

See pocket 2  
for ref.



## Department of Energy

WM DOCKET CONTROL  
CENTER

Richland Operations Office  
P.O. Box 550  
Richland, Washington 99352

'86 APR -2 A11:08

APR 1 1986

Mr. J. J. Linehan, Section Leader  
Repository Projects Branch  
Division of Waste Management  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

WM Record File  
101.5

WM Project 10  
Docket No. \_\_\_\_\_  
PDR ☒  
LPDR ☒

Distribution: Linehan, J. J. Hildenbrand  
(Return to WM, 623-SS)

Dear Mr. Linehan:

NUCLEAR REGULATORY COMMISSION (NRC) LETTER DATED JANUARY 14, 1986, FROM  
W. J. MILLER TO RALPH STEIN (REQUEST FOR REFERENCES FOR THE FINAL  
ENVIRONMENTAL ASSESSMENT (EA))

This letter is in response to the above NRC request for an early insight to  
the questions regarding the EA reference material. Information regarding  
additions since the draft was issued, and availability of both microfiche and  
hard copy, have been discussed with Mr. Paul Hildenbrand, NRC-BWIP Project  
Manager and are herein confirmed.

1. Two copies of the listing of references which denotes new or added  
reference material by an asterisk.
2. Two copies of the microfiche references - some 417 references to date  
are enclosed. Twenty seven (27) are still to be reproduced. A  
separate listing of the 27 is also enclosed. They will be forwarded  
to the NRC as soon as they are available.
3. We have initiated work on duplicating a hard copy per your request,  
but will not be completed with the task until approximately the end of  
May 1986. If the NRC could identify to our office select special  
needs, we could provide them, if not too extensive, in an earlier time  
frame.

We believe we have provided to date, what the project office has committed to  
us, and we will be glad to respond to any questions you may have regarding the  
material availability and its reproduction. Questions regarding this material  
and its duplication and availability should be directed to Mr. A. J. Bell of  
my staff on (FTS 444-1821).

Very truly yours,

O. L. Olson, Director  
Basalt Waste Isolation Division

BWI:JEM

Enclosures

8604180389 860401  
PDR WASTE  
WM-10 PDR

1773

START

101.5

OUTGOING LTR. NO.

29868.R1

INCOMING LTR. NO.

ACTION

REPLY DUE

Rockwell Hanford Operations  
P.O. Box 800  
Richland, WA 99352Rockwell  
Hanford  
Operations

March 3, 1986

In reply, refer to letter 29868.R1

Mr. O. L. Olson, Director  
Basalt Waste Isolation Division  
Department of Energy  
Richland Operations Office  
Richland, Washington 99352

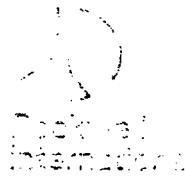
Dear Mr. Olson:

EARLY RELEASE OF FINAL ENVIRONMENTAL ASSESSMENT  
REFERENCES TO THE NUCLEAR REGULATORY COMMISSION  
(Contract DE-AC06-77RL01030)Ref: Letter, February 11, 1986, J. E. Mecca to P. G. Lorenzini,  
"Request for References for the Final Environmental Assessments,  
Nuclear Regulatory Commission, Washington, D. C. to Department of  
Energy-Headquarters, dated January 14, 1986"As noted in the referenced letter, the Nuclear Regulatory Commission (NRC)  
is interested in receiving (1) a listing of new references used in the  
final Environmental Assessment (EA), (2) one microfiche copy of new  
references, and (3) one hard copy of new references. The status of each  
of these requests are discussed below.Listing of New ReferencesEnclosure 1 of this letter provides a preliminary index of all materials  
referenced in the final EA. The new references can be identified by the  
microfiche number (MF XXXX) in the right-hand column of the index. This  
index meets the first request of the NRC and can be submitted by the  
Department of Energy (DOE) immediately.Microfiche Copy of New ReferencesBased on previous discussions with your office, approximately 100  
microfiche sets of the new references used in the final EA are being  
produced. To date, 417 of the 444 new references used in Chapters 2  
through 6 and appropriate sections of the Comment Response Document of the  
final EA have been microfiched. (New references that have not been  
microfiched are noted in Enclosure II.) A concern with the early release  
of these microfiched references is that permission from all of the 152  
publishers or authors holding copyrights on these references have not been  
returned to Rockwell Hanford Operations (Rockwell). These microfiched  
references could be provided to the NRC immediately, provided written  
authorization from the DOE contracting officer is provided to Rockwell.  
This authorization is required under Article 64(c)(2) of the Rockwell  
contract. (References for Chapters 1, 7, and other Department of Energy-  
Headquarters [DOE-HQ] portions of the final EA would be DOE-HQ  
responsibility).

MAR 4 1986

initial

BCC413



O. L. Olson  
Page 2  
March 3, 1986

#### Hard Copy of New References

As you are aware, all efforts related to production of copies of new EA references have been focused on producing microfiche copies. No requests have been made by the Department of Energy-Richland Operations Office (DOE-RL) to produce any hard copies due to the increased expense and time involved in making reproduced copies. Currently, the only set of new EA references that exists in hard copy format is being maintained as an archive set by the Licensing Department. It does not appear prudent to provide this hard copy to the NRC.

Nearly 30,000 pages of hard copy comprise the total set of new EA references. To reproduce a new set of these references is estimated to cost approximately \$7,500 and would take about two months to complete. This would not be responsive to the NRC's need for early information and would require a change request to implement this new scope of work. Also, a precedent would be set that would require the DOE to honor similar requests from other interested parties. Rockwell recommends that DOE notify the NRC that it will not be possible to provide a hard copy of new references used in the final EA. This approach is fully consistent with the DOE program used for draft EA references.

Other concerns that make it prohibitive to provide a hard copy of new references include:

- o A number of oversize charts and maps are contained in the new EA references. While these items were able to be microfiched using special equipment, the production of hard copies would be prohibitively difficult and time consuming.
- o The content of the copyright permission letter sent to authors and publishers only requested permission to make microfiche copies. This letter was approved by DOE-RL legal counsel before being sent to authors and publishers. Making a hard copy of these references may constitute copyright infringement. Moreover, we have been advised by Rockwell legal counsel that Article 64(c)(2) of Rockwell's contract with DOE prohibits the delivery of copyrighted material to the government without first obtaining a license; or, if it is determined that a license cannot be obtained and the copyrighted material "must be included in the technical data delivered, rather than merely incorporated therein by reference," written authorization from the DOE contracting officer prior to including such material in the data to be delivered must be obtained.

O. L. Olson  
Page 3  
March 3, 1986

- o Copies of references for Chapter 7 and the other sections of the final EA prepared by DOE-HQ are not available.

Therefore, Rockwell recommends that Enclosures I and II be provided to the NRC as soon as possible. Microfiche copies of 417 new references could be provided immediately (if DOE-RL does not have copyright concerns). Unfortunately, it is not feasible to provide a hard copy of new EA references used in the final EA. If the NRC needs hard copies of specified pages of final EA references, the use of a microfiche reader/printer could solve this problem.

Very truly yours,



L. R. Fitch, Director  
Basalt Waste Isolation Project

LRF/DJC/dgh

Enc.

cc: J. H. Anttonen - DOE-RL  
K. W. Bracken - DOE-RL  
P. E. Rasmussen - DOE-RL

## FINAL EA REFERENCES WHICH HAVE NOT BEEN MICROFICED

- B258 Barton, N., 1986. Rock Mass Quality and Support Recommendations for Basalt at the Candidate Repository Horizon, Based on the Q-System, SD-BWI-ER-012 Rev. 2, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5, C.8) MF 1989
- B26 Bernhardt, D. E., 1976. Evaluation of Sample Collection and Analysis Techniques for Environmental Plutonium, ORP/LV-76-5, U.S. Environmental Protection Agency, Office of Radiation Programs, Las Vegas Facility, Las Vegas, Nevada. (CRD C.6) MF 1717
- B36 Carlson, R. A., 1986. Hydraulic Conductivity and Moisture Density Relationships of Candidate Packing Materials, SD-BWI-TI-203, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) MF 1725
- B265 Clifton, P. M., 1986. Groundwater Travel Time Analysis for the Reference Repository Location at the Hanford Site, SD-BWI-TI-303, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) MF 1899
- B329 Daugherty, R. D., 1973. "The Yakima People," Indian Tribal Series, Phoenix, Arizona. (Ch. 3) MF 1949
- B269 Dill, J. A., T. E. Jones, A. D. Marcy, and M. H. West, 1986. An Evaluation of Redox Conditions in Hanford Basalt Groundwaters, RHO-BW-ST-76 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1902
- B408 DOE (U.S. Department of Energy), 1985. Mission Plan for the Civilian Radioactive Waste Management Program, DOE/RW-0005 Washington, D.C. (Ch. 5)
- B276 Eslinger, P. W., and B. Sagar, 1986. EPASTAT: A Computer Code for Estimating Radionuclide Releases at the Accessible Environment Boundary from a Repository in Basalt, SD-BWI-TA-022, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1908

FINAL EA REFERENCES WHICH HAVE NOT BEEN MICROFICED

- B63 Estey, S. A., and R. C. Arnett, 1986. Groundwater Flow Modeling of Alternative Repository Concepts, SD-BWI-TA-015, Rockwell Hanford Operations, Richland, Washington. (NOTE: Date on citation in CRD C.5 (1985) is incorrect.) (Ch. 6, CRD C.5) MF 1751
- B234 Gardner, J. N., 1977. "Stratigraphy and Faulting of Columbia River Basalt in Wallula Gap, Washington," EOS, American Geophysical Union Abstracts, Vol. 58, p. 1247. (Ch. 2, 3) MF 2180
- B281 Glantz, C. S., and J. V. Ramsdell, 1986. Preliminary Examination of the Impacts of BWIP Construction and Operations Activities on Non-Radiological Air Quality, PNL-5687, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 4, 5) MF 1912
- B406 Grolier, M. J., and J. W. Bingham, 1971. Geologic Map and Sections of Parts of Grant, Adams, and Franklin Counties, Washington, Miscellaneous Geologic Investigations Series, Map I-589, U.S. Geological Survey, Tacoma, Washington. (Ch. 3)
- B100 Israelsen, O. W., and V. E. Hansen, 1962. Irrigation Principles and Practices, Third Ed., John Wiley and Sons, Inc., New York, New York, pp. 223-226. (Ch. 6, CRD C.5) MF 1777
- B404 Kasza, G. L., 1986. Photographic Comparison of the Pre-Test and Post-Test Heater Hole Wall Condition in the Full Scale Heater Tests, SD-BWI-TI-276, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B239 Kendall, J. J., 1981. The Geology and Structure of the Blue Mountains in Northeastern Umatilla County, Oregon, Master of Science thesis, University of Southern California, Los Angeles, California. (Ch. 2) MF 2270
- B289 Kline, N. W., R. L. England, and R. G. Baca, 1986. CHAI NT Computer Code: User's Guide, RHO-BW-CR-144 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1921

FINAL EA REFERENCES WHICH HAVE NOT BEEN MICROFICED

- B122 Lindberg, J. W., 1986. Width and Infilling of Fractures in Four Grande Ronde Basalt Flows Beneath the Reference Repository Location, SD-BWI-TI-282, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5) MF 1797
- B125 Makhijani, A., and K. M. Tucker, 1985. Heat, High Water, and Rock Instability at Hanford, Health and Energy Institute, Washington, D.C. (CRD C.5, C.8) MF 1800
- B131 Mitchell, S. J., 1986. "Evaluation of Damaged Rock Zone Around Repository Openings," computational brief, J. F. T. Agapito and Associates for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.8) MF 1803
- B245 Rigby, J. G., K. L. Othberg, N. P. Campbell, L. Hanson, E. Kiver, D. Stradling, and G. Webster; 1979. Reconnaissance Surficial Geologic Mapping of the Late Cenozoic Sediments of the Columbia Basin, Washington, Open-File Report 79-3, State of Washington Department of Natural Resources, Division of Geology and Earth Resources, Olympia, Washington. (Ch. 2) MF 2425
- B354 Routson, R. C., W. H. Price, D. J. Brown, and K. R. Fecht, 1979. High Level Waste Leakage from the 241-T-106 Tank at Hanford, RHO-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) MF 1972
- B385 Ruddiman, W. W., and A. McIntyre, 1976. "Northeast Atlantic Paleoclimatic Changes Over the Past 600,000 Years," Investigation of Late Quaternary Paleoceanography of Paleoclimatology, R. M. Cline and J. D. Hays (eds.), Memoir 145, Geological Society of America, Boulder, Colorado, pp. 111-146, Ref. pp. 134-136. (Ch. 6) MF 1556
- B306 Runchal, A. K., B. Sagar, R. G. Baca, and N. W. Kline, 1986. PORFLO--A Continuum for Fluid Flow, Heat Transfer, Mass Transport in Porous Media: Model Theory Benchmarking, RHO-BW-CR-150, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1933

FINAL EA REFERENCES WHICH HAVE NOT BEEN MICROFICED

- B170 Sandness, G. A., J. W. Lindberg, C. S. Kimball, B. L. Scott, and J. G. Stephan, 1979. Interim Report on Geologic Remote Sensing of the Columbia Plateau, PNL-3140, Pacific Northwest Laboratory, Richland, Washington. (CRD C.5) MF 2450
- B357 Sheehan, M. V., 1984. "Rare plant survey report for Hanford Reservation," (memorandum from State of Washington, Department of Natural Resources, to M. M. McCarthy, Rockwell Hanford Operations, September 25, 1984). (Ch. 3) MF 1975
- B250 Tabor, R. W., R. B. Waite, Jr., V. A. Frizell, Jr., D. A. Swanson, G. R. Byerly, and R. D. Bentley, 1982. Geologic Map of the Wenatchee 1:100,000 Quadrangle, Central Washington, Miscellaneous Investigations Series, Map 1-1311, U.S. Geological Survey, Washington, D.C. (Ch. 2) MF 2509
- B211 USGS (U.S. Geological Survey), 1982. Water Resources Data, Washington, Water Year 1982, WA-82, 2 Vols., Washington, D.C. (CRD C.4) MF 1625

