. Nigrini, and T. A. Jones, 1970. "Calculation of Mass Transfer in Geochemical Processes Involving Aqueous Solutions," Geochimica et Cosmochimica Acta, Vol. 34, pp. 569-592.

Helgeson, H. C., J. M. Delany, H. W. Nesbitt, and D. K. Bird, 1978. "Summary and Critique of the Thermodynamic Properties of Rock-Forming Mineral," American Journal of Science, Vol. 278-A, Kline Geology Laboratory, Yale University, New Haven, Conn.

Helgeson, H. C., W. M. Murphy, and P. Aagaard, 1984. "Thermodynamic and Kinetic Constraints on Reaction Rates Among Minerals and Aqueous Solutions, II. Rate Constants, Effective Surface Area, and the Hydrolysis of Feldspars,". Gechimica et Cosmochimica Acta, Vol. 48, No. 12, pp. 2405-2432.

Henne, M. S., 1982. The Dissolution of Rainier Mesa Volcanic Tuffs, and Its Application to the Analysis of the Groundwater Environment, unpublished M.S. thesis, University of Nevada, Reno.

Hockman, J. N., and W. C. O'Neal, 1984. Thermal Modeling of Nuclear Waste Package Designs for Disposal in Tuff, UCRL-89820, Rev. 1, Lawrence Livermore National Laboratory, Livermore, Calif.

INTERA Environmental Consultants, Inc., 1983. WAPPA: A Waste Package Performance Assessment Code, ONWI-452, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

Iwasaki, S., 1982. "Methods for Preventing and Ameliorating Cracks in BWR Piping," Predictive Methods for Assessing Corrosion Damage to BWR Piping and PWR Steam Generators, H. Okada and R. Staehle (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 144-152.

Jackson, K. J., and T. J. Wolery, 1985. "Extension of the EQ3/6 Computer Codes to Geochemical Modeling of Brines," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, November 26-29, 1984, Boston, Massachusetts, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, pp. 507-513.

Jacobs, G. K., and S. K. Whatley (eds.), 1985. Proceedings of the Conference on the Application of Geochemical Models to High-Level Nuclear Waste Repository Assessment, Oak Ridge, Tenn., October 2-5, 1984, NUREG/CP-0062, Oak Ridge National Laboratory, Oak Ridge, Tenn., 126 p.

Johnson, A. B., Jr., and E. R. Gilbert, 1984. "Reaction of Fuel Cladding with Cover Gases Under Dry Storage Conditions," in Proceedings of the U.S. Nuclear Regulatory Commission Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. W. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C. pp. I-1 to I-10.

Johnson, A. B., E. R. Gilbert, D. Stahl, V. Pasupathi, and R. Kohli, 1984. "Exposure of Breached BWR Fuel Rods at 320 deg. C to Air and Argon," in Proceedings of the U.S. Nuclear Regulatory Commission Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. W. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C., pp. E-2 to E-5.

Johnson, L. H., 1982. The Dissolution of Irradiated UO2 Fuel in Groundwater, AECL-6837, Atomic Energy of Canada Limited, Whiteshell Nuclear Research Establishhment, Pinawa, Manitoba, Canada.

Johnson, L. H., K. I. Burns, H. Joling, and C. J. Moore, 1981. The Dissolution of Irradiated UO2 Fuel Under Hydrothermal Oxidizing Conditions, TR-128, Atomic Energy of Canada Limited, Pinawa, Manitoba, Canada, pp. 6, 10, 18, 23.

Johnson, L. H., D. W. Shoesmith, G. E. Lunansky, M. G. Bailey, and P. R. Tremaine, 1982. "Mechanisms of Leaching and Dissolution of UO2 Fuel," Nuclear Technology, Vol. 56, pp. 238-253.

Johnson, L. H., K. I. Burns, H. H. Joling, and C. J. Moore, 1983a. "Leaching of 137Cs, 134Cs, and 129I from Irradiated UO2 Fuel," Nuclear Technology, Vol. 63, pp. 470-475.

Johnson, L. H., S. Stroes-Gascoyne, D. W. Shoesmith, M. G. Bailey, and D. M. Sellinger, 1983b. "Leaching and Radiolysis Studies on UO2 Fuel," in Proceedings of the Third Spent Fuel Workshop, L. Werme (ed.), KBS 83-76, Swedish Nuclear Fuel Supply Co., Kaernbraenslesaekerket, Stockholm, Sweden.

Johnson, L. H., S. Stroes-Gascoyne, J. D. Chen, M. E. Attas, D. M. Sellinger, and H. G. Delaney, 1985. "The Relationship between Fuel Element Power and the Leaching of 137Cs and 129I from Irradiated UO2 Fuel," in Proceedings of the ANS Meeting on Fission-Product Behavior and Source Term Research, Snowbird, Utah, July 15-19, 1984, M. F. Heubner (ed.), American Nuclear Society.

Johnstone, J. K., R. R. Peters, and P. F. Gnirk, 1984. Unit Evaluation at Yucca Mountain, Nevada Test Site: Summary Report and Recommendation, SAND83-0372, Sandia National Laboratories, Albuquerque, N. Mex.

Jones, A. R., 1959. "Radiation-Induced Reactions in the N2 - O2 - H20 System," Radiation Research, Vol. 10, pp. 655-663.

Juhas, M. C., R. D. McCright, and R. E. Garrison, 1984. Behavior of Stressed and Unstressed 304L Specimens in Tuff Repository Environmental Conditions, UCRL-91804, Lawrence Livermore National Laboratory, Livermore, Calif.

Katayama, Y. B., D. J. Bradley, and C. O. Harvey, 1980. Status Report on LWR Spent Fuel IAEA Leach Tests, PNL-3173, Battelle Pacific Northwest Laboratories, Richland, Wash.

Kerrisk, J. F., 1984. Solubility Limits on Radionuclide Dissolution at a Yucca Mountain Repository, LA-9995-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Kieffer, S. W., 1985. "Heat Capacity and Entropy: Systematic Relations to Lattice Vibrations," Microscopic to Macroscopic, Atomic Environments to Mineral Thermodynamics, S. W. Kieffer and A. Navrotsky (eds.), Vol. 14, Chapter 3, Reviews in Mineralogy, Mineralogical Society of America, Blacksburg, Va., pp. 65-126.

Kingston, H. M., D. J. Cronin, and M. S. Epstein, 1984. "Investigation of a Precise Static Leach Test for the Testing of Simulated Nuclear Waste Materials," Nuclear and Chemical Waste Management, Vol. 5, pp. 3-15.

Klavetter, E. A., and R. R. Peters, 1986. Fluid Flow in a Fractured Rock Mass, SAND85-0855, Sandia National Laboratories, Albuquerque, N. Mex.

Knauss, K. G., 1984. Petrologic and Geochemical Characterization of the Topopah Spring Member of the Paintbrush Tuff: Outcrop Samples Used in Waste Package Experiment, UCRL-53558, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., and W. B. Beiriger, 1984. Report on Static Hydrothermal Alteration Studies of Topopah Spring Tuff Wafers in J-13 Water at 150 deg. C, UCRL-53576, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., and T. J. Wolery, 1986. "Dependence of Albite Dissolution Kinetics on pH and Time at 25 deg. C and 70 deg. C," Geochimica et Cosmochimica Acta, Vol. 50, No. 11, Journal of the Geochemical Society and the Meteoritical Society, pp. 2481-2497.

Knauss, K. G., V. M. Oversby, and T. J. Wolery, 1983. Post Emplacement Environment of Waste Packages, UCRL-89475, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., J. M. Delany, W. B. Beiriger, and D. W. Peifer, 1984. Hydrothermal Interaction of Topopah Spring Tuff with J-13 Water as a Function of Temperature, UCRL-90853, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., W. J. Beiriger, and D. W. Peifer, 1985a. Hydrothermal Interaction of Crushed Topopah Spring Tuff and J-13 Water at 90, 150 and 250 deg. C Using Dickson-Type Gold-Bag Rocking Autoclaves, UCRL-53630, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., W. J. Beiriger, D. W. Peifer, and A. Piwinskii, 1985b. Hydrothermal Interaction of Solid Wafers of Topopah Spring Tuff with J-13 Water and Distilled Water at 90, 150, and 250 deg. C Using Dickson-Type, Gold-Bag Rocking Autoclaves, UCRL-53645, Lawrence Livermore National Laboratory, Livermore, Calif.

Knauss, K. G., W. J. Beiriger, and D. W. Peifer, 1987. Hydrothermal Interaction of Solid Wafers of Topopah Spring Tuff with J-13 Water at 90 and 150 deg. C Using Dickson-type, Gold-Bag Rocking Autoclaves: Long-Term Experiments, UCRL-53722, Lawrence Livermore National Laboratory, Livermore, Calif.

Latanision, R. M., and R. W. Staehle, 1969. "Stress Corrosion Cracking of Iron-Nickel-Chromium Alloys," in Proceedings of Conference: Fundamental Aspects of Stress Corrosion Cracking, National Association of Corrosion Engineers, Houston, Tex., pp. 214-307.

Lin, F. -C., and C. V. Clemency, 1981. "Dissolution Kinetics of Phlogopite, I. Closed System," Clays and Clay Minerals, Vol. 29, No. 1, pp. 101-106.

Lin, W., and W. Daily, 1984. Transport Properties of Topopah Spring Tuff, UCRL-53602, Lawrence Livermore National Laboratory, Livermore, Calif.

Logan, R. W., 1983. Computer Simulation of Sensitization in Stainless Steels, UCID-20000, Lawrence Livermore National Laboratory, Livermore, Calif.

MCC (Materials Characterization Center), 1983. MCC-1P Static Leach Test Method, Nuclear Waste Materials Handbook Test Methods, MRB-0326.

"BEST AVAILABLE COPY"

Majidi, A. P., and M. A. Streicher, 1984. "Potentiodynamic Reactivation Method for Detecting Sensitization in AISI 304 and 304L Stainless Steel," Corrosion, Vol. 40, No. 8, National Association of Corrosion Engineers, Houston, Tex., pp. 393-408.

Manaktala, H. K., 1982. Nuclear Waste Management Technical Support in the Development of Nuclear-Waste-Form Criteria for the NRC Task 3, Waste Inventory Review, NUREG/CR-2333, Vol. 3, U.S. Nuclear Regulatory Commission, Washington, D.C.

Mansfeld, F., 1977. "Polarization Resistance Measurements - Experimental Procedure and Evaluation of Test Data," Electrochemical Techniques for Corrosion, R. Baboian (ed.), National Association of Corrosion Engineers, Houston, Tex., pp. 18-26.

McCright, R. D., 1985. FY 1985 Status Report on Feasibility Assessment of Copper-Base Waste Package Container Materials in a Tuff Repository, UCID-20509, Lawrence Livermore National Laboratory, Livermore, Calif.

McCright, R. D., H. Weiss, M. C. Juhas, and R. W. Logan, 1983. Selection of Candidate Canister Materials for High-Level Nuclear Waste Containment in a Tuff Repository, preprint, UCRL-89988, Lawrence Livermore National Laboratory, Livermore, Calif.

McCright, R. D., W. G. Halsey, and R. A. Van Konynenburg, 1987. Progress Report on the Results of Testing Advanced Conceptual Design Metal Barrier Materials Under Relevant Environmental Conditions for a Tuff Repository, UCID-21044, Lawrence Livermore National Laboratory, Livermore, Calif.

McKay, M. D., R. J. Beckman, and W. J. Conover, 1979. "A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a Computer Code," Technometrics, Vol. 21, No. 2, pp. 239-245.

McVay, G. L., and G. R. Robinson, 1984. Effects of Tuff Waste Package Components on Release from 76-68 Simulated Waste Glass, PNL-4897, Pacific Northwest Laboratories, Richland, Wash.

Mendel, J. E. (comp.), 1981. A State-of-the-Art Review of Materials Properties of Nuclear Waste Forms, PNL-3802, Pacific Northwest Laboratory, Matericals Characterization Center, Richland, Wash., 210 p.

Mendel, J. E. (comp.), 1984. Final Report of the Defense High-Level Leaching Mechanisms Program, PNL-5157, Pacific Northwest Laboratories, Richland, Wash.

Miller, A. K., and A. Tasooji, 1984. "Estimating the Limiting Temperature for Dry Storage with Respect to Stress Corrosion Cracking," in Proceedings of the U.S. Nuclear Regulatory Commission Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. W. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C.

Montan, D. N., 1986. Memorandum from D. N. Montan (LLNL) to L. B. Ballou (LLNL), May 9, 1986; regarding the boiling point of water - theme and variations.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Montazer, P., E. P. Weeks, F. Thamir, S. N. Yard, and P. B. Hofrichter, 1986. "Monitoring the Vadose Zone in Fractured Tuff, Yucca Mountain, Nevada," in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, November 19-21, 1985, Denver, Colo., National Water Well Association, Worthington, Ohio, pp. 439-469.

Morales, A., 1985. Technical Correspondence in Support of the Final Environmental Assessment, SAND85-2509, Sandia National Laboratories, Albuquerque, N. Mex.

Morrow, C., D. Lockner, D. Moore, and J. Byerlee, 1981. "Permeability of Granite in a Temperature Gradient," Journal of Geophysical Research, Vol. 86, No. B4, pp. 3002-3008.

Morrow, C. A., D. E. Moore, and J. D. Byerlee, 1985. "Permeability Changes in Crystalline Rocks Due to Temperature: Effects of Mineral Assemblage," in Scientific Basis for Nuclear Waste Management VIII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 26-29, 1984, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), Vol. 44, Materials Research Society, Pittsburgh, Penn., pp. 467-474.

Mozhi, T. A., W. A. T. Clark, K. Nishimoto, W. B. Johnson, and D. D. MacDonald, 1985. "The Effect of Nitrogen on the Sensitization of AISI 304-Stainless Steel," Corrosion--NACE, Vol. 41, No. 10, National Association of Corrosion Engineers, pp. 555-559.

Mulford, R. A., E. L. Hall, C. L. Briant, 1983. "Sensitization of Austenitic Stainless Steels II. Commercial Purity Alloys," Corrosion, Vol. 39, National Association of Corrosion Engineers, Houston, Tex., pp. 132-143.

NRC (U.S. Nuclear Regulatory Commission), 1983. PRA Procedures Guide: A Guide to the Performance of Probabalistic Risk Assessments for Nuclear Power Plants, NUREG/CR-2300, Washington, D.C.

NRC (U.S. Nuclear Reglatory Commission), 1986. Waste Package Reliability, NUREG/CR-4509, Washington, D.C.

NWPA (Nuclear Waste Policy Act), 1983. "Nuclear Waste Policy Act of 1982," Public Law 97-425, 42 USC 10101-10226, Washington, D.C.

Nordstrom, D. K., and J. W. Ball, 1984. "Chemical Models, Computer Programs and Metal Complexation in Natural Waters," Complexation of Trace Metals in Natural Waters, C. J. M. Kramer and J. C. Duinker (eds.), Martinus Nijhoff/ Dr. W. Junk Publishers, The Hague, pp. 149-164.

Novak, C. J., 1977. "Structure and Constitution of Wrought Austenitic Stainless Steels," Handbook of Stainless Steels, D. Peckner and I. M. Bernstein (eds.), McGraw-Hill Book Co., New York.

Novak, J. and I. J. Hastings, 1984. "Post-irradiation Behavior of Defected UO2 Fuel Elements in Air at 220-250 deg. C," in Proceedings of NRC Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 3-25.

Novak, J., I. J. Hastings, E. Mizzan, and R. Chenier, 1983. "Postirradiation Behavior of UO2 Fuel I: Elements at 220 to 250 deg. C in Air," Nuclear Technology, Vol. 63, pp. 254-263.

Nuttall, K., and V. F. Urbanic, 1981. An Assessment of Materials for Nuclear Fuel Immobilization, AECL-6440, Atomic Energy of Canada Limited, Whiteshell Nuclear Research Establishment, Pinawa, Manitoba.

O'Brien, P. D., 1986. OGR Repository-Specific Rod Consolidation Study: Effect on Costs, Schedules, and Operations at Yucca Mountain Repository, SAND86-2357, Draft, Sandia National Laboratories, Albuquerque, N. Mex.

O'Connell, W. J., and R. S. Drach, 1986. Waste Package Performance Assessment: Deterministic System Model -- Program Scope and Specification, UCRL-53761, Lawrence Livermore National Laboratory, Livermore, Calif.

Ogard, A. E., and J. F. Kerrisk, 1984. Groundwater Chemistry Along Flow Paths Between a Proposed Repository Site and the Accessible Environment, LA-10188-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Olander, D. R., 1976. Fundamental Aspects of Nuclear Reactor Fuel Elements, TID-26711-P1, Technical Information Center, Oak Ridge, Tenn.

O'Neal, W. C., D. W. Gregg, J. N. Hockman, E. W. Russell, and W. Stein, 1984. Preclosure Analysis of Conceptual Waste Package Designs for a Nuclear Waste Repository in Tuff, UCRL-53595, Lawrence Livermore National Laboratory, Livermore, Calif.

Ortiz, T. S., R. L. Williams, F. B. Nimick, B. C. Whittet, and D. L. South, 1985. A Three-Dimensional Model of Reference Thermal/Mechanical and Hydrological Stratigraphy at Yucca Mountain, Southern Nevada, SAND84-1076, Sandia National Laboratories, Albuquerque, N. Mex.

Ostwald, W., 1887. Lehrbuch Der Allgemeine Chemie, Wilhelm Engelmann, Leipzig.

Oversby, V. M., 1984a. Reaction of the Topopah Spring Tuff with J-13 Well Water at 90 deg. C and 150 deg. C, UCRL-53552, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., 1984b. Reference Waste Forms and Packing Material for the Nevada Nuclear Waste Storage Investigations Project, UCRL-53531, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., 1985. The Reaction of Topopah Spring Tuff with J-13 Water at 150 deg. C- Samples from Drill Cores USW G-1, USW GU-3, USW G-4, and UE-25h#1, UCRL-53629, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., 1986. Important Radionuclides in High Level Nuclear Waste Disposal: Determination Using a Comparison of the EPA and NRC Regulations, UCRL-94222, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and K. G. Knauss, 1983. Reaction of Bullfrog Tuff with J-13 Well Water at 90 deg. C and 150 deg. C, UCRL-53442, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and R. D. McCright, 1984. Laboratory Experiments Designed to Provide Limits on the Radionuclide Source Term for the NNWSI Project, UCRL-91257, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and H. D. Shaw, 1986. Spent Fuel Data: An Analysis of Data Relevant to the NNWSI Project, UCID-20926, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and C. N. Wilson, 1985. Derivation of a Waste Package Source Term for NNWSI from the Results of Laboratory Experiments, UCRL-92096, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Paul, A., 1977. "Chemical Durability of Glasses; A Thermodynamic Approach," Journal of Materials Science, Vol. 12, pp. 2246-2268.

Pederson, L. R., C. Q. Buckwalter, G. L. McVay, and B. L. Riddle, 1983. "Glass Surface Area to Volume Ratio and Its Implications to Accelerated Leach Testing," in Scientific Basis for Nuclear Waste Management VI, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1982, D. G. Brookins (ed.), Vol. 15, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 47-54.

Pessall, N., and J. I. Nurminen, 1974. "Development of Ferritic Stainless Steels for Use in Desalination Plants," Corrosion, NACE, Vol. 30, No. 11, pp. 381-392.

Plodinec, M. J., G. G. Wicks, and N. E. Bibler, 1982. An Assessment of Savannah River Borosilicate Glass in the Repository Environment, DP-1629, E.I. du Pont de Nemours & Co., Savannah River Laboratory, Aiken, S.C.

Povich, M. J., 1978. "Low Temperature Sensitization of Welded Type 304 Stainless Steel," Corrosion, Vol. 34, No. 2, National Association of Corrosion Engineers, Houston, Tex., pp. 60-65.

Proebstle, R. A., and G. M. Gordon, 1982. "Overview of Predictive Testing for BWR Piping Corrosion," Predictive Methods for Assessing Corrosion Damage to BWR Piping and PWR Steam Generators, H. Okada and R. Staehle (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 19-30.

Pruess, K., and J. S. Y. Wang, 1984. "TOUGH--A Numerical Model for Nonisothermal Unsaturated Flow to Study Waste Canister Heating Effects," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 1031-1038.

Pruess, K., Y. W. Tsang, and J. S. Y. Wang, 1984. Numerical Studies of Fluid and Heat Flow Near High-Level Nuclear Waste Packages Emplaced in Partially Saturated Fractured Tuff, LBL-18552, Lawrence Berkeley Laboratory, Berkeley, Calif.

Rimstidt, J. D., and H. L. Barnes, 1980. "The Kinetics of Silica-Water Reactions," Geochimica et Cosmochimica Acta, Vol. 44, pp. 1683-1699.

Roddy, J. W., H. C. Claiborne, R. C. Ashline, P. J. Johnson, and B. T. Rhyne, 1985. Physical and Decay Characteristics of Commercial LWR Spent Fuel, ORNL/TM-9591/V1, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Roseboom, E. H., Jr., 1983. Disposal of High-Level Nuclear Waste Above the Water Table in Arid Regions, U.S. Geological Survey Circular 903, Alexandria, Va., 21 p.

Rothman, A. J., 1984. Potential Corrosion and Degradation Mechanisms of Zircaloy Cladding on Spent Nuclear Fuel in a Tuff Repository, UCID-20172, Lawrence Livermore National Laboratory, Livermore, Calif.

Russell, E. W., R. D. McCright, and W. C. O'Neal, 1983. Containment Barrier Metals for High-Level Waste Packages in a Tuff Repository, UCRL-53449, Lawrence Livermore National Laboratory, Livermore, Calif.

SAE (Society of Automotive Engineers), 1977. Unified Numbering System for Metals and Alloys, SAE HS1086a, Society of Automotive Engineer's, Inc., Warrendale, Penn.

SNL (Sandia National Laboratories), 1987. Site Characterization Plan Conceptual Design Report, SAND84-2641, 6 Vol., Sandia National Laboratories, Albuquerque, N. Mex.

Savannah River Plant and Laboratory, 1984. Waste Management Program Technical Progress Report, January-March, 1984, DP-84-125-1, E. I. du Pont de Nemours & Co., Aiken, S.C.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Shoesmith, D. W., S. Sunder, M. G. Bailey, and D. G. Owen, 1983. "Anodic Oxidation of UO2 - Part III, Electrochemical Studies in Carbonate Solutions," in Passivity of Metals and Semiconductors, M. Fromont (ed.), Elsevier Science Publishing Co., Amsterdam, pp. 125-130.

Shreir, L. L. (ed.), 1976. "The Atmosphere," Corrosion, Metal/Environment Reactions, Vol. 1, Newnes-Butterworths, London, pp. 2:26-2:37.

Sinnock, S., Y. T. Lin, and J. P. Brannen, 1984. Preliminary Bounds on the Expected Postclosure Performance of the Yucca Mountain Repository Site, Southern Nevada, SAND84-1492, Sandia National Laboratories, Albuquerque, N. Mex.

Smith, H. D., 1984a. Zircaloy Spent Fuel Cladding Electrochemical Corrosion-Scoping Experiment, HEDL-TC-2562, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, H. D., 1984b. Spent Fuel Cladding Characteristics and Choice of Experimental Specimens for Cladding-Corrosion Evaluation Under Tuff Repository Conditions, HEDL-TC-2530, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, H. D., 1985. Zircaloy Cladding Corrosion Degradation in a Tuff Repository: Initial Experimental Plan, HEDL-7455, Rev. 1, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, H. D., 1986a. Zircaloy Spent Fuel Cladding Electrochemical Corrosion Experiment at 170 deg. C and 120 PSIA H2O, HEDL-7545, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, H. D., 1986b. "C-ring" Stress Corrosion Cracking Scoping Experiment for Zircaloy Spent Fuel Cladding, HEDL-7546, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, H. D., and V. M. Oversby, 1985. Spent Fuel Cladding Corrosion Under Tuff Repository Conditions: Initial Observations, UCID-20499, Lawrence Livermore National Laboratory, Livermore, Calif.

St. John, C. M., 1985. Thermal Analysis of Spent Fuel Disposal in Vertical Emplacement Boreholes in a Welded Tuff Repository, SAND84-7207, Sandia National Laboratories, Albuquerque, N. Mex.

Staehle, R. W., 1971. "Stress Corrosion Cracking of the Fe-Cr-Ni Alloy System," The Theory of Stress Corrosion Cracking in Alloys, J. C. Scully (ed.), National Atlantic Treaty Organization Scientific Affairs Division, Brussels, Belgium.

Stein, W., J. N. Hockman, and W. C. O'Neal, 1984. Thermal Analysis of NNWSI Conceptual Waste Package Designs, UCID-20091, Lawrence Livermore National Laboratory, Livermore, Calif.

Stephens, K., L. Boesch, B. Crone, R. Johnson, R. Molev, S. Smith, and L. Zarenkov, 1986. Methodologies for Assessing Long-Term Performance of High-Level Radioactive Waste Packages, NUREG/CR-4477, Washington, D.C.

Stoecker, J. G., and D. H. Pope, 1986. "Study of Biological Corrosion in High Temperature Demineralized Water," Materials Performance, Vol. 25, No. 6, pp. 51-56.

Strachan, D. M., K. M. Krupka, and B. Grambow, 1984. "Solubility Interpretations of Leach Tests on Nuclear Waste Glass," Nuclear and Chemical Waste Management, Vol. 5, pp. 87-99.

Strachan, D. M., L. R. Pederson, and R. O. Lokken, 1985. "Results from the Long-Term Interaction and Modeling of SRL-131 Glass with Aqueous Solutions," in Scientific Basis for Nuclear Waste Management IX, Materials Research Society Symposia Proceedings, Stockholm, Sweden, September 9-11, 1985, L. O. Werme (ed.), Vol. 50, Materials Research Society, Pittsburgh, Penn., pp. 195-202.