- B1     Abi-Ghanem, G. V., and V. V. Nguyen, 1982. "Structural Implications of the Stress Representation," Physical Review B, Vol. 26, No. 8, p. 4321-4326. (CRD C.5)     \* 9  
MF 1700
- A1     ACGIH (American Conference of Government Industrial Hygienists), 1982. Threshold Limit Values for Chemical Substances in Work Air Adopted by ACGIH for 1982, 2nd Ed., Cincinnati, Ohio, p. 61. (Ch. 6, CRD C.8)
- A2     A. D. Little, Inc., 1980. "Technical Support of Standards for High-Level Radioactive Waste Management," Release Mechanisms, EPA-520/4-79-007D, Vol. D, for U.S. Environmental Protection Agency, Washington, D.C. (Ch. 6)
- B2     Aeroservice, 1980. Final Report Multilevel Aeromagnetic Survey of the Hanford Site, B035469, for Rockwell Hanford Operations, Richland, Washington. (CRD C.5)     \* 5 TLC  
MF 1702
- A3     Agapito, J. F. T., M. P. Hardy, and D. R. St. Laurent, 1977. Geoenvironmental Review and Proposed Program Outline for the Structural Design of a Radioactive Waste Repository in Columbia Plateau Basalt, RHO-ST-6, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B3     Agarwal, R. G., R. Al-Hussainy, and H. J. Ramey, Jr., 1970. "An Investigation of Wellbore Storage and Skin Effect in Unsteady Liquid Flow: I. Analytical Treatment," Society of Petroleum Engineers, Vol. 10, No. 3, American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., pp. 279-290. (CRD C.4)     \* 3 c  
MF 1703
- B4     Allard, B., 1982. "Solubilities of Actinides in Neutral or Basic Solutions," Actinides in Perspective, N. M. Edelstein (ed.), Pergamon Press Ltd., Elmsford, New York, pp. 553-580. (Ch. 6, CRD C.5)     \* 12  
\* 1 c  
MF 1202
- 1     Allen, C. C., D. L. Lane, R. A. Palmer, and R. G. Johnston, 1983. Experimental Studies of Backfill Stability, RHO-BW-SA-313, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 2     Allen, C. C., and M. B. Strobe, 1983. Microcharacterization of Basalt-Considerations for a Nuclear Waste Repository, RHO-BW-SA-294 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)

- 3 Allen, J. N., 1980. "The Ecology and Behavior of the Long-billed Curlew, in Southeastern Washington," Wildlife Monographs, The Wildlife Society, Bethesda, Maryland. (Ch. 3)
- 4 Allison, L. E., 1964. "Salinity in Relation to Irrigation," Advances in Agronomy, Vo. 16, pp. 139-180. (Ch. 6, CRD C.5)
- B254 Ames, L. L., 1980. Hanford Basalt Flow Mineralogy, PNL-2847, Pacific Northwest Laboratory, Richland, Washington, pp. 152-192. (Ch. 6) \* 10  
MF 2006
- B5 Ames, L. L., and J. E. McGarrah, 1980. Basalt Radionuclide Distribution Coefficient Determinations FY 1979 Annual Report, PNL-3146, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* PNL-MF  
MF 2008
- B6 Ames, L. L., and J. E. McGarrah, 1980b. High-Temperature Determination of Radionuclide Distribution Coefficients for Columbia River Basalts, RHO-BWI-C-111, PNL-3250, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 1  
MF 0501
- B7 Ames, L. L., and J. E. McGarrah, 1980a. Investigation of Basalt-Radionuclide Distribution Coefficients: Fiscal Year 1980 Annual Report, RHO-BWI-C-108, PNL-3462, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* 1  
MF 0500
- B255 Anantatmula, R. P., 1985. "Effect of Grande Ronde Basalt Groundwater Composition and Temperature on the Corrosion of Low-Carbon Steel in the Presence of Basalt-Bentonite Packing," Scientific Basis for Nuclear Waste Management VIII, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), proceedings of the Materials Research Society Symposium, Vol. 44, Boston, Massachusetts, pp. 273-278; also RHO-BW-SA-391 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 10  
MF 1392
- B8 Anderson, C., C. Brewster, M. S. Davis, E. P. Gause, H. Jain, C. Pescatore, C. Sastre, P. Soo, and T. Sullivan, 1984. Review of Waste Package Verification Tests Biannual Report, NUREG/CR-3091, BNL-NUREG-51630, Vol. 6, Brookhaven National Laboratory, Upton, New York, for the U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 51-126. (Ch. 6, CRD C.4) \* 1  
MF 1706

- A5 Anderson, W. J., 1983. Waste Package, Nuclear Repository, Conceptual Design, Defense High-Level Waste, Commercial High-Level Waste, Spent Fuel, Backfill Performance, SD-BWI-CDR-004, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B256 Anderson, W. J., 1985. Waste Package Subsystem Advanced Conceptual Design Requirements Document, SD-BWI-FDC-009, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 1207
- B9 ANS (American Nuclear Society), 1981. "Determining Design Basis Flooding at Power Reactor Sites," American National Standard for Determining Design Basis Flooding at Power Reactor Sites, ANSI/ANS-2.8-1981, American National Standard Institute, New York, New York. (Ch. 3, CRD C.4) \* 3 MF 1209
- A6 ANSI (American National Standards Institute), 1982. Building Code Requirements for Minimum Design Loads for Buildings and Other Structures, ANSI A58.1, New York, New York. (Ch. 6)
- A7 AOU (The American Ornithologists' Union), 1983. Checklist of North American Birds, Lawrence, Kansas. (Ch. 3)
- B10 Apps, J. A., C. L. Carnahan, P. C. Lichtner, M. L. Michel, D. Perry, R. J. Silva, O. Weres, and A. F. White, 1982. Status of Geochemical Problems Relating to the Burial of High-Level Radioactive Waste, 1982, LBL-15103, Lawrence Berkeley Laboratory, Berkeley, California. (Ch. 6, CRD C.5) \* 1 MF 2013
- 6 Apted, M. J., and J. Myers, 1982. Comparison of the Hydrothermal Stability of Simulated Spent Fuel and Borosilicate Glass in a Basaltic Environment, RHO-BW-ST-38 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A8 Apted, M. J., and P. E. Long, 1982. Geochemical Characterization of Basalt/Groundwater Interaction for a Nuclear Waste Repository at the Hanford Site, Washington, RHO-BW-SA-215A P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 7 ARHCO (Atlantic Richfield Hanford Company), 1976. Preliminary Feasibility Study on Storage of Radioactive Wastes in Columbia River Basalts, ARH-ST-137, Richland, Washington. (Ch. 2, 3)

- 8 Arnett, R. C., R. D. Mudd, R. G. Baca, M. D. Marton, W. R. Norton, and D. B. McLaughlin, 1981. Pasco Basin Hydrologic Modeling and Far-Field Radionuclide Migration Potential, RHO-BWI-LD-44, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- A9. Arnett, R. C., and B. Sagar, 1984. Calculation of Groundwater Traveltime Using the Deterministic Approach: Limitations and Ranges of Applicability, SD-BWI-TA-014, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B257 Arnorsson, S., E. Gunnlaugsson, and H. Svavarsson, 1983. "The Chemistry of Geothermal Waters in Iceland. II. Mineral Equilibria and Independent Variables Controlling Water Compositions," Geochimica et Cosmochimica Acta, Vol. 47, No. 3, pp. 547-566. (Ch. 6) \* 5 c MF 1893
- B11 ASME (American Society of Mechanical Engineers), 1983. ASME Boiler and Pressure Vessel Code, Sec. 3, Div. 1, Edition including Winter 1984 Addendum, New York, New York. (CRD C.4) \* 1 c MF 1707
- B326 Atomic Energy Act of 1954. Public Law 83-703, 68 Stat. 919, 42 USC 2011, Nuclear Regulation Reports, pp. 3051-3226. (App. B) \* 9,13 MF 1947
- A11 Baca, R. G., D. W. Langford, and R. L. England, 1981. Analysis of Host-Rock Performance for a Nuclear Waste Repository Using Flow and Transport Models, RHO-BWI-SA-140, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 10 Baca, R. G., R. C. Arnett, and D. W. Langford, 1984b. "Modeling Fluid Flow in Fractured-Porous Rock Masses by Finite-Element Techniques," International Journal for Numerical Methods in Fluids, Vol. 4, pp. 337-348; also, RHO-BW-SA-297 P, Rockwell Hanford Operations, Richland, Washington, 1983. (Ch. 6)
- A12 Baca, R. G., J. C. Sonnichsen, M. K. Altenhofen, and D. W. Langford, 1984a. "Application of Finite-Element Models in the Evaluation of Engineered Barriers for a Mined Geologic Repository," Proceedings of the 5th International Conference on Finite Elements in Water Resources, Springer-Verlag, New York, pp. 793-806. (Ch. 6)

- 11 Bai, S., W. Zhu, and K. Wang, 1983. "Some Rock Mechanics Problems Related to a Large Underground Power Station in a Region with High Rock Stress," Proceedings of the 5th Congress in Rock Mechanics, International Society of Rock Mechanics, Melbourne, Australia, pp. D271-D273. (Ch. 6, CRD C.8)
- B12 Baker, S. M., 1985. A Preliminary Assessment of Water Inflow into Proposed Excavations in the Cohasset Flow Interior, SD-BWI-TI-274, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.8) \* MF 1708
- 13 Baker, V. R., 1973. Paleohydrology and Sedimentology of Lake Missoula Flooding in Eastern Washington, Special Paper 144, Geological Society of America, Boulder, Colorado. (Ch. 3, 6)
- 12 Baker, V. R., 1983. "Late-Pleistocene Fluvial Systems," The Late Pleistocene, S. C. Porter (ed.), Vol. 1, pp. 115-129. (Ch. 3)
- 14 Bakr, A. A., L. W. Gelhar, J. F. Billings, J. T. Kam, C. N. Culver, K. G. Kennedy, and C. D. Updegraff, 1980. "Tracer Test for Determination of Field Dispersivity in a Basalt Flow," abstract, EOS, Transactions of the American Geophysical Union, Vol. 61, No. 46, p. 961. (Ch. 3, CRD C.5)
- i5 Barney, G. S., 1981. Radionuclide Reactions with Groundwater and Basalts from Columbia River Basalt Formations, RHO-SA-217, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B13 Barney, G. S., 1982. FY 1981 Annual Report--Radionuclide Sorption on Basalt Interbed Materials, RHO-BW-ST-35 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 2026
- B14 Barney, G. S., 1984. "Radionuclide Sorption and Desorption Reactions with Interbed Materials from the Columbia River Basalt Formation" Geochemical Behavior of Disposed Radioactive Waste, G. S. Barney, J. D. Navratil, and W. S. Schulz (eds.), ACS Symposium Series 246, American Chemical Society, Washington, D.C.; also RHO-BW-SA-291 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* c MF 0509

- B15 Barney, G. S. and G. E. Brown, 1979. "The Kinetics and Reversibility of Radionuclide Sorption Reaction with Rocks--Progress Report for Fiscal Year 1979," Waste Isolation Safety Assessment Program, Task 4, Third Contractor Information Meeting, J. F. Relyea (ed.), CONF-7910160, Vol. II, PNL-SA-8571, Pacific Northwest Laboratory, Richland, Washington; also RHO-ST-29, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 0510
- B16 Barney, G. S., L. L. Ames, J. E. McGarrah, and B. A. Walker, 1983. Radionuclide Sorption Kinetics and Column Sorption Studies with Columbia River Basalts, SD-BWI-TI-168, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* MF 0401
- B17 Barney, G. S., D. L. Lane, C. C. Allen, and T. E. Jones, 1985. Sorption and Desorption Reactions of Radionuclides with a Crushed Basalt-Bentonite Packing Material, RHO-BW-SA-416 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 1709
- B230 Barrash, W., J. G. Bond, J. D. Kauffman, and R. Venkatakrishnan, 1980. Geology of the La Grande Area, Oregon, Special Paper 6, Oregon Department of Geology and Mineral Industries, Portland, Oregon. (Ch. 2) \* MF 2028
- A14 Barry, R. G., 1983. "Late-Pleistocene Climatology," Late-Quaternary Environments at the United States, Vol. 1, A. E. Wright (ed.), University of Minnesota Press, Minneapolis, Minnesota, pp. 390-407. (Ch. 6)
- 16 Bartlett, J. W., 1983. "Report of the DOE-RL Basalt Waste Isolation Project Overview Committee Meeting held in Richland on April 5-6, 1983," (letter to O. L. Olson, Basalt Waste Isolation Project Office, U.S. Department of Energy-Richland Operations Office, April 13, 1983). (Ch. 2)
- B258 Barton, N., 1986. Rock Mass Quality and Support Recommendations for Basalt at the Candidate Repository Horizon, Based on the Q-System, SD-BWI-ER-012 Rev. 2, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5, C.8) MF 1989
- 17 Barton, N., R. Lien, and J. Lunde, 1974. "Engineering Classification of Rock Masses for the Design of Tunnel Support," Rock Mechanics, Vol. 6, No. 4, pp. 189-236. (Ch. 6, CRD C.8, App. B)