Streicher, M. A., 1978. "Theory and Application of Evaluation Tests for Detecting Susceptibility to Intergranular Attack in Stainless Steels and Related Alloys -- Problems and Opportunities," Intergranular Corrosion of Stainless Alloys, R. F. Steigerwald (ed.), ASTM Special Technical Publication 656, American Society for Testing and Materials, Philadelphia, Penn. pp. 3-84.

Stula, R. T., T. E. Albert, B. E. Kirstein, and D. H. Lester, 1980. Systems Study on Engineered Barriers: Barrier Performance Analysis, ONWI-211, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

Stumpe, R., J. I. Kim, W. Schrepp, and H. Walther, 1984. "Speciation of Actinide Ions in Aqueous Solution by Laser-Induced Pulsed Photoacoustic Spectroscopy," Applied Physics, Vol. B34, pp. 203-206.

Sunder, S., D. W. Shoesmith, M. G. Bailey, F. W. Stanchell, and N. S. McIntyre, 1981. "Anodic Oxidation of UO2: Part I. Electrochemical and X-ray Photoelectron Spectroscopic Studies in Neutral Solutions," Journal Electroanal. Chem., Vol. 130, pp. 163-179.

Sverjensky, D. A., 1984. "Prediction of Gibbs Free Energies of Calcite-Type Carbonates and the Equilibrium Distribution of Trace Elements Between Carbonates and Aqueous Solutions," Geochimica et Cosmochimica Acta, Vol. 48, pp. 1127-1134.

Szklarska-Smialowska, S., 1974. "The Pitting of Iron-Chromium-Nickel Alloys," Localized Corrosion NACE-3, R. W. Staehle, B. F. Brown, J. Kruger and A. Agrawal (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 312-341.

Theus, G. J., and R. W. Staehle, 1977. "Review of Stress Corrosion Cracking and Hydrogen Embrittlement in the Austenitic Fe-Cr-Ni Alloys," Stress Corrosion Cracking and Hydrogen Embrittlement of Iron-Base Alloys, National Association of Corrosion Engineers, Houston, Tex., pp. 845-892.

Tokunaga, O., and N. Suzuki, 1984. "Radiation Chemical Reactions in NOx and SO2 Removals from Flue Gas," Radiation, Physics and Chemistry, Vol. 24, No. 1, pp. 145-165.

Travis, B. J., 1984. TRACR3D: A Model of Flow and Transport in Porous/Fractured Media, LA-9667-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., S. W. Hodson, H. E. Nuttall, T. L. Cook, and R. S. Rundberg, 1984. Preliminary Estimates of Water Flow and Radionuclide Transport in Yucca Mountain, LA-UR-84-40 (Rev.), Los Alamos National Laboratory, Los Alamos, N. Mex.

Truman, J. E., 1977. "The Influence of Cloride Content, pH and Temperature of Test Solution on the Occurrence of Stress Corrosion Cracking with Austenitic Stainless Steel," Corrosion Science, Vol. 17, pp. 737-746.

Van Konynenburg, R. A., 1984. Radiation Doses in Granite Around Emplacement Holes in the Spent Fuel Test -- Climax (Final Report), UCRL-53580, Lawrence Livermore National Laboratory, Livermore, Calif.

Van Konynenburg, R. A., 1986. Radiation Chemical Effects in Experiments to Study the Reaction of Glass in an Environment of Gamma-Irradiated Air, Groundwater, and Tuff, UCRL-53719, Lawrence Livermore National Laboratory, Livermore, Calif.

Van Konynenburg, R. A., C. F. Smith, H. W. Culham, and C. H. Otto, Jr., 1984. Behavior of Carbon-14 in Waste Packages for Spent Fuel in a Repository in Tuff, UCRL-90855, Rev. 1, Lawrence Livermore National Laboratory, Livermore, Calif.

Van Konynenburg, R. A., C. F. Smith, H. W. Culham, and H. D. Smith, 1986. "Carbon-14 in Waste Packages for Spent Fuel in a Tuff Repository," Materials Research Society December 1986 Meeting, UCRL-94708, preprint, Boston, Mass.

Vaniman, D. T., D. Bish, D. Broxton, F. Byers, G. Heiken, B. Carlos, E. Semarge, F. Caporuscio, and R. Gooley, 1984. Variations in Authigenic Mineralogy and Sorptive Zeolite Abundance at Yucca Mountain, Nevada, Based on Studies of Drill Cores USW GU-3 and G-3, LA-9707-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Verink, E. D., Jr., 1977. "Application of Electrochemical Techniques in the Development of Alloys for Corrosive Service," Electrochemical Techniques for Corrosion, R. Babioan (ed.), National Association of Corrosion Engineers, Houston, Tex., pp. 43-52.

Wald, J. W., 1985. Fabrication and Characterization of MCC Approved Testing Material - ATM-8 Glass, PNL-5577-8, Battelle Pacific Northwest Laboratories, Richland, Wash.

Wallace, R. M., and G. G. Wicks, 1983. "Leaching Chemistry of Defense Borosilicate Glass," in Scientific Basis for Nuclear Waste Management VI, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November, 1982, D. G. Brookins (ed.), Vol 15, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 23-28.

Wang, J. S. Y., and T. N. Narasimhan, 1985. Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured Porous Tuff at Yucca Mountain, SAND84-7202, Sandia National Laboratories, Albuquerque, N. Mex.

Wang, R., 1981. Spent Fuel Special Studies Progress Report: Probable Mechanisms for Oxidation and Dissolution of Single-Crystal UO2 Surfaces, PNL-3566, Battelle Pacific Northwest Laboratories, Richland, Wash.

Wang, R., and Y. B. Katayama, 1982. "Dissolution Mechanisms for UO2 and Spent Fuel," Nuclear and Chemical Waste Management, Vol. 3, pp. 83-90.

Warren, R. G., F. M. Byers, and F. A. Caporuscio, 1984. Petrography and Mineral Chemistry of Units of the Topopah Spring, Calico Hills and Crater Flat Tuffs, and Older Volcanic Units, with Emphasis on Samples from Drill Hole USW G-1, Yucca Mountain, Nevada Test Site, LA-10003-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Weeks, E. P., and W. E. Wilson, 1984. Preliminary Evaluation of Hydrologic Properties of Cores of Unsaturated Tuff, Test Well USW H-1, Yucca Mountain, Nevada, USGS-WRI-84-4193, Water-Resources Investigations Report, U.S. Geological Survey.

Wegrzyn, J., and A. Klimpel, 1981. "The Effect of Alloying Elements on Sigma Phase Formation in 18-8 Weld Metals," Welding Journal, pp. 146S-154S.

Westerman, R. E., S. G. Pitman, and J. H. Haberman, 1987. Corrosion Testing of Type 304L Stainless Steel in Tuff Groundwater Environments, UCRL-21005, Lawrence Livermore National Laboratory, Livermore, Calif.

White, A. F., H. C. Claassen, and L. V. Benson, 1980. The Effect of Dissolution of Volcanic Glass on the Water Chemistry in a Tuffaceous Aquifer, Rainier Mesa, Nevada, USGS-WSP-1535-Q, Water-Supply Paper, U.S. Geological Survey.

White, G. D., C. A. Knox, E. R. Gilbert, and A. B. Johnson, Jr., 1984. "Oxidation of UO2 at 150 to 350 deg. C," in Proceedings of the U.S. Nuclear Regulatory Commission Workshop on Spent Fuel/Cladding Reaction during Dry Storage, D. W. Reisenweaver (ed.), NUREG/CP-0049, U.S. Nuclear Regulatory Commission, Washington, D.C. pp. F-2 to F-12.

Wilcox, T., 1972. MORSE-L, A Special Version of the MORSE Program Designed to Solve Neutron, Gamma, and Coupled Neutron-Gamma Penetration Problems, UCID-16680, Lawrence Livermore National Laboratory, Livermore, Calif.

Wilcox, T. P., and R. A. Van Konynenburg, 1981. Radiation Dose Calculations for Geologic Media Around Spent Fuel Emplacement Holes in the Climax Granite, Nevada Test Site, UCRL-53159, Lawrence Livermore National Laboratory, Livermore, Calif.

Wilde, B. E., 1974. "On Pitting and Protection Potentials: Their Use and Possible Misuses for Predicting Localized Corrosion Resistance of Stainless Alloys in Halide Media," Localized Corrosion NACE-3, R. W. Staehle, B. F. Brown, J. Kruger and A. Agrawal (eds.), National Association of Corrosion Engineers, Houston, Tex., pp. 342-252.

Williams, W. L., 1957. "Chloride and Caustic Stress Corrosion of Austenitic Stainless Steel in Hot Water and Steam," Corrosion, Vol. 13, National Association of Corrosion Engineers, pp. 539-545.

Wilson, C. N., 1985a. Microstructural Characteristics of PWR Spent Fuel Relative to Its Leaching Behavior, HEDL-SA-3313, Hanford Engineering Development Laboratory, Richland, Wash.

Wilson, C. N., 1985b. Results from NNWSI Series 1 Spent Fuel Leach Test, HEDL-TME-84-30, Hanford Engineering Development Laboratory, Richland, Wash.

Wilson, C. N., 1986. Test Plan for Series 3 NNWSI Spent Fuel Leaching/Dissolution Test, HEDL-7577, Hanford Engineering Development Laboratory, Richland, Wash.

Wilson, C. N., 1987. Results from Cycles 1 and 2 of NNWSI Series 2 Spent Fuel Dissolution Tests, HEDL-TME-85-22, Hanford Engineering Development Laboratory, Richland, Wash.

Wilson, C. N., 1987. Summary of Results from the Series 2 and Series 3 NNWSI Bare Dissolution Tests, UCRL-21013, Lawrence Livermore National Laboratory, Livermore, Calif.

Wilson, C. N., and V. M. Oversby, 1985. Radionuclide Release from PWR Fuels in a Reference Tuff Repository Groundwater, UCRL-91464, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Wilson, I. L. W., and R. G. Aspden, 1977. "Caustic Stress Corrosion Cracking of Iron-Nickel-Chromium Alloys," Stress Corrosion Cracking and Hydrogen Embrittlement of Iron-Base Alloys, National Association of Corrosion Engineers, Houston, Tex., pp. 1189-1204.

Winograd, I. J., 1981. "Radioactive Waste Disposal in Thick Unsaturated Zones," Science, Vol. 212, No. 4502, pp. 1457-1464.

Wolery, T. J., 1978. Some Chemical Aspects of Hydrothermal Processes at Mid-Ocean Ridges - A Theoretical Study, I. Basalt-Seawater Reaction and Chemical Cycling Between the Oceanic Crust and the Oceans. II. Calculations of Chemical Equilibrium Between Aqueous Solutions and Minerals, Ph.D. dissertation, Northwestern University, Evanston, Ill.

Wolery, T. J., 1979. Calculation of Chemical Equilibrium Between Aqueous Solution and Minerals: The EQ3/6 Software Package, UCRL-52658, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolery, T. J., 1980. Chemical Modeling of Geologic Disposal of Nuclear Waste: Progress Report and a Perspective, UCRL-52748, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolery, T. J., 1983. EQ3NR, A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: User's Guide and Documentation, UCRL-53414, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolery, T. J., 1986. Some Forms of Transition State Theory, Including Non-Equilibrium Steady State Forms, and Their Application in Geochemistry, UCRL-94221, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolery, T. J., D. J. Isherwood, K. J. Jackson, J. M. Delany, and I. Puigdomenech, 1984. EQ3/6: Status and Applications, UCRL-91884, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolfsberg, K., and D. T. Vaniman, (Comps.), 1984. Research and Development Related to the Nevada Nuclear Waste Storage Investigations, October 1--December 31, 1983, LA-10032-PR, Los Alamos National Laboratory, Los Alamos, N. Mex.

Woodley, R. E., 1983. The Characteristics of Spent LWR Fuel Relevant to Its Storage in Geologic Repositories, HEDL-TME 83-28, Hanford Engineering Development Laboratory, Richland, Wash.

Yow, J. L., Jr., 1985. Field Investigation of Keyblock Stability, UCRL-53632, Lawrence Livermore National Laboratory, Livermore, Calif.

CODES AND REGULATIONS

10 CFR Part 20 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 20, "Standards for Protection Against Radiation," U.S. Government Printing Office, Washington, D.C., pp. 247-285.

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 100 and Appendix A (Code of Federal Regulations), 1987. Title 10, "Energy," Part 100 and Appendix A, "Reactor Site Criteria," U.S. Government Printing Office, Washington, D.C.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

10 CFR Part 961 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 961, "Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste," U.S. Government Printing Office, Washington, D.C.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.

NN1.881207.0095

REFERENCES FOR CHAPTER 8

ACGIH (American Conference of Governmental Industrial Hygienists), 1986. TLVs Threshhold Limit Values and Biological Exposure Indices for 1986-1987, Cincinnati, Ohio.

AEC (Atomic Energy Commission), 1974. Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants, Regulatory Guide 1.21, Directorate of Regulatory Standards, Washington, D.C.

ANSI/ANS (American National Standard Institute/American Nuclear Society), 1981. "American National Standard for Determining Design Basis Flooding at Power Reactor Sites," ANSI/ANS-2.8-1981, American Nuclear Society, La Grange Park, Ill.

ANSI/ASME (American National Standard Institute/American Society of Mechanical Engineers), 1979. Addenda to ANSI/ASME NQA-1-1979, Quality Assurance Program Requirements for Nuclear Power Plants, New York.

ANSI/ASME (American National Standards Institute/American Society of Mechanical Engineers), 1983. Quality Assurance Program Requirements for Nuclear Facilities, NQA-1-1983, New York.

APHA, AWWA, WPCF (American Public Health Association, American Water Well Association, Water Pollution Control Federation), 1985. Standard Methods for Examination of Water and Wastewater, American Public Health Association, Washington, D.C.

ASME (American Society of Mechanical Engineers), 1986. Article 10, "Leak Testing," Section V, "Nondestructive Examination," Boiler and Pressure Vessel Code, New York, pp. 113-122.

ASTM (American Society for Testing and Materials), 1984a. "Deep, Quasi-Static, Cone and Friction-Cone Penetration Tests of Soil", Annual Book of ASTM Standards, D 3441-79, Vol. 04.08, Philadelphia, Penn., pp. 533-540.

ASTM (American Society for Testing and Materials), 1984b. "Standard Method for Penetration Test and Split-Barrel Sampling of Soils," ASTM D 1586-67 (reapproved 1974), American Society for Testing and Materials, Philadelphia, Penn., pp. 295-297.

Abrams, A. 1977. "Mud Design to Minimize Rock Impairment Due to Particle Invasion," Journal of Petroleum Technology, pp. 586-592.

Albers, J. P., 1967. "Belt of Sigmoidal Bending and Right-Lateral Faulting in the Western Great Basin," Geological Society of America Bulletin, Vol. 78, pp. 143-156.

Algermissen, S. T., and D. M. Perkins, 1976. A Probabilistic Estimate of the Maximum Acceleration in Rock in the Contiguous United States, USGS-OFR-76-416, Open-File Report, U.S. Geological Survey.

Altman, W. D., J. P. Donnelly, and J. E. Kennedy, 1988. Peer Review for High-Level Nuclear Waste Repositories, NUREG-1297, U.S. Nuclear Regulatory Commission.

Amyx, J. W., D. M. Bass, Jr., and R. L. Whiting, 1960. Petroleum Reservoir Engineering, Physical Properties, McGraw-Hill Book Co., New York. pp. 91-96.

Anderson, L. A., 1982. "Rock Property Analysis for Core Samples from Yucca Mountain Boreholes, Nevada Test Site, Nevada [abs.]," EOS, Transactions, American Geophysical Union, Vol. 63, No. 45, p. 1111.

Arkley, R. J., 1963. "Calculation of Carbonate and Water Movement in Soil From Climatic Data," Soil Science, Vol. 96, pp. 239-248.

Asfari, A., and P. A. Witherspoon, 1973. "Numerical Simulation of Naturally Fractured Reservoirs," Third Numerical Simulation of Reservoir Performance Symposium of SPE of AIME, Houston, Texas, January 10-12, 1973, SPE-4290, Dallas Society of Petroleum Engineers.

Auld, 1983.

Ayer, J. E., A. T. Clark, P. Loysen, M. Y. Ballinger, J. Mishima, P. C. Owczarski, W. S. Gregory, and B. D. Nichols, 1988. Nuclear Fuel Cycle Facility Accident Analysis Handbook, NUREG-1320, U.S. Nuclear Regulatory Commission, Washington, D.C.

BLM (Bureau of Land Management), 1985. Right-of-Way Plans of Development & Grants, BLM Manual Handbook H-2801-1.

Ballard, R. F., and F. G. McClean, 1975. "Seismic Field Methods for In Situ Moduli," in Proceedings of the Conference on In Situ Measurement of Soil Properties, June 1-4, 1975, North Carolina State University, Raleigh, North Carolina Specialty Conference of the Geotechnical Engineering Division (ASCE), Vol. 1, American Society of Civil Engineers, New York, pp. 121-150.

Ballivy, G., 1986. "Presentation on Planning," October 7, 1986, AECL-Fuel Waste Technology Branch, Grouting Experiment Team Meeting No. 3 (ms),

Barbier, M. G., 1983. The Mini-Sosie Method, International Human Resources Development Corporation, Boston, Mass.

Barenblatt, G. I., I. P. Zhelton, and I. N. Kochina, 1960. "Basic Concepts in the Theory of Seepage of Homogeneous Liquids in Fissured Rocks [Strata]," PMM, Vol. 24, No. 5, pp. 1286-1303.

Barnes, 1979.

Barr, G. E., and W. B. Miller, 1987. Simple Models of the Saturated Zone at Yucca Mountain, SAND87-0112, Sandia National Laboratories, Albuquerque, N. Mex.

Barton, C. C., and E. Larsen, 1985. "Fractal Geometry of Two-Dimensional Fracture Networks at Yucca Mountain, Southwestern Nevada," in Proceedings of the International Symposium on Fundamentals of Rock Joints, Bjorkliden, Sweden, September 15-20, 1985, O. Stephansson (ed.), pp. 77-84.

Barton, C. C., E. Larsen, and P. E. Baechle, 1985. "Fractal Geometry of Two-Dimensional Planar Sections Through Fracture Networks at Yucca Mountain, Southwestern Nevada" (Abstract), EOS (Tansactions of the American Geophysical Union), Vol. 66, No. 46, p 1089.

Barton, C. C., C. B. Gott, and J. R. Montgomery, 1986. "Fractal Scaling of Fracture and Fault Maps at Yucca Mountain, Southern Nevada (abstract)," EOS (Transactions of the American Geophysical Union), Vol. 67, No. 44, pp. 870-871.

Barton, N., and V. Choubey, 1977. "The Shear Strength of Rock Joints in Theory and Practice," Rock Mechanics, Vol. 10, pp. 1-54.

Barton, N., R. Lien, and J. Lunde, 1974a. Analysis of Rock Mass Quality and Support Practice in Tunneling and a Guide for Estimating Support Requirements, Internal Report 54206, Norwegian Geotechnical Institute, Oslo, Norway.

Barton, N., R. Lien, and J. Lunde, 1974b. "Engineering Classification of Rock Masses for the Design of Tunnel Support," Rock Mechanics, Vol. 6, No. 4, pp. 189-236.

Bath, G. D., and C. E. Jahren, 1984. Interpretations of Magnetic Anomalies at a Potential Repository Site Located in the Yucca Mountain Area, Nevada Test Site, USGS-OFR-84-120, Open-File Report, U.S. Geological Survey.

Bath, G. D., and C. E. Jahren, 1985. Investigation of an Aeromagnetic Anomaly on West Side of Yucca Mountain, Nye County, Nevada, USGS-OFR-85-459, Open-File Report, U.S. Geological Survey.

Bath, G. D., G. L. Dixon, and J. G. Rosenbaum, 1982. "Relation of Aeromagnetic Anomalies to Faulted Volcanic Terrains at the Nevada Test Site [abs.]," Geological Society of America, Abstracts with Programs, Vol. 14, No. 6, p. 302.

Bathe, K-J., 1975. ADINA: A Finite Element Program for Automatic Dynamic Incremental Nonlinear Analysis, Report 82448-1, Massachusetts Institute of Technology, Acoustics and Vibration Laboratory, Mechanical Engineering Department, Cambridge.

Bathe, K-J., 1977. ADINAT: Finite Element Program for Automatic Dynamic Incremental Nonlinear Analysis of Temperature, Report 82448-5, Massachusetts Institute of Technology, Cambridge.

Bauer, S. J., J. F. Holland, and D. K. Parrish, 1985. "Implications About In Situ Stress at Yucca Mountain," in Proceedings of the 26th U.S. Symposium on Rock Mechanics, Vol II, Rapid City, South Dakota, pp. 1113-1120.

Bauer, S. J., L. S. Costin, and J. F. Holland, 1988. Preliminary Scoping Analyses in Support of In Situ Thermomechanical Investigations, SAND88-2785, in prep. Sandia National Laboratories, Albuquerque, N. Mex.

Bear, J., 1972. Dynamics of Fluids in Porous Media, Part 1, University Microfilms International, Ann Arbor, Mich., p. 7.

Bedinger, M. S., K. A. Sargent, and W. H. Langer (eds.), 1984. Studies of Geology and Hydrology in the Basin and Range Province, Southwestern United States, for Isolation of High-Level Radioactive Waste, Characterization of the Death Valley Region, Nevada and California, USGS-OFR-84-743, Open-File Report, U.S. Geological Survey.

Bell, 1988.

Benson, L. V., J. H. Robison, R. K. Blankennagel, and A. E. Ogard, 1983. Chemical Composition of Ground Water and the Locations of Permeable Zones in the Yucca Mountain Area, Nevada, USGS-OFR-83-854, Open-File Report, U.S. Geological Survey.

Bentley, C. B., 1984. Geohydrologic Data for Test Well USW G-4, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-84-063, Open-File Report, U.S. Geological Survey.

Berger, P., and A. M. Johnson, 1980. "First-Order Analysis of Deformation of a Thrust Sheet Moving Over a Ramp," Tectonophysics, Vol. 70, pp. T9-T24.

Berger, P., and A. M. Johnson, 1982. "Folding of Passive Layers and Forms of Minor Structures Near Terminations of Blind Thrust Faults--Application to the Central Appalachian Blind Thrust," Journal of Structural Geology, Vol. 4, No. 3, pp. 343-353.

Bernreuter, D. L., J. B. Savy, and R. W. Mensing, 1986. "Probabilistic Earthquake-Hazards Assessments," in Proceedings of Conference XXXIV, November 25-27, 1985, San Francisco, California, Walter W. Hays (ed.), USGS-OFR-86-185, Open-File Report, U.S. Geological Survey, pp. 314-352.

Berry, N., P. Ekman, D. Givens, M. Kaplan, G. Kula, T. Sebeok, and P. Tannenbaum, 1984. Reducing the Likelihood of Future Human Activities That Could Affect Geologic High-Level Waste Repositories, BMI/ONWI-537, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus Institute, Columbus, Ohio,

Bertram, S. G., 1984. NNWSI Exploratory Shaft Site and Construction Method Recommendation Report, SAND84-1003, Sandia National Laboratories, Albuquerque, N. Mex.

Beven, K., and P. Germann, 1982. "Macropores and Water Flow in Soils," Water Resources Research, Vol. 18, No. 5, pp. 1311-1325.

Bieniawski, Z. T., 1968. "The Effect of Specimen Size on Compressive Strength of Coal," International Journal of Rock Mechanics & Mineral Science, Vol. 5, pp. 325-335.

Bieniawski, Z. T., 1974. "Geomechanics Classification of Rock Masses and Its Application in Tunneling," Advances in Rock Mechanics, Vol. II, Part A, Proceedings of the Third Congress of the International Society of Rock Mechanics, National Academy of Sciences, Washington, D.C., pp. 27-38.

Bieniawski, Z. T., 1976. "Rock Mass Classifications in Rock Engineering," in Proceedings of the Symposium on Exploration for Rock Engineering, Johannesburg, 1-5 November 1976, Z. T. Bieniawski (ed.), Vol. 1, A. A. Balkema, Cape Town, South Africa, pp. 97-106.

Bieniawski, Z. T., 1978. "Determining Rock Mass Deformability: Experience from Case Histories," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 15, Pergamon Press, Great Britain, pp. 237-247.

Birgersson, L., and I. Neretnieks, 1982. "Diffusion in the Matrix of Granitic Rock: Field Test in the Stripa Mine," in Proceedings of the Materials Research Society Fifth International Symposium on the Scientific Basis for Nuclear Waste Management, June 7-10, 1982, Berlin, Germany, W. Lutze (ed.).

Bixler, N. E., 1985. NORIA--A Finite Element Computer Program for Analyzing Water, Vapor, Air, and Energy Transport in Porous Media, SAND84-2057, Sandia National Laboratories, Albuquerque, N. Mex.

Blacic, J. D., D. T. Vaniman, D. L. Bish, C. J. Duffy, and R. C. Gooley, 1986. Effects of Long-Term Exposure of Tuffs to High-Level Nuclear Waste Repository Conditions: Final Report, LA-9330-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Blanchard, M. B., and D. R. Elle, 1988. Letter from M. B. Blanchard (WMPO) and D. R. Elle (HPED); regarding distribution of abstracts from the technical presentations given at the information exchange meeting between the Department of Energy (DOE) Hydrology/Radionuclide Migration Program (HRMP and the Nevada Nuclear Waste Storage Investigations (NNWSI) Project.

Blanford, M. L., and J. D. Osnes, 1987. Numerical Analyses of the G-Tunnel Small-Diameter Heater Experiments, SAND85-7115, prepared by RE/SPEC, Inc., for Sandia National Laboratories, Albuquerque, N. Mex.

Blankennagel, R. K., 1967. Hydraulic Testing Techniques of Deep Drill Holes at Pahute Mesa, Nevada Test Site, USGS-OFR-67-18, Open-File Report, U.S. Geological Survey.

Blankennagel, R. K., and J. E. Weir, Jr., 1973. Geohydrology of the Eastern Part of Pahute Mesa, Nevada Test Site, Nye County, Nevada, U.S. Geological Survey Professional Paper 712-B, U.S. Goverment Printing Office, Washington, D.C.