- A16 Bauer, S. J., M. Friedman, and J. Handin, 1981. "Effects of Water Saturation on Strength and Ductility of Three Igneous Rocks at Effect Pressures to 50 MPa and Temperatures to Partial Melting," Proceedings of the 22nd United States Symposium on Rock Mechanics, Massachusetts Institute of Technology, Cambridge, Massachusetts. (Ch. 6)
- B18 Bear, J., 1972. Dynamics of Fluids in Porous Media, Elsevier Scientific Publishing Co., New York, New York, pp. 151-157. (CRD C.5) \* 10 MF 1710
- B19 Beare, J. A., 1978. Vital Statistics Summary: Washington State, 1977, Health Data Center, State of Washington Department of Social and Health Services, Olympia, Washington, pp. 10-11, 32-41, 55-56. (CRD C.7) \* MF 1711
- B21 Beeson, M. H., K. R. Fecht, S. P. Reidel, and T. L. Tolan, 1985. "Regional Correlations within the Frenchman Springs Member of the Columbia River Basalt Group: New Insights into the Middle Miocene Tectonics of Northwest Oregon," Oregon Geology, Vol. 47, No. 8, pp. 87-96. (Ch. 2, 3, CRD C.4) \* 5 FM 1713
- 19 Bell, N. M., and L. S. Leonhart, 1980. A Preliminary Evaluation of Water Resource Development and Potential within the Pasco Basin, RHO-BWI-LD-33, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 6, CRD C.4)
- A17 Benjamin, J. A., and C. A. Cornell, 1970. Probability Statistics; and Decision for Civil Engineers, McGraw-Hill Book Company, New York, New York, pp. 140-142. (Ch. 6)
- B259 Benson, L. V., C. L. Carnahan, J. A. Apps, C. A. Mouton, D. J. Corrigan, C. J. Frisch, and L. K. Shomura, 1978. Basalt Alteration and Basalt-Waste Interaction in the Pasco Basin of Washington State, LBL-8532, Lawrence Berkeley Laboratory, Berkeley, California. (Ch. 6) \* MF 0511
- 20 Benson, L. V., and L. S. Teague, 1982. "Diagenesis of Basalts from the Pasco Basin, Washington - I. Distribution and Composition of Secondary Mineral Phases," Journal of Sedimentary Petrology, Vol. 52, No. 2, pp. 595-613. (Ch. 6, CRD C.4)

- B22 Benson, L. V., L. S. Teague, C. A. Mouton, C. J. Frisch,  
R. A. Stolzman, and D. J. Corrigan, 1979. A Study of Rock-Water-  
Nuclear Waste Interactions in the Pasco Basin, Washington,  
LBL-9677, Lawrence Berkeley Laboratory, Berkeley, California.  
(CRD C.5) \* 1  
MF 0512
- 21 Bentley, R. D., 1977. "Stratigraphy of the Yakima Basalts and  
Structural Evolution of the Yakima Ridges in the Western Columbia  
Plateau," Geology Excursions in the Pacific Northwest, E. H. Brown  
and R. C. Ellis (eds.), Western Washington University, Bellingham,  
Washington, pp. 339-389. (Ch. 2, 3)
- 22 Bentley, R. D., 1980. "Angular Unconformity and Thrust Fault in  
the Umtanum Anticlinal Uplift Near Priest Rapids Dam, Central  
Washington," EOS, Transactions of the American Geophysical Union,  
Vol. 61, No. 46, p. 1108. (Ch. 3)
- A18 Bentley, R. D., 1980. "Wrench Tectonic Model for the Late Cenozoic  
Evolution of Oregon and Washington," Geological Society of America  
Abstract with Programs, Vol: 12, No. 7, p. 385. (Ch. 2, 6,  
CRD C.5)
- 823 Bentley, R. D., J. L. Anderson, N. P. Campbell, and D. A. Swanson,  
1980. Stratigraphy and Structure of the Yakima Reservation with  
Emphasis on the Columbia River Basalt Group, Open-File Report  
80-200, U.S. Geological Survey, Washington, D.C. (Ch. 2, 3,  
CRD C.5) \* 2  
MF 2038
- 23 Bentley, W. H., 1982. Assessment of the Rockwell Hanford Isotope  
and Geochemical Hydrology Program, Pasco Basin, Washington,  
unpublished report, Hydro Geo Chem, Inc., Tuscon, Arizona, for  
Rockwell Hanford Operations, Richland, Washington. (Ch. 3,  
CRD C.4)
- 24 Benton-Franklin Governmental Conference, 1983. Employment Data  
Sheet for Years 1965-1969, Richland, Washington. (Ch. 3)
- A19 Benton-Franklin Governmental Conference, 1984. Selected traffic  
volume data base from a computerized data base as provided by the  
conference, Richland, Washington. (Ch. 3)

- B24 Benzing, W. C., J. B. Conn, J. V. Magee, and E. J. Sheehan, 1958. "Synthesis of Selenides and Tellurides. I. The Reduction of Selenites by Hydrazine," Journal of the American Chemical Society, Vol. 80, pp. 2657-2659. (Microfiche reads Benzing 1957, in error.) (CRD C.5) \* 2 c  
MF 1716
- 25 Berg, J. W., and C. D. Baker, 1963. "Oregon Earthquakes, 1841 through 1958," Bulletin of the Seismological Society of America, Vol. 53, No. 1, pp. 95-108. (Ch. 2)
- B25 Berkman, E., 1984. Reprocessing and Interpretation Seismic Reflection Data Hanford Site, Pasco Basin, South Central Washington, SD-BWI-TI-177, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \*  
MF 0403
- B26 Bernhardt, D. E., 1976. Evaluation of Sample Collection and Analysis Techniques for Environmental Plutonium, ORP/LV-76-5, U.S. Environmental Protection Agency, Office of Radiation Programs, Las Vegas Facility, Las Vegas, Nevada. (CRD C.6) \* 1  
MF 1717
- 26 Bieniawski, Z. T., 1973. "Engineering Classification of Jointed Rock Masses," Transactions, South African Institute of Civil Engineers, Vol. 15, No. 12, pp. 335-343. (Ch. 6)
- 27 Bieniawski, Z. T., 1976. "Rock Mass Classifications in Rock Engineering," Proceedings of the Symposium on Exploration for Rock Engineering, Vol. 1, A. A. Balkema Press, Johannesburg, South Africa, pp. 97-106. (Ch. 6)
- 28 Bieniawski, Z. T., 1979. "The Geomechanics Classification in Rock Engineering Applications," Proceedings of the 4th International Society of Rock Mechanics, Montreaux, Switzerland. (Ch. 6)
- 29 Bingham, J. W., C. J. Londquist, and E. H. Baltz, 1970. Geologic Investigation of Faulting in the Hanford Region, Washington, Open-File Report, U.S. Geological Survey, Tacoma, Washington. (Ch. 2, 3, CRD C.4, C.5)
- B260 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, New Mexico. (Ch. 6) \* 9  
MF 1894

- 30 Bjornstad, B. N., 1984. Suprabasalt Stratigraphy within and Adjacent to the Reference Repository Location, SD-BWI-DP-039, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5)
- 31 Blake, W., 1972. "Rock Burst Mechanics," Quarterly, Colorado School of Mines, Vol. 67, No. 1. (Ch. 6)
- A20 Blake, W., 1984. Assessment of the Rock Burst Potential in Basalt at Hanford, SD-BWI-ER-010, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.8)
- B27 Blankennagel, R. K., 1968. "Geophysical Logging and Hydraulic Testing, Pahute Mesa, Nevada Test Site," Ground Water, Vol. 6, No. 4, pp. 24-31. (CRD C.4) \* 3  
MF 1719
- 32 BLM (Bureau of Land Management), 1956. "Department of Interior, Bureau of Land Management, Public Land Order 1273," Federal Register, Vol. 21, p. 1719. (Ch. 6)
- 33 BOC (U.S. Bureau of the Census), 1960. Population Characteristics for States, Cities and Counties, Washington, Part 49, U.S. Government Printing Office, Washington, D.C., p. 12. (Ch. 3)
- 34 BOC (U.S. Bureau of the Census), 1970. Population Characteristics for States, Cities, and Counties, Washington, Part 49, U.S. Government Printing Office, Washington, D.C., p. 16. (Ch. 3)
- 35 BOC (U.S. Bureau of the Census), 1980. Population Characteristics for States, Cities, and Counties, Washington, Part 49, U.S. Government Printing Office, Washington, D.C., p. 10. (Ch. 3)
- 36 BOC (U.S. Bureau of the Census), 1981. 1980 Census of Population and Housing, Washington, PHC80-V-49, Advance Reports, U.S. Department of Commerce, Washington, D.C. (Ch. 6)
- B28 BOC (U.S. Bureau of the Census), 1981. 1978 Census of Agriculture, Volume 1, State and County Data, Part 47, Washington, AC78-A-47, U.S. Department of Commerce, Washington, D.C., pp. 118, 144-154. (Ch. 3, CRD C.7) \* 1  
MF 1720

- A21 BOC (U.S Bureau of the Census), 1983. County and City Data Book, U.S. Government Printing Office, Washington, D.C., Tables B and D. (Ch. 3)
- B29 BOC (U.S. Bureau of the Census), 1984. 1982 Census of Agriculture, Volume 1, Geographic Area Series, Part 47, Washington, State and County Data, AC82-A-47, U.S. Department of Commerce, Washington, D.C., pp. 120-125, 130-134, 236-253. (Ch. 3, CRD C.7) \* 1 MF 1721
- B30 Boggs, S., Jr., and M. G. Seitz, 1984. The Influence of Dissolved Organic Substances in Groundwater on Sorption Behavior of Americium and Neptunium, ANL-83-84, Argonne National Laboratory, Chemical Technology Division, Argonne, Illinois. (CRD C.5) \* 2 MF 1722
- 37 Bohn, H. L., B. L. McNeal, and G. A. O'Connor, 1979. Soil Chemistry, John Wiley and Sons, New York, New York, pp. 224-226. (Ch. 6)
- 39 Bond, J. G., J. D. Kauffman, D. A. Miller, and W. Barrash, 1978. Geology of the Southwestern Pasco Basin, RHO-BWI-C-25, Geoscience Research Consultants for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.5)
- 38 Bondietti, E. A., and C. W. Francis, 1979. "Geologic Migration Potentials of Technetium-99 and Neptunium-237," Science, Vol. 203, March, pp. 1337-1340, copyright 1979 AAAS. (Ch. 6)
- B261 Borchardt, G. A., 1977. "Montmorillonite and Other Smectite Minerals," Minerals in Soil Environments, R. C. Dinaur (ed.), Soil Science Society of America, Madison, Wisconsin, pp. 293-330. (Ch. 6) \* 5 c MF 1895
- B31 Brace, W. F., 1984. "Permeability of Crystalline Rocks: New In Situ Measurements," Journal of Geophysical Research, Vol. 89, No. B6, pp. 4327-4330. (CRD C.5) \* c MF 1997
- B262 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, Washington. (Ch. 6) \* 10 MF 1896

- B32 Brauer, F. P., and H. G. Rieck, Jr., 1973. 129I, 60Co, and 106Ru Measurements on Water Samples from the Hanford Project Environs, BNWL-SA-4478, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, CRD C.4) \* 11 MF 1723
- B33 Bredehoeft, J. D., A. W. England, D. B. Stewart, N. J. Trask, and I. J. Winograd, 1978. Geologic Disposal of High-Level Radioactive Wastes--Earth-Science Perspectives, Geological Survey Circular 779, U.S. Geological Survey, Washington, D.C. (CRD C.4) \* MF 0137
- 40 Bretz, J. H., 1923. "The Channeled Scablands of the Columbia Plateau," Journal of Geology, Vol. 31, No. 8, pp. 617-649. (Ch. 2, 3)
- B379 Broecker, W. S., and J. Van Donk, 1970. "Insolation Changes, Ice Volumes and the O<sup>18</sup> Record in Deep Sea Cores," Reviews of Geophysics and Space Physics, Vol. 8, No. 1, pp. 169-198. (Ch. 6) \* MF 1264
- 41 Brooks, W. E., Jr., 1974. Stratigraphy and Structure of the Columbia River Basalt in the Vicinity of Gable Mountain, Benton County, Washington, Master of Science thesis, University of Washington, Seattle, Washington. (Ch. 3)
- 42 Brown, D. J., 1959. Subsurface Geology of the Hanford Separation Areas, HW-61780, General Electric Company, Richland, Washington. (Ch. 3)
- B303 Brown, D. J., R. C. Routson, W. H. Price, and K. R. Fecht, 1979. Status of Liquid Waste Leaked from the 241-T-106 Tank, RHO-ST-1, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \* 7 MF 1930
- 43 Brown, R. E., 1970. Interrelationships of Geologic Formations and Processes Affecting Ecology as Exposed at Rattlesnake Springs, Hanford Project, BNWL-B-29, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6, CRD C.5)
- 44 Brown, R. E., 1979. A Review of Water Well Data from the Unconfined Aquifer in the Eastern and Southern Parts of the Pasco Basin, RHO-BWI-C-56, for Rockwell Hanford Operations, Richland, Washington. (Ch. 2)

- B263 Browning, R. E., 1985. Letter to R. Stein, Director, Engineering and Licensing Division, Repository Projects Team, U.S. Department of Energy, June 12, 1985. (Ch. 6) \* 5  
MF 1897
- B34 Bryce, R. W., and R. A. Yeatman, 1985. Water-Level, Downhole Pressure and Atmospheric Pressure Measurements from Piezometer Clusters DC-19, DC-20, and DC-22, December 1 through December 31, 1984, SD-BWI-DP-059, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5) \* 11  
MF 1275
- 45 Burnham, J. B., 1983. "Basalt Waste Isolation Project Review by Pacific Northwest Laboratory's Review Team," (letter to O. L. Olson, J. H. Anttonen, A. G. Fremling, U.S. Department of Energy-Richland Operations Office, November 29, 1983). (Ch. 4, 6, CRD C.5, C.9)
- 46 Caggiano, J. A., 1983. "Geologic Summary of the Columbia Plateau," Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, J. A. Caggiano, and D. W. Duncan (eds.), RHO-BW-ST-19 P, Rockwell Hanford Operations, Richland, Washington, pp. 2-1 through 2-25. (Ch. 2, 3, CRD C.5)
- A22 Caggiano, J. A., and D. W. Duncan (eds.), 1983. Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, RHO-BW-ST-19 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4, C.5)
- 47 Camp, V. E., 1981. "Geologic Studies of the Columbia Plateau: Part II. Upper Miocene Basalt Distribution Reflecting Source Locations, Tectonism and Drainage History in the Clearwater Embayment, Idaho," Geological Society of America Bulletin, Vol. 92, pp. 669-678. (Ch. 2)
- B232 Camp, V. E., and P. R. Hooper, 1981. "Geologic Studies of the Columbia Plateau: Part I. Late Cenozoic Evolution of the Southeast Part of the Columbia River Basalt Province," Geologic Society of America Bulletin, Vol. 92, pp. 659-668. (Ch. 2) \*  
MF 0519
- B35 Campbell, N. P., 1985. Stratigraphy and Hydrocarbon Potential of the Northwestern Columbia Basin Based on Recent Drilling Activities, SD-BWI-TI-265, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5) \*  
MF 2075  
DSI 10/22