Bodvarsson, G. S., A. Niemi, A. Spencer, and M. P. Attanyake, 1988. Preliminary Calculations of the Effects of air and Liquid Water-Drilling on Moisture Conditions in Unsaturated Rocks, LBL-25073, Lawrence Berkeley Laboratory, Berkeley, Calif.

Bonham Jr., H. F., 1988. "Models for Volcanic-Hosted Epithermal Precious Metal Deposits," in Bulk-Mineable Precious-Metal Deposits of the Western United States, Symposium Proceedings, R. R. Schaefer, J. J. Cooper, and P. G. Vikre (eds.), The Geological Society of Nevada, Reno, pp. 259-271.

Bonilla, M. G., 1982. Evaluation of Potential Surface Faulting and Other Tectonic Deformation, NUREG/CR-2991, U.S. Department of the Interior Geological Survey, Reston, Va.

Bonilla, M. G., R. K. Mark, and J. J. Lienkaemper, 1984. "Statistical Relations Among Earthquake Magnitude, Surface Rupture Length, and Surface Fault Displacement," Bulletin of the Seismological Society of America, Vol. 74, No. 6, pp. 2379-2411.

Boulton, N. S., 1963. "Analysis of Data from Non-equilibrium Pumping Tests Allowing for Delayed Yield from Storage," in Proceedings of the Institution of Civil Engineers, Vol. 26, pp. 469-482.

Bowker, A. H., and G. J. Lieberman, 1972. Engineering Statistics, 2nd Edition, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 308-317.

Bradley, R. S., 1985. Quaternary Paleoclimatology, Methods of Paleoclimatic Reconstruction, Allen & Unwin, Boston, Mass., pp. 72-78.

Brady, B. H. G., and E. T. Brown, 1985. Rock Mechanics for Underground Mining, George Allen & Unwin, p. 187.

Bredehoeft, J. D., 1962. "Response of Well-Aquifer Systems to Earth Tides," Journal of Geophysical Research, Vol. 72, No. 12, pp. 3075-3087.

Brennecke, L., and E. Lohmeyer, 1938. Der Grundbau (Foundation Engineering), Vol. I, Pt. I, Ernst John, Berlin.

Brinberg, D., and J. E. McGrath, 1985. Validity and the Research Process, SAGE Publications, Beverly Hills, Calif.

Broch, E. and J. A. Franklin, 1972. "The Point-Load Strength Test," International Journal of Rock Mechanics and Mining Sciences, Vol. 9, No. 6, pp. 669-697.

Brown, et al, 1987.

Brown, L. D., P. A. Krumhansl, C. E. Chapin, A. R. Sanford, F. A. Cook, S. Kaufman, J. E. Oliver, and F. S. Schilt, 1979. "COCORP Seismic Reflection Studies of the Rio Grande Rift," Rio Grange Rift: Tectonics and Magmatism, R. E. Riecker (ed.), American Geophysical Union, Washington, D.C., pp. 169-183.

Bruton, C. J., and H. F. Shaw, 1987. Geochemical Simulation of Reaction Between Spent Fuel Waste Form and J-13 Water at 25 deg. C and 90 deg. C, UCRL-96702, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.,

Buckau, G., R. Stumpe, and J. I. Kim, 1986. "Americium Colloid Generation in Groundwaters and Its Speciation by Laser-Induced Photoacoustic Spectroscopy," Journal of the Less-Common Metals, Vol. 122, pp. 555-562.

Buckley, J. T., Y. C. Kim, M. S. Nataraja, and D. H. Tiktinsky, 1986. "Evaluating Host Rock Representativeness Through Geostatistics," 27th U.S. Symposium on Rock Mechanics, H. L. Hartman (ed.), Society of Mining Engineers, pp. 821-816.

Bull, W. B., 1984. "Tectonic Geomorphology," Journal of Geological Education, Vol. 32, pp. 310-324.

Bull, W. B., and L. D. McFadden, 1977. "Tectonic Geomorphology North and South of the Garlock Fault, California," in Geomorphology in Arid Regions, Proceedings of the 8th Annual Geomorphology Symposium Held at the State University of New York at Binghamton, September 23-24, 1977, D. O. Doehring (ed.), pp. 115-138.

Bullard, K. L., 1986. PMF (Probable Maximum Flood) Study for Nevada Nuclear Waste Storage Investigations Project, GR-87-8, U.S. Department of the Interior, Bureau of Reclamation, Washington, D.C.

Burchfiel, B. C., 1965. "Structural Geology of the Specter Range Quadrangle, Nevada, and Its Regional Significance," Geological Society of America Bulletin, Vol. 76, pp. 175-192.

Burns, P. J., 1982. TAC02D - A Finite Element Heat Transfer Code, UCID-17980, Rev. 2, Lawrence Livermore National Laboratory, Livermore, Calif.

Buscheck, T. A., and J. J. Nitao, in prep. Preliminary Scoping Calculations of Hydrothermal Flow in Variably Saturated, Fractured, Welded Tuff During the Engineering Design Test at the Yucca Mountain Test Site, UCIDxxxxxx.

Butkovich, T. R., and J. L. Yow, Jr., 1986. Theromechanical Scoping Calculations for the Waste Package Environment Tests, UCID-20758, Lawrence Livermore National Laboratory, Livermore, Calif.

Byers, F. M., Jr., 1985. Petrochemical Variation of Topopah Spring Tuff Matrix with Depth (Stratigraphic Level), Drill Hole USW G-4 Yucca Mountain, Nevada, LA-10561-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Byers, F. M., Jr., and L. M. Moore, 1987. Petrographic Variation of the Topopah Spring Tuff Matrix Within and Between Cored Drill Holes, Yucca Mountain, Nevada, LA-10901-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

CLIMAP Project Members, 1981. Seasonal Reconstructions of the Earth's Surface at the Last Glacial Maximum, Map and Chart Series, MC-36, Geological Society of America, Boulder, Colo.

Cale, Jr., W. G., and H. H. Shugart, 1980. Ecological Reality and Model Validation, International Congress on Applied Systems Research and Cybernetics, 12 Dec., 1980, Acapulco, Mexico, CONF-801231-1,

California Administrative Code, 1091a. Title 8. "Industrial Relations," Chapter 4. "Division of Industrial Safety," Subchapter 20. "Tunnel Safety Orders," Article 11. "Change Houses and Sanitation," Office of Administrative Hearings, Department of General Services, State of California, North Highlands.

California Administrative Code, 1981b. Title 8, "Industrial Relations," Subchapter 17, "Mine Safety Orders," Article 18, "Conveyors and Tramways," pp. 650.3-650.7.

Campbell, K., 1987. Lateral Continuity of Sorptive Mineral Zones Underlying Yucca Mountain, Nevada, LA-11070-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Campbell, J. E., R. T. Dillon, M. S. Tierney, H. T. Davis, P. E. McGrath, F. J. Pearson, Jr., H. R. Shaw, J. C. Helton, and F. A. Donath, 1978. Risk Methodology for Geologic Disposal of Radioactive Waste: Interim Report, NUREG/CR-0458, SAND78-0029, Sandia National Laboratories, Albuquerque, N. Mex.

Campbell, J. E., P. C. Kaestner, B. S. Langkopf, and R. B. Lentz, 1980. Risk Methodology for Geologic Disposal Radioactive Waste: The Network Flow and Transport (NWFT) Model, SAND79-1920: NUREG/CR-1190, Sandia National Laboratories, Albuquerque, N. Mex.

Carr, M. D., S. J. Waddell, G. S. Vick, J. M. Stock, S. A. Monsen, A. G. Harris, B. W. Cork, and F. M. Byers, Jr., 1986. Geology of Drill Hole UE25p#1: A Test Hole into Pre-Tertiary Rocks near Yucca Mountain, Southern Nevada, USGS-OFR-86-175, Open-File Report, U.S. Geological Survey.

Carr, W. J., 1974. Summary of Tectonic and Structural Evidence for Stress Orientation at the Nevada Test Site, USGS-OFR-74-176, Open-File Report, U.S. Geological Survey.

Carr, W. J., 1984. Regional Structural Setting of Yucca Mountain, Southwestern Nevada, and Late Cenozoic Rates of Tectonic Activity in Part of the Southwestern Basin, Nevada and California, USGS-OFR-84-854, Open-File Report, U.S. Geological Survey.

Carr, W. J., and L. D. Parrish, 1985. Geology of Drill Hole USW VH-2, and Structure of Crater Flat, Southwestern Nevada, USGS-OFR-85-475, Open-File Report, U.S. Geological Survey, 41 p.

Case, J. B., and P. C. Kelsall, 1987. Modification of Rock Mass Permeability in the Zone Surrounding a Shaft in Fractured, Welded Tuff, SAND86-7001, Sandia National Laboratories, Albuquerque, N. Mex.

Cattermole, J. M., and W. R. Hansen, 1962. Geologic Effects of the High-Explosive Tests in the USGS Tunnel Area Nevada Test Site, Geological Survey Professional Paper 382-B, U.S. Geological Survey.

Cederberg, G. A., R. L. Street, and J. O. Leckie, 1985. "A Groundwater Mass Transport and Equilibrium Chemistry Model for Multicomponent Systems," Water Resources Research, Vol. 21, No. 8, pp. 1095-1104.

Chen, E. P., 1987. A Computational Model for Jointed Media with Orthogonal Sets of Joints, SAND86-1122, Sandia National Laboratories, Albuquerque, N. Mex.

Childs, E. C., 1957. "The Physics of Land Drainage," Drainage of Agricultural Lands, J. N. Luthin (ed.), Chapter 1, American Society of Agronomy, Madison, Wis., pp. 1-78.

Cinco, H., F. Samaniego, and N. Dominguez, 1978. "Transient Pressure Behavior for a Well with a Finite-Conductivity Vertical Fracture," Society of Petroleum Engineers Journal, Vol. 18, No. 1, pp. 253-264.

Claassen, H. C., 1985. Sources and Mechanisms of Recharge for Ground Water in the West-Central Amargosa Desert, Nevada--A Geochemical Interpretation, U.S. Geological Survey Professional Paper 712-F, U.S. Government Printing Office, Washington, D.C.

Claassen, H. C., 1986. "Late-Wisconsin Paleohydrology of the West-Central Amargosa Desert, Nevada, U.S.A.," Chemical Geology (Isotope Geoscience Section), Vol. 58, pp. 311-323.

Codell, R., 1986. Draft Generic Position on Groundwater Travel Time, U.S. Nuclear Regulatory Commission, Washington, D.C.

Cole, C. R., 1986. Evaluation and Status Report on HYDROCOIN at Midway, PNL-6087, Pacific Northwest Laboratory, Richland, Wash.

Connard, G., R. Couch, and M. Gemperle, 1983. "Analysis of Aeromagnetic Measurements from the Cascade Range in Central Oregon," Geophysics, Vol. 48, No. 3, pp. 376-390.

Constantz, J., 1982. "Temperature Dependence of Unsaturated Hydraulic Conductivity of Two Soils," Soil Science Society of America Journal, Vol. 46, No. 1, pp. 466-470.

Constantz, J., and W. N. Herkelrath, 1984. "Submersible Pressure Outflow Cell for Measurement of Soil Water Retention and Diffusivity from 5 to 95 deg. C," Soil Science Society of America Journal, Vol. 48, No. 1, pp. 7-10.

Coons, W. E., A. Bergstrom, P. Gnirk, M. Gray, B. Knecht, R. Pusch, J. Steadman, M. Tokonami, and M. Vaajasaari, 1987. "State-of-the-Art Report on Potentially Useful Materials for Sealing Nuclear Waste Repositories," Stripa Project 87-12, Swedish Nuclear Fuel and Waste Management Co., Stockholm.

Cooper, H. H., Jr., J. D. Bredehoeft, and I. S. Papadopulos, 1967. "Response of a Finite-Diameter Well to an Instantaneous Charge of Water," Water Resources Research, Vol. 3, No. 1, pp. 263-369.

Cording, E. S., 1974. "Measurement of Displacements in Tunnels," in Proceedings of the Second International Congress of the International Association of Engineering Geology, Sao Paulo, 18-24 August, 1974-Brazil,

Corley, J. P., and C. D. Corbit, 1983. Guide for Effluent Radiological Measurements at DOE Installations, DOE/EP-0096, U.S. Department of Energy, Washington, D.C.

Corley, J. P., and D. H. Denham, 1981. Guide for: Environmental Radiological Surveillance at U.S. Department of Energy Installations, DOE/EP-0023, U.S. Department of Energy, Washington, D.C.

Costa, J. E., 1983. "Paleohydraulic Reconstruction of Flash-Flood Peaks from Boulder Deposits in the Colorado Front Range," Geological Society of America Bulletin, Vol. 94, pp. 986-1004.

Costin, L. S., and S. J. Bauer, in prep. Preliminary Analyses of the Excavation Investigation Experiments Proposed for the Exploration Shaft at Yucca Mountain, Nevada Test Site, SAND87-1575, Sandia National Laboratories, Albuquerque, N. Mex.

Costin, L. S., and E. P. Chen, in prep. An Analysis of the G-Tunnel Heated Block Thermal-Mechanical Response using a Compliant-Joint Rock Mass Model, SAND87-2699, in prep., Sandia National Laboratories, Albuquerque, N. Mex.

Couch, R., G. Connard, M. Gemperle, W. McLain, J. Huppinen, R. Foote, and P. Douguin, 1985. "Curie-Point Depths in the Cascade Range: Mt. Hood to Mt. Lassen," EOS, Vol. 66, No. 46, p. 870.

Craig, R. W., and J. H. Robison, 1984. Geohydrology of Rocks Penetrated by Test Well UE-25p#1, Yucca Mountain Area, Nye County, Nevada, USGS-WRI-84-4248, Water-Resources Investigations Report, U.S. Geological Survey.

Crampin, S., R. McGonigle, and D. Bamford, 1980. "Estimating Crack Parameters from Observations of P-Wave Velocity Anistropy," Geophysics, Vol. 45, No. 3, pp. 345-360.

Cranwell, et al, 1982.

Crippen, J. R. and C. D. Bue, 1977. Maximum Flood Flows in the Conterminous United States, USGS-WSP-1887, Water-Supply Paper, U.S. Geological Survey.

Crone et al, 1985.

Crowe, B., and B. Turrin, 1988. Preliminary Geologic Map of the Lathrop Wells Volcanic Center; TWS-Inc-3/88-7,

Crowe, B. M., M. E. Johnson, and R. J. Beckman, 1982. "Calculation of the Probability of Volcanic Disruption of a High-Level Radioactive Waste Repository within Southern Nevada, USA," Radioactive Waste Management and the Nuclear Fuel Cycle, Vol. 3, No. 2, pp. 167-190.

Crowe, B. M., S. Self, D. Vaniman, R. Amos, and F. Perry, 1983a. "Aspects of Potential Magmatic Disruption of a High-Level Radioactive Waste Repository in Southern Nevada," Journal of Geology, Vol. 91, pp. 259-276.

Crowe, B. M., D. T. Vaniman, and W. J. Carr, 1983b. Status of Volcanic Hazard Studies for the Nevada Nuclear Waste Storage Investigations, LA-9325-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., K. H. Wohletz, D. T. Vaniman, E. Gladney, and N. Bower, 1986. Status of Volcanic Hazard Studies for the Nevada Nuclear Waste Storage Investigations, LA-9325-MS, Vol. II, Los Alamos National Laboratory, Los Alamos, N. Mex.

Crowe, B. M., F. V. Perry, B. D. Turrin, S. G. Wells, and L. D. MacFadden, 1988. "Volcanic Hazard Assessment for Storage of High-Level Radioactive Waste at Yucca Mountain, Nevada," Geological Society of America, Cordilleran Section, Vol. 20, No. 3, p. 153.

Czarnecki, J. B., 1985. Simulated Effects of Increased Recharge on the Ground-Water Flow System of Yucca Mountain and Vicinity, Nevada-California, USGS-WRI-84-4344, Water-Resources Investigations Report, U.S. Geological Survey.

Czarnecki, J. B., 1987. "Should the Furnace Creek Ranch - Franklin Lake Playa Ground-Water Subbasin Simply Be the Franklin Lake Playa Ground-Water Subbasin?," American Geophysical Union, (abs.), EOS, Vol. 68, No. 44, P. 1292.

Czarnecki, and Oatfield, 1986.

Czarnecki, J. B., and R. K. Waddell, 1984. Finite-Element Simulation of Ground-Water Flow in the Vicinity of Yucca Mountain, Nevada-California, USGS-WRI-84-4349, Water-Resources Investigations Report, U.S. Geological Survey.

DOE (U.S. Department of Energy), 1979. Technology for Commercial Radioactive Waste Management, DOE/ET-0028, five volumes, Washington, D.C.

DOE (U.S. Department of Energy), 1980. "Environmental Protection, Safety, and Health Protection Program for DOE Operations," DOE Order 5480.1, Washington, D.C.

DOE (U.S. Department of Energy), 1981a. "Environmental Protection, Safety, and Health Protection Program for DOE Operations," DOE Order 5480.1A, Washington, D.C.

DOE (U.S. Department of Energy), 1981b. "Reactor and Nonreactor Facility Emergency Planning, Preparedness and Response Program for Department of Energy Operations," DOE Order 5500.3, Washington, D.C.

DOE (U.S. Department of Energy), 1983a. "General Design Criteria Manual," DOE Order 6430.1, Washington, D.C.

DOE (U.S. Department of Energy), 1983b. "Management of Construction Projects," DOE Order 6410.1, Washington, D.C.

DOE (U.S. Department of Energy), 1983c. "Quality Assurance," DOE Order 5700.6A-4, Nevada Operations Office, Las Vegas, Nev.

DOE (U.S. Department of Energy), 1983d. "Site Development and Facility Utilization Planning," DOE Order 4320.1A, Washington, D.C.

DOE (U.S. Department of Energy), 1984a. "Environmental Protection, Safety, and Health Protection Standards," DOE Order 5480.4, Washington, D.C.

DOE (U.S. Department of Energy), 1984b. "Nuclear Waste Policy Act of 1982; General Guidelines for the Recommendation of Sites for the Nuclear Waste Repositories," Federal Register, Vol. 49, pp. 47714-47770.

DOE (U.S. Department of Energy), 1985a. Mission Plan for the Civilian Radioactive Waste Management Program, Overview and Current Program Plans, DOE/RW-0005, three volumes, Washington, D.C.

DOE (U.S. Department of Energy), 1985a. Analysis of Total System Life Cycle Cost for OCRWM Program, DOE/RW-0024, Washington, D.C.

DOE (U.S. Department of Energy), 1985c. "Radiation Protection," DOE Order 5480.11, Washington, D.C.

DOE (Department of Energy), 1985d. OCRWM Quality Assurance Management Policies and Requirements, DOE/RW-0032.

DOE (U.S. Department of Energy), 1986a. A Multiattribute Utility Analysis of Sites Nominated for Characterization for the First Radioactive-Waste Repository--A Decision-Aiding Methodology, DOE/RW-0074, Washington, D.C.

DOE (U.S. Department of Energy), 1986b. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

DOE (U.S. Department of Energy), 1986c. Generic Requirements for a Mined Geologic Disposal System, DOE/NE/44301-1, Washington, D.C.

DOE (U.S. Department of Energy), 1986d. Issues Hierarchy for a Mined Geologic Disposal System, OGR/B-10, OCRWM, Washington, D.C.

DOE (U.S. Department of Energy), 1986e. "Environment, Safety, and Health Program for Department of Energy Operations," DOE Order 5480.1B, Washington, D.C.

DOE (U.S. Department of Energy), 1986f. Waste Management Systems Requirements and Descriptions (SRD), DOE/RW-0063, Washington, D.C.

DOE (U.S. Department of Energy), 1987a. Analysis of the Total System Life Cycle Cost for the Civilian Radioactive Waste Management Program, DOE/RW-0047, 2 volumes, Washington, D.C.

DOE (Department of Energy), 1987b. Environmental Regulation Compliance Plan,

DOE (U.S. Department of Energy), 1987c. Exploratory Shaft Facility Subsystem Design Requirements Document, Yucca Mountain Site, NVO-309, 2 volumes, Nevada Operations Office, Las Vegas, Nev.

DOE (U.S. Department of Energy), 1987d. NNWSI Project Radiological Monitoring Plan, DOE/NV-10576-6, Las Vegas, Nev.

DOE (Department of Energy), 1987e. OCRWM Mission Plan Amendment With Comments on the Draft Amendment and Responses to the Comments, DOE/RW-0128.

DOE (Department of Energy), 1988a. Draft 1988 Mission Plan Amendment, DOE/RW-0187.

DOE, (U.S. Department of Energy), 1988b. NNWSI Project Site Atlas, Draft, YMP-8821.

DOE (Department of Energy), 1988c. NNWSI Quality Assurance Plan, NNWSI/88-9, Rev. 1.

DOE (Department of Energy), 1988d. NNWSI Surface-Based Investigation Plan, VOL. 3.

"BEST AVAILABLE COPY"

DOE/NV (Department of Energy), 1988. Waste Management Project Office Quality Assurance Plan, WMPO/88-1, Rev. 0.

DOE/NVO (U.S. Department of Energy, Nevada Operations Office), 1983. Public Hearings Panel Report, A Summary of Public Concerns Regarding the Characterization of a Repository Site in Nevada, NVO-263, Las Vegas, Nev.

DOE/NVO (U.S. Department of Energy, Nevada Operations), 1984. Nevada Nuclear Waste Storage Investigations Quality Assurance Plan, NVO-196-17 (Rev. 3), Nevada Operations Office, Las Vegas, Nev.

DOI (U.S. Department of the Interior), 1985. A Proposed Program to Study the Water Resources of the Carbonate-Rock System of Eastern and Southern Nevada, Washington, D.C.

Daemen, et al, 1983.

Daniels, J. J., and J. H. Scott, 1981. Interpretation of Hole-to-Surface Resistivity Measurements at Yucca Mountain, Nevada Test Site, USGS-OFR-81-1336, Open-File Report, U.S. Geological Survey.

Daniels, J. J., J. H. Scott, and J. T. Hagstrum, 1981. Interpretation of Geophysical Well-Log Measurements in Drill Holes UE25a-4, -5, -6, and -7, Yucca Mountain, Nevada Test Site, USGS-OFR-81-389, Open-File Report, U.S. Geological Survey.

Daniels, W. R., K. Wolfsberg, R. S. Rundberg, with others, 1982. Summary Report on the Geochemistry of Yucca Mountain and Environs, J. Heiken (ed.), LA-9328-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Davis, S. N., and R. J. M. DeWiest, 1966. Hydrogeology, John Wiley & Sons, New York, pp. 319, 333, 336-33

Delany, J. M., 1985. Reaction of Topopah Spring Tuff with J-13 Water: A Geochemical Modeling Approach Using the EQ3/6 Reaction Path Code, UCRL-53631, Lawrence Livermore National Laboratory, Livermore, Calif.

De Marsily, G., 1986. Quantitative Hydrogeology, Groundwater Hydrology for Engineers, Academic Press, Inc., New York, pp. 24-25.

Dennis, A. W., J. C. Frostenson, and K. J. Hong, 1984a. NNWSI Repository Worker Radiation Exposure, Vol. I, Spent Fuel and High-Level Waste Operations in a Geologic Repository in Tuff, SAND83-7436/1, Sandia National Laboratories, Albuquerque, N. Mex.

Dennis, A. W., R. Mulkin, and J. C. Frostenson, 1984b. Operational Procedures for Receiving, Packaging, Emplacing, SAND83-1982C, Sandia National Laboratories, Albuquerque, N. Mex.

Dettinger, M. D., and J. L. Wilson, 1981. "First Order Analysis of Uncertainty in Numerical Models of Groundwater Flow, Part 1, Mathematical Development," Water Resources Research, Vol. 17, No. 1, pp. 149-161.

de Voogd, B., L. Serpa, L. Brown, E. Hauser, S. Kaufman, J. Oliver, B. W. Troxel, J. Willemin and L. A. Wright, 1986. "Death Valley Bright Spot: A Midcrustal Magma Body in the Southern Great Basin, California?," Geology, Vol. 14, pp. 64-67.

Dial, B. W., D. E. Maxwell, E. G. McNulty, and M. Reeves, 1988. "Near-Field Shaft Response Analysis Using the CAVS Jointed Rock Model," in Key Questions in Rock Mechanics: Proceedings of the 29th U.S. Symposium, University of Minnesota/Minneapolis/13-15 June 1988, P. A. Cundall, R. L. Sterling, A. M. Starfield (eds.). pp. 421-428.

Dixon, D. A., and M. N. Gray, 1985a. "The Engineering Properties of Buffer Material," in Proceedings of the 19th Information Meeting of the Nuclear Fuel Waste Management Program, Toronto, Ontario, Canada, TR-350.

Dockery Ander, H., 1984. Rotation of Late Cenozoic Extensional Stresses, Yucca Flat Region, Nevada Test Site, Nevada, unpublished Ph.D. thesis, Rice University, Houston, Tex., 77 p.

Dohrenwend, J. C., 1984. "Nivation Landforms in the Western Great Basin and Their Paleoclimatic Significance," Quaternary Research, Vol. 22, pp. 275-288.

Dohrenwend, J. C., 1987. "Basin and Range," Geomorphic Systems of North America W. L. Graf (ed.), The Geological Society of America, Boulder, Colo. p. 331.

Donath and Cranwell, 1981.

Dorn, R. I., 1983. "Cation-Ratio Dating: A New Rock Varnish Age-Determination Technique," Quaternary Research, Vol. 20, pp. 49-73.

Dudley, W. W., Jr., and J. D. Larson, 1976. Effect of Irrigation Pumping on Desert Pupfish Habitats in Ash Meadows, Nye County, Nevada, U.S. Geological Survey Professional Paper 927, U.S. Goverment Printing Office, Washington, D.C.