- 48 Campbell, N. P., and R. D. Bentley, 1981. "Late Quaternary Deformation of the Toppenish Ridge Uplift in South-Central Washington," Geology, Vol. 9, pp. 519-524. (Ch. 2, CRD C.5)
- B36 Carlson, R. A., 1986. Hydraulic Conductivity and Moisture Density Relationships of Candidate Packing Materials, SD-BWI-TI-203, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) MF 1725
- B37 Carlsson, A., and T. Olsson, 1982. Characterization of Deep-Seated Rock Masses by Means of Borehole Investigations, Research and Development Report 5:1, Swedish State Power Board, Sweden, p. 45-59. (CRD C.4) \* 3 MF 1726
- 49 Choiniere, S. R., and D. A. Swanson, 1979. "Magnetostatigraphy and Correlation of Miocene Basalts of the Northern Oregon Coast and Columbia Plateau, Southeast Washington," American Journal of Science, Vol. 279, No. 7, pp. 755-777. (Ch. 3, CRD C.4)
- B264 Claiborne, H. C., A. G. Croff, J. C. Griess, and F. J. Smith, 1985. Repository Environmental Parameters Relevant to Assessing the Performance of High-Level Waste Packages, NUREG-CR-4134, ORNL-TM-9522, Oak Ridge National Laboratory, Oak Ridge, Tennessee, for the U.S. Nuclear Regulatory Commission, Washington, D.C., p. 84. (Ch. 6) \* 12 MF 1898
- A23 Clark, S. P., Jr. (ed.), 1966. Handbook of Physical Constants, Rev. Ed., Geological Society of America, Memoir 97, New York, New York. (Ch. 6)
- B370 Clean Air Act of 1977, Public Law 95-95, 91 Stat. 685, 42 USC 7401. (Ch. 4, 6) \* 14 MF 1991
- 51 Cleveland, J. M., T. F. Rees, and K. L. Nash, 1983a. "Neptunium and Americium Speciation in Selected Basalt, Granite, Shale, and Tuff Groundwaters," Science, Vol. 221, pp. 271-273. (Ch. 6)
- 52 Cleveland, J. M., T. F. Rees, and K. L. Nash, 1983b. "Plutonium Speciation in Selected Basalt, Granite, Shale, and Tuff Groundwaters," Nuclear Technology, Vol. 62, pp. 298-310. (Ch. 6, CRD C.5)

- B38 Clifton, P. M., 1985. Groundwater Travel Time Uncertainty Analysis--Sensitivity of Results to Model Geometry, and Correlations and Cross Correlations Among Input Parameters, RHO-BW-ST-70 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* 9 MF 1729
- B265 Clifton, P. M., 1986. Groundwater Travel Time Analysis for the Reference Repository Location at the Hanford Site, SD-BWI-TI-303, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) MF 1899
- 54 Clifton, P. M., R. G. Baca, and R. C. Arnett, 1983. Stochastic Analysis of Groundwater Traveltimes for Long-Term Repository Performance Assessment, RHO-BW-SA-323 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A26 Clifton, P. M., R. C. Arnett, and N. W. Kline, 1984. Preliminary Uncertainty Analysis of Pre-Waste-Emplacement Groundwater Travel Times for a Proposed Repository in Basalt, SD-BWI-TA-013, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- A27 CLIMAP (Climate, Long-Range Investigation, Mapping, and Prediction Project), 1984. "The Last Interglacial Ocean," Quaternary Research, Vol. 21, No. 2, pp. 123-224. (Ch. 6)
- 55 Cline, J. F., D. W. Vresh, and W. H. Rickard, 1977. "Plants and Soil in a Sagebrush Community on the Hanford Reservation," Northwest Science, Vol. 51, No. 6. (Ch. 3)
- 56 Cluett, C., P. A. Bolton, S. Malhoutra, J. R. McStay, and J. A. Slingsby, 1984. Nuclear Waste Repository in Basalt: Preliminary Socioeconomic Assessment, RHO-BW-CR-142 P, Battelle Human Affairs Research Center for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 5, 6, CRD C.7)
- A28 Cobbs, J. H., 1981. A Review of Drilled Shaft Sealing for the Basalt Waste Isolation Project, Cobbs Engineering, Tulsa, Oklahoma. (Ch. 6)
- A29 Cobbs, J. H., 1984. Analysis of Shaft Construction - Bougainville Island, New Zealand, Cobbs Engineering, Tulsa, Oklahoma. (Ch. 6)

- 57 Cochran, M. P., 1982. Geophysical Investigation of Eastern Yakima Ridge, South-Central Washington, RHO-BW-SA-214 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4, C.5)
- 58 COE (U.S. Army Corps of Engineers), 1951. Artificial Flood Possibilities on the Columbia River, Washington District, Washington, D.C. (Ch. 3, CRD C.4)
- 59 COE (U.S. Army Corps of Engineers), 1969. Lower Columbia River Standard Project Flood and Probable Maximum Flood, North Pacific Division, Portland, Oregon. (Ch. 3)
- 60 COE (U.S. Army Corps of Engineers), 1976. Power Pondage Studies, CRT-30, North Pacific Division, Portland, Oregon. (Ch. 2)
- 61 COE (U.S. Army Corps of Engineers), 1977. Reach Inventory, Columbia River Headwater McNary Reservoir to Grand Coulee Dam, CRT-34, North Pacific Division, Portland, Oregon. (Ch. 3)
- B40 COE (U.S. Army Corps of Engineers), 1982. Emergency Preparedness Brief with Inundation Maps, Chief Joseph Dam, Seattle District, Seattle, Washington. (CRD C.4) \* 3  
MF 1731
- B41 Coles, D. G., 1984. The Effect of Basalt on the Release of  $^{99}\text{Tc}$ ,  $^{237}\text{Np}$ , and  $^{239}\text{Pu}$  From Borosilicate Glass Under Hydrothermal Conditions, SD-BWI-TI-190, Pacific Northwest Laboratories for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \*  
MF 1297
- 62 Coles, D. G. and M. J. Apted, 1983. The Behavior of  $^{99}\text{Tc}$  in Doped-Glass/Basalt Hydrothermal Interaction Tests, RHO-BW-SA-319, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A30 Communication Design, 1983. Nuclear Waste in Washington: Citizens' Awareness and Information Needs, Seattle, Washington. (Ch. 3)
- 63 Congressional Record--House, 1979. Amendment offered by Mr. Lujan, "Site Recommendation for a High-Level Waste Geological Storage Repository," pp. H 9367 through H 9371. (October 18, 1979) (Ch. 2)

- A31 Conklin, A. W., R. E. Elder, V. G. Johnson, W. R. Osborne, and A. G. Law, 1984. Rockwell Hanford Operations Environmental Surveillance Annual Report - Calendar Year 1983, RHO-HS-SR-83-13 P Rev. 1, Rockwell Hanford Operations, Richland, Washington. (Ch. 3)
- B42 Cooper, H. H., Jr., J. D. Bredehoeft, I. S. Papadopoulos, and R. R. Bennett, 1965. "The Response of Well-Aquifer Systems to Seismic Waves," Journal of Geophysical Research, Vol. 70, No. 16, pp. 3915- 3926. (CRD C.5) \* MF 1732
- 64 Cooper, H. H., and C. E. Jacob, 1946. "A Generalized Graphical Method for Evaluating Formation Constants and Summarizing Well-Field History," Transcripts of the American Geophysical Union, Vol. 27, No. 4, pp. 526-534. (Ch. 3)
- A32 Cottam, A. E., 1983. An Evaluation of the Extent and Properties of the Zone of Disturbed Rock Around a Vertical Shaft Excavated through Basalt Flows at the Basalt Waste Isolation Project Site, SD-BWI-TI-128, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- 8328 Council on Environmental Quality, 1977. National Environmental Policy Act--Regulations, Title 40, Code of Federal Regulations, Parts 1500-1508, Washington, D.C. (App. B) \* 9 MF 1948
- B43 Couture, R. A., 1985. "Rapid Increases in Permeability and Porosity of Bentonite-Sand Mixtures Due to Alteration by Water Vapor," Scientific Basis for Nuclear Waste Management VIII, C. M. Jantzen, J. A. Stone, and R. C. Ewing (eds.), proceedings of the Materials Research Society Symposium, Vol. 44, Boston, Massachusetts, November 1984, pp. 515-522. (Ch. 6, CRD C.4) \* 2 c MF 1734
- B44 Couture, R., and R. Bane, 1984. Nuclear Technology Programs Quarterly Progress Report, Jan-Mar 1984, ANL-84-37, Argonne National Laboratory, Argonne, Illinois. (CRD C.4) \* 2 MF 1735
- A34 Craig, R. G., M. P. Singer, and G. L. Underberg, 1983. Analysis of Ice-Age Flooding from Lake Missoula, Kent State University, Kent, Ohio. (Ch. 6, CRD C.5)
- 65 Crosby, J. W., and R. M. Chatters, 1965. Water Dating Techniques as Applied to the Pullman-Moscow Groundwater Basin, Bulletin 296, College of Engineering, Washington State University, Pullman, Washington. (Ch. 2)

- B45 Cross, R. W., 1983. Deep Borehole Stratigraphic Correlation Charts and Structure Cross Sections, SD-BWI-DP-035, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* MF 0407
- B266 Cross, R. W., and K. R. Fairchild, 1985. Geologic Thickness Data--Candidate Repository Horizons, SD-BWI-DP-011 Rev. 2, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6) \* MF 1900
- 66 Cummins, J. E., M. R. Collings, and E. G. Nassar, 1975. Magnitude and Frequency of Floods in Washington, Open-File Report 74-336, U.S. Geological Survey, Tacoma, Washington. (Ch. 2)
- A35 Cummins, A. B., and I. A. Given, 1973. SME Mining Engineering Handbook, Society of Mining Engineers of America Institute of Mining Engineers, New York, New York, pp. 26-5 through 26-8. (Ch. 6)
- 67 Daubenmire, R., 1970. Steppe Vegetation of Washington, Technical Bulletin 62, Experimental Station, Washington State University, Pullman, Washington, pp. 83 and 84. (Ch. 3, CRD C.4)
- B329 Daugherty, R. D., 1973. "The Yakima People," Indian Tribal Series, Phoenix, Arizona. (Ch. 3) \* 17 MF 1949
- B397 Davenport, W. B., Jr., 1970. Probability and Random Processes, McGraw-Hill Book Company, New York, New York, p. 209. (Ch. 6) \* 14 MF 1103
- A36 Davis, G. A., 1981. "Late Cenozoic Tectonics of the Pacific Northwest with Special Reference to the Columbia Plateau," Final Safety Analysis Report, WNP-2, Amendment 18, Appendix 2.5N, Washington Public Power Supply System, Richland, Washington. (Ch. 2, 3, 6, CRD C.5)
- 69 Davis, J. D., A. K. Runchal, N. A. Bauman, and O. L. Ervin, 1983. Delphi Analysis of Radionuclide Release Scenarios for a Nuclear Waste Repository at the Hanford Site, Washington State, RHO-BW-ST-42 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B371 Davis, S. N., 1969. "Porosity and Permeability of Natural Materials," Flow Through Porous Media, R. J. M. De Weist (ed.), Academic Press, New York, New York, pp. 53-89. (CRD C.5) \* MF 2100

- 846 Davison, C. C., W. S. Keys, and F. L. Paillet, 1982. Use of Borehole-Geophysical Logs and Hydrologic Tests to Characterize Crystalline Rock for Nuclear-Waste Storage, Whiteshell Nuclear Research Establishment, Manitoba, and Chalk River Nuclear Laboratory, Ontario, Canada, ONWI-418, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio. (CRD C.4) \* 6  
MF 1736
- 847 Dennehy, K. F., and J. W. Mercer, 1982. Results of Hydrologic Tests and Water-Chemistry Analyses, Wells H-5A, H-5B, and H-5C, at the Proposed Waste Isolation Pilot Plant Site, Southeastern New Mexico, Water Resources Investigations 82-19, PB82-263641, U.S. Geological Survey, Washington, D.C. (CRD C.4) \* 3  
MF 1737
- 8268 Deutsch, W. J., E. A. Jenne, and K. M. Krupka, 1982a. Computed Solid Phases Limiting the Concentration of Dissolved Constituents in Basalt Aquifers of the Columbia Plateau in Eastern Washington, PNL-4089, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6) \*  
MF 2106
- 70 Deutsch, W. J., E. A. Jenne, and K. M. Krupka, 1982. "Solubility Equilibria in Basalt Aquifers: The Columbia Plateau, Eastern Washington, U.S.A., Chem. Geol., Vol. 36, pp. 15-34. (Ch. 6)
- 848 Diediker, L. D., 1984. Borehole DC-16A Report, SD-BWI-TI-135 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \*  
MF 0409
- 8269 Dill, J. A., T. E. Jones, A. D. Marcy, and M. H. West, 1986. An Evaluation of Redox Conditions in Hanford Basalt Groundwaters, RHO-BW-ST-76 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 5  
MF 1902
- 71 Dion, N. P., and W. E. Lum, II, 1977. Municipal, Industrial, and Irrigation Water Use in Washington, 1975, Open-File Report 77-308, U.S. Geological Survey, Tacoma, Washington. (Ch. 2, 3)
- B394 DOA (U.S. Department of the Army), 1979. Final Environmental Impact Statement Fort Lewis Military Installation, Headquarters, 9th Infantry Division and Fort Lewis, with URS Company, Seattle, Washington, pp. 67-109. (Ch. 3, 5, 6, CRD C.6) \* 12  
MF 1100