Dudley, A. L., R. R. Peters, J. H. Gauthier, M. L. Wilson, M. S. Tierney, and E. A. Klavetter, 1988. Total System Performance Assessment Code (TOSPAC) Volume 1: Physical and Mathematical Bases SAND85-0002(draft), Sandia National Laboratories, Albuquerque, N. Mex.

EPA (U.S. Environmental Protection Agency), 1975. Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, AD/A119 287, Washington, D.C.

EPA (U.S. Environmental Protection Agency), 1984. Ground-Water Protection Strategy, Office of Ground-Water Protection, Washington, D.C.

EPA (Environmental Protection Agency), 1985.

EPA (U.S. Environmental Protection Agency), 1986. Guideline on Air Quality Models (Revised), EPA-450/2-78-027R, Office of Air Quality Planning and Standards, Research Triangle Park, N.C.

EPA (U.S. Environmental Protection Agency), 1987. Protocol for Applying and Validating the CMB Model, EPA-450/4-87-010,

EPRI (Electric Power Research Institute), 1986. Seismic Hazard Methodology for the Central and Eastern United States, EPRI NP-4726, No. 1, Risk Engineering, Inc., Woodward-Clyde Consultants, Geomatrix Consultants, Inc., and CYGNA Corporation.

Eaton, R. R., D. K. Gartling, and D. E. Larson, 1983. SAGUARO - A Finite Element Computer Program for Partially Saturated Porous Flow Problems, SAND82-2772, Sandia National Laboratories, Albuquerque, N. Mex.

Eberl, D., and J. Hower, 1976. "Kinetics of Illite Formation," Geological Society of America Bulletin, 60914, Vol. 87, pp. 1326-1330.

Eby, 1981.

Ehgartner, B. L., 1987. Sensitivity Analyses of Underground Drift Temperature, Stresses, and Safety Factors to Variation in the Rock Mass Properties of Tuff for a Nuclear Waste Repository Located at Yucca Mountain, Nevada, SAND86-1250, Sandia National Laboratories, Albuquerque, N. Mex.

Ehgartner, B. L., and R. C. Kalinski, 1988. A Synopsis of Analyses (1981-87) Peformed to Assess the Stability of Underground Excavations at Yucca Mountain, SAND88-2294, Sandia National Laboratories, Albuquerque, N. Mex.

Einziger, R. E., 1985. Technical Test Description of Activities to Determine the Potential for Spent Fuel Oxidation in a Tuff Repository, HEDL-7540, Hanford Engineering Development Laboratory, Richland, Wash.

Eisenberg, N. A., and A. E. Van Luik, 1987. "Validation Actitivies Addressing Performance Issues Pertinent to the U.S. DOE Geologic Repository Projects," in Proceedings of the Geoval-87 Symposium, April 7-9, Stockholm, Sweden, pp. 423-455.

Eisenberg, N. A., A. E. Van Luik, L. E. Plansky, and R. J. Van Vleet, 1987. "A Proposed Validation Strategy for the U.S. DOE Office of Civilian Radioactive Waste Management Geologic Repository Program," in Proceedings of Geoval-87, Stockholm, Sweden, April 7-9, 1987, pp. 1-33.

Eiswirth, M., J. I. Kim, and Ch. Lierse, 1985. "Optical Absorption Spectra of Pu(IV) in Carbonate/Bicarbonate Media," Radiochimica Acta Vol. 38, pp. 197-201.

Ekren, E. B., 1968. "Geologic Setting of Nevada Test Site and Nellis Air Force Range," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, pp. 11-19.

Ekren, E. B., and F. M. Byers, Jr., 1985. Geologic Map of the Gabbs Mountain, Mount Ferguson, Luning, and Sunrise Flat Quadrangles, Mineral and Nye Counties, Nevada, U.S. Geological Survey Miscellaneous Investigations Series Map I-1577, Scale 1:48,000. U.S. Geological Survey.

Ekren, E. B., E. N. Hinrichs, W. D. Quinlivan, and D. L. Hoover, 1973. Geologic Map of the Moores Station Quadrangle, Nye County, Nevada, U.S. Geological Survey Miscellaneous Investigations Series Map I-756, U.S. Geological Survey.

Ekren, E. B., C. L. Rogers, G. L. Dixon, 1973. Geologic and Bouguer Gravity Map of the Reveille Quadrange, Nye County, Nevada, U.S. Geological Survey Miscellaneous Investigation Series Map I-806, U.S. Geological Survey.

Elder, J. C., J. M. Graf, J. M. Dewart, T. E. Buhl, W. J. Wenzel, L. J. Walker, and A. K. Stoker, 1986. A Guide to Radiological Accident Considerations for Siting and Design of DOE Nonreactor Nuclear Facilities, LA-10294-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Ellis, W. L., and H. S. Swolfs, 1983. Preliminary Assessment of In Situ Geomechanical Characteristics in Drill Hole USW G-1, Yucca Mountain, Nevada, USGS-OFR-83-401, Open-File Report, U.S. Geological Survey.

Endo, H. K., and P. A. Witherspoon, 1985. "Mechanical Transport and Porous Media Equivalence in Anisotropic Fracture Networks," Hydrogeology of Rocks of Low Permeability, Memoires of the International Association of Hydrogeologists, 17th International Congress, 1985, Tucsón, Ariz., pp. 527-537.

Erickson, J. R., and R. K. Waddell, 1985. Identification and Characterization of Hydrologic Properties of Fractured Tuff using Hydraulic and Tracer Tests--Test Well USW H-4, Yucca Mountain, Nye County, Nevada, USGS-WRI-85-4066, Water-Resources Investigations Report, U.S. Geological Survey.

Erickson, J. R., D. L. Galloway, and K. Karasaki, 1985. "Interpretations of Falling-Head Injection Test Data for Fractured Volcanic Tuffs, Yucca Mountain, Nevada Test Site," Geological Society of America Abstracts with Programs, Vol. 17, No. 7, pp. 574-575.

Evans, D. A., and T. J. Nicholson, 1987. "Flow and Transport Through Unsaturated Fractured Rock, Geophysical Monograph 42, American Geophysical Union, D. D. Evans and T. J. Nicholson (eds.), Vol. IV Series, pp. 1-10.

F & S (Fenix & Scisson, Inc.), 1986. NNWSI Hole Histories, DOE/NV/10322-9 thru 21 & 24. Mercury, Nev.

F & S (Fenix & Scisson), 1988. Impact Analysis for Calico Hills Penetration and Exploratory Drift and Tuff Main Extension to Limits of the Repository Block, WMPO Action Item 88-1995, 111 p.

FLPMA (Federal Land Policy and Management Act), 1976. Public Law 94-579, 90 Stat. 2743,

Federal Mine Safety and Health Act of 1977, 1977. "Federal Mine Safety and Health Amendements Act of 1977," Public Law 95-164, 91 STAT. 1290-1322.

Feller, 1960.

Feller, 1966.

Fernandez, J. A., 1985. Repository Sealing Plan for the Nevada Nuclear Waste Storage Investigations Project Fiscal Year 1984 Through 1990, SAND84-0910, Sandia National Laboratories, Albuquerque, N. Mex.

Fernandez, J. A., and M. D. Freshley, 1984. Repository Sealing Concepts for the Nevada Nuclear Waste Storage Investigations Project, SAND83-1778, Sandia National Laboratories, Albuquerque, N. Mex.

Fernandez, J. A, P. C. Kelsall, J. B. Case, and D. Meyer, 1987. Technical Basis for Performance Goals, Design Requirements, and Material Recommendations for the NNWSI Repository Sealing Program, SAND84-1895, Sandia National Laboratories, Albuquerque, N. Mex.

Fernandez, J. A., T. E. Hinkebein, and J. B. Case, 1988. Analyses to Evaluate the Effect of the Exploratory Shaft on Repository Performance of Yucca Mountain, SAND85-0598, Sandia National Laboratories, Albuquerque, N. Mex.

Fisher, R. V., and H.-U. Schmincke, 1984. Pyroclastic Rocks, Springer-Verlag, Germany, pp. 139-141, 144, 20

Fitterman, D. V., 1982. Magnetometric Resistivity Survey Near Fortymile Wash, Nevada Test Site, Nevada, USGS-OFR-82-401, Open-File Report, U.S. Geological Survey.

Flanigan, V. J., 1981. A Slingram Survey at Yucca Mountain on the Nevada Test Site, USGS-OFR-81-980, Open-File Report, U.S. Geological Survey.

Flores, R. J., 1986. Retrievability: Strategy for Compliance Demonstration, SAND84-2242, Sandia National Laboratories, Albuquerque, N. Mex.

Forester, R. M., 1987. "Late-Quaternary Paleoclimate Records from Lacustrine Ostracodes," North America and Adjacent Oceans during the Last Deglaciation, W. F. Ruddiman and H. E. Wright, Jr. (eds.), Geological Society of America.

Fournier, R. O., M. L. Sorey, R. H. Mariner and A. H. Truesdell, 1979. "Chemical and Isotopic Prediction of Aquifer Temperatures in the Geothermal System at Long Valley, California," Journal of Volcanology and Geothermal Research, Vol. 5, Elsevier Scientific Publishing Co., Amsterdam, pp. 17-34.

Fouty, S. C., 1984. Index to Published Geologic Maps in the Region Around the Potential Yucca Mountain Nuclear Waste Repository Site, Southern Nye County, Nevada, USGS-OFR-84-524, Open-File Report, U.S. Geological Survey.

Freeze, R. A., and J. A. Cherry, 1979. Groundwater, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 389-390, 551-552

Frischknecht, F. C., and P. V. Raab, 1984. "Time-Domain Electromagnetic Soundings at the Nevada Test Site, Nevada," Geophysics, Vol. 49, No. 7, pp. 981-992.

Frizzell, V. A. Jr., and M. L. Zoback, 1987. "Stress Orientation Determined from Fault Slip Data in Hampel Wash Area, Nevada, and Its Relations to Contemporary Regional Stress Field," Tectonics, Vol. 6, No. 2, pp. 89-98.

Furgerson, R. B., 1982. Remote-Reference Magnetotelluric Survey Nevada Test Site and Vicinity, Nevada and California, USGS-OFR-82-465, Open-File Report, U.S. Geological Survey.

Galloway, D., and M. Sullivan, 1986. "Estimates of Confined and Unconfined Aquifer Characteristics from Ground-Water Level Fluctuations, Yucca Mountain, Nevada," EOS, Vol. 67, No. 44, p. 942.

Galloway, D. L., and J. R. Erickson, 1985. "Tracer Test for Evaluating Nonpumping Intraborehole Flow in Fractured Media," Transactions, American Nuclear Society, Nuclear Techniques for Hydrogeological Studies, Vol. 50, pp. 192-193.

Gartling, D. K., 1982. COYOTE - A Finite Element Computer Program for Nonlinear Heat Conduction Problems, SAND77-1332, Sandia National Laboratories, Albuquerque, N. Mex.

Gartling, D. K., and C. E. Hickox, 1982. MARIAH - A Finite Element Computer Program for Incompressible Porous Flow Problems: Theoretical Background, SAND79-1622, Sandia National Laboratories, Albuquerque, N. Mex.

Gass, S. I., 1983. "Decision-Aiding Models: Validation, Assessment, and Related Issues for Policy Analysis," Operations Research, Vol. 31, No. 4, pp. 603-631.

Gerhardt, P. (ed.), 1981. Manual of Methods for General Bacteriology, American Society for Microbiology, Washington, D.C., pp. 127-130.

Gianella, V. P., and E. Callaghan, 1934a. "The Cedar Mountain, Nevada, Earthquake of December 20, 1932," Bulletin of the Seismological Society of America, Vol. 24, No. 4, pp. 345-377.

Gianella, V. P., and E. Callaghan, 1934b. "The Earthquake of December 20, 1932, at Cedar Mountain, Nevada and Its Bearing on the Genesis of Basin Range Structure," Journal of Geology, Vol. 42, No. 1, pp. 1-22.

Gile, L. H., F. F. Peterson, and R. B. Grossman, 1965. "Morphological and Genetic Sequences of Carbonate Accumulates in Desert Soil, Soil Science Vol. 101, No. 5, pp. 347-360.

Glover, K. C., 1986. A Dual-Porosity Model for Simulating Solute Transport in Oil Shale, USGS-WRI-85-4281, Water Resources Investigations Report, U.S. Geological Survey.

Gnirk et al, 1988.

Goodman, R. E., 1980. Introduction to Rock Mechanics, John Wiley & Sons, Inc., New York.

Gordon, M. N. Tanious, J. Bradbury, L. Kovach, and R. Codell, 1986. Draft Generic Technical Position: Interpretation and Identification of the Extent of the Disturbed Zone in the High-Level Waste Rule (10 CFR 60), U.S. Nuclear Regulatory Commission, Washington, D.C.

Grambow, B., 1984. "A Physical-Chemical Model for the Mechanism of Glass Corrosion - with Particular Consideration of Simulated Radioactive Waste Glasses," Dissertation, Freien Universitaet, Berlin, Germany, DP-tr-78, Available in translation from NTIS.

Grambow, B., H. P. Hermansson, I. K. Bjorner, and L. Werme, 1985. "Glass/Waste Reaction With and Without Bentonite Present - Experiment and Model," in Scientific Basis for Nuclear Waste Management IX, Materials Research Society Symposia Proceedings, Stockholm, Sweden, September 9-11, 1985, L. O. Werme (ed.), Vol. 50, Materials Research Society, Pittsburgh, Penn., pp. 187-194.

Grambow, B., H. U. Zwicky, G. Bart, I. K. Bjorner, and L. O. Werme, 1987. "Modeling of the Effect of Iron Corrosion Products on Nuclear Waste Glass Performance," in Scientific Basis for Nuclear Waste Management X, Materials Research Society Symposia Proceedings, December 1-4, 1986, Boston, Massachusetts, J. K. Bates and W. B. Seefeldt (eds.), Vol. 84, Materials Research Society, Pittsburgh, Penn., pp. 471-481.

Gray, M. N. (comp.), 1986. Stripa Phase III, Report on Sealing Materials and Methods (ms), Atomic Energy of Canada Limited, Pinawa, Manitoba, 25 p.

Gray, 1987.

Greenhaus, M. R., and C. J. Zablocki, 1982. A Schlumberger Resistivity Survey of the Amargosa Desert, Southern Nevada, USGS-OFR-82-897, Open-File Report, U.S. Geological Survey,

Griffiths, D. H., and R. F. King, 1965. Applied Geophysics for Engineers and Geologists, Pergamon Press, New York, pp. 121-132.

Gringarten, A. C., 1982. "Flow-Test Evaluation of Fractured Reservoirs," Recent Trends in Hydrogeology, Geological Society of America Special Paper 189, pp. 237-263.

Gringarten, A. C., and H. J. Ramey, Jr., 1974. "Unsteady-State Pressure Distributions Created by a Well with a Single Horizontal Fracture, Partial Penetration, or Restricted Entry," Society of Petroleum Engineers Journal, Vol. 14, No. 4, pp. 413-426.

Gringarten, A. C., and P. A. Witherspoon, 1972. "A Method of Analyzing Pumping Test Data from Fractured Aquifers," in Proceedings, Symposium on Percolation in Fissured Rock, Vol. 3, International Society of Rock Mechanics, Stuttgart, pp. B1-B9.

Gringarten, A. C., H. J. Ramey, Jr., and R. Raghaven, 1974. "Unsteady-State Pressure Distributions Created by a Well with a Single Infinite-Conductivity Vertical Fracture," Society of Petroleum Engineers Journal, Vol. 14, No. 4, pp. 347-360.

Gringarten, A. C., D. P. Bourdet, P. A. Landel, and V. J. Kniazeff, 1979. "A Comparison Between Different Skin and Wellbore Storage Type-Curves for Early-Time Transient Analysis," SPE-AIME 54th Annual Technical Conference and Exhibition, Las Vegas, Nevada, September 23-26, 1979, SPE-8205, Dallas Society of Petroleum Engineers, Dallas, Tex.

Gromme, C. S., E. H. McKee, M. C. Blake, Jr., 1972. "Paleomagnetic Correlations and Potassium-Argon Dating of Middle Tertiary Ash-Flow Sheets in the Eastern Great Basin, Nevada and Utah," Geological Society of America Bulletin, Vol. 83, pp. 1619-1638.

Grove, D. B., and W. A. Beetem, 1971. "Porosity and Dispersion Constant Calculations for a Fractured Carbonate Aquifer Using the Two Well Tracer Method," Water Resources Research, Vol. 7, No. 1, U.S. Geological Survey, Water Resources Division, pp. 128-134.

Grutzeck, M. W., B. E. Scheetz, E. L. White, and D. M. Roy, 1980. "Modified Cement-Based Borehole Plugging Materials: Properties and Potential Longevity," in Proceedings of a Workshop on Borehold and Shaft Plugging,

Gulick, Jr., C. W., 1978. Borehole Plugging - Materials Development Program, SAND78-0715, Sandia National Laboratories, Albuquerque, N. Mex.

Hagan, R. M., H. R. Haise, and T. W. Edminster (eds.), 1967. Irrigation of Agricultural Lands, No. 11, American Society of Agronomy, Inc., Madison, Wisc.

Hagstrum, J. T., J. J. Daniels, and J. H. Scott, 1980. Interpretation of Geophysical Well Log Measurements in Drill Hole UE25a-1, Nevada Test Site, USGS-OFR-80-941, Open-File Report, Radicactive Waste Program, U.S. Geological Survey.

Hallquist, J. O., 1983. NIKE2D - A Vectorized, Implicit, Finite Deformation, Finite Element Code for Analyzing the Static and Dynamic Response of 2-D Solids, UCID-19677, Lawrence Livermore National Laboratory, Livermore, Calif.

Hammermeister, D. P., D. O. Blout, and J. C. McDaniel, 1985. "Drilling and Coring Methods That Minimize the Disturbance of Cutting, Core, and Rock Formation in the Unsaturated Zone, Yucca Mountain, Nevada," in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, November 19-21, 1985, Denver, Colo., National Water Well Association, Worthington, Ohio, pp. 507-541.

Hammersley, J. M., and D. C. Handscomb, 1964. "General Principles of the Monte Carlo Method," Monte Carlo Methods, Chapter 5, John Wiley & Sons, Inc., New York, pp. 50-75.

Hanson, J. M., 1984. Evaluation of Subsurface Fracture Geometry Using Fluid Pressure Response to Solid Earth Tidal Strain, UCID-20156, Lawrence Livermore National Laboratory, Livermore, Calif., 135 p.

Hantush, M. S., 1960. "Modification of the Theory of Leaky Aquifer," Journal of Geophysical Research, Vol. 65, No. 11, pp. 3713-3725.

Hantush, M. S., and C. E. Jacob, 1955. "Non-Steady Radial Flow in an Infinite Leaky Aquifer," Transactions, American Geophysical Union, Vol. 36, No. 1, pp. 95-100.

Harder, Jr., L. S., and H. B. Seed, 1986. Determination of Penetration Resistance for Coarse Grained Soils Using the Becker Hammer Drill, UCB-EERC-86-06, University of California, Berkeley.

Hardyman, R. F. E. B. Ekren, and F. M. Byers, Jr., 1975. "Cenozoic Strike-Slip, Normal, and Detachment Faults in Northern Part of the Walker Lane, West-Central Nevada," Geological Society of America Abstracts with Programs, Vol. 7 p. 1100.

Harmsen, S., and S. Harding, 1981. "Surface Motion Over a Sedimentary Valley for Incident Plane P and SV Waves," Bulletin of the Seismological Society of America, Vol. 71, No. 3, pp. 655-670.

Harrington, C. D., and J. W. Whitney, 1987. "Scanning Electron Microscope Method for Rock-Varnish Dating," Geology, Vol. 15, pp. 967-970.

Harris, A. G., B. R. Warlow, C. C. Rust and G. K. Merrill, 1980. Maps for Assessing Thermal Maturity (Conodont Color Alteration Index Maps) in Ordovician Through Triassic Rocks in Nevada and Utah and Adjacent Parts of Idaho and California, Miscellaneous Investigations Series Map I-1249, U.S. Geological Survey.

Hartzell, S., 1985. "The Use of Small Earthquakes as Green's Functions," Strong Ground Motion Simulation and Earthquake Engineering Applications: A Technological Assessment, R. E. Scholl and J. L. King (eds.), Publication No. 85-02, Section 22, Earthquake Engineering Research Institute, pp. 22-1 to 22-8.

Hasselmann, K., 1976. "Stochastic Climate Models, Part I, Theory," Tellus, Vol. 28, pp. 473-484.

Hassler, G. L., 1944. "Method and Apparatus for Permeability Measurements," U.S. Patent No. 2,345,935, April, 4.

Hassler, G. L., and E. Brunner, 1945. "Measurement of Capillary Pressures in Small Core Samples," Transactions of the American Institute of Mining and Metallurgical Engineers, Petroleum Development and Technology 1945, Vol. 160, pp. 114-123.

Hayden, N. K., 1985. Benchmarking NNWSI Flow and Transport Codes: Cove 1 Results, SAND84-0996, Sandia National Laboratories, Albuquerque, N. Mex.

Hayes, et al, 1987.

Hays, J. D., J. Imbrie, and N. J. Shackleton, 1976. Variations in the Earth's Orbit: Pacemaker of the Ice Ages, Science, Vol. 194, No. 4270, pp. 1121-1132.

Healey, D. L., F. G. Clutsom, and D. A. Glover, 1986. Borehole Gravity Meter Survey in Drill Hole USW G-4, Yucca Mountain Area, Nye County, Nevada, USGS-OFR-86-205, Open-File Report, U.S. Geological Survey.

Healy, J. H., S. H. Hickman, M. D. Zoback, and W. L. Ellis, 1984. Report on Televiewer Log and Stress Measurements in Core Hole USW-G1, Nevada Test Site, December 13-22, 1981, USGS-OFR-84-15, Open-File Report, U.S. Geological Survey.

Herzig, J. P., D. M. LeClerc, and P. LeGoff, 1970. "Flow of Suspensions Through Porous Media, Application to Deep Filtration," Industrial & Engineering Chemistry, Vol. 62, No. 5, pp. 8-35.

Hill, D. P., R. E. Wallance, and R. S. Cockerham, 1985. "Review of Evidence on the Potential for Major Earthquakes and Volcanism in the Long Valley-Mono Craters-White Mountains Regions of Eastern California," Earthquake Prediction, Earthquake Prediction Research Vol. 3, No. 3-4, Terra Scientific Publishing Co., Tokyo, Japan, pp. 571-594.

Hill, J., 1985. Structural Analysis of the NNWSI Exploratory Shaft, SAND84-2354, Sandia National Laboratories, Albuquerque, N. Mex.

Hillel, D., 1971. Soil and Water: Physical Principles and Processes, Academic Press, Inc., Orlando, Florida, pp. 140-143.

Hillel, D. I., 1982. Introduction to Soil Physics, Academic Press, Inc., New York.

Hils, 1975.

Ho, D. M., R. L. Sayre and C. L. Wu, 1986. Suitability of Natural Soils for Foundations for Surface Facilities at the Prospective Yucca Mountain Nuclear Waste Repository, SAND85-7107, Sandia National Laboratories, Albuquerque, N. Mex.

Hoek, E., and E. T. Brown, 1980. Underground Excavations in Rock, Institution of Mining & Metallurgy, London, pp. 137-139, 285-298

Hoffman, D. C., R. Stone, and W. W. Dudley, Jr., 1977. Radioactivity in the Underground Environment of the Cambric Nuclear Explosion at the Nevada Test Site, LA-6877-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Hoffman, F. O., C. W. Miller, D. L. Shaeffer, and C. T. Garten, Jr. 1977. "Computer Codes for the Assessment of Radionuclides Released to the Environment, Nuclear Safety, Vol. 18, No. 3, pp. 343-354.

Hoffman, L. R., and W. D. Mooney, 1983. A Seismic Study of Yucca Mountain and Vicinity, Southern Nevada; Data Report of Preliminary Results, USGS-OFR-83-588, Open-File Report, U.S. Geological Survey.

Holt, J. G. (ed.), 1984. Bergey's Manual of Systematic Bacteriology, two volumes, Williams & Wilkins, Baltimore, Maryland.

Hooten, R. D., 1986a. "Cement-Based Construction Grouts for Possible Use at the URL," Ontario Hydro Research, Report No. 83-393-K.

Hooten, R. D. 1986b. "Development of Concrete Mixtures for Radioactive Waste Disposal," 2nd International Conference on Radioactive Waste Management, Canadian Nuclear Society, Winnipeg, Canada.

Hoover, D. B., M. P. Chornack, K. H. Nervick, and M. M. Broker, 1982. Electrical Studies at the Proposed Wahmonie and Calico Hills Nuclear Waste Sites, Nevada Test Site, Nye County, Nevada, USGS-OFR-82-466, Open-File Report, U.S. Geological Survey.

Hopkins, P. L., R. R. Eaton, and S. Sinnock, 1987. Effect of Drift Ventilation on Repository Hydrology and Resulting Solute Transport Implications, SAND86-1571, Sandia National Laboratory, Albuquerque, N. Mex.

Hose, R. K., 1983. Geologic Map of the Cockalorum Wash Quadrangle, Eureka and Nye Counties, Nevada, U.S. Geological Survey Miscellaneous Investigation Series Map I-1410, U.S. Geological Survey.

Houston, J. R., D. L. Strenge, and E. C. Watson, 1974. DACRIN - A Computer Program for Calculating Organ Dose from Acute or Chronic Radionuclide Inhalation, BNWL-B-389, Pacific Northwest Laboratory, Richland, Wash.

Hsieh, P. A., S. P. Neuman, G. K. Stiles, and E. S. Simpson, 1985. "Field Determination of the Three-Dimensional Hydraulic Conductivity Tensor of Anisotropic Media, 2. Methodology and Application to Fractured Rocks," Water Resources Research, Vol. 21, No. 11, pp. 1667-1676.

Huben, and Nelson, 1988.