- B330 DOC (U.S. Department of Commerce), 1974. Federal and State Indian Reservations and Indian Trust Areas, 1974-0503204, U.S. Government Printing Office, Washington, D.C., pp. 197-199, 484, 485, and 575-577. (Ch. 3)
- A37 DOE (U.S. Department of Energy), 1979. Technology for Commercial Radioactive Waste Management, DOE/ET-0028, Vol. 1, Washington, D.C., pp. 7.2.17, 7.2.20, 7.2.23, and 7.2.26. (Ch. 6)
- 72 DOE (U.S. Department of Energy), 1980. Final Environmental Impact Statement: Management of Commercially Generated Radioactive Waste, DOE/EIS-0046-F, 3 Volumes, Washington, D.C. (Ch. 3, 5, 6, CRD C.4, C.6)
- 73 DOE (U.S. Department of Energy), 1981. Reactor and Nonreactor Nuclear Facility Emergency Planning, Preparedness, and Response Program for DOE Operations, DOE Order 5500.3, August 13, 1981, Washington, D.C. (Ch. 4, 5, 6, CRD C.7)
- 74 DOE (U.S. Department of Energy), 1981a. Environmental Protection, Safety, and Health Protection Standard for Department of Energy Operations, DOE-HQ Order 5480.1A, August 13, 1981, Washington, D.C. (Ch. 3, 4, 5, 6)
- A38 DOE (U.S. Department of Energy), 1981b. NWTS Program Criteria for Mined Geologic Disposal of Nuclear Waste: Site Performance Criteria, DOE NWTS-33(2), National Waste Terminal Storage Program, Washington, D.C. (Ch. 5)
- 75 DOE (U.S. Department of Energy), 1982. Site Characterization Report for the Basalt Waste Isolation Project, DOE/RL 82-3, 3 Vols., Rockwell Hanford Operations for the U.S. Department of Energy, Washington, D.C. (Ch. 2, 3, 6, CRD C.4, C.5)
- 76 DOE (U.S. Department of Energy), 1982a. Draft Environmental Impact Statement: Operation of PUREX and Uranium Oxide Plant Facilities, DOE/EIS-0089D, Washington, D.C. (Ch. 3, 4, 6)
- 77 DOE (U.S. Department of Energy), 1982b. Emergency Procedures, Richland Operations Office, Richland, Washington. (Ch. 6)

\* 13  
MF 1950

- 78 DOE (U.S. Department of Energy), 1982c. Environmental Assessment for the Basalt Waste Isolation Project Exploratory Shaft Construction, DOE/EA-0188, Washington, D.C. (Ch. 5, 6)
- 79 DOE (U.S. Department of Energy), 1982d. Radiological Emergency Response Plan, Richland Operations Office, Richland, Washington. (Ch. 6, CRD C.7)
- 81 DOE (U.S. Department of Energy), 1983a. Draft Environmental Assessment for Characterization of the Hanford Site Pursuant to the Nuclear Waste Policy Act of 1982 (Public Law 97-425), DOE/EA-0210, Washington, D.C. (Ch. 3)
- 82 DOE (U.S. Department of Energy), 1983b. Addendum to Environmental Impact Statement: Operation of PUREX and Uranium Oxide Plant Facilities, DOE/EIS-0089-Add., Washington, D.C. (Ch. 3, 6)
- B331 DOE (U.S. Department of Energy), 1983c. Defense Waste Management Plan, DOE/DP-0015, Assistant Secretary for Defense Programs, Washington, D.C., pp. 17-19. (Ch. 3) \* 7  
MF 1951
- 83 DOE (U.S. Department of Energy), 1983c. Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics, DOE/NE-0017/2, Washington, D.C. (Ch. 6)
- B332 DOE (U.S. Department of Energy), 1983. Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Wastes, Title 10, Code of Federal Regulations, Part 961, Washington D.C. (Ch. 5) \* 9  
MF 1952
- B333 DOE (U.S. Department of Energy), 1984a. Environmental Protection, Safety, and Health Protection Standards, DOE Order 5480.4, May 15, 1984, Washington, D.C. (Ch. 4, 5) \* 8  
MF 1953
- 849 DOE (U.S. Department of Energy), 1984b. Draft Environmental Assessment, Reference Repository Location, Hanford Site, Washington, DOE/RW-0017, Office of Civilian Radioactive Waste Management, Washington, D.C. (CRD C.4, C.5, C.6, C.7, C.8, C.9) \* 1  
MF 2125
- B390 DOE (U.S. Department of Energy), 1984c. Generic Requirements for a Mined Geologic Disposal System, DOE/OGR/B-2, Washington, D.C. (Ch. 6, CRD C.4) \*  
MF 1990

- 8398 DOE (U.S. Department of Energy), 1984c. "The Nuclear Regulatory Commission Hydrologic Test Data Review" (letter from O. L. Olson, Project Manager, Basalt Waste Isolation Project Office, Richland Operations Office, to R. J. Wright, U.S. Nuclear Regulatory Commission, Division of Waste Management, Washington, D.C., November 1, 1984). (CRD C.5) \* 14  
MF 1104
- 8368 DOE (U.S. Department of Energy), 1984. General Guidelines for the Recommendation of Sites for Nuclear Waste Repositories, Title 10, Code of Federal Regulations, Part 960, Washington, D.C. (Ch. 2, 4, 5, 6, CRD C.4, C.5, C.7, C.8, C.9, App. B) \* 9  
MF 1987
- 851 DOE (U.S. Department of Energy), 1985. Background Information on the Draft Environmental Assessment, DOE/RL-85-1, Office of Civilian Radioactive Waste Management, Washington D.C., pp. 16-17. (CRD C.9) \* 2  
MF 1741
- B399 DOE (U.S. Department of Energy), 1985. "Designation of a Preferred Candidate Horizon for the Basalt Waste Isolation Project" (Letter No. RW-24 from W. J. Purcell, Associate Director for Geologic Repositories, Office of Civilian Radioactive Waste Management, Washington, D.C., to O. L. Olson, Project Manager, Richland Operations Office, Basalt Waste Isolation Project Office, Richland, Washington, June 5, 1985). (CRD C.5) \* 13  
MF 1105
- B408 DOE (U.S. Department of Energy), 1985. Mission Plan for the Civilian Radioactive Waste Management Program, DOE/RW-0005 Washington, D.C. (Ch. 5) MF 1173
- A40 DOE (U.S. Department of Energy), 1984c. "Headquarters Guidance on Revisions of the Draft Environmental Assessments (EAs)," (letter from J. W. Bennett to J. Neff, L. Olson, and D. Vieth, May 9, 1984). (Ch. 6)
- 85 DOE/NRC (U.S. Department of Energy/U.S. Nuclear Regulatory Commission), 1983. Summary Meeting Notes DOE/NRC Meeting on Hydrology Testing, Richland, Washington. (Ch. 3, 6, CRD C.4)
- 852 DOI (U.S. Department of the Interior), 1982. Emergency Preparedness Brief with Inundation Map from Standard Operating Procedures, Grand Coulee Dam, Bureau of Reclamation, Pacific Northwest Regional Office, Boise, Idaho. (CRD C.4) \* 3  
MF 1743

- 87 DOI (U.S. Department of the Interior), 1983a. "Declaration of the Confederated Tribes of the Umatilla Indian Reservation as an Affected Tribe" (letter from the Assistant Secretary for Indian Affairs, U.S. Department of Interior, to the Secretary, U.S. Department of Energy, July 13, 1983). (Ch. 3, 5)
- 88 DOI (U.S. Department of the Interior), 1983b. "Declaration of the Yakima Indian Nation as an Affected Tribe" (letter from the Assistant Secretary for Indian Affairs, U.S. Department of Interior, to the Secretary, U.S. Department of Energy, March 30, 1983). (Ch. 3, 5)
- A42 DOI (U.S. Department of the Interior), 1984. "Declaration of the Nez Perce Tribe as an Affected Tribe" (letter from the Assistant Secretary for Indian Affairs, U.S. Department of Interior, to the Secretary, U.S. Department of Energy, September 17, 1984). (Ch. 3, 5)
- B270 DOT (U.S. Department of Transportation), 1985. Accident/Incident Bulletin, Calendar Year 1984, No. 153, Federal Railroad Administration, Office of Safety, Washington, D.C., pp. 1, 3, 5, 10-11, 43-62. (Ch. 3) \* 6  
MF 1903
- 90 Dove, F. H., C. R. Cole, M. G. Foley, F. W. Bond, R. E. Brown, W. J. Deutsch, M. D. Freshley, S. K. Gupta, P. J. Gutknecht, W. L. Kuhn, J. W. Lindberg, W. A. Rice, R. Schalla, J. F. Washburn, and J. T. Zellmer, 1981. Assessment of Effectiveness of Geologic Isolation Systems: AEGIS Technology Demonstration for a Nuclear Waste Repository in Basalt, PNL-3632, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6, CRD C.5)
- 8271 Drever, J. I., 1982. The Geochemistry of Natural Waters, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, p. 257, copyright 1982, reprinted by permission of Prentice-Hall, Inc. (Ch. 6) \* 4  
MF 2131
- B53 Duncan, D. W., 1983. "A Review of Tectonic Models of the Columbia Plateau and Pasco Basin," Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, J. A. Caggiano and D. W. Duncan (eds.), RHO-BW-ST-19 P, Rockwell Hanford Operations, Richland, Washington, pp. 7-1 through 7-22. (CRD C.5) \* 11  
MF 2133

- 91 Durham, W. B., 1982. Thermal Properties of Climax Stock Quartz Monzonite to 523K and 50-MPa Confining Pressure, UCRL-53349, Lawrence Livermore National Laboratory, Livermore, California. (Ch. 6)
- 92 Eakin, T. E., 1946. Groundwater Resources of the Waterville Area, Douglas County, Washington, Open-File Report, U.S. Geological Survey, Tacoma, Washington. (Ch. 2)
- 854 Earlougher, R. C., 1977. Advances in Well Test Analysis, Society of Petroleum Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers, Vol. 5, Henry L. Doherty Series, Dallas, Texas. (CRD C.4) \* 13  
MF 1744
- 855 Early, T. O., G. K. Jacobs, and D. R. Drewes, 1984. "Geochemical Controls on Radionuclide Releases from a Nuclear Waste Repository in Basalt, Estimated Solubilities for Selected Elements," Geochemical Behavior of Disposed Radionuclide Waste, G. S. Barney, J. D. Navratil, and W. W. Schulz (eds.), American Chemical Society Symposium Series 246, Washington, D.C., pp. 147-166; also RHO-BW-SA-282 P, Rockwell Hanford Operations, Richland, Washington, 1983. (CRD C.5) \* c  
MF 0713
- 93 Early, T. O., G. K. Jacobs, D. R. Drewes, and R. C. Routson, 1982. Geochemical Controls on Radionuclide Releases from a Nuclear Waste Repository in Basalt: Estimated Solubilities for Selected Elements, RHO-BW-ST-39 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 856 Early, T. O., R. D. Mudd, G. D. Spice, and D. L. Starr, 1985. A Hydrochemical Data Base for the Hanford Site, Washington, SD-BWI-DP-061, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5) \* 2  
MF 1337
- 94 Eddy, P. A., L. S. Prater, and J. T. Rieger, 1983. Groundwater Surveillance at the Hanford Site for Calendar Year 1982, PNL-4659, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, 4, CRD C.4, C.5, C.6, C.7)
- B272 Emery, R. M., and M. C. McShane, 1978. Comparative Ecology of Nuclear Waste Ponds and Streams on the Hanford Site, PNL-2499, Pacific Northwest Laboratory, Richland, Washington. (Ch. 4) \* 7  
MF 1905

INDEX

02/26/86

- 96 Endangered Species Act of 1973, Public Law 93-205, 87 Stat. 884, 16 USC 1531, et seq. (Ch. 3, App. B)
- B334 Energy Reorganization Act of 1974. Public Law 93-438, 88 Stat. 1233, 42 USC 5801. (App. B) \* 9  
MF 1954
- B57 EPA (U.S. Environmental Protection Agency), 1972. "Water Quality Criteria 1972," 1972 Report on Scientific Technology, TD-370-U47, U.S. Government Printing Office, Washington, D.C., pp. 54-90. (CRD C.5) \* 3  
MF 1745
- B400 EPA (U.S. Environmental Protection Agency), 1973. Environmental Protection Agency Regulations on National Emission Standards for Hazardous Air Pollutants, Title 40, Code of Federal Regulations, Part 61, Washington, D.C. (Ch. 6) \* 13  
MF 1106
- B58 EPA (U.S. Environmental Protection Agency), 1974. Radiation Data and Reports, Vol. 15, No. 12, Office of Radiation Programs, Washington, D.C., p. 772. (CRD C.6) \*  
MF 1746
- B393 EPA (U.S. Environmental Protection Agency), 1976. National Interim Primary Drinking Water Regulations, EPA-570/9-76-003, Office of Water Supply, Washington, D.C., pp. 5 and 152-158. (Ch. 3, 6) \*  
MF 1998
- A43 EPA (U.S. Environmental Protection Agency), 1977. Compilation of Air Pollutant Emission Factors Third Edition, Including Supplements 1-7, AP-42, Research Triangle Park, North Carolina. (Ch. 4)
- B369 EPA (U.S. Environmental Protection Agency), 1977. Environmental Radiation Protection Standards for Nuclear Power Operations, Title 40, Code of Federal Regulations, Part 190, Washington, D.C. (Ch. 6) \* 9  
MF 1988
- B59 EPA (U.S. Environmental Protection Agency), 1981. Environmental Radiation Data Report 27, EPA 520/5-82-016, Office of Radiation Programs, Washington, D.C. (CRD C.6) \* 2  
MF 1747
- B60 EPA (U.S. Environmental Protection Agency), 1982a. Environmental Radiation Data Report 28, EPA 520/1-83-002, Office of Radiation Programs, Washington, D.C. (CRD C.6) \* 2  
MF 1748