Hunt, C. B., T. W. Robinson, W. A. Bowles, and A. L. Washburn, 1966. Hydrologic Basin, Death Valley, California, U.S. Geological Survey Professional Paper 494-B, U.S. Goverment Printing Office, Washington, D.C.

Hunter, and Mann, 1988.

Hunter et al, 1986.

Hustrulid, W., 1984a. Lining Considerations for a Circular Vertical Shaft in Generic Tuff, SAND83-7068, Sandia National Laboratories, Albuquerque, N. Mex.

Hustrulid, W., 1984b. Preliminary Stability Analysis for the Exploratory Shaft, SAND83-7069, Sandia National Laboratories, Albuquerque, N. Mex.

Huyakorn, P. S., B. H. Lester and J. W. Mercer, 1983. "An Efficient Finite-Element Technique for Modeling Transport in Fractured Porous Media, 1. Single Species Transport," Water Resources Research, Vol. 19, No. 3, pp. 841-854.

Hvorslev, M. J., 1949. Subsurface Exploration and Sampling of Soils for Civil Engineering Purposes, (reprinted as Hvorslev, 1965, by Engineering Foundation), U. S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Miss., pp. 15-17.

IAEA (International Atomic Energy Agency), 1982. Radioactive Waste Management Glossary, IAEA-TECDOC-264, International Atomic Energy Agency, Vienna

IAEA (International Atomic Energy Agency), 1983a. Concepts and Examples of Safety Analyses for Radioactive Waste Repositories in Continental Geological Formations, Safety Series No. 58, Vienna, Austria.

IAEA (International Atomic Energy Agency), 1983b. Criteria for Underground Disposal of Solid Radioactive Wastes, Recommendations, Safety Series No. 60, Vienna, Austria.

IAEA (International Atomic Energy Agency), 1985. Performance Assessment for Underground Radioactive Waste Disposal Systems, Safety Series No. 68, Vienna, Austria.

ICRP (International Commission of Radiological Protection), 1977. Recommendations of the International Commission on Radiological Protection, ICRP Publication 26, Pergamon Press, Oxford, England.

ICRP (International Commission of Radiological Protection), 1978. Limits for Intake of Radionuclides by Workers, Annals of the ICRP, ICRP Publication 30, Pergamon Press, Oxford, England.

INTERA Environmental Consultants, Inc., 1983. WAPPA: A Waste Package Performance Assessment Code, ONWI-452, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

INTRACOIN (International Nuclide Transport Code Intercomparison Study), 1986. Final Report Level 1, Code Verification, SKI 84:3, Stockholm, Sweden.

ISRM (International Society for Rock Mechanics), 1981. Rock Characterization Testing & Monitoring, E. T. Brown (ed.), Pergamon Press, New York, pp. 33,62-67.

ISRM (International Society of Rock Mechanics), 1981. "Part 1. Suggested Method for In-Situ Determination of Direct Shear Strength," Rock Characterization Testing and Monitoring: ISRM Suggested Methods, E. T. Brown (ed.), pp. 131-135.

Iman, R. L., and W. J. Conover, 1982. Sensitivity Analysis Techniques - Self-Teaching Curriculum, SAND81-1978, Sandia National Laboratories, Albuquerque, N. Mex.

Iman, R. L., and J. C. Helton, 1985. A Comparison of Uncertainty and Sensitivity Analysis Techniques for Computer Models, NUREG/CR-3904, SAND84-1461, Sandia National Laboratories, Albuquerque, N. Mex.

Imbrie, J., and J. Z. Imbrie, 1980. "Modeling the Climatic Response to Orbital Variations," Science, Vol. 207, pp. 943-953.

Iwai, 1976.

Izett, G. A., 1982. The Bishop Ash Bed and Some Older Compositionally Similar Ash Beds in California, Nevada, and Utah, USGS-OFR-82-582, Open-File Report, U.S. Geological Survey, 44 p.

Jahns, H., 1966. "Measuring the Strength of Rock In-Situ at Increasing Scale," in Proceedings 1st Congress International Society of Rock Mechanics (London), Vol. 1, pp. 477-482.

Jansma, P. E., D. B. Snyder, and D. A. Ponce, 1982. Principal Facts of Gravity Stations with Gravity and Magnetic Profiles from the Southwest Nevada Test Site, Nye County, Nevada, as of January, 1982, USGS-OFR-82-1041, Open-File Report, U.S. Geological Survey.

Jiracek, G. R., M. E. Ander, and H. T. Holcombe, 1979. "Magnetotelluric Soundings of Crustal Conductive Zones in Major Continental Rifts," Rio Grande Rift: Tectonic and Magmatism, R. E. Riecker (ed.), American Geophysical Union, Washington, D.C., pp. 209-221.

Johnson, R. L., and R. K. Thomas, 1983. "Constitutive Model for Ubiquitously Jointed Rock Masses," Submitted to the International Conference on Constitutive Laws for Engineering Materials, Jan. 10, 1983, Tucson, AZ., SAND81-2443C, Sandia National Laboratories, Albuquerque, N. Mex., 8 p.

Johnson, R. L., 1981. Thermo-Mechanical Scoping Calculations for a High Level Nuclear Waste Repository in Tuff, SAND81-0629, Sandia National Laboratories, Albuquerque, N. Mex.

Johnson, R. L., and S. J. Bauer, 1987. Unit Evaluation at Yucca Mountain, Nevada Test Site: Near-Field Thermal and Mechanical Calculations Using the SANDIA-ADINA Code, SAND83-0030, Sandia National Laboratories, Albuquerque, N. Mex.

Johnstone, J. K., R. R. Peters, and P. F. Gnirk, 1984. Unit Evaluation at Yucca Mountain, Nevada Test Site: Summary Report and Recommendation, SAND83-0372, Sandia National Laboratories, Albuquerque, N. Mex.

Kale, Stephen H., 1986. Letter to Stephen H. Kale, from Robert Browning - NRC Staff Comments on the DOE Final Environmental Assessments, 104 p.

Kane, M. F., and R. E. Bracken, 1983. Aeromagnetic Map of Yucca Mountain and Surrounding Regions, Southwest Nevada, USGS-OFR-83-616, Open-File Report, U.S. Geological Survey.

Kane, M. F., M. W. Webring, and B. K. Bhattacharyya, 1981. A Preliminary Analysis of Gravity and Aeromagnetic Surveys of the Timber Mountain Area, Southern Nevada, USGS-OFR-81-189, Open-File Report, U.S. Geological Survey.

Kane, M. F., G. D. Bath, D. B. Snyder, J. G. Rosenbaum, H. W. Oliver, D. A. Ponce, and D. L. Healey, 1982. "Gravity and Magnetic Studies in the Region of the Nevada Test Site [abs.], EOS, Transactions, American Geophysical Union, Vol. 63, No. 45, p. 1099.

Kanehiro, B. Y., and T. N. Narasimhan, 1980. "Aquifer Response to Earth Tides," Well Testing in Low Permeability Environments, Third Invitational Well-Testing Symposium, Berkeley, Calif., March 26-28, 1980, pp. 120-129.

Kaplan, M. F., 1982. Archaeological Data as a Basis for Repository Marker Design, ONWI-354, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio.

Karasaki, K., 1987. Well Test Analysis in Fractured Media, LBL-21442, Lawrence Berkeley Laboratory, Berkeley, Calif.

Kathren, R. L., J. M. Selby, and E. J. Vallario, 1980. A Guide to Reducing Radiation Exposure to As Low As Reasonably Achievable (ALARA), DOE/EV/1830-T5, Battelle Pacific Northwest Laboratories, Richland, Wash.

Kauahikaua, J., 1981. Interpretation of Time-Domain Electromagnetic Soundings in the Calico Hills Area, Nevada Test Site, Nye County, Nevada, USGS-OFR-81-988, Open-File Report, U.S. Geological Survey.

Keller, G. V., and F. C. Frischnecht, 1966. Electrical Methods in Geophysical Prospecting, Pergamon Press, New York.

Kelsall, P. C., J. B. Case, and C. R. Chabannes, 1982. A Preliminary Evaluation of the Rock Mass Disturbance Resulting from Shaft, Tunnel, or Borehole Excavation, ONWI-411, Office of Nuclear Waste Isolation, Columbus, Ohio.

Kelsall, P. C., J. B. Case, and C. R. Chabannes, 1984. "Evaluation of Excavation-Induced Changes in Rock Permeability," International Journal of Rock Mechanics, Mining Science, and Geomechanical Abstracts, Vol. 21, No. 3, pp. 123-135.

Kerrisk, J. F., 1987. Groundwater Chemistry at Yucca Mountain, Nevada, and Vicinity, LA-10929-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Khilar, D. C., H. S. Fogler, and D. H. Gray, 1985. "Model for Piping-Plugging in Earthen Structures," Journal of Geotechnical Engineering, Vol. III, No. 7, American Society of Civil Engineers, pp. 833-846.

Kim, J. I., 1986. "Chemical Behaviour of Transuranic Elements in Natural Aquatic Systems," Handbook on the Physics and Chemistry of the Actnides, A. J. Freeman, and C. Keller (eds.), pp. 413-455.

King, J. L., and B. E. Tucker, 1984. "Observed Variation of Earthquake Motion across a Sediment-Filled Valley," Bulletin of the Seismological Society of America, Vol. 74, No. 1, pp. 137-151.

Kipp, K. L., Jr., 1986. HST3D: A Computer Code for Simulation of Heat and Solute Transport in Three-Dimensional Ground-Water Flow Systems, USGS-WRI-86-4095, Water-Resources Investigations Report, U.S. Geological Survey.

Kipp, Jr., K. L., 1987. "Effect of Topography on Gas flow in Unsaturated Fractured Rock: Numerical Simulation," American Geophysical Union, D. D. Evans, and T. J. Nicholson (eds.), pp 171-176.

Kistler, R. W., 1968. "Potassium-Argon Ages of Volcanic Rocks in Nye and Esmeralda Counties," Nevada Test Site, E. B. Eckel (ed.), Geological Society of America Memoir 110, Boulder, Colo., pp. 251-262.

Klavetter, E. A., and R. R. Peters, 1986. Fluid Flow in a Fractured Rock Mass, SAND85-0855, Sandia National Laboratories, Albuquerque, N. Mex.

Klavetter, E. A., and R. R. Peters, 1986. Estimation of Hydrologic Properties of an Unsaturated, Fractured Rock Mass, SAND84-2642, Sandia National Laboratories, Albuquerque, N. Mex.

Klavetter, E. A., and R. R. Peters, 1987. An Evaluation of the Use of Mercury Porosimetry in Calculating Hydrologic Properties of Tuffs From Yucca Mountain, Nevada, SAND86-0286, Sandia National Laboratories, Albuquerque, N. Mex.

Klett, R. D., E. S. Hertel, Jr., and M. A. Ellis, 1980. Systems Engineering Programs for Geologic Nuclear Waste Disposal, SAND80-0440, Sandia National Laboratories, Albuquerque, N. Mex.

Knauss, K. G., 1981. Dating Fault Associated Quaternary Material from the Nevada Test Site Using Uranium-Series Methods, UCRL-53231, Lawrence Livermore National Laboratory, Livermore, Calif.

Knuepfer, P. L. K., P. J. Lemiszki, T. A. Hauge, L. D. Brown, S. Kaufman, and J. E. Oliver, 1987. "Crustal Structure of the Basin and Range-Sierra Nevada Transition from COCORP Deep Seismic-Reflection Profiling," Geological Society of America Bulletin, Vol. 98, pp. 488-496.

Kohler, M. A., T. J. Nordenson, and D. R. Baker, 1959. Evaporation Maps for the United States, U.S. Weather Service, U.S. Department of Commerce, Technical Paper No. 37, U.S. Government Printing Office, Washington, D.C.

Kopf, R. W., 1982. Hydrotectonics: Principles and Relevance, USGS-OFR-82-307, Open-File Report, U.S. Geological Survey.

Koster van Groos, A. F., 1981. Determination of Dehydration Temperatures of a Secondary Vug-Filling Mineral (Smectite Clay) Using a Differential Thermal Analysis at Various Pressures, RHO-BWI-C-102, Rockwell Hanford Operations, Richland, Wash.

Kreamer, D. K., 1982. In Situ Measurement of Gas Diffusion Characteristics in Unsaturated Porous Media by Means of Tracer Experiments, unpublished Ph.D. dissertation, University of Arizona, Ariz.

Kukla, G., A. Berger, R. Lotti, and J. Brown, 1981. "Orbital Signature of Interglacials," Nature, Vol. 290, pp. 295-300.

Kume, J., and D. P. Hammermeister, 1987. "Geologic Factors that Affect Physical and Hydrologic Properties of Volcanic Tuffs in the Unsaturated Zone, Yucca Mountain, Nevada," Geological Society of America Abstracts with Program, Vol. 19, No. 7, p. 735.

Kunz, K. S., and M. P. Tixier, 1955. "Temperature Surveys in Gas Producing Wells," Transactions, American Institute of Mining Engineers, Vol. 204, pp. 111-119.

Kurz, M. D., and W. J. Jenkins, 1981. "The Distributuion of Helium in Oceanic Basalt Glasses," Earth and Planetary Science Letters, Vol. 53, pp. 41-54.

Kurz, M. D., W. J. Jenkins, S. R. Hart, and D. Clague, 1983. "Helium Isotopic Variations in Volcanic Rocks from Loihi Seamount and the Island of Hawaii," Earth and Planetary Science Letters, Vol. 66, pp. 388-406,

Kutzbach, J. E., and B. L. Otto-Bliesner, 1982. "The Sensitivity of the African-Asian Monsoonal Climate to Orbital Parameter Changes for 9000 Years B.P. in a Low-Resolution General Circulation Model," Journal of the Atmospheric Sciences, Vol. 39, No. 6, pp. 1177-1188.

Kwicklis, E. N., and D. T. Hoxie, 1988. "Numerical Simulation of Liquid-Water Infiltration Into a Fractured Welded Tuff," Workshop IV on Flow and Transport through Unsaturated Fractured Rock as Related to a High-Level Radioactive Waste Repository, (abstract), University of Arizona, Tucson, Ariz.

Lachenbruch, A. H., J. H. Sass, R. J. Munroe, and T. H. Moses, Jr. 1976. "Geothermal Setting and Simple Heat Conduction Models of the Long Valley Caldera," Journal of Geophysical Research, Vol. 81, No. 5, pp. 769-784.

Langkopf, B. S., 1987. Proposed Preliminary Definition of the Disturbed-Zone Boundary Appropriate for a Repository at Yucca Mountain, SAND86-1955, Sandia National Laboratories, Albuquerque, N. Mex.

Langton, and Roy, 1983.

Laub, T. W., and L. J. Jardine, 1987. Initial Q-List for the Prospective Yucca Mountain Repository Based on Items Important to Safety and Waste Isolation, SAND86-1965C, Sandia National Laboratories, Albuquerque, N. Mex.

LeRoy, L. W., D. O. LeRoy, and J. W. Raese (eds.), 1977. Subsurface Geology - Petroleum Mining Construction, Colorado School of Mines, Golden.

Libardi, P. L., K. Reichardt, D. R. Nielsen, and J. W. Biggar, 1980. "Simple Field Methods for Estimating Soil Hydraulic Conductivity," Soil Science Society of America Journal, Vol. 44, No. 1, pp. 3-7.

Liepins, L. Z., 1987. Survey of 14-C Literature Relevant to a Geologic Nuclear Waste Repository, LA-10991-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Lin, Y. T., and M. S. Tierney, 1986. Preliminary Estimates of Groundwater Travel Time and Radionuclide Transport at the Yucca Mountain Repository Site, SAND85-2701, Sandia National Laboratories, Albuquerque, N. Mex.

Lin, Y. T., 1985. SPARTAN--A Simple Performance Assessment Code for the Nevada Nuclear Waste Storage Investigations Project, SAND85-0602, Sandia National Laboratories, Albuquerque, N. Mex.

Lineham, J. L., 1987. Letter from J. L. Lineham (NRC) to Carl Gertz (WMPO); regarding proposed changes to the Nevada Nuclear Waste Storage Investigations Project Exploratory Shaft Facility, March, 1987.

Lingle, and Bush, 1982.

Link, R. L., S. E. Logan, H. S. Ng, F. A. Rockenbach, and K. J. Hong, 1982. Parametric Studies of Radiological Consequences of Basaltic Volcanism, SAND81-2375, Sandia National Laboratories, Albuquerque, N. Mex., pp. 4-347.

Locke, A., P. Billingsley, and E. B. Mayo, 1940. "Sierra Nevada Tectonic Patterns," Bulletin of the Geological Society of America, Vol. 51, pp. 513-540.

Loeve, 1960

Long, J. C. S., J. S. Remer, C. P. Wilson, and P. A. Witherspoon, 1982. "Porous Media Equivalents for Networks of Discontinuous Fractures," Water Resources Research, Vol. 18, No. 3, pp. 645-658.

Loos, W., 1937. Praktische Anwendungder Baugrunduntersuchungen (Practical Applications of Soil Investigations), Springer, Berlin.

Loudon, T. V., 1979. Computer Methods in Geology, Academic Press, San Francisco, Calif., pp. 221-226.

ME (Mining Engineering), 1988. Industrial Minerals 1987, Industry Newswatch Vol. 40, No. 6, p. 414.

MLWA (Military Lands Withdrawal Acts), 1986. "Military Lands Withdrawal Acts of 1986," Public Law 99-606, 100 Stat. 3457.

Maldonado, F. (comp.), 1985a. Geologic Map of the Jackass Flats Area, Nye County, Nevada, Miscellaneous Investigations Series Map I-1519, U.S. Geological Survey.

Maldonado, F., 1985b. "Late Tertiary Detachment Faults in the Bullfrog Hills, Southwestern Nevada [abs.]," Geological Society of America, Abstracts with Programs, Vol. 17, No. 7, p. 651.

Maldonado, F., D. C. Muller, and J. N. Morrison, 1979. Preliminary Geologic and Geophysical Data of the UE25a-3 Exploratory Drill Hole, Nevada Test Site, Nevada, USGS-1543-6, U.S. Geological Survey.

Mankin, J. B., R. V. O'Neill, H. H. Shugart, and B. W. Rust, 1977. "The Importance of Validation in Ecosystem Analysis," New Directions in the Analysis of Ecological Systems, Part 1, G. S. Innis (ed.), Vol. 5, No. 1, pp. 63-71.

Mansure, A. J., 1985. Underground Facility Area Requirements for a Radioactive Waste Repository at Yucca Mountain, SAND84-1153, Sandia National Laboratories, Albuquerque, N. Mex.

Mansure, A. J., and T. S. Ortiz, 1984. Preliminary Evaluation of the Subsurface Area Available for a Potential Nuclear Waste Repository at Yucca Mountain, SAND84-0175, Sandia National Laboratories, Albuquerque, N. Mex.

Mantoglou, A., and L. W. Gelhar, 1985. Large-Scale Models of Transient Unsaturated Flow and Contaminant Transport Using Stochastic Methods, Report No. 299, Ralph M. Parsons Laboratory Hydrology and Water Resource Systems, Massachusetts Institute of Technology, Cambridge, Mass.

Mantoglou, A., and L. W. Gelhar, 1987. "Stochastic Modeling of Large-Scale Transient Unsaturated Flow Systems," Water Resources Research, Vol. 23, No. 1, pp. 37-46.

Marion, G. M., W. H. Schlesinger, and P. J. Fonteyn, 1985. "CALDEP: A Regional Model for Soil CaCO3 (Caliche) Deposition in Southwestern Deserts, Soil Science, Vol. 139, No. 5, pp. 468-481.

Martinez, M. J., 1985. FEMTRAN - A Finite Element Computer Program for Simulating Radionuclide Transport Through Porous Media, SAND84-0747, Sandia National Laboratories, Albuquerque, N. Mex.

Martinez, M. J., 1988. Capillary-Driven Flow in a Fracture Located in a Porous Medium, SAND84-1697, Sandia National Laboratories, Albuquerque, N. Mex.

Marvin, R. F., H. H. Mehnert, and E. H. McKee, 1973. "A Summary of Radiometric Ages of Tertiary Volcanic Rocks in Nevada and Eastern California, Part III - Southeastern Nevada," Isochron/West, Vol. No. 6, pp. 1-30.

Mather, B., 1967.

Matheron, G., 1971. The Theory of Regionalized Variables and Its Applications, No. 5, Ecole Nationale Superieure des Mines de Paris.

Matthusen, A. C., 1986. Effects of Differing Lithologies on Headcuts and Knickpoints in Ephemeral Streams, unpublished M.S. thesis, University of Illinois, Chicago, Ill.

Mattson, S. R., 1988. "Mineral Resource Evaluation: Implications of Human Intrusion and Interference on a High Level Nuclear Waste Repository," Waste Management Eighty Eight, Vol. 2, pp. 915-924.

Mauro, J. J., D. Michlewicz, and A. Letizia, 1977. Evaluation of Environmental Dosimetry Models for Applicability to Possible Radioactive Waste Repository Discharges, Y/OWI/SUB-77/45705, Envirosphere Co., New York.

Maxwell, A. A., and Z. B. Fry, 1967. "A Procedure for Determining Elastic Moduli of In Situ Soils by Dynamic Techniques," in Proceedings International Symposium on Wave Propagation and Dynamic Properties of Earth Materials,

Mayer, L., L. D. McFadden, and J. W. Harden, 1988. "Distribution of Calcium Carbonate in Desert Soils: A Model," Geology, Vol. 16, pp. 303-306.

McArthur, R. D., and N. R. Burkhard, 1986. Geological and Geophysical Investigations of Mid Valley, UCID-20740, Lawrence Livermore National Laboratory, Livermore, Calif.

McCombie, C., and B. Knecht, 1986. "Stripa Project - Grouting of Small Fractures in Crystalline Rock in the Framework of Nuclear Waste Disposal: A Summary of the Situation in Switzerland (ms)," Nationale Genossenschaft fur die Lagerung Redioaktiver Abfalle (NALGRA), Baden, 6 p.

McDonald, M. G., and A. W. Harbaugh, 1984. A Modular Three-Dimensional Finite-Difference Ground-Water Flow Model, USGS-OFR-83-875, Open-File Report, U.S. Geological Survey.

McFadden, L. D., and J. C. Tinsley, 1985. "Rate and Depth of Pedogenic-Carbonate Accumulation in Soils: Formulation and Testing of a Compartment Model," Soils and Quaternary Geology of the Southwestern United States, D. L. Weide (ed.), Geological Society of America Special Paper 203, pp. 23-41.

McFadden, L. D., S. G. Wells, and J. C. Dohrenwend, 1986. "Influences of Quaternary Climatic Changes on Processes of Soil Development on Desert Loess Deposits of the Cima Volcanic Field, California," Catena, Vol. 13, No. 4, pp. 361-389.

McGarr, A., 1984. "Scaling of Ground Motion Parameters, State of Stress, and Focal Depth," Journal of Geophysical Research, Vol. 89, No. B8, pp. 6969-6879.

McGarr, A., S. M. Spottiswoode, and N. C. Gay, 1975. "Relationship of Mine Tremors to Induced Stresses and to Rock Properties in the Focal Region," Bulletin of the Seismological Society of America, Vol. 65, No. 4, pp. 981-993.

McGovern, T. F., 1983. An Evaluation of Seismic Reflection Studies in the Yucca Mountain Area, Nevada Test Site, with an introduction by L. W. Pankratz and H. D. Ackermann, USGS-OFR-83-912, Open-File Report, U.S. Geological Survey.

Meremonte, M. E., and A. M. Rogers, 1987. Historical Catalog of Southern Great Basin Earthquakes 1868-1978, USGS-OFR-87-80, Open-File Report, U.S. Geological Survey.

Meyer, D., and J. J. Howard, (eds.), 1983. Evaluation of Clays and Clay Minerals for Application to Repository Sealing, ONWI-486, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio,

Miller, G. A., 1977. Appraisal of the Water Resources of Death Valley, California-Nevada, USGS-OFR-77-728, Open-File Report, U.S. Geological Survey.

Mills, M., and D. Vogt, 1983. A Summary of Computer Codes for Radiological Assessment, NUREG/CR-3209, Nuclear Regulatory Commission, Washington, D.C.

Moench, A. F., 1984. "Double-Porosity Models for a Fissured Groundwater Reservoir with Fracture Skin," Water Resources Research, Vol. 20, No. 7, pp. 831-846.

Moench, A. F., and P. A. Hsieh, 1985. "Analysis of Slug Test Data in a Well with Finite Thickness Skin," Hydrogeology of Rocks of Low Permeability, Memoires of the International Association of Hydrologists, 17th International Congress, January 7-12, 1985, Tucson, Az., pp. 17-29.

Molinari, M. P., 1984. Late Cenozoic Geology and Tectonics of Stewart and Monte Cristo Valleys, West-Central Nevada, M.S. thesis, University of Nevada, Reno, 124 p.

Monfort, M. E., and J. R. Evans, 1982. Three-Dimensional Modeling of the Nevada Test Site and Vicinity from Teleseismic P-Wave Residuals, USGS-OFR-82-409, Open-File Report, U.S. Geological Survey.

Montazer, P., 1982. Permeability of Unsaturated, Fractured Metamorphic Rocks Near an Underground Opening, Ph.D. thesis T-2540, Colorado School of Mines, Golden, Colo.

Montazer, P., 1985. Letter from P. Montazer (USGS) to P. L. Aamodt (LANL), December 4, 1985; regarding dry mining of infiltration and bulk permeability test rooms.

Montazer, P., 1986. Letter from P. Montazer (USGS) to M. B. Blanchard (WMPO), November 21, 1986; regarding justification of dry core drilling program.

Montazer, P., and W. E. Wilson, 1984. Conceptual Hydrologic Model of Flow in the Unsaturated Zone, Yucca Mountain, Nevada, USGS-WRI-84-4345, Water-Resources Investigations Report, U.S. Geological Survey.

Montazer, P., E. P. Weeks, F. Thamir, S. N. Yard, and P. B. Hofrichter, 1985. "Monitoring the Vadose Zone in Fractured Tuff, Yucca Mountain, Nevada," Characterization and Monitoring of the Vadose Zone, National Water Well Association Symposium, Denver, Colorado, November 19-21, 1985.

Mooney, W. D., D. B. Snyder, and L. R. Hoffman, 1982. "Seismic Refraction and Gravity Modeling of Yucca Mountain, Nevada Test Site, Southern Nevada [abs.]," EOS, Transactions, American Geophysical Union, Vol. 63, No. 45, p. 1100.

Moore, R. E., C. F. Baes, III, L. M. McDowell-Boyer, A. P. Watson, F. O. Hoffman, J. C. Pleasant, and C. W. Miller, 1979. AIRDOS-EPA: A Computerized Methodology for Estimating Environmental Concentrations and Dose to Man from Airborne Releases of Radionuclides, ORNL-5532, Oak Ridge National Laboratory, Oak Ridge, Tenn.

Morgan, P., and C. A. Swanberg, 1978. "Heat Flow, Topography, Lithospheric Thickness and Gravity Anomalies in the United States," EOS, Transactions, American Geophysical Union, Vol. 59, No. 13, p. 1204.

Mualem, Y., 1976. "A New Model for Predicting the Hydraulic Conductivity of Unsaturated Porous Materials," Water Resources Research, Vol. 12, No. 3, American Geophysical Union, Washington, D.C., pp. 513-522.

Muller, D. C., 1982. "Commercial Borehole Geophysical Logs at Yucca Mountain, Nevada [abs.]" EOS, Transactions, American Geophysical Union, Vol. 63, No. 45, p. 1111.

Muller, D. C., 1985. "Computer Method to Detect and Correct Cycle Skipping on Sonic Logs," Transactions of the SPWLA Twenty-Sixth Annual Logging Symposium, Vol. I, Paper R, Society of Professional Well Log Analysts, Houston, Tex., pp. 1-18.

Muller, D. C., and J. E. Kibler, 1983. Commercial Geophysical Well Logs from the USW G-1 Drill Hole, Nevada Test Site, Nevada, USGS-OFR-83-321, Open-File Report, U.S. Geological Survey, 7 p.

Muller, D. C., and J. E. Kibler, 1984. Preliminary Analysis of Geophysical Logs from Drill Hole UE-25p#1, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-649, Open-File Report, U.S. Geological Survey, 14 p.

Muller, D. C., and J. E. Kibler, 1985. Preliminary Analysis of Geophysical Logs from the WT Series of Drill Holes, Yucca Mountain, Nye County, Nevada, USGS-OFR-86-46, Open-File Report, U.S. Geological Survey.

Munson, L. H., 1983. Licensee Programs for Maintaining Occupational Exposure to Radiation As Low As Is Reasonably Achievable, NUREG/CR-3254, Pacific Northwest Laboratory, Richland, Wash.

Murphy, H. D., 1982. "Enhanced Interpretation on Temperature Surveys Taken during Injection or Production," Journal of Petroleum Technology, pp. 1313-1326.

NCRP (National Council on Radiation Protection and Measurements), 1984. Radiological Assessment: Predicting the Transport, Bioaccumulation and Uptake by Man of Radionuclides Released to the Environment, Report No. 76, Bethesda, Maryland.

NEPA (National Environmental Policy Act), 1969. 42 U.S.C. 4341; Amended by PL 94-52, July 3, 1975; PL 94-83, August 9, 1975.

NEPA (National Environmental Policy Act), 1970. 42 USC 4321, Public Law 91-190, 83 Stat. 852-856,et seq, Washington, D.C.

NRC, (Nuclear Regulatory Commission), 1968.

NRC (U.S. Nuclear Regulatory Commission), 1973. Concrete Radiation Shields for Nuclear Power Plants, Regulatory Guide 1.69, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1974. Termination of Operating Licenses for Nuclear Reactors, Regulatory Guide 1.86, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1975. Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable, Regulatory Guide 8.10, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1976a. Acceptable Programs for Respiratory Protection, Regulatory Guide 8.15, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1976b. Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Power Reactors, Regulatory Guide 1.112, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1976c. Preparation of Environmental Reports for Nuclear Power Stations, Revision 2, Regulatory Guide 4.2, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1977a. Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I, Regulatory Guide 1.109, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1977b. Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I, Regulatory Guide 1.113, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1977c. Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors, Regulatory Guide 1.111, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1978. Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants, LWR Edition, Revision 3, Regulatory Guide 1.70, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1979a. Occupational Radiation Dose Assessment in Light-Water Reactor Power Plants Design Stage Man-Rem Estimates, Regulatory Guide 8.19, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1979b. Site Investigation for Foundations of Nuclear Power Plants, Regulatory Guide 1.132, Office of Standards Development, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1980. Meteorological Programs in Support of Nuclear Power Plants, Regulatory Guide 1.23, Washington, D.C.

NRC (U.S. Nuclear Regulatory Comission), 1981a. Criticality Accident Alarm Systems, Regulatory Guide 8.12, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1981b. Criticality and Other Interior Evacuation Signals, Regulatory Guide 8.5, Revision 1, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1981c. "Disposal of High-Level Radioactive Wastes in Geologic Repositories: Licensing Procedures," Federal Register, Vol. 46, pp. 13971-13987.

NRC (U.S. Nuclear Regulatory Commission), 1982a. Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants, Regulatory Guide 1.145, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1982b. Preparation of Environmental Reports for Uranium Mills, Regulatory Guide 3.8, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1983a. PRA Procedures Guide: A Guide to the Performance of Probabalistic Risk Assessments for Nuclear Power Plants, NUREG/CR-2300, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1983b. Standard Format and Content of Environmental Reports for Near-Surface Disposal of Radioactive Waste, Regulatory Guide 4.18, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1983c. Staff Analysis of Public Comments on Proposed rule 10 CFR Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories, NUREG-0804, pp. 518-520.

NRC (U.S. Nuclear Regulatory Commission), 1984a. Determination of Radionuclide Solubility in Groundwater for Assessment of High-Level Waste Isolation, U.S. Nuclear Regulatory Commission Technical Position, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1984b. Draft Generic Technical Position on Licensing Assessment Methodology for High-Level Waste Geologic Repositories, Division of Waste Management, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1984c. Draft Issue-Oriented Site Technical Position (ISTP) For Nevada Nuclear Waste Storage Investigations (NNWSI), Division of Waste Management, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1984d. NRC Review Plan: Quality Assurance Programs for Site Chartacterization of High Level Nuclear Waste Repositories, Division of Waste Management, Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1985. Draft Technical Position: Interpretation and Identification of the Extent of the Disturbed Zone in the High Level Waste Rule (10 CFR 60),

NRC (U.S. Nuclear Regulatory Commission), 1986a. "Disposal of High-Level Radioactive Wastes in Geologic Repositories; Conforming Amendments," Federal Register, Vol. 51, Washington, D.C., pp. 22288-22300.

NRC (U.S. Nuclear Regulatory Commission), 1986b. Draft Generic Technical Position: Interpretation and Identification of the Extent of the Disturbed Zone in the High-Level Waste Rule (10 CFR 60), M. Gordon, N. Tanious, J. Bradbury, L. Kovack and R. Codell (eds.), Washington, D.C.

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

NRC (Nuclear Regulatory Commission), 1988a. Qualification of Existing Data for High-Level Nuclear Waste Repositories, NUREG-1298, Prepared by W.D. Altman, J.P. Donnelly, and J.E. Kennedy.

NRC (Nuclear Regulatory Commission), 1988b. Technical Position on Items and Activities in the High-Level Waste Geologic Repository Program Subject to Quality Assurance Requirements, NUREG-1318, Prepared by A. B. Duncan, S. G. Bilhorn, and J. E. Kennedy.

NRC/DOE (U.S. Nuclear Regulatory Commission/U.S. Department of Energy), 1983. "Agreement Concerning the NRC On-Site Representative (OR) for the Repository Projects during Site Investigation and Characterization, 48 FR 38701, 8/25/83," Appendix 7, pp. 1-4.

NRDC (Natural Resources Defense Council, Inc.) v. EPA (Environmental Protection Agency), 1987. No. 85-1915, 86-1096, 86-1097, 86-1098 U.S. Court of Appeals For the First Circuit.

NWPA (Nuclear Waste Policy Act), 1983. "Nuclear Waste Policy Act of 1982," Public Law 97-425, 42 USC 10101-10226, Washington, D.C.

NWPAA (Nuclear Waste Policy Act Amendments), 1987. Amendments to the Nuclear Waste Policy Act of 1982 - Public Law 100-203 - December 22, 1987, 100th Congress, Title V, pp 236-266.

Naff, R. L., 1973. Hydrogeology of the Southern Part of Amargosa Desert in Nevada, Master's thesis, University of Nevada, Reno.

Napier, B. A., W. E. Kennedy, Jr., and J. K. Soldat, 1980. PABLM - A Computer Program to Calculate Accumulated Radiation Doses from Radionuclides in the Environment, PNL-3209, Pacific Northwest Laboratory, Richland, Wash., 205 p.

National Research Council, 1983. A Study of the Isolation System for Geologic Disposal of Radioactive Wastes, National Academy Press, Washington, D.C.

Neal, J. T., 1986. Preliminary Validation of Geology at Site for Repository Surface Facilities, Yucca Mountain, Nevada, SAND85-0815, Sandia National Laboratories, Albuquerque, N. Mex.

Nelson, C. E., and D. L. Giles, 1985. "Hydrothermal Eruption Mechanisms and Hot Spring Gold Deposits," Economic Geology, Vol. 80, pp. 1633-1639.

Neuman, S. P., and P. A. Witherspoon, 1969a. "Applicability of Current Theories of Flow in Leaky Aquifers," Water Resources Research, Vol. 5, No. 4, pp. 817-829.

Neuman, S. P., and P. A. Witherspoon, 1969b. "Theory of Flow in a Confined Two Aquifer System," Water Resources Research, Vol. 5, No. 4, pp. 803-816.

Nevada Revised Statutes 46, xxxx.

Nimick, F. B., and A. R. Lappin, 1985. Thermal Conductivity of Silicic Tuffs from Yucca Mountain and Rainier Mesa, Nye County, Nevada, SAND83-1711/1J, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., and B. M. Schwartz, 1987. Bulk, Thermal, and Mechanical Properties of the Topopah Spring Member of the Paintbrush Tuff, Yucca Mountain, Nevada, SAND85-0762, Sandia National Laboratories, Albuquerque, N. Mex.

Nimick, F. B., L. E. Shepard, and T. E. Blejwas, 1988. Preliminary Evaluation of the Exploratory Shaft Representatativeness for the NNWSI Project, Draft, SAND88-1685, Sandia National Laboratories, Albuquerque, N. Mex.

Nimmo, J. R., J. Rubin, and D. Hammermeister, 1987. "Unsaturated Flow in a Centrifugal Field: Measurements of Hydraulic Conductivity and Testing of Darcy's Law," Water Resources Research, Vol. 23, No. 1, pp. 124-134.

Nitao, J. J., 1988. Numerical Modeling of the Thermal and Hydrological Environment Around a Nuclear Waste Package Using the Equivalent Continuum Appromixation: Horizontal Employment, UCID-21444, Lawrence Livermore Laboratory, Livermore, Calif.

Nuttall, H. E., 1986. Population Balance Model for Colloid Transport, NNWSI Milestone R318, LA-UR-86-1914, Los Alamos National Laboratory, Los Alamos, N. Mex.

OGR (Office of Geological Repositories), 1987. Plan for Advanced Conceptual Design of the Repository and Waste Package.

O'Brien, P. D., 1985. Reference Nuclear Waste Descriptions for a Geologic Repository at Yucca Mountain, Nevada, SAND84-1848, Sandia National Laboratories, Albuquerque, N. Mex.

O'Connell, W. J., and R. S. Drach, 1986. Waste Package Performance Assessment: Deterministic System Model -- Program Scope and Specification, UCRL-53761, Lawrence Livermore National Laboratory, Livermore, Calif.

Ohtsuki, A., and K. Harumi, 1983. "Effect of Topography and Subsurface Inhomogeneities of Seismic SV Waves," Earthquake Engineering and Structural Dynamics, Vol. 11, pp. 441-462.

Olofsson, U., and B. Allard, 1986. Formation and Transport of Americium Pseudocolloids in Aqueous Systems, SKB Technical Report 86-02, Department of Nuclear Chemistry, Chalmers University of Technology, Goteborg, Sweden.

Olson, J. J., R. J. Willard, D. E. Fogelson, and K. E. Hjelmstad, 1973. "Rock Damage from Small Charge Blasting in Granite," BuMines Report of Investigations 7751, 44 p.

Olsson, W. A., 1987. Rock Joint Compliance Studies, SAND86-0177, Sandia National Laboratories, Albuquerque, N. Mex.

Olsson, W., 1988. Compliance and Strength of Artifical Joints in Topopah Spring Tuff, SAND88-0660, Sandia National Laboratories, Albuquerque, N. Mex.

Orkild, xxxx. Personal communications cited in SCP reference 3336, McArthur and Burkhard,

Ortiz, T. S., R. L. Williams, F. B. Nimick, B. C. Whittet, and D. L. South, 1985. A Three-Dimensional Model of Reference Thermal/Mechanical and Hydrological Stratigraphy at Yucca Mountain, Southern Nevada, SAND84-1076, Sandia National Laboratories, Albuquerque, N. Mex.

Oversby, V. M., 1986. Spent Fuel As A Waste Form - Data Needs to Allow Long Term Performance Assessment Under Repository Disposal Conditions, UCRL-94659, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and R. D. McCright, 1984. Laboratory Experiments Designed to Provide Limits on the Radionuclide Source Term for the NNWSI Project, UCRL-91257, Lawrence Livermore National Laboratory, Livermore, Calif.

Oversby, V. M., and R. D. McCright, 1985. "Laboratory Experiments Designed to Provide Limits on the Radionuclide Source Term for the NNWSI Project," in Proceedings of the Workshop on the Source Term for Radionuclide Migration from High-Level Waste or Spent Nuclear Fuel Under Realistic Repository Conditions, T. O. Hunter and A. B. Muller (eds.), SAND85-0380, Sandia National Laboratories, Albuquerque, N. Mex. pp. 175-187.

Owens, W. W., D. R. Parrish, and W. E. Lamoreaux, 1956. "An Evaluation of a Gas Drive Method for Determining Relative Permeability Relationships," Transactions of the American Institute of Mining, Metallurgical, and Petroleum Engineers,, Vol. 207, pp. 275-280.

Pankratz, L. W., 1982. Reconnaissance Seismic Refraction Studies at Calico Hills, Wahmonie, and Yucca Mountain, Southwest Nevada Test Site, Nye County, Nevada, USGS-OFR-82-478, Open-File Report, U.S. Geological Survey.

Papadopulos, I. S., 1965. "Nonsteady Flow to a Well in an Infinite Anisotropic Aquifer," in Proceedings, Dubrovnik Symposium of Hydrology of Fractured Rocks, Vol. 1, pp. 21-31.

Parkhurst, D. L., D. C. Thorstenson, and L. N. Plummer, 1980. PHREEQE: A Computer Program for Geochemical Calculations, USGS-OFR-80-96, Open-File Report, U.S. Geological Survey.

Parks, C. V., et al, 1987. Assessment of Shielding Analysis Methods, Codes, and Data for Spent Fuel Transport/Storage Applications, ORNL/CSD/TM-246(Draft), Oak Ridge National Laboratory, Tenn.

Passioura, J. B., 1976. "Determining Soil Water Diffusivities from One-Step Outflow Experiments," Australian Journal of Soil Research, Vol. 15, pp. 1-8.

Peters, R. R., 1988. YMP Hydrologic Technical Correspondence in Support of Site Characterization Plan, SAND88-2784, in prep. Sandia National Laboratories, Albuquerque, N. Mex.

Peters, R. R., and J. H. Gauthier, 1986. Memo dated January 17, 1986 to F. W. Bingham, The effect of seismic and tectonic activity on radionuclide containment at Yucca Mountain, Nevada. SAND88-2784, Sandia National Laboratories, Albuquerque, N. Mex.

Peters, R. R., and E. A. Klavetter, 1988. "A Continuum Model for Water Movement in an Unsaturated Fractured Rock Mass," Water Resources Research, Vol. 24, No. 3, pp. 416-430.

Peters, R. R., E. A. Klavetter, I. J. Hall, S. C. Blair, P. R. Heller and G. W. Gee, 1984. Fracture and Matrix Hydrologic Characteristics of Tuffaceous Materials from Yucca Mountain, Nye County, Nevada, SAND84-1471, Sandia National Laboratories, Albuquerque, N. Mex.

Peters, R. R., J. H. Gauthier, and A. L. Dudley, 1986. The Effect of Percolation Rate on Water-Travel Time in Deep, Partially Saturated Zones, SAND85-0854, Sandia National Laboratories, Albuquerque, N. Mex.

Peterson, D. W., 1979. "Significance of the Flattening of Pumice Fragments in Ash-Flow Tuffs," Ash-Flow Tuffs, C. E. Chapin, and W. E. Elston (eds.), Geological Society of America Special Paper 180, pp. 195-204.

Peterson, A. C., R. R. Eaton, A. J. Russo, and J. A. Lewin 1988. Technical Correspondence in Support of an Evaluation of the Hydrologic Effects of Exploratory Shaft Construction at Yucca Mountain, SAND88-2936, Sandia National Laboratories, Albuquerque, N. Mex.

Phene, C. J., G. J. Hoffman, and S. L. Rawlins, 1971. "Measuring Soil Matric Potential In-Situ by Sensing Heat Dissipation within a Porous Body: I. Theory and Sensor Construction," in Soil Science Society of America Proceedings, Vol. 35, pp. 27-33.

Phinney, D. L., F. J. Ryerson, V. M. Oversby, W. A. Lanford, R. D. Aines, and J. K. Bates, 1986. Integrated Testing of the SRL-165 Glass Waste Form, UCRL-94658, preprint, Lawrence Livermore National Laboratory, Livermore, Calif.

Pickett, G. R., 1977. "Resistivity, Radioactivity and Acoustic Logs," Subsurface Geology, L. W. LeRoy, D. O. Leroy, and J. W. Raese, (eds.), pp. 304-336.

Pinder, G. F., 1976. Galerkin-Finite Element Models for Aquifer Simulation, 76-WR-5, Water Resources Program, Department of Civil Engineering, Department of Geological and Geophysical Sciences, Princeton University.

Plummer, L. N., B. F. Jones, and A. H. Truesdell, 1976. WATEQF - A Fortran IV Version of WATEQ, A Computer Program for Calculating Chemical Equilibrium of Natural Waters, USGS-WRI-76-13, Water-Resources Investigations Report, U.S. Geological Survey.

Pollard, D., 1983. "Ice-Age Simulations with a Calving Ice-Sheet Model," Quaternary Research, Vol. 20, pp. 30-48.

Ponce, D. A., 1981. Preliminary Gravity Investigations of the Wahmonie Site, Nevada Test Site, Nye County, Nevada, USGS-OFR-81-522, Open-File Report, U.S. Geological Survey, 64 p.

Ponce, D. A., 1984. "Gravity and Magnetic Evidence for a Granitic Intrusion Near Wahomie Site, Nevada Test Site, Nevada," Journal of Geophysical Research, Vol. 89, No. B11, pp. 9401-9413.

Ponce, D. A., and W. F. Hanna, 1982. Preliminary Appraisal of Gravity and Magnetic Data at Syncline Ridge, Western Yucca Flat, Nevada Test Site, Nye County, Nevada, USGS-OFR-82-931, Open-File Report, U.S. Geological Survey.

Ponce, D. A., and H. W. Oliver, 1981. Charleston Peak Gravity Calibration Loop, Nevada, USGS-OFR-81-985, Open-File Report, U.S. Geological Survey.

Ponce, D. A., S. S. C. Wu, and J. B. Spielman, 1985. Comparison of Survey and Photogrammetry Methods to Position Gravity Data, Yucca Mountain, Nevada, USGS-OFR-85-36, Open-File Report, U.S. Geological Survey.

Prats, M., 1972. "The Influence of Oriented Arrays of Thin Impermeable Shale Lenses or of Highly Conductive Natural Fractures on Apparent Permeability Anisotropy," Journal of Petroleum Technology, Vol. 24, No. 10, pp. 1219-1221.

Pratt, A. W., 1969. "Heat Transmission in Low Conductivity Materials," Thermal Conductivity, R. P. Tye, (ed.), Academic Press, New York, pp. 301-405.

Pratt, H. R., A. D. Black, W. S. Brown, and W. F. Brace, 1972. "The Effect of Specimen Size on the Mechanical Properties of Unjointed Diorite," International Journal of Rock Mechanics and Mining Science, Vol. 9, No. 4, pp. 513-529.

Price, R. H., F. B. Nimick, J. R. Connolly, K. Keil, B. M. Schwartz, and S. J. Spence, 1985. Preliminary Characterization of the Petrologic, Bulk, and Mechanical Properties of a Lithophysal Zone within the Topopah Spring Member of the Paintbrush Tuff, SAND84-0860, Sandia National Laboratories, Albuquerque, N. Mex.

Pruess, K., and J. S. Y. Wang, 1984. "TOUGH--A Numerical Model for Nonisothermal Unsaturated Flow to Study Waste Canister Heating Effects," in Scientific Basis for Nuclear Waste Management VII, Materials Research Society Symposia Proceedings, Boston, Massachusetts, November 1983, G. L. McVay (ed.), Vol. 26, North-Holland, Elsevier Science Publishing Co., Inc., New York, pp. 1031-1038.

Pusch, R., 1986. "Rock Sealing Materials and Techniques Used in Sweden (MS)," Swedish Geological Col, Lund, 26 p.

Pusch, R., M. Erlstrom, and L. Borgesson, 1985. Sealing of Rock Fractures - A Survey of Potentially Useful Methods and Substances, SKB Technical Report 85-17, Swedish Nuclear Fuel & Waste Management Co., Stockholm, 136 p.

Quiring, R. F., 1968. Climatological Data, Nevada Test Site and Nuclear Rocket Development Statioh, ESSA Technical Memorandum ARL-7, Environmental Sciences Service Administration, U.S. Department of Commerce, Las Vegas, Nev.

REECO (Reynolds Electrical & Engineering Co.) 1984a. NNWSI Mixing Lithium Chloride, FOD/Drilling Department Operational Procedure No. 212, 1 p.

REECO (Reynolds Electrical & Engineering Co.), 1984b. NNWSI Mixing Lithium Bromide, FOD/Drilling Department Operational Procedure, 1 p.

Ramirez, A. L., and W. D. Daily, 1985. "Preliminary Evaluation of Alterant Geophysical Tomography in Welded Tuff," 26th US Symposium on Rock Mechanics, Rapid City, SD, 26 - 28 June, 1985, pp. 807-815.

Rasmuson, A., and I. Neretnieks, 1981. "Migration of Radionuclides in Fissured Rock: The Influence of Micropore Diffusion and Longitudinal Dispersion," Journal of Geophysical Research, Vol. 86, No. B5, pp. 3749-3758.

Rautman, C. A., B. C. Whittet, and D. L. South, 1987. Definitions of Reference Boundaries for the Proposed Geologic Repository at the Yucca Mountain, Nevada, SAND86-2157, Sandia National Laboratories, Albuquerque, N. Mex.

Rautman, et al, 1988. Estimates of Spatial Variability of Volcanic Tuffs, Yucca Mountain, SANDXX-XXXX, in prep.

Reasenberg, P., W. Ellsworth, and A. Walter, 1980. "Teleseismic Evidence for a Low-Velocity Body Under the Coso Geothermal Area," Journal of Geophysical Research, Vol. 85, No. B5, pp. 2471-2483.

Reda, D. C., 1986. "Influence of Transverse Microfractures on the Imbitition of Water Into Initially Dry Tuffaceous Rock," in Proceedings Symposium on Flow and Transport Through Unsaturated Fractured Rock, American Geophysical Union Fall Meeting San Francisco, CA.,December 1986, SAND86-0420C, Sandia National Laboratories, Albuquerque, N. Mex.

Redpath, B. A., and T. E. Ricketts, 1987. "An Improved Scaling Procedure for Close-in Blast Motions," in Proceedings of the Third Mini-Symposium on Explosives and Blasting Research, 13th Annual Conference on Explosives and Blasting Techniques, R. D. Boddorff (ed.), Society of Explosive Engineers, Miami, Fla. pp. 118-131.

Reheis, M., 1986. Preliminary Study of Quaternary Faulting on the East Side of Bare Mountain, Nye County, Nevada, USGS-OFR-86-576, Open-File Report, U.S. Geological Survey, 14 p.

Reilly, T. E., 1984. A Galerkin Finite-Element Flow Model to Predict the Transient Response of a Radially Symmetric Aquifer, USGS-WSP-84-2198, Water-Supply Paper, U.S. Government Printing Office, Washington, D.C., 33 p.

Reisenauer, A. E., K. T. Key, T. N. Narasimhan, and R. W. Nelson, 1982. TRUST: A Computer Program for Variably Saturated Flow in Multidimensional, Deformable Media, NUREG/CR-2360, U.S. Nuclear Regulatory Commission, Washington, D.C.

Reiter, L., and R. E. Jackson, 1983. Seismic Hazard Review for the Systematic Evaluation Program--A Use of Probability in Decision Making, NUREG-0967, U.S. Nuclear Regulatory Commission, Washington, D.C.

Rhoads, G. H. Jr., and E. S. Robinson, 1979. "Determination of Aquifer Parameters from Well Tides," Journal of Geophysical Research, Vol. 84, No.-B11, pp. 6071-6082.

Rice, J. R., and M. P. Cleary, 1976. "Some Basic Stress-Diffusion Solutions for Fluid-Saturated Elastic Porous Media with Compressible Constituents, Reviews of Geophysics and Space Physics, Vol. 14, No. 2, pp. 227-241.

Richards, L. A., and G. Ogata, 1958. "Thermocouple for Vapor Pressure Measurement in Biological and Soil Systems at High Humidity," Science, Vol. 128, American Association for the Advancement of Science, Washington, D.C., pp. 1089-1090.