- B61 EPA (U.S. Environmental Protection Agency), 1982b. Environmental Radiation Data Report 29, EPA 520/5-5-83-005, Office of Radiation Programs, Washington, D.C. (CRD C.6) \* 2 MF 1749
- B62 EPA (U.S. Environmental Protection Agency), 1982c. Environmental Radiation Data Report 30, EPA 520/5-6-83-006, Office of Radiation Programs, Washington, D.C. (CRD C.6) \* 2 MF 1750
- 99 EPA (U.S. Environmental Protection Agency), 1984. Environmental Protection Agency, 40 CFR 191, Environmental Radiation Protection Standards for Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes, Title 40, Code of Federal Regulations, Part 191, Working Draft No. 4, Washington, D.C. (CRD C.5)
- B273 EPA (U.S. Environmental Protection Agency), 1985. "Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes; Final Rules," Title 40, Code of Federal Regulations, Part 191, Federal Register, Vol. 50, p. 38065, Washington, D.C. (Ch. 3, 6, App. B, CRD C.4, C.5, C.6, C.7, C.9) \* 9 MF 1906
- 100 ERDA (U.S. Energy Research and Development Administration), 1975. Final Environmental Statement - Waste Management Operations, Hanford Reservation, Richland, Washington, ERDA-1538, 2 Vols., Washington, D.C. (Ch. 3, 6, CRD C.5)
- 101 ERDA (U.S. Energy Research and Development Administration), 1976. Evaluation of Impact of Potential Flooding Criteria on the Hanford Project, RLO-76-4, Richland Operations Office, Richland, Washington. (Ch. 3, CRD C.4)
- B274 Eriksen, T., and A. Jacobsson, 1981. Ion Diffusion Through Highly Compacted Bentonite, KBS TR-81-06, Karnbranslesakerhet, Stockholm, Sweden. (Ch. 6) \* 5 MF 1907
- B275 Erlandson, B. G., 1985. "Telecon No. 10700-BGE-85-415" (telephone conversation with T. Wieman, Washington State Department of Transportation, Olympia, Washington, August 29, 1985). (Ch. 3) \* 6 MF 1904
- B276 Eslinger, P. W., and B. Sagar, 1986. EPASTAT: A Computer Code for Estimating Radionuclide Releases at the Accessible Environment Boundary from a Repository in Basalt, SD-BWI-TA-022, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1908

- B63 Estey, S. A., and R. C. Arnett, 1986. Groundwater Flow Modeling of Alternative Repository Concepts, SD-BWI-TA-015, Rockwell Hanford Operations, Richland, Washington. (NOTE: Date on citation in CRD C.5 (1985) is incorrect.) (Ch. 6, CRD C.5) MF 1751
- B401 Exchange of Lands--Hanford Atomic Energy Project, 1957. Public Law 88-557, 78 Stat. 766. (Ch. 6) \* 13  
MF 1107
- B335 Farmland Protection Policy Act of 1981. Public Law 97-98, 95 Stat. 1341, 7 USC 4201. (App. B) \* 9  
MF 1955
- B64 Farooqui, S. M., 1979. Evaluation of Faulting in the Warm Spings Canyon, Southeast Washington, Shannon & Wilson, Inc., Portland, Oregon. (Ch. 3, CRD C.5) \*  
MF 0210
- B233 Farooqui, S. M., R. C. Bunker, R. E. Thoms, D. C. Clayton, and J. L. Bela, 1981. Post-Columbia River Basalt Group Stratigraphy and Map Compilation of the Columbia Plateau, Oregon, Open-File Report O-81-10, Oregon Department of Geology and Mineral Industries, Salem, Oregon. (Ch. 2) \*  
MF 0212
- B336 Farooqui, S. M., and R. E. Thoms, 1980. Geologic Evaluation of Selected Faults and Lineaments, Pasco and Walla Walla Basins, Washington, Shannon & Wilson, Inc. for Washington Public Power Supply System, Inc., Richland, Washington. (Ch. 3) \*  
MF 0213
- 102 Fecht, K. R., 1978. Geology of Gable Mountain-Gable Butte Area, RHO-BWI-LD-5, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)
- B277 Fecht, K. R., and J. T. Lillie, 1982. A Catalog of Borehole Lithologic Logs From the 600 Area, Hanford Site, RHO-LD-158, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \*  
MF 0529
- B66 Fecht, K. R., R. E. Gephart, D. L. Graham, S. P. Reidel, and A. C. Rohay, 1984. Summary of Geotechnical Information in the Rattlesnake Mountain Area, SD-BWI-TI-247 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.5) \*  
MF 1752  
DSI 10/22
- B65 Fecht, K. R., S. P. Reidel, and A. M. Tallman, 1985. Paleodrainage of the Columbia River System on the Columbia Plateau of Washington State: A Summary, RHO-BW-SA-318 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4) \* 3  
MF 2166

- B20 Federal Mine Safety and Health Act of 1977, Public Law 91-173, as amended by Public Law 95-164, 91 Stat. 1291, 30 USC 811. (Ch. 6) \* 3  
MF 1712
- 104 FEMA (U.S. Federal Emergency Management Agency), 1980. Flood Insurance Study: Benton County, Washington, Federal Insurance Administration, Washington, D.C. (Ch. 3)
- A45 Fenix & Scisson, 1969. Hole History Data, Drillhole UA-1, Amchitka, Alaska, Contact No. AP(26-1)-300, for the U.S. Atomic Energy Commission, Mercury, Nevada. (Ch. 6)
- B67 Fenix & Scisson, 1972. Recovery and Completion Report, Hole ARH-DC-1, Hanford Works, Richland, Washington, Contract No. AT(45-1)-2175, for the Atomic Energy Commission Richland, Washington. (CRD C.4) \* 12  
MF 1753
- B68 Fenix & Scisson, 1978. Drilling History Core Hole DC-4 Hanford, Washington, RHO-BWI-C-40, for Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* 3 c  
MF 1754
- A46 Fenix & Scisson, 1983a. Technical Services to Assist in Developing a Large Diameter Blind Shaft Boring Test Plan - Task 2 Report - Current Technology Review, SD-BWI-DTP-003, for Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A47 Fenix & Scisson, 1983b. Technical Services to Assist in Developing a Large Diameter Blind Shaft Boring Test Plan - Task 4 Report - Field Development Plan Preparation, SD-BWI-DTP-002, for Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A48 Fish, R. L., and R. P. Anantatmula, 1983. Preliminary Corrosion Models for BWIP Canister Materials, SD-BWI-TI-159, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- 105 Fletcher, J. L., and R. G. Busnel, (eds.), 1978. Effects of Noise on Wildlife, Academic Press, New York, New York, pp. 303-305, copyright 1978, by Academic Press, Inc. (Ch. 4, 5)
- 107 Foxworthy, B. L., 1962. Geology and Groundwater Resources of the Ahtanum Valley, Yakima County, Washington, Water-Supply Paper 1598, U.S. Geological Survey, Washington, D.C. (Ch. 2)

- 109 Foxworthy, B. L., and R. L. Washburn, 1963. Groundwater in the Pullman Area, Whitman County, Washington, Water-Supply Paper 1655, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- 108 Foxworthy, B. L., 1979. Summary Appraisal of the Nation's Groundwater Resources - Pacific Northwest Region, Professional Paper 813-S, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- B338 Fredenburg, E. A., and J. C. Sonnichsen, 1985. Performance Assessment in Support of Task V Engineering Studies 5, 6, 7, and 9, SD-BWI-ER-006, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 1958
- 110 Freeman, O. W., J. D. Forrester, and R. L. Lupher, 1945. "Physiographic Divisions of the Columbia Intermontane Province," Association of American Geologist Annals, Vol. 35, pp. 53-75. (Ch. 2, 3)
- 111 Freeze, R. A., 1975. "A Stochastic-Conceptual Analysis of One-Dimensional Groundwater Flow in Nonuniform Homogeneous Media," Water Resources Research, Vol. 11, No. 5, pp. 725-741. (Ch. 6, CRD C.5)
- A49 Freeze, R. A., and J. A. Cherry, 1979. Groundwater, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, pp. 402-413. (Ch. 6, CRD C.4, C.5)
- B69 Freeze, R. A., and P. A. Witherspoon, 1967. "Theoretical Analysis of Regional Groundwater Flow. 2. Effect of Water Table Configuration and Subsurface Permeability Variation," Water Resources Research, Vol. 3, No. 2, pp. 623-634. (CRD C.4) \* 3 MF 1755
- B279 Fridleifsson, G. O., 1983. "Mineralogical Evolution of a Hydrothermal System," Transactions, Geothermal Resources Council, Vol. 7, pp. 147-152. (Ch. 6) \* 5 c MF 1910
- 112 Frison, G. C., 1975. "Man's Interaction with Holocene Environments on the Plains," Quaternary Research, Vol. 5, pp. 289-300. (Ch. 6)
- B70 Frost, F., and J. Thomas, 1981. Age Adjusted Death Rates for Washington State: 1968-1979, Epidemiology Section, Health Service Division, State of Washington Department of Social and Health Services, Olympia Washington. (CRD C.7) \* 3 MF 1756

- 113 Fruchter, J. S., and S. F. Baldwin, 1975. "Correlations Between Dikes of the Monument Swarm, Central Oregon, and Picture Gorge Basalt Flows," Geological Society of America Bulletin, Vol. 86, p. 514. (Ch. 2)
- 114 Fryxell, R., 1964. "Regional Patterns of Sedimentation Recorded by Cave and Rock-Shelter Stratigraphy in the Columbia Plateau, Washington," abstract, Geological Society of America Special Paper 76, Boulder, Colorado, p. 273. (Ch. 6)
- 115 Fryxell, R., 1965. "Mazama and Glacier Peak Volcanic Ash Layers: Relative Ages," Science, Vol. 147, March, pp. 1288-1290, copyright 1965 AAAS. (Ch. 6)
- 8380 FSI, 1980a. Thermal/Mechanical Properties of Pomona Member Basalt - Full-Scale Heater Test #1 (Area 1), RHO-BWI-C-77, Foundation Sciences, Inc. for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 0217
- 8387 FSI, 1980b. Thermal/Mechanical Properties of Pomona Member Basalt--Full-Scale Heater Test #2 (Area 2), RHO-BWI-C-85, Foundation Sciences, Inc. for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 0218
- 8402 FSI, 1980c. Thermal/Mechanical Properties of Pomona and Umtanum Basalts--Elevated Temperature Comparative Triaxial Test, RHO-BWI-C-91, Foundation Sciences, Inc. for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 13 MF 2174
- 8388 FSI, 1981a. Thermal/Mechanical Properties of Umtanum Basalt--Borehole DC-2, RHO-BWI-C-92, Foundation Sciences, Inc. for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 2175
- 8389 FSI, 1981b. Thermal/Mechanical Properties of Pomona Member Basalt - Area 3 and Summary, RHO-BWI-C-100, Foundation Sciences, Inc. for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 2176
- 871 Fuchs, M. R., 1983. "Percolation Test Results for the Proposed Crib Replacement of 216-S-19 Pond" (Internal Letter No. 65633-008 to G. V. Last, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 3 MF 1757

- B72 Fuchs, M. R., 1984a. "B-Pond 3rd Lobe Expansion Sediment and Percolation Investigation" (Internal Letter No. 65633-088 to H. A. Haerer, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 3  
MF 1758
- B73 Fuchs, M. R., 1984b. "200 East Area Contingency Pond Sediment and Percolation Investigation" (Internal Letter No. 65633-134 to V. W. Hall, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 3  
MF 1759
- B366 FWS (U.S. Fish and Wildlife Service), 1984. Endangered and Threatened Wildlife and Plants, Title 50, Code of Federal Regulations, Parts 17.11 and 17.12, Washington, D.C. (Ch. 3, 5, 6) \* 9  
MF 1985
- B375 FWS (U.S. Fish and Wildlife Service), 1985a. "Endangered and Threatened Wildlife and Plants; Review of Plant Taxa for Listing as Endangered or Threatened Species," Notice of Review, Federal Register, Vol. 50, No. 188, pp. 39526-39584. (Ch. 3, 6) \* 10  
MF 1993
- B376 FWS (U.S. Fish and Wildlife Service), 1985b. "Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife," Notice of Review, Federal Register, Vol. 50, No. 181, pp. 37958-37967. (Ch. 3, 4, 5, 6) \* 10  
MF 1994
- 122 Fyfe, R. W., and R. R. Olendorff, 1976. Minimizing the Dangers of Nesting Studies to Raptors and Other Sensitive Species, Occasional Paper No. 23, Canadian Wildlife Service, Edmonton, Alberta. (Ch. 4)
- 123 GAO (General Accounting Office), 1979. The Nation's Nuclear Waste--Proposals for Organization and Siting, EMD-79-77, Comptroller General of the United States, Washington, D.C. (Ch. 2)
- B234 Gardner, J. N., 1977. "Stratigraphy and Faulting of Columbia River Basalt in Wallula Gap, Washington," EOS, American Geophysical Union Abstracts, Vol. 58, p. 1247. (Ch. 2, 3) MF 2180
- B74 Gardner, J. N., M. G. Snow, and K. R. Fecht, 1981. Geology of the Wallula Gap Area, Washington, RHO-BWI-LD-9, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, CRD C.5) \*  
MF 2181