Rinehart, J. S., 1975. Stress Transients in Solids, HyperDynamics, Santa Fe, New Mex., pp. 30-31.

Rinehart, E. J., A. R. Sanford, and R. M. Ward, 1979. "Geographic Extent and Shape of an Extensive Magma Body at Mid-Crustal Depths in the Rio Grande Rift Near Socorro, New Mexico," Rio Grande Rift: Tectonics and Magmatism, R. E. Riecker (ed.), American Geophysical Union, Washington, D.C., pp. 237-251.

Robbins, S. L., J. W. Schmoker, and T. C. Hester, 1982. Principal Facts and Density Estimates for Borehole Gravity Stations in Exploratory Wells Ue4ah, Ue7j, Uelh, Uelq, Ue2co, and USW-H1 at the Nevada Test Site, Nye County, Nevada, USGS-OFR-82-277, Open-File Report, U.S. Geological Survey.

Robinson, and Beetem, 1965.

Robinson, G. D., 1985. Structure of Pre-Cenozoic Rocks in the Vicinity of Yucca Mountian, Nye County, Nevada--A Potential Nuclear-Waste Disposal Site, U.S. Geological Survey Bulletin 1647, U.S. Geological Survey.

Robison, J. H., 1984. Ground-Water Level Data and Preliminary Potentiometric-Surface Maps, Yucca Mountain and Vicinity, Nye County, Nevada, USGS-WRI-84-4197, Water-Resources Investigations Report, U.S. Geological Survey.

Robison, J. H., 1986. Letter from J. H. Robison (USGS) to D. L. Vieth (DOE/NVO), September 17, 1986; regarding revisions of Yucca Mountain water levels.

Rogers, A. M., S. C. Harmsen, and W. J. Carr, 1981. Southern Great Basin Seismological Data Report for 1980 and Preliminary Data Analysis, USGS-OFR-81-1086, Open-File Report, U.S. Geological Survey.

Rogers, A. M., S. C. Harmsen, W. J. Carr, and W. Spence, 1983. Southern Great Basin Seismological Data Report for 1981 and Preliminary Data Analysis, USGS-OFR-83-669, Open-File Report, U.S. Geological Survey.

Rose, W., and W. A. Bruce, 1949. "Evaluation of Capillary Character in Petroleum Reservoir Rock," Transactions of the American Institute of Mining and Metallurgical Engineers, Technical Paper 2594, Vol. 186, pp. 127-142.

Roseboom, E. H., Jr., 1983. Disposal of High-Level Nuclear Waste Above the Water Table in Arid Regions, U.S. Geological Survey Circular 903, Alexandria, Va., 21 p.

Rosenbaum, J. G., 1983. "Evidence for a Hematitic TCRM in a Welded Tuff, Yucca Mountain, Nevada [abs.]," EOS, Transactions, American Geophysical Union, Vol. 64, No. 45, p. 683.

Rosenbaum, J. G., 1985. "Inclination Error Produced by Welding in a Miocene Ash-Flow Tuff, Nevada [abs.]," EOS, Transactions, American Geophysical Union, Vol. 66, No. 18, p. 256.

Rosenbaum, J. G., and W. C. Rivers, 1984. Paleomagnetic Orientation of Core from Drill Hole USW GU-3, Yucca Mountain, Nevada: Tiva Canyon Member of the Paintbrush Tuff, USGS-OFR-85-48, Open-File Report, U.S. Geological Survey.

Rosenbaum, J. G., and D. B. Snyder, 1985. Preliminary Interpretation of Paleomagnetic and Magnetic Property Data from Drill Holes USW G-1, G-2, GU-3, G-3, and VH-1 and Surface Localities in the Vicinity of Yucca Mountain, Nye County, Nevada, USGS-OFR-85-49, Open-File Report, U.S. Geological Survey.

Rosholt, J. N., 1985. Uranium-Trend Systematics for Dating Quaternary Sediments, USGS-OFR-85-298, Open-File Report, U.S. Geological Survey.

Rosholt, J. N., C. A. Bush, W. J. Carr, D. L. Hoover, W C Swadley, and J. R. Dooley, Jr., 1985. Uranium-Trend Dating of Quaternary Deposits in the Nevada Test Site Area, Nevada and California, USGS-OFR-85-540, Open-File Report, U.S. Geological Survey.

Ross, 1985.

Ross, B., 1986. "Scenarios in Performance Assessment of High-Level Waste Repositories," Radioactive Waste Management and the Nuclear Fuel Cycle, Vol. 7(1), pp. 47-61.

Ross, B., 1987. A First Survey of Disruption Scenarios for a High-Level-Waste Repository at Yucca Mountain, Nevada, SAND85-7117, Sandia National Laboratories, Albuquerque, N. Mex.

Roy, D. M., and C. A. Langton, 1982. Longevity of Borehole and Shaft Sealing Materials: Characterization of Cement Based Ancient Building Materials, ONWI-202. Battelle Project Management Divn., Office of Nuclear Waste Isolation,

Roy et al, 1982.

Rulon, J. J., G. S. Bodvarsson, and P. Montazer, 1985. "Numerical Simulations of Flow in the Unsaturated Zone, Yucca Mountain, Nevada," EOS, Vol. 66, No. 46, p. 883.

Rulon, J., G. S. Bodvarsson, and P. Montazer, 1986. Preliminary Numerical Simulations of Groundwater Flow in the Unsaturated Zone, Yucca Mountain, Nevada, LBL-20553, Lawrence Berkeley Laboratory, Berkeley, Calif.

Russell, E. W., and T. A. Nelson, 1988. Plan for Waste Package Design, Fabrication and Prototype Testing for NNWSI, UCID-21347, Lawrence Livermore National Laboratory, Livermore, Calif.

Russo, A. J., and D. C. Reda, 1988. Drying of an Initially Saturated Fractured Volcanic Tuff, SAND87-0293C, Sandia National Laboratories, Albuquerque, N. Mex.

Russo, R. E., F. R. McLarnon, J. D. Spear, and E. J. Cairns, 1987. "Probe Beam Deflection for In Situ Measurements of Concentration and Spectroscopic Behavior During Copper Oxidation and Reduction," Journal of the Electrochemical Society, Vol. 134, No. 11, pp. 2783-2787.

SAIC (Science Applications International Corporation), 1985. Meteorological Monitoring Plan for the Nevada Nuclear Waste Storage Investigations Project, Yucca Mountain Site, DOE/NV/10270-5, Las Vegas, Nev.

SAIC (Science Applications International Corporation), 1986a. NNWSI Project Quality Assurance Program Plan.

SAIC (Science Applications International Corporation), 1986b. Site Characterization Radiological Monitoring Plan for the Nevada Nuclear Waste Storage Investigations Project Yucca Mountain Site, DOE/NV/10270-14, Las Vegas, Nev.

SNL (Sandia National Laboratories), 1987. Site Characterization Plan Conceptual Design Report, SAND84-2641, 6 Vol., Sandia National Laboratories, Albuquerque, N. Mex.

Saad, K. F., 1967. "Determination of the Vertical and Horizontal Permeabilities of Fractured Water-Bearing Formations," Bulletin of the International Association of Scientific Hydrology, Vol. 1, pp. 22-26.

Saltzman, B., and A. Sutera, 1984. "A Model of the Internal Feedback System Involved in Late Quaternary Climatic Variations," Journal of the Atmospheric Science, Vol. 41, No. 5, pp. 736-745.

Sargent, R. G., 1987. "An Overview of Verification and Validation of Simulation Models," in IEEE Proceedings of the 1987 Winter Simulation Conference, pp. 33-39.

Sargent, K. A., and K. Roggensack, 1984. Map Showing Outcrops of Pre-Quaternary Ash-Flow Tuffs and Volcaniclastic Rocks, Basin and Range Province, Nevada, USGS-WRI-83-4119-E, Water Investigations Report, U. S. Geological Survey.

Sass, J. H., and P. Morgan, 1988. "Conductive Heat Flux in VC-1 and the Thermal Regime of Valles Caldera, Jemez Mountains, New Mexico," Journal of Geophysical Research, Vol. 93, No. B6, pp. 6027-6039.

Sass, J. H., A. H. Lachenbruch, and C. W. Mase, 1980. Analysis of Thermal Data from Drill Holes UE24a-3 and UE25a-1, Calico Hills and Yucca Mountain, Nevada Test Site, USGS-OFR-80-826, Open-File Report, U.S. Geological Survey.

Sass, J., A. Lachenbruch, F. Grubb, and T. Moses, 1983. Status of Thermal Observations at Yucca Mountain, Nevada, USGS Letter Report, 10 p.

Savage, W. Z., and W. K. Smith, 1986. A Model for the Plastic Flow of Landslides, U.S. Geological Survey Professional Paper 1385, U.S. Government Printing Office, Washington, D.C.

Scheetz, B. E., and D. M. Roy, in prep. 1986. Preliminary Survey of the Stability of Silica-Rich Cementitious Mortars (82-22 and 84-12) with Tuff, Los Alamos National Laboratories, Los Alamos, N. Mex. 69 p.

Schmertmann, J. H., 1970. "Static Cone to Compute Static Settlement Over Sand," in Journal of the Soil Mechanics and Foundations Division, Proceedings of the American Society of Civil Engineerings, ASCE 96, No. SM3, pp. 1011-1042.

Schnabel, P., H. B. Seed, and J. Lysmer, 1971. Modification of Seismograph Records for Effects of Local Soil Conditions, Report No. EERC 71-8, University of California, Berkeley.

Schoff, S. L., and J. E. Moore (comps.), 1964. Chemistry and Movement of Ground Water, Nevada Test Site, USGS-TEI-838, Trace-Elements Investigations Report, U.S. Geological Survey.

Schonblom, J. E., 1961. "Quantitative Interpretation of Temperature Logs in Flowing Gas Wells," Second Annual Meeting of Society of Professional Well Log Analysts, Dallas, Texas, May 18-19, 1961.

Schrepp, W., R. Stumpe, J. I. Kim, and H. Walther, 1983. "Oxidation-State-Specific Detection of Uranium in Aqueous Solution by Photoacoustic Spectroscopy," Applied Physics, Vol. B 32, PP. 207-209.

Schwartz, and Crone, 1985.

Schwartz, F. W., and L. Smith, 1985. "A New Continuum Approach for Modeling Dispersion in Fractured Media," Hydrogeology of Rocks of Low Permeability, Memoirs of the International Association of Hydrogeologists, 17th International Congress, 1985, Tucson, Ariz., pp. 538-546.

Scott, C., and A. K. Chamberlain, 1987. "Blackburn Field, Nevada: A Case History," Oil and Gas Journal, August 17, 1987, 4 p.

Scott, R. B., 1986. "Extensional Tectonics at Yucca Mountian, Southern Nevada," Geological Society of America, Abstracts with Programs, 1986, Rocky Mountain Section, Flagstaff, Ariz., April 30-May 2, 1986, Vol. 18, No. 5, p. 411.

Scott, R. B., and J. Bonk, 1984. Preliminary Geologic Map of Yucca Mountain, Nye County, Nevada, with Geologic Sections, USGS-OFR-84-494, Open-File Report, U.S. Geological Survey.

Scott, R. B. and M. Castellanos, 1984. Stratigraphic and Structural Relations of Volcanic Rocks in Drill Holes USW GU-3 and USW G-3, Yucca Mountain, Nye County, Nevada, USGS-OFR-84-491, Open-File Report, U.S. Geological Survey.

Scott, R. B., and J. G. Rosenbaum, 1986. "Evidence of Rotation About a Vertical Axis during Extension at Yucca Mountain, Southern Nevada," Transactions, American Geophysical Union, EOS, Vol. 67, No. 16, p. 358.

Scott, R. B., and J. W. Whitney, 1987. "The Upper Crustal Detachment System at Yucca Mountain, SW Nevada," Geological Society of America Abstracts with Programs, pp. 332-333.

Scott, R. B., R. W. Spengler, S. Diehl, A. R. Lappin, and M. P. Chornak, 1983. "Geologic Character of Tuffs in the Unsaturated Zone at Yucca Mountain, Southern Nevada," Role of the Unsaturated Zone in Radioactive and Hazardous Waste Disposal, J. W. Mercer, P. S. C. Rao, and I. W. Marine (eds.), Ann Arbor Science Publishers, Ann Arbor, Mich., pp. 289-335.

Scott, R. B., G. D. Bath, V. J. Flanigan, D. B. Hoover, J. G. Rosenbaum, and R. W. Spengler, 1984. Geological and Geophysical Evidence of Structures in Northwest-Trending Washes, Yucca Mountain, Southern Nevada, and Their Possible Significance to a Nuclear Waste Repository in the Unsaturated Zone, USGS-OFR-84-567, Open-File Report, U.S. Geological Survey.

Seed, H. B., R. T. Wong, I. M. Idriss, and K. Tokimatsu, 1984. Moduli and Damping Factors for Dynamic Analyses of Cohesionless Soils, UCB/EERC-84/14, University of California, Berkeley.

Senterfit, R. M., D. B. Hoover, and M. Chornack, 1982. Resistivity Soundings Investigation by the Schlumberger Method in the Yucca Mountain and Jackass Flats Area, Nevada Test Site, Nevada, USGS-OFR-82-1043, Open-File Report, U.S. Geological Survey.

Sheridan, M. F., and D. M. Ragan, 1976. Compaction of Ash-Flow Tuffs, Compaction of Coarse-Grained Sediments, II, G. V. Chilingarian, and K. H. Wolf (eds.), Elsevier Science Publishing Company, Netherlands, pp. 677-717.

Shreir, L. L. (ed.), 1976. "The Atmosphere," Corrosion, Metal/Environment Reactions, Vol. 1, Newnes-Butterworths, London, pp. 2:26-2:37.

Silling, S. A., 1982. Final Technical Position on Documentation of Computer Codes for High-Level Waste Management, NUREG-0856, U.S. Nuclear Regulatory Commission, Washington, D.C.

Sinnock, S., and J. A. Fernandez, 1982. Summary and Conclusions of the NNWSI Area-to-Location Screening Activity, NVO-247, Nevada Operations Office, U.S. Department of Energy, Las Vegas, Nev.

Sinnock, S., J. A. Fernandez, and W. S. Twenhofel (eds.), 1984a. Attributes and Associated Favorability Graphs for the NNWSI Area-to-Location Screening Activity, SAND82-0838, Sandia National Laboratories, Albuquerque, N. Mex.

Sinnock, S., Y. T. Lin, and J. P. Brannen, 1984b. Preliminary Bounds on the Expected Postclosure Performance of the Yucca Mountain Repository Site, Southern Nevada, SAND84-1492, Sandia National Laboratories, Albuquerque, N. Mex.

Sinnock, S. (ed.), Y. T. Lin, and M. S. Tierney, 1986. Preliminary Estimates of Groundwater Travel Time and Radionuclide Transport at the Yucca Mountain Repository Site, SAND85-2701, Sandia National Laboratories, Albuquerque, N. Mex.

Sinton, P. O., and J. S. Downey, 1986. "Three-Dimensional, Steady-State, Finite-Difference Model of the Ground-Water Flow System in the Death Valley Ground-Water Basin Nevada--California, EOS, Vol. 67, No. 44, p. 942.

Siskind, D. E., and R. R. Fumanti, 1974. "Blast-Produced Fractures in Lithonia Granite," BuMines Report of Investigations 7901, 38 p.

Siskind, D. E., R. C. Steckley, and J. J. Olson, 1973. "Fracturing in the Zone Around a Blasthole, White Pine, Michigan," BuMines Report of Investigations 7753, 20 p.

Slemmons, 1982.

Slemmons, D. B., and C. M. Depolo, 1986. "Evaluation of Active Faulting and Associated Hazards," Active Tectonics, National Academy Press, Washington, D.C., pp. 45-62.

Smith, C., and H. P. Ross, 1982. Interpretation of Resistivity and Induced Polarization Profiles with Severe Topographic Effects, Yucca Mountain Area, Nevada Test Site, Nevada, USGS-OFR-82-182, Open-File Report, U.S. Geological Survey.

Smith, C., H. P. Ross, and R. Edquist, 1981. Interpreted Resistivity and IP Section Line W1, Wahmonie Area, Nevada Test Site, Nevada, USGS-OFR-81-1350, Open-File Report, U.S. Geological Survey.

Smith, G. I., 1983. "Paleohydrologic Regimes in the Southwestern Great Basin, 0-3.2 my Ago, Compared with Other Long Records of Global Climate," Quaternary Research, Vol. 22, pp. 1-17.

Smith, H. D., 1985. Zircaloy Cladding Corrosion Degradation in a Tuff Repository: Initial Experimental Plan, HEDL-7455, Rev. 1, Hanford Engineering Development Laboratory, Richland, Wash.

Smith, L., and F. W. Schwartz, 1980. "Mass Transport 1. A Stochastic Analysis of Macroscopic Dispersion," Water Resources Research, Vol. 16, No. 2, pp. 303-313.

Smith, R. L., 1979. "Ash-Flow Magmatism," The Geological Society of America, Geological Society of America Special Paper 180, pp. 5-27.

Smyth, J. R., 1982. "Zeolite Stability Constraints on Radioactive Waste Isolation in Zeolite-Bearing Volcanic Rocks," Journal of Geology, Vol. 90, pp. 195-201.

Smyth, J. R., and F. A. Caporuscio, 1981. Review of the Thermal Stability and Cation Exchange Properties of the Zeolite Minerals Clinoptilolite, Mordenite, and Analcime: Applications to Radioactive Waste Isolation in Silicic Tuff, LA-8841-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Snow, D. T., 1969. "Anisotropic Permeability of Fractured Media," Water Resources Research, Vol. 5, No. 6, pp. 1273-1289.

Snyder, D. B., 1981. "Gravity Interpretation of Yucca Mountain, Nye County, Nevada and Its Implications for Southern Nevada Structure," EOS, Vol. 62, No. 45, p. 1039.

Snyder, D. B., and W. J. Carr, 1982. Preliminary Results of Gravity Investigations at Yucca Mountain and Vicinity, Southern Nye County, Nevada, USGS-OFR-82-701, Open-File Report, U.S. Geological Survey.

Snyder, D. B., and W. J. Carr, 1984. "Interpretation of Gravity Data in a Complex Volcano-Tectonic Setting, Southwestern Nevada," Journal of Geophysical Research, Vol. 89, No. B12, pp. 10,193-10,206.

Snyder, D. B., and H. W. Oliver, 1981. Preliminary Results of Gravity Investigations of the Calico Hills, Nevada Test Site, Nye County, Nevada, USGS-OFR-81-101, Open-File Report, U.S. Geological Survey.

Spaeth, M. E., 1987. Letter from M. E. Spaeth (SAIC) to D. L. Vieth (WMPO), L87-ENV-MIF-10, March 17, 1987; regarding preliminary environmental analysis of proposed changes to ESF design and schedule.

Spaeth, M. E., 1988. Letter from M. E. Spaeth (SAIC) to C. E. Gertz (WMPO) dated August 8, 1988; regarding Contract DE-AC08-87NV10576, Summary of Results from Dry Drilling and Coring Technology Workshop.

Sparks, R. S. J., S. Self, and G. P. L. Walker, 1973. "Products of Ignimbrite Eruptions," Geology, Vol. 1, No. 3, pp. 115-118.

Spaulding, W. G., and L. J. Graumlich, 1986. "The Last Pluvial Climatic Episodes in the Deserts of Southwestern North America," Nature, Vol. 320, pp. 441-444.

Spengler, R. W., and M. P. Chornack, 1984. Stratigraphic and Structural Characteristics of Volcanic Rocks in Core Hole USW G-4, Yucca Mountain, Nye County, Nevada, with a section on geophysical logs by D. C. Muller and J. E. Kibler, USGS-OFR-84-789, Open-File Report, U.S. Geological Survey.

Spengler, R. W., and J. G. Rosenbaum, 1980. Preliminary Interpretations of Geologic Results Obtained from Boreholes UE25a-4, -5, -6, and -7, Yucca Mountain, Nevada Test Site, USGS-OFR-80-929, Open-File Report, U.S. Geological Survey.

Spengler, R. W., D. C. Muller, and R. B. Livermore, 1979. Preliminary Report on the Geology and Geophysics of Drill Hole UE25a-1, Yucca Mountain, Nevada Test Site, USGS-OFR-79-1244, Open-File Report, U.S. Geological Survey.

Spengler, R. W., F. M. Byers, Jr., and J. B. Warner, 1981. Stratigraphy and Structure of Volcanic Rocks in Drill Hole USW G-1, Yucca Mountain, Nye County, Nevada, USGS-OFR-81-1349, Open-File Report, U.S. Geological Survey.

Spudich, P., 1985. "Calculation of Ground Motion Time Histories Using Green's Function Summation," Strong Ground Motion Simulations and Earthquake Engineering Applications, R. E. Scholl, and J. L. King (eds.), Publication No. 85-02, Earthquake Engineering Research Institute, pp. 19-1 to 19-7.

Squires, R. R., and R. L. Young, 1984. Flood Potential of Fortymile Wash and Its Principal Southwestern Tributaries, Nevada Test Site, Southern Nevada, USGS-WRI-83-4001, Water-Resources Investigations Report, U.S. Geological Survey.

St. John, C. M., 1987a. Interaction of Nuclear Waste Panels with Shafts and Access Ramps for a Potential Repository at Yucca Mountain, SAND84-7213, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987b. Investigative Study of the Underground Excavations for a Nuclear Waste Repository in Tuff, SAND83-7451, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987c. Reference Thermal and Thermal/Mechanical Analyses of Drifts for Vertical and Horizontal Emplacement of Nuclear Waste in a Repository in Tuff, SAND86-7005, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., 1987d. Thermomechanical Analysis of Underground Excavations in the Vicinity of a Nuclear Waste Isolation Panel, SAND84-7208, Sandia National Laboratories, Albuquerque, N. Mex.

St. John, C. M., and S. J. Mitchell, 1987. Investigation of Excavation Stability in a Finite Repository, SAND86-7011, Sandia National Laboratories, Albuquerque, N. Mex.

Staehle, R. W., 1971. "Stress Corrosion Cracking of the Fe-Cr-Ni Alloy System," The Theory of Stress Corrosion Cracking in Alloys, J. C. Scully (ed.), National Atlantic Treaty Organization Scientific Affairs Division, Brussels, Belgium.

Stannard, D. I., 1985. "Design and Performance of a Machine Used in the Calculation of Bowen Ratios," in Proceedings of the NWWA Conference on Characterization and Monitoring of the Vadose (Unsaturated) Zone, November 19-21, 1985, Denver, Colo., pp. 143-156.

Stanton, R. L., 1972. Ore Petrology, McGraw-Hill Book Co., New York, pp. 305-351, 522.

Stein, R., 1988. Letter from Ralph Stein (DOE) to John Linehan (NRC); regarding waste acceptance preliminary specifications for the defense waste processing facility high-level waste form.

Stewart, J. H., 1980. Geology of Nevada, A Discussion to Accompany the Geologic Map of Nevada, Nevada Bureau of Mines & Geology Special Publication No. 4, University of Nevada, Reno.

Stinebaugh, R. E., and J. C. Frostenson, 1986. Disposal of Radioactive Waste Packages in Vertical Boreholes--A Description of the Operations and Equipment for Emplacement and Retrieval, SAND84-1010, Sandia National Laboratories, Albuquerque, N. Mex.

Stinebaugh, R. E., and J. C. Frostenson, 1987. Worker Radiation Doses during Vertical Emplacement and Retrieval of Spent Fuel at the Tuff Repository, SAND84-2275, Sandia National Laboratories, Albuquerque, N. Mex.

Stinebaugh, R. E., I. B. White, and J. C. Frostenson, 1986. Disposal of Radioactive Waste Packages in Horizonal Boreholes--A Description of the Operations and Equipment for Emplacement and Retrieval, SAND84-2640, Sandia National Laboratories, Albuquerque, N. Mex.

Stock, J. M., and J. H. Healy, 1984. "Magnitudes and Orientations of Stress in an Extensional Regime, Yucca Mountain, Nevada," Geological Society of America, Abstracts with Programs, Vol. 16, No. 6, p. 669.

Stock, J. M., J. H. Healy, and S. H. Hickman, 1984. Report on Televiewer Log and Stress Measurements in Core Hole USW G-2, Nevada Test Site, October-November 1982, USGS-OFR-84-172, U.S. Geological Survey.

Stock, J. M., J. H. Healy, S. H. Hickman, and M. D. Zoback, 1985. "Hydraulic Fracturing Stress Measurements at Yucca Mountain, Nevada, and Relationship to the Regional Stress Field," Journal of Geophysical Research, Vol. 90, No. B10, pp. 8691-8706.

Stumpe, R., J. I. Kim, W. Schrepp, and H. Walther, 1984. "Speciation of Actinide Ions in Aqueous Solution by Laser-Induced Pulsed Photoacoustic Spectroscopy," Applied Physics, Vol. B34, pp. 203-206.

Sudicky, E. A., and E. O. Frind, 1982. "Contaminant Transport in Fractured Porous Media: Analytical Solutions for a System of Parallel Fractures," Water Resources Research, Vol. 18, No. 6, pp. 1634-1642.

Sun, R. J. (ed.), 1986. Regional Aquifer-System Analysis Program of the U.S. Geological Survey, Summary of Projects, 1978-84, U.S. Geological Survey Circular 1002, Reston, Va.

Suppe, J., 1985. Principles of Structural Geology, Prentice-Hall, Englewood Cliffs, New Jersey, pp. 198-201.

Sutton, V. D., 1984. Data Report for the 1983 Seismic-Refraction Experiment at Yucca Mountain, Beatty and Vicinity, Southwestern Nevada, USGS-OFR-84-661, Open-File Report, Menlo Park, Calif.

Sutton, V. D., 1985. Data Report for the 1985 Seismic-Refraction Experiment at Yucca Mountain and Vicinity, Southwestern Nevada, USGS-OFR-85-591 Open File Report, U.S.Geological Survey, Menlo Park, Calif.

Svalstad, D. K., 1983. User's Manual for SPECTROM-41: A Finite-Element Heat Transfer Program, ONWI-326, RE/SPEC, Inc., for the Office of Nuclear Waste Isolation, Columbus, Ohio.

Swadley, W C, D. L. Hoover, and J. N. Rosholt, 1984. Preliminary Report on Late Cenozoic Faulting and Stratigraphy in the Vicinity of Yucca Mountain, Nye County, Nevada, USGS-OFR-84-788, Open-File Report, U.S. Geological Survey.

Swadley W C, J. C. Yount, and S. T. Harding, 1988. Reinterpretation of the Beatty Scarp, Nye County, Nevada, Investigations of a Potential Nuclear Waste Disposal Site at Yucca Mountain, Southern Nevada, M. D. Carr, and J. C. Yount (eds.), U.S. Geological Survey Bulletin 1790, U.S. Geological Survey.

Sylvester, A. G., and S. W. Bie, 1986. "Geodetic Monitoring of Fault Movements in Death Valley, 1970-1985," Quaternary Tectonics of Southern Death Valley, California Field Trip Guide, B. W. Troxel (ed.), pp. 41-44.

Szabo, B. J., W. J. Carr, and W. C. Gottschall, 1981. Uranium-Thorium Dating of Quaternary Carbonate Accumulations in the Nevada Test Site Region, Southern Nevada, USGS-OFR-81-119, Open-File Report, U.S. Geological Survey.

Taranik, J. V. and C. M. Trautwein, 1977. "Integration of Geological Remote-Sensing Techniques in Subsurface Subsurface Geology L. W. LeRoy, D. O. LeRoy and J. W. Raese,(eds.), Fourth Edition, Colorado School of Mines, Golden, Colorado, pp. 767-786.

Tasooji, A., R. E. Einziger, and A. K. Miller, 1984. Modeling of Zircaloy Stress-Corrosion Cracking: Texture Effects and Dry Storage Spent Fuel Behavior, Special Technical Publication 824, American Society for Testing & Materials, Philadelphia, Penn., pp. 595-626.

Taylor, H. P., Jr., 1979. Oxygen and Hydrogen Isotope Relationships in Hydrothermal Mineral Deposits, Geochemistry of Hydrothermal Ore Deposits, H. L. Barnes (ed.), 2nd Edition, John Wiley & Sons, pp. 236-277.

Terzaghi, K., 1943. Theoretical Soil Mechanics, John Wiley & Son, New York, 510 p.

Terzaghi, K., and R. B. Peck, 1967. Soil Mechanics in Engineering Practice, John Wiley & Sons, Inc., New York, pp. 361-379.

Teufel, L. W., and N. R. Warpinski, 1984. "Determination of In Situ Stress from Anelastic Strain Recovery Measurements of Oriented Core: Comparison to Hydraulic Fracture Stress Measurements in the Rollins Sandstone, Piceance Basin, Colorado," in Rock Mechanics in Productivity and Protection, Proceedings of the 25th Symposium on Rock Mechanics, Evanston, Ill., June 25-27, 1984, C. H. Downing and M. M. Singh (eds.), Society of Mining Engineers, New York, pp. 176-185.

Theis, C. V., 1935. "The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground-Water Storage," Transactions of the American Geophysical Union, Sixteenth Annual Meeting, April 25-26, 1935, Washington, D.C., Part I, pp. 519-524.

Theobald, P. K., 1987. "Exploration in Desert Environments," Geoexpo/86; Exploration in the North American Cordillera, May 12-14, 1986, Vancouver, British Columbia, I. L. Elliot and B. W. Smee (eds.), The Association of Exploration Geochemists, pp. 213-214.

Thomas, R. K., 1980. A Material Constitutive Model for Jointed Rock Mass Behavior, SAND80-1418, Sandia National Laboratories, Albuquerque, N. Mex.

Thomas, R. K., 1982. A Continuum Description for Jointed Media, SAND81-2615, Sandia National Laboratories, Albuquerque, N. Mex.

Thomas, R. K., 1987. Near Field Mechanical Calculations Using a Continuum Jointed Rock Model in the JAC Code, SAND83-0070, Sandia National Laboratories, Albuquerque, N. Mex.

Thomson, I., 1986. "Getting It Right," Exploration Geochemistry: Design and Interpretation of Soil Surveys, J. M. Robertson (ed.), Vol. 3, Society of Economic Geologists, pp. 1-18.

Thorstenson, D. C., E. P. Weeks, H. Haas, and D. W. Fisher, 1983. "Distribution of Gaseous 12CO2, 13CO2 and 14CO2 in the Sub-Soil Unsaturated Zone of the Western U.S. Great Plains," Radiocarbon, Vol. 25, No. 2, pp. 315-346.

Throckmorton, C. K., 1987. Photogeologic Study of Small-Scale Linear Features Near a Potential Nuclear-Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-87-409, Open File Report, U.S. Geological Survey.

Till, J. E., and H. R. Meyer, (Eds.), 1983. Radiological Assessment: A Textbook on Environmental Dose Analysis, NUREG/CR-3332, U.S. Nuclear Regulatory Commission, Washington, D.C.

Tingley, J. V., and B. R. Berger, 1985. Lode Gold Deposits of Round Mountain, Nevada, Nevada Bureau of Mines & Geology Bulletin 100, University of Nevada, Reno, 62 p.

Torgersen, T., W. B. Clarke, and M. A. Habermehl, 1987. "Helium Isotopic Evidence for Recent Subcrustal Volcanism in Eastern Australia," Geophysical Research Letters, Vol. 14, No. 12, pp. 1215-1218.

Travis, B. J., 1984. TRACR3D: A Model of Flow and Transport in Porous/Fractured Media, LA-9667-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., 1985. WAFE: A Model for Two-Phase, Multicomponent Mass and Heat Transport in Porous/Fractured Media LA-10488-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Travis, B. J., and L. E. Greenwade, 1985. "A One-Dimensional Numerical Model of Two-Phase Flow and Transport in Porous Media Using the Dynamics of Contours Methodology, NNWSI Milestone C717, Los Alamos National Laboratory, Los Alamos, N. Mex.

Treher, E. N., and N. A. Raybold, 1982. The Elution of Radionuclides Through Columns of Crushed Rock from the Nevada Test Site, LA-9329-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

URS/John A. Blume & Associates, 1986. Ground Motion Evaluations at Yucca Mountain, Nevada with Applications to Repository Conceptual Design and Siting, SAND85-7104, Sandia National Laboratories, Albuquerque, N. Mex.

URS/John A. Blume & Associates, 1987. Technical Basis and Parametric Study of Ground Motion and Surface Rupture Hazard Evaluations at Yucca Mountain, Nevada, SAND86-7013, Sandia National Laboratories, Albuquerque, N. Mex.

USBM/USGS (U.S. Bureau of Mines/U.S. Geological Survey), 1980. Principles of a Resource/Reserve Classification for Minerals, Geological Survey Circular 831, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1954. Bare Mountain Quadrangle, Nevada, U.S. Geological Survey 15 Minute Series (Topographic), 1:62,500, U.S. Geological Survey.

USGS (U.S. Geological Survey), 1978. Geologic Survey Research 1978, Geological Survey Professional Paper 1100, U.S. Government Printing Office, Washington, D.C.

USGS (U.S. Geological Survey) (comp.), 1984. A Summary of Geologic Studies through January 1, 1983, of a Potential High-Level Radioactive Waste Repository Site at Yucca Mountain, Southern Nye County, Nevada, USGS-OFR-84-792, Open-File Report, U.S. Geological Survey.

Van Konynenburg, R. A., C. F. Smith, H. W. Culham, and C. H. Otto, Jr., 1984. Behavior of Carbon-14 in Waste Packages for Spent Fuel in a Repository in Tuff, UCRL-90855, Rev. 1, Lawrence Livermore National Laboratory, Livermore, Calif.

Van Konynenburg, R. A., C. F. Smith, H. W. Culham, and H. D. Smith, 1986. "Carbon-14 in Waste Packages for Spent Fuel in a Tuff Repository," Materials Research Society December 1986 Meeting, UCRL-94708, preprint, Boston, Mass.

Van Schilfgaarde, J. (ed.), 1974. Drainage for Agriculture, No. 17, American Society of Agronomy, Inc., Madison, Wisc.

Van Spronsen, E., 1982. "Three-Phase Relative Permeability Measurements Using the Centrifuge Method," Third Joint Symposium on Enhanced Oil Recovery of the Society of Petroleum Engineers, Tulsa, Ok., April 4-7, 1982, pp. 217-240.

Vaniman, D. T., B. M. Crowe, and E. S. Gladney, 1982. "Petrology and Geochemistry of Hawaiite Lavas from Crater Flat, Nevada," Contributions to Mineralogy and Petrology, Vol. 80, Springer-Verlag, pp. 341-357.

Vaniman et al, 1988.

Vetter, U. R., and A. S. Ryall, 1983. "Systematic Change of Focal Mechanism with Depth in the Western Great Basin," Journal of Geophysical Research, Vol. 88, No. B10, pp. 8237-8250.

Vortman, L. J., 1980. Prediction of Ground Motion from Underground Nuclear Weapons Tests as It Relates to Siting of a Nuclear Waste Storage Facility at NTS and Compatibility with the Weapons Test Program, SAND80-1020/1, Sandia National Laboratories, Albuquerque, N. Mex.

Vortman, L. J., 1986. Ground Motion Produced at Yucca Mountain from Pahute Mesa Underground Nuclear Explosions, SAND85-1605, Sandia National Laboratories, Albuquerque, N. Mex.

Waddell, R. K., 1982. Two-Dimensional, Steady-State Model of Ground-Water Flow, Nevada Test Site and Vicinity, Nevada-California, USGS-WRI-82-4085, Water-Resources Investigations Report, U.S. Geological Survey.

Waddell, R. K., J. H. Robison, and R. K. Blankennagel, 1984. Hydrology of Yucca Mountain and Vicinity, Nevada-California--Investigative Results Through Mid-1983, USGS-WRI-84-4267, Water-Resources Investigations Report, U.S. Geological Survey.

Wagner, H., 1975. "Determination of the Complete Load-Deformation Characteristics of Coal Pillars," in Proceedings of the Third Congress of the International Society for Rock Mechanics September 1-7, 1974, Denver, Colorado, Vol. 2, pp. 1076-1083.

Walck, M. C., 1988. "Three-Dimensional Vp/Vs Variations for the Coso Region, California," Journal of Geophysical Research, Vol. 93, B3, pp. 2047-2052.

Walker, G. E., and T. E. Eakin, 1963. Geology and Ground Water of Amargosa Desert, Nevada-California, Department of Conservation and Natural Resources, Ground-Water Resources Reconnaissance Series Report 14, State of Nevada, Carson City.

Wallace, R. E., 1978. "Patterns of Faulting and Seismic Gaps in the Great Basin Province," in Proceedings of Conference VI: Methodology for Identifying Seismic Gaps and Soon to Break Gaps, B. L. Isacks and G. Plafker (comps.), USGS-OFR-78-943, Open-File Report, U.S. Geological Survey, pp. 857-868.

Walter, A. W., and C. S. Weaver, 1980. "Seismicity of the Coso Range, California," Journal of Geophysical Research, Vol. 85, No. B5, pp. 2441-2458.

Wang, J. S. Y., and T. N. Narasimhan, 1985. Hydrologic Mechanisms Governing Fluid Flow in Partially Saturated, Fractured Porous Tuff at Yucca Mountain, SAND84-7202, Sandia National Laboratories, Albuquerque, N. Mex.

Wang, J. S. Y., and T. N. Narasimhan, 1986. Hydrologic Mechanisms Governing Partially Saturated Fluid Flow in Fractured Welded Units and Porous Non-Welded Units at Yucca Mountain, SAND85-7114, Sandia National Laboratories, Albuquerque, N. Mex.

Water, Waste & Land, Inc., 1986. Analyses of Observed Flow Between Test Wells USW G-1 and USW UZ-1, NRC Mini Report 6, U.S. Nuclear Regulatory Commission, Washington, D.C.

Watson, K. K., 1965. "Some Operating Characteristics of a Rapid Response Tensiometer System," Water Resources Research, Vol. 1, No. 4, pp. 577-586.

Webb, T., III, F. A. Street-Perrott, and J. E. Kutzbach, 1987. "Late-Quaternary Paleoclimatic Data and Climate Models," Episodes, Vol. 10, No. 1, pp. 4-6.

Weeks, E. P., 1978. "Barometric Fluctuations in Wells Tapping Deep Unconfined Aquifers," Water Resources Research, Vol. 15, No. 5, pp. 1167-1176.

Weeks, E. P., 1986. "Effect of Topography on Gas Flow in Unsaturated Fractured Rock--Concepts and Observations," EOS, Vol. 67, No. 44, pp. 962-963.

Weeks, E. P., 1987. "Effect of Topography on Gas Flow in Unsaturated Fractured Rock: Concepts and Observations," Geophysics Monograph 42, D. D. Evans, and T. J. Nicholson (eds.), pp. 165-170.

Weeks, E. P., and W. E. Wilson, 1984. Preliminary Evaluation of Hydrologic Properties of Cores of Unsaturated Tuff, Test Well USW H-1, Yucca Mountain, Nevada, USGS-WRI-84-4193, Water-Resources Investigations Report, U.S. Geological Survey.

Weeks, E. P., H. L. Weaver, G. S. Campbell, and B. D. Tanner, 1985. Water Use by Saltcedar and by Replacement Vegetation in the Pecos River Floodplain Between Acme and Artesia, New Mexico, U.S. Geologial Survey Professional Paper 491-G, U.S. Government Printing Office, Washington, D.C., 33 p.

Wells, S. G., L. D. McFadden, C. Renault, and B. M. Crowe, 1988. "A Geomorphic Assessment of Quaternary Volcanism in the Yucca Mountain Area, Nevada Test Site, Southern Nevada," Geological Society of America, Cordilleran Section, Vol. 20, No. 3 p. 242.

West, K. A. 1988. Exploratory Shaft Facility Fluids and Materials Evaluation, LA-11398-MS, Los Alamos National Laboratory, Los Alamos, N. Mex.

Westsik, J. H., F. N. Hodges, W. L. Kuhn, and T. R. Myers, 1983. "Water Migration Through Compacted Bentonite Backfills for Containment of High Level Nuclear Waste," Nuclear and Chemical Waste Management, Vol. 4, pp. 291-299.

Wheelwright, E.J., F. N. Hodges, L. A. Bray, J. J. Westic, and D. H. Lester, T. L. Nakai, M. E. Spaeth, R. t. Stula, 1981. Development of Backfill Material as an Engineered Barrier in the Waste Package System - Interim Topical Report, PNL-3873, Pacific Northwest Laboratory, Richland, Wash.

Whitfield, M. S., 1985. "Vacuum Drilling of Unsaturated Tuffs at a Potential Radioactive-Waste Repository, Yucca Mountain, Nevada," Characterization and Monitoring of the Vadose Zone, National Water Well Association Symposium, Denver, Colorado, November 19-21, 1985.

Whitney, J. W., R. R. Shroba, F. W. Simonds, and S. T. Harding, 1986. "Recurrent Quaternary Movement on the Windy Wash Fault, Nye County, Nevada [abs.]," Geological Society of America, Abstracts with Programs, Vol. 18, No. 6, p. 787.

Wilcox, T., 1972. MORSE-L, A Special Version of the MORSE Program Designed to Solve Neutron, Gamma, and Coupled Neutron-Gamma Penetration Problems, UCID-16680, Lawrence Livermore National Laboratory, Livermore, Calif.

Williams, D. J., 1987. Mining-Related and Tectonic Seismicity in the East Mountain Area, Wasatch Plateau, Central Utah, M.S. thesis, Department of Geology and Geophysics, University of Utah.

Wilson, C. N., 1985b. Results from NNWSI Series 1 Spent Fuel Leach Test, HEDL-TME-84-30, Hanford Engineering Development Laboratory, Richland, Wash.

Wilson, M. L., and A. L. Dudley, 1987. Flow and Transport through Unsaturated, Fractured Rock, D. D. Evans and T. J. Nicholson (eds.), Geophysical Monograph 42, American Geophysical Union, Washington, D.C., pp. 23-29.

Winograd, I. J., and B. J. Szabo, 1986. Water-Table Decline in the South-Central Great Basin during the Quaternary Period: Implications for Toxic-Waste Disposal, USGS-OFR-85-697, Open-File Report, U.S. Geological Survey.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

Winograd, I. J., B. J. Szabo, T. B. Coplen, A. C. Riggs, and P. T. Kolesar, 1985. "Two-Million-Year Record of Deuterium Depletion in Great Basin Ground Waters," Science, Vol. 227, pp. 519-522.

Winter, C. L., S. P. Neuman, and C. M. Newman, 1984. Prediction of Far-Field Subsurface Radionuclide Dispersion Coefficients from Hydraulic Conductivity Measurements, NUREG/CR-3612, U.S. Nuclear Regulatory Commission, Washington, D.C., 56 p.

Winterkorn, H. F., and H. V. Fang (eds.), 1975. Foundation Engineering Handbook, Van Nostrand Reinhold Co., New York, pp. 37, 117, 156.

Wolery, T. J., 1979. Calculation of Chemical Equilibrium Between Aqueous Solution and Minerals: The EQ3/6 Software Package, UCRL-52658, Lawrence Livermore National Laboratory, Livermore, Calif.

Wolery, T. J., 1983. EQ3NR, A Computer Program for Geochemical Aqueous Speciation-Solubility Calculations: User's Guide and Documentation, UCRL-53414, Lawrence Livermore National Laboratory, Livermore, Calif.

Woods, R. D., 1978. "Measurement of Dynamic Soil Properties," in Proceedings of the ASCE Geotechnical Engineering Division Specialty Conference, Earthquake Engineering and Soil Dynamics, 1978, Pasadena, California, American Society of Civil Engineers, New York, pp. 158-159.

Wu, S. S. C., 1985. Topographic Maps of Yucca Mountain Area, Nye County, Nevada, USGS-OFR-85-620, Open-File Report, Scale 1:5,000, U.S. Geological Survey.

Yeh, T. -C. J., L. W. Gelhar, and A. L. Gutjahr, 1985. "Stochastic Analysis of Unsaturated Flow in Heterogeneous Soils, 1. Statistically Isotopic Media," Water Resources Research, Vol. 21, No. 4, pp. 447-471.

Zablocki, C. J., 1979. Some Reconnaissance-Type Electrical Surveys of Timber Mountain Caldera, Nye County, Nevada, USGS-OFR-79-1695, Open-File Report, U.S. Geological Survey.

Zimmerman, R. M., and R. E. Finley, 1987. Summary of Geomechanical Measurements Taken In and Around the G-Tunnel Underground Facility, NTS, SAND86-1015, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., R. L. Schuch, D. S. Mason, M. L. Wilson, M. E. Hall, M. P. Board, R. P. Bellman, M. L. Blanford, 1986a. Final Report: G-Tunnel Heated Block Experiment, SAND84-2620, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., M. L. Blanford, J. F. Holland, R. L. Schuch, and W. H. Barrett, 1986b. Final Report, G-Tunnel Small-Diameter Heater Experiments, SAND84-2621, Sandia National Laboratories, Albuquerque, N. Mex.

Zimmerman, R. M., R. Bellman, K. Mann, D. Zerga, and M. Fowler, 1988. G-Tunnel Welded Tuff Mining Experiment Data Summary SAND87-1433, Sandia National Laboratories, Albuquerque, N. Mex.

Zyvoloski, G., and S. Kelkar, 1987. Preliminary Investigation into Coupled Heat/Mass/Stress Effects at Yucca Mountain, NNWSI Milestone R346, Los Alamos National Laboratory, Los Alamos, N. Mex.

CODES AND REGULATIONS

3 CFR (Code of Federal Regulations), 1987. Title 3, "The President," Washington, D.C.

10 CFR Part 20 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 20, "Standards for Protection Against Radiation," U.S. Government Printing Office, Washington, D.C., pp. 247-285.

10 CFR Part 50, Appendix B (Code of Federal Regulations), 1987. Title 10, "Energy," Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," U.S. Government Printing Office, Washington, D.C.

10 CFR Part 50, Appendix A (Code of Federal Regulations), 1987. Title 10, "Energy," Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," U.S. Government Printing Office, Washington, D.C.

10 CFR Part 50, Appendix I (Code of Federal Regulations), 1987. Title 10, "Energy," Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents," U.S. Government Printing Office, Washington, D.C.

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 72 (Code of Federal Regulations), 1987. Title 10 - "Protection Environment", Part 72, "Licensing Requirements for the Storage of Spent Fuel in an Independent Spent Fuel Storage Installation (ISFSI)," U.S. - Government Printing Office, Washington, D.C., pp. 756-780.

10 CFR Part 960 (Code of Federal Regulations), 1984. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories; Final Siting Guidelines," 49 FR 47714, Vol. 49, No. 236, December 6, 1984, pp. 47714-47769.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

29 CFR Part 1926 (Code of Federal Regulations), 1987. Labor,

30 CFR Part 57 (Code of Federal Regulations), 1986. Title 30, "Mineral Resources," Subchapter N, "Metal and Nonmetal Mine Safety and Health," Part 57, "Safety and Health Standards - Underground Metal and Nonmental Mines," U.S. Government Printing Office, Washington, D.C.

40 CFR Part 58 (Code of Federal Regulations), 1987. Title 40, Protection of Environment, Part 58, Ambient Air Quality Surveillance, The Bureau of National Affairs, Inc., Washington, D.C., pp. 37-82.

40 CFR Part 190 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operations," U.S. Government Printing Office, Washington, D.C., p. 6.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.

49 CFR Part 171 (Code of Federal Regulations), 1985. Title 49, "Transportation," Part 171, "General Information, Regulations, and Definitions," U.S. Government Printing Office, Washington, D.C.

REFERENCES FOR CHAPTER A

Blankennagel, R. K., and J. E. Weir, Jr., 1973. Geohydrology of the Eastern Part of Pahute Mesa, Nevada Test Site, Nye County, Nevada, U.S. Geological Survey Professional Paper 712-B, U.S. Goverment Printing Office, Washington, D.C.

DOE (U.S. Department of Energy), 1983. "Management of Construction Projects," DOE Order 6410.1, Washington, D.C.

DOE (U.S. Department of Energy), 1986. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

Dudley, W. W., Jr., and J. D. Larson, 1976. Effect of Irrigation Pumping on Desert Pupfish Habitats in Ash Meadows, Nye County, Nevada, U.S. Geological Survey Professional Paper 927, U.S. Goverment Printing Office, Washington, D.C.

Hunt, C. B., 1974. Natural Regions of the United States and Canada, W. H. Freeman & Co., San Francisco, Calif.

NWPA (Nuclear Waste Policy Act), 1983. "Nuclear Waste Policy Act of 1982," Public Law 97-425, 42 USC 10101-10226, Washington, D.C.

Rush, F. E., 1970. Regional Ground-Water Systems in the Nevada Test Site Area, Nye, Lincoln, and Clark Counties, Nevada, Department of Conservation and Natural Resources, Water Resources Reconnaissance Series Report 54, State of Nevada, Carson City.

SNL (Sandia National Laboratories), 1987. Site Characterization Plan Conceptual Design Report, SAND84-2641, 6 Vol., Sandia National Laboratories, Albuquerque, N. Mex.

Waddell, R. K., 1982. Two-Dimensional, Steady-State Model of Ground-Water Flow, Nevada Test Site and Vicinity, Nevada-California, USGS-WRI-82-4085, Water-Resources Investigations Report, U.S. Geological Survey.

Waddell, R. K., J. H. Robison, and R. K. Blankennagel, 1984. Hydrology of Yucca Mountain and Vicinity, Nevada-California--Investigative Results Through Mid-1983, USGS-WRI-84-4267, Water-Resources Investigations Report, U.S. Geological Survey.

Winograd, I. J., and W. Thordarson, 1975. Hydrogeologic and Hydrochemical Framework, South-Central Great Basin, Nevada-California, with Special Reference to the Nevada Test Site, U.S. Geological Survey Professional Paper 712-C, U.S. Geological Survey, pp. C1-C126.

CODES AND REGULATIONS

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

REFERENCES FOR CHAPTER I

DOE (U.S. Department of Energy), 1986a. A Multiattribute Utility Analysis of Sites Nominated for Characterization for the First Radioactive-Waste Repository--A Decision-Aiding Methodology, DOE/RW-0074, Washington, D.C.

DOE (U.S. Department of Energy), 1986b. Final Environmental Assessment: Yucca Mountain Site, Nevada Research and Development Area, Nevada, DOE/RW-0073, Washington, D.C.

DOE (U.S. Department of Energy), 1986c. Issues Hierarchy for a Mined Geologic Disposal System, OGR/B-10, OCRWM, Washington, D.C.

DOE (U.S. Department of Energy), 1987. Annotated Outline for Site Characterization Plans, DOE/RW-0142, Washington, D.C..

NRC (U.S. Nuclear Regulatory Commission), 1987. Standard Format and Content of Site Characterization Plans for High-Level-Waste Geological Repositories, Regulatory Guide 4.17, Washington, D.C.

SNL (Sandia National Laboratories), 1987. Site Characterization Plan Conceptual Design Report, SAND84-2641, 6 Vol., Sandia National Laboratories, Albuquerque, N. Mex.

CODES AND REGULATIONS

10 CFR Part 20 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 20, "Standards for Protection Against Radiation," U.S. Government Printing Office, Washington, D.C., pp. 247-285.

10 CFR Part 60 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories," U.S. Government Printing Office, Washington, D.C., pp. 627-658.

10 CFR Part 960 (Code of Federal Regulations), 1987. Title 10, "Energy," Part 960, "General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories," U.S. Government Printing Office, Washington, D.C., pp. 518-551.

40 CFR Part 191 (Code of Federal Regulations), 1986. Title 40, "Protection of Environment," Part 191, "Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes," U.S. Government Printing Office, Washington, D.C., pp. 7-16.