- B75 Garrels, R. M., and C. L. Christ, 1965. Solutions, Minerals, and Equilibria, Freeman, Cooper, and Company, San Francisco, California, pp. 134-139. (CRD C.5) \* 2 c  
MF 2183
- B235 Gehrels, G. E., R. R. White, and G. A. Davis, 1980. "The La Grande Pull-Apart Basin, Northeastern Oregon," Proceedings, Geological Society of America, Cordilleran Section Meeting, Vol. 12, p. 107. (Ch. 2) \*
- 124 Gelhar, L. W., 1982. Analysis of Two-Well Tracer Tests with a Pulse Input, RHO-BW-CR-131 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5) MF 0224
- B280 Gephart, R. E., 1983. "An Analysis of Past and Present USGS Positions on Important Site Hydrologic Issues," (Internal Letter to G. S. Hunt, Rockwell Hanford Operations, Richland, Washington, August 24, 1983). (Ch. 3) \* 4  
MF 1911
- 376 Gephart, R. E., 1985. An Overview of the Baseline Monitoring Program to Evaluate Undisturbed Hydraulic Heads in the Wanapum and Grande Ronde Basalts, SD-BWI-TI-306, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \* 3  
MF 1760
- B77 Gephart, R. E., 1985. Response to Comment Regarding a Water Bearing Zone in the Grande Ronde Basalt at Borehole DC-1, RHO-BW-SA-484, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 6  
MF 1761
- 125 Gephart, R. E., P. A. Eddy, R. C. Arnett, and G. Robinson, 1976. Geohydrologic Study of the West Lake Basin, ARH-CD-775, Atlantic Richfield Hanford Company, Richland, Washington. (Ch. 3, CRD C.4)
- 126 Gephart, R. E., R. C. Arnett, R. G. Baca, L. S. Leonhart, and F. A. Spane, Jr., 1979. Hydrologic Studies Within the Columbia Plateau, Washington: An Integration of Current Knowledge, RHO-BWI-ST-5, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 4, 6, CRD C.4, C.5)

- 128 Gephart, R. E., S. M. Price, R. L. Jackson, and C. W. Myers, 1983. "Geohydrologic Factors and Current Concepts Relevant to Characterization of a Potential Nuclear Waste Repository Site in Columbia River Basalt, Hanford Site, Washington," Scientific Basis for Nuclear Waste Management VII, proceedings of the Materials Research Society Symposium, Boston, Massachusetts, November; also RHO-BW-SA-326 P, Rockwell Hanford Operations, Richland, Washington, October, 1983, p. 10. (Ch. 3, 6, CRD C.4)
- 129 GG/GLA (Geosciences Group/George Leaming Associates), 1981. Economic Geology of the Pasco Basin, Washington and Vicinity, RHO-BWI-C-109, for Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 6, CRD C.5)
- 130 Giggenbach, W. F., 1981. "Geothermal Mineral Equilibria," Geochimica et Cosmochimica Acta, Vol. 45, pp. 393-410. (Ch. 6)
- 131 Gimera, R. J., 1983. "Nuclear Waste Repository in Basalt Water Quantities," (internal letter to R. T. Wilde, Rockwell Hanford Operations, Richland, Washington, October 13, 1983). (Ch. 6)
- B281 Glantz, C. S., and J. V. Ramsdell, 1986. Preliminary Examination of the Impacts of BWIP Construction and Operations Activities on Non-Radiological Air Quality, PNL-5687, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 4, 5)
- 132 Goff, F. E., and C. W. Myers, 1978. "Structural Evolution of East Umtanum and Yakima Ridges, South-Central Washington," Geological Society of America, Abstracts with Programs, Vol. 10, No. 7, p. 408. (Ch. 3)
- 133 Goff, F. E., 1981. Preliminary Geology of Eastern Umtanum Ridge, South-Central Washington, RHO-BWI-C-21, for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4, C.5)
- 134 Golder (Golder Associates), 1983b. Technical Review of the Site Characterization Report (SCR) for the Basalt Waste Isolation Project (BWIP), for the State of Washington, Energy Facility Site Evaluation Council, High-Level Nuclear Waste Management Task Force, Olympia, Washington. (Ch. 6, CRD C.5)

MF 1912

- A50 Golder (Golder Associates), 1983a. "Preliminary Summary 3-D Shaft Potential Failure Analysis," (Letter No. 82 to U.S. Nuclear Regulatory Commission, Division of Waste Management, Attach. 5, May 6, 1983, Contract No. NRC-02-81-027). (Ch. 6, CRD C.5)
- B79 Golder (Golder Associates), 1984a. "BWIP Hydrogeology and Document Review" (Letter No. 71 to the U.S. Nuclear Regulatory Commission, Division of Waste Management, February 14, 1984, Contract No. NRC-02-82-045). (CRD C.4, C.5) \* 3  
MF 1764
- B78 Golder (Golder Associates), 1984b. "BWIP Hydrogeology," (Letter No. 77 to the U.S. Nuclear Regulatory Commission, Division of Waste Management, April 19, 1984, Contract No. NRC-02-82-045). (CRD C.4, C.5) \* 3  
MF 1763
- A51 Golder (Golder Associates), 1984. Methodology Proposed for Completion of Disruption Scenario Analysis, SD-BWI-PD-015, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B80 Gore, B. F., and U. P. Jenquin, 1981. "Two Factors Important to the Criticality Potential of Spent Fuel in Geologic Repositories," Proceedings of the Symposium on Waste Management, R. G. Post (ed.), Vol. 2, Tucson, Arizona, February 23-26, pp. 949-967. (CRD C.5) \* 2  
MF 1765
- B81 Gosselin, R. E., H. C. Hodge, R. P. Smith, and M. N. Gleason, 1977. "Clinical Toxicology of Commercial Products," Acute Poisoning, Fourth Ed., The Williams and Wilkins Co., Baltimore, Maryland, p. 159. (Ch. 6, CRD C.5) \* 7  
MF 1766
- B82 Graham, D. L., 1984. An Assessment of Drilling Fluid Tracers Used to Monitor Borehole Development for Hydrochemical Sampling, RHO-BW-ST-61 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \*  
MF 0233
- B83 Graham, D. L., R. W. Bryce, and D. J. Halko, 1985. A Field Test to Assess the Effects of Drilling Fluids on Groundwater Chemistry Collected from Columbia River Basalts, RHO-BW-SA-370 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* 3  
MF 1767
- 135 Graham, D. L., F. A. Spane, Jr., and R. W. Bryce, 1982. Hydrochemical and Isotopic Content of Basalt Groundwaters Beneath the Hanford Site, Washington, RHO-BW-SA-190 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3)

- B84 Graham, M. J., G. V. Last, and K. R. Fecht, 1984. An Assessment of Aquifer Intercommunication with B Pond-Gable Mountain Pond Area of the Hanford Site, RHO-RE-ST-12 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \* MF 2199
- A52 Grandstaff, D. E., G. L. McKeon, E. L. Moore, and G. C. Ulmer, 1984. "Reactions in the System Basalt/Simulated Spent Fuel/Water," Scientific Basis for Nuclear Waste Management VII, G. L. McVay (ed.), proceedings of the Materials Research Society Symposium, Vol. 26, Boston, Massachusetts, November 1983, pp. 137-145; also RHO-BW-SA-317 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B86 Grave, D. F. H., and R. M. Stroh, 1972. "The Planning of Ventilation and Refrigeration Requirements in Deep Mines," Journal of the Mine Ventilation Society of South Africa, June, pp. 94-110. \* 10 MF 1770 (CRD C.8)
- A53 Gray, W. J., 1984. "Gamma Radiolysis Effects on Grande Ronde Basalt Groundwater," Scientific Basis for Nuclear Waste Management VII, G. L. McVay (ed.), proceedings of the Materials Research Society Symposium, Vol. 26, Boston, Massachusetts, November 1983, pp. 147-152. (Ch. 6, CRD C.5)
- A54 Greagor, E., 1983. UNC Environmental Surveillance Report for the 100 Areas-FY 1983, UNI-2640, United Nuclear Industries, Richland, Washington. (Ch. 3)
- B87 Gregory, E. C., and K. Kim, 1981. Preliminary Results of Full Scale Heater Tests at NSTF, RHO-BWI-SA-123, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 12 MF 1891
- B236 Griggs, A. B., 1973. Geologic Map of the Spokane Quadrangle, Washington, Idaho, and Montana, Miscellaneous Geological Investigation Map I-768, scale 1:250,000, U.S. Geological Survey, Washington, D.C. (Ch. 2) \* 9 MF 2201
- B88 Gringarten, A. C., H. J. Ramey, Jr., and R. Raghavan, 1975. "Applied Pressure Analysis for Fractured Wells," Journal of Petroleum Technology, SPE 5496, Society of Petroleum Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers. (CRD C.5) \* 3 MF 1771

- B406 Grolier, M. J., and J. W. Bingham, 1971. Geologic Map and Sections of Parts of Grant, Adams, and Franklin Counties, Washington, Miscellaneous Geologic Investigations Series, Map I-589, U.S. Geological Survey, Tacoma, Washington. (Ch. 3) MF 1174
- B339 Grolier, M. J., and J. W. Bingham, 1978. Geology of Parts of Grant, Adams, and Franklin Counties, East-Central Washington, Bulletin 71, State of Washington Department of Natural Resources, Olympia, Washington. (Ch. 3) \* MF 0535
- B89 Gutknecht, P. J., W. A. Rice, C. R. Cole, and M. D. Freshley, 1980. Pasco Basin Hydrometeorological Study, RHO-BWI-C-98, PNL-3855, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 4, CRD C.4) \* MF 0536
- B90 Hagood, M. C., 1985. Structure and Evolution of the Horse Heaven Hills in South-Central Washington, Master of Science thesis, Portland State University, Portland, Oregon. (Ch. 2, 3, CRD C.5) \* 4 MF 2204
- B91 Haire, R. G., and G. W. Beall, 1979. "Consequences of Radiation from Sorbed Transplutonium Elements on Clays Selected for Waste Isolation," Radioactive Waste in Geologic Storage, S. Fried (ed.), ACS Symposium Series 100, American Chemical Society, Washington, D.C., pp. 291-295. (Ch. 6, CRD C.4) \* 2 c MF 1772
- B92 Hajek, B. F., 1966. Soil Survey, Hanford Project in Benton County Washington, BNWL-243, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, CRD C.4) \* 2 MF 1773
- B93 Halko, D. J., 1984. Chemical Analysis of Drilling Fluid and Drilling Fluid Additives Used in a Cleanup Test in Borehole DC-14, SD-BWI-TD-012, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* MF 0411
- B237 Hamilton, W., 1962. "Late Cenozoic Structure of West-Central Idaho," Geological Society of America Bulletin, Vol. 73, pp. 511-516. (Ch. 2) \* MF 0537
- 137 Hansen, H. P., 1947. "Postglacial Forest Succession, Climate, and Chronology in the Pacific Northwest," Transactions, American Philosophical Society, Vol. 37, Part 1. (Ch. 6)

- B94 Hantush, M. S., 1960. "Modification of the Theory of Leaky Aquifers," Journal of Geophysical Research, Vol. 65, No. 11, pp. 3713-3726. (CRD C.4) \*  
MF 0538
- B95 Hardy, E. P., P. W. Krey, and H. L. Volchok, 1973. "Global Inventory and Distribution of Fallout Plutonium," Nature, Vol. 241, No. 5390, pp. 444-445. (CRD C.6) \*2  
MF 1774
- A55 Hardy, M. P., and G. Hocking, 1979. Nuclear Repository in Basalt, Project B-301, Functional Design Criteria, RHO-BWI-CD-38 Rev. 1, for Rockwell Hanford Operations, Richland, Washington, pp. 65-79. (Ch. 5)
- A56 Hartman, H. L., J. M. Mutmanský, and Y. J. Wang, 1982. Second Edition Mine Ventilation and Air Conditioning, John Wiley & Sons, New York, New York, pp. 565, 566, and 569. (Ch. 6, CRD C.8)
- B96 Hartman, R. R., D. J. Teskey, and J. L. Friedberg, 1971. "A System for Rapid Digital Aeromagnetic Interpretation," Geophysics, Vol. 36, No. 5, pp. 891-918. (CRD C.5) \* 11  
MF 1775
- 139 Harty, H., 1979. The Effects of the Ben Franklin Dam on the Hanford Site, PNL-2821, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- B381 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. (Ch. 6) \*  
MF 1396
- B282 Hazardous Materials Transportation Act of 1975. Public Law 93-633, 88 Stat. 2156, 49 USC 1801-1812. (Ch. 6) \* 12  
MF 1913
- B97 Heaton, T. H., and H. Kanamori, 1984. "Seismic Potential Associated with Subduction in the Northwestern United States," Bulletin of the Seismological Society of America, Vol. 74, No. 3, pp. 933-941. (CRD C.5) \*  
MF 0241
- B364 Henry, K. H., 1984. Decision Memorandum for Waste Emplacement Concept, SD-BWI-PD-012 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (Ch. 5) \*  
MF 1946

- A57 Hoek, E. I., and E. T. Brown, 1980. Underground Excavations in Rock, The Institution of Mining and Metallurgy, London, England, pp. 137-140. (Ch. 5)
- 142 Hoek, E. I., 1981. "Geotechnical Design of Large Openings at Depth," Proceedings of the Rapid Excavation and Tunneling Conference, American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., San Francisco, California, pp. 1167-1180. (Ch. 6)
- B238 Holden, G. S., and P. R. Hooper, 1976. "Petrology and Chemistry of a Columbia River Basalt Section, Rocky Canyon, West-Central Idaho," Geological Society of America Bulletin, Vol. 87. (Ch. 2) \* 3  
MF 1914
- B98 Holmes, G. E., and T. H. Mitchell, 1981. "Seismic Reflection and Multilevel Aeromagnetic Surveys in Cold Creek Syncline Area," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \*  
MF 2235
- 143 Honacki, J. H., K. E. Kinman, and J. W. Koepl (eds.), 1982. Mammal Species of the World: A Taxonomic and Geographic Reference, Allen Press, Inc. and the Association of Systematics Collections, Lawrence, Kansas. (Ch. 3)
- A58 Horton, R. W., 1967. "Drilling a Production Shaft to 1,440 ft--How One Firm Cut Development Time," Engineering Mining Journal, Vol. 168, No. 12, pp. 81-83. (Ch. 6)
- B314 Houston, J. R., and P. J. Blumer, 1980. Environmental Surveillance at Hanford for CY 1979, PNL-3283, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3) \* 15  
MF 1939
- B99 Hsieh, P. A., S. P. Neuman, and E. S. Simpson, 1983. Pressure Testing of Fractured Rocks--A Methodolgy Employing Three-Dimensional Cross-Hole Tests, NUREG/CR-3213, for Division of Health, Siting and Waste Management, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, D.C. (CRD C.4) \* 12  
MF 1776
- A59 Hunter, H. E., 1983. "Drilled Shaft Construction at Crown Point, New Mexico," Proceedings of the Rapid Excavation and Tunneling Conference, Chicago, Illinois pp. 544-565. (Ch. 6)

- B283 Hunter, R. L., 1983b. Preliminary Scenarios for the Release of Radioactive Waste from a Hypothetical Repository in Basalt of the Columbia Plateau, NUREG/CR-3353, SAND83-1342, Sandia National Laboratories, Albuquerque, New Mexico, for the U.S. Nuclear Regulatory Commission, Washington, D.C. (Ch. 6) \* 9  
MF 1915
- A60 Huyakorn, P., J. R. Williams, and S. Thomas, 1981. Analysis of Thermal Properties of Basalt from Heater Test No. 2 Experiment, SD-BWI-TI-023, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B403 Imbrie, J., and J. Z. Imbrie, 1980. "Modeling the Climatic Response of Orbital Variations," Science, Vol. 207, pp. 943-953. (Ch. 6) \*  
MF 1421
- B100 Israelsen, O. W., and V. E. Hansen, 1962. Irrigation Principles and Practices, Third Ed., John Wiley and Sons, Inc., New York, New York, pp. 223-226. (Ch. 6, CRD C.5) MF 1777
- B284 ITD (Idaho Transportation Department), 1985a. (Letter from L. R. Clark to B. G. Erlandson, Rockwell Hanford Operations, Richland, Washington, August 19, 1985, Attach. 3.) (Ch. 3) \* 6  
MF 1916
- B285 ITD (Idaho Transportation Department), 1985b. (Letter from A. D. Nielsen to B. G. Erlandson, Rockwell Hanford Operations, Richland, Washington, July 30, 1985). (Ch. 3) \* 6  
MF 1917
- B101 Jackson, R. L., 1980. "Testing Techniques and Analysis Procedure Used in the Hydrology Program," Basalt Waste Isolation Project Annual Report - Fiscal Year 1980, RHO-BWI-80-100, Rockwell Hanford Operations, Richland, Washington, pp. III-7 through III-15. (CRD C.4) \*  
MF 1424
- 147 Jackson, R. L., 1982. "Preliminary Hydrologic Testing Results - McCoy Canyon Flowtop, DC-7, 3410.2-3477.6 feet and DC-8, 3407.0-3480.4 feet," (letter No. 10130-SA-82-014 to D. J. Moak and F. A. Spane, Jr., Rockwell Hanford Operations, Richland, Washington). (Ch. 3, CRD C.4)
- B102 Jackson, R. L., L. D. Diediker, R. K. Ledgerwood, and M. D. Veatch, 1984. Piezometer Completion Report for Borehole Cluster Sites DC-19, DC-20, and DC-22, SD-BWI-TI-226 Rev. 1, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5) \* 3  
MF 1425

- 148 Jacobs, G. K., and M. J. Apted, 1981. "Eh-pH Conditions for Groundwater at the Hanford Site, Washington: Implications for Radionuclide Solubility in a Nuclear Waste Repository Located in Basalt," EOS, Transactions of the American Geophysical Union, Vol. 62, p. 1065. (Ch. 6)
- B286 James, L. A., 1985. Short-Term Stress Corrosion Cracking Tests for A36 and A387-9 Steels in Simulated Hanford Groundwater, SD-BWI-TS-012, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 5  
MF 1918
- 149 Jamison, J. D., 1982. Standardized Input for Hanford Environmental Impact Statements Part II: Site Description, PNL-3509, Part 2, Pacific Northwest Laboratory, Richland, Washington, pp. 9.1 through 9.16. (Ch. 3)
- 150 Jantzen, C. M., 1983. Methods of Simulating Low-Redox Potential (Eh) for a Basalt Repository, DP-MS-83-59X, E. I. duPont de Nemours & Co., Savannah River Laboratory, Aiken, South Carolina. (Ch. 6, CRD C.5)
- 151 Jenne, D. E., 1981. Annual Report, Tri-County Air Pollution Control Authority, 1980, Benton-Franklin-Walla Walla Counties Air Pollution Control Authority, Richland, Washington. (Ch. 3)
- B103 Jennings, T., C. Bayle, and D. Richter, 1982. Vital Statistics Summary: Washington State, 1982, Center for Health Statistics, Division of Health, State of Washington Department of Social and Health Services, Olympia, Washington, p. 74. (CRD C.7) \* 1  
MF 1779
- B104 Johnpeer, G. D., D. Miller, and G. Gales, 1981. Assessment of Potential Volcanic Hazards, Pasco Basin, Washington, RHO-BW-CR-130 P, Ertec Western, Inc. for Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* 2  
MF 2259
- B340 Jones, M. G., and R. D. Landon, 1978. Geology of the Nine Canyon Map Area, RHO-BWI-LD-6, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \*  
MF 2264
- A61 Jorge, G. R., and J. Mauxaux, 1978. "Prevention of Accidents in Difficult Tunneling Conditions by Means of Specialized Techniques Such as Grouting, Drainage, Umbrella Arch Methods," Proceedings of International Tunnel Symposium-78, Tokyo, International Tunneling Association, Tokyo, Japan. (Ch. 6)

- B105 Kalnins, I., and G. Gibson, 1959. "The Interaction of Uranyl Chloride with Hydrazine, Ammonia, and Amines," Journal Inorganic Nuclear Chemistry, Vol. 11, pp. 115-123. (CRD C.5) \* 2 c MF 1780
- 156 Karwoski, W. J., W. C. McLaughlin, and W. Blake, 1979. Rock Preconditioning to Prevent Rock Bursts--Report on Field Demonstration, U.S. Bureau of Mines Report of Investigation 8381, U.S. Department of the Interior, Washington, D.C. (Ch. 6)
- B404 Kasza, G. L., 1986. Photographic Comparison of the Pre-Test and Post-Test Heater Hole Wall Condition in the Full Scale Heater Tests, SD-BWI-TI-276, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \*
- 157 Keeney, R. L., and H. Raiffa, 1976. Decisions with Multiple Objectives, John Wiley and Sons, Inc., New York, New York, pp. 282-353. (NOTE: Microfiche title reads Kenney, R. L., 1976; in error.) (Ch. 2)
- B106 Keller, C., 1971. The Chemistry of the Transuranium Elements, Verlag Chemie GmbH, Weinheim/Bergstr., Germany, p. 299. (CRD C.5) \* 2 c MF 1781
- B341 Kelley, W. J., and M. A. Bigelow, 1985. Population at Risk Along Alternative Transport Routes to Proposed Nuclear Waste Repository Site at Hanford, WA, Department of Urban and Regional Planning, Eastern Washington University, Cheney, Washington. (Ch. 5) \* 8 MF 1961
- B107 Kelmers, A. D., J. H. Kessler, W. D. Arnold, R. E. Meyer, N. H. Cutshall, G. K. Jacobs, and S. Y. Lee, 1984a. Progress in Evaluation of Radionuclide Geochemical Information Developed by DOE High-Level Nuclear Waste Repository Site Projects - Report for October-December 1983, NUREG/CR-3851, Vol. 1, ORNL/TM-9191/VI, Oak Ridge National Laboratory, Oak Ridge, Tennessee, for the U.S. Nuclear Regulatory Commission, Washington, D.C. (CRD C.5) \* 2 MF 1782
- B342 Kelmers, A. D., J. H. Kessler, W. D. Arnold, R. E. Meyer, N. H. Cutshall, G. K. Jacobs, and S. Y. Lee, 1984b. Progress in Evaluation of Radionuclide Geochemical Information Developed by DOE High-Level Nuclear Waste Repository Site Projects: Report for January-March 1984, NUREG/CR-3851, Vol. 2, ORNL/TM-9191/V2, Oak Ridge National Laboratory, Oak Ridge, Tennessee, for the U.S. Nuclear Regulatory Commission, Washington, D.C. (CRD C.5) \* MF 1982

- 8343 Kelmers, A. D., J. H. Kessler, W. D. Arnold, R. E. Meyer, N. H. Cutshall, G. K. Jacobs, and S. Y. Lee, 1985. Progress in Evaluation of Radionuclide Geochemical Information Developed by DOE High-Level Nuclear Waste Repository Site Projects: Report for April-June 1984, NUREG/CR-3851, Vol. 3, ORNL/TM-9191/V3, Oak Ridge National Laboratory, Oak Ridge, Tennessee, for the U.S. Nuclear Regulatory Commission, Washington, D.C. (CRD C.5) \* MF 1983
- 158 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. (Ch. 6)
- B239 Kendall, J. J., 1981. The Geology and Structure of the Blue Mountains in Northeastern Umatilla County, Oregon, Master of Science thesis, University of Southern California, Los Angeles, California. (Ch. 2) \* 3 MF 2270
- B240 Kienle, C. F., Jr., 1980. Geologic Reconnaissance of Parts of the Walla Walla and Pullman, Washington and Pendleton, Oregon 10 x 20 AMS Quadrangles, Foundation Sciences, Inc. for the U.S. Army Corps of Engineers, Seattle District, Seattle, Washington. (Ch. 2) \* 11 TLC MF 2271
- 160 Kienle, C. F., Jr., R. D. Bentley, and J. L. Anderson, 1977. "Geologic Reconnaissance of the Cle Elum-Wallula Lineament and Related Structures," Preliminary Safety Analysis Report, Amendment 23, Vol. 2A, Subappendix 2R D, Shannon & Wilson, Inc., for Washington Public Power Supply System, Inc., Richland, Washington. (Ch. 2, 3)
- B241 Kienle, C. F., Jr., M. L. Hamill, and D. N. Clayton, 1979. Geologic Reconnaissance of the Wallula Gap, Washington--Blue Mountains-LaGrande, Oregon Region, Shannon & Wilson, Inc. for Washington Public Power Supply System, Richland, Washington. (Ch. 2) \* 11 MF 2272
- B108 Kienle, C. F., Jr., and R. C. Newcomb, 1973. Geologic Studies of Columbia River Basalt Structures and Age of Deformation, The Dalles-Umatilla Region, Washington and Oregon, Boardman Nuclear Project, Shannon & Wilson, Inc. for Portland General Electric Company, Portland, Oregon. (Ch. 2, 6, CRD C.5) \* 2 MF 1783

- 161 Kienle, C. F., Jr., S. D. Sheriff, and R. D. Bentley, 1978. "Tectonic Significance of the Paleomagnetism of the Frenchman Springs Basalt, Oregon and Washington," Geological Society of America Abstracts with Programs, Vol. 10, No. 3, p. 111. (Ch. 3)
- 162 Kim, K., and B. C. Haimson, 1982. "In Situ Stress Measurement at a Candidate Repository Horizon," Proceedings at the 1982 National Waste Terminal Storage Program Information Meeting, DOE/NWTS-30, Office of NWTS Integration, U.S. Department of Energy, Washington, D.C., also RHO-BW-SA-257 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 6)
- A62 Kim, K., S. A. Dischler, J. R. Aggson, and M. P. Hardy, 1984. The State of In Situ Stresses Determined by Hydraulic Fracturing at the Hanford Site, SD-BWI-TD-014, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 5, 6, CRD C.5, C.8)
- B287 Kim, K., and W. M. McCabe, 1984. "Geomechanics Characterization of a Proposed Nuclear Waste Repository Site in Basalt," Proceedings, Twenty-Fifth Symposium on Rock Mechanics, Northwestern University, Evanston, Illinois, June 25-27, pp. 1126-1135. (Ch. 6) \* 4  
MF 1919
- B288 Kim, J. I., M. Bernkopf, C. H. Lierse, and F. Koppold, 1984a. "Hydrolysis Reactions of AM(III) and Pu(VI) Ions in Near-Neutral Solutions," Geochemical Behavior of Disposed Radioactive Waste, G. S. Barney, J. D. Navratil, and W. W. Schulz (eds.), ACS Symposium Series 246, American Chemical Society, Washington, D.C., pp. 115-134. (Ch. 6) \* 14  
MF 1920
- 164 Klasi, M. L., J. E. Russell, W. C. McClain, and T. Brandshang, 1982. Far-Field Thermal Analysis of a High-Level Waste Repository in Tuff, SAND81-7210, Sandia National Laboratories, Albuquerque, New Mexico. (Ch. 6)
- B289 Kline, N. W., R. L. England, and R. G. Baca, 1986. CHAINT Computer Code: User's Guide, RHO-BW-CR-144 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1921
- 165 Knudson, R., 1980. "Ancient Peoples of the Columbia Plateau," Journal of Forestry, Vol. 78, No. 8, pp. 477-479. (Ch. 6)

- B109 Koltunov, V. S., and M. F. Tikhonov, 1973. "Kinetics of Reduction of Neptunium by Hydrazine, III. Reduction of Np(V) to Np(IV) in Perchloric Acid," Radiokhimiya, Vol. 15, p. 800-804. (CRD C.5) \* 2 c MF 1784
- B110 Koltunov, V. S., and G. I. Zhuravleva, 1974. "Kinetics of Reduction of Plutonium by Hydrazine, II. Reduction of Pu(IV)," Radiokhimiya, Vol. 16, No. 1, pp. 80-83. (CRD C.5) \* 2 c MF 1785
- B242 Konicek, D. L., 1975. "Geophysical Survey in South-Central Washington," Northwest Science, Vol. 49, No. 2, pp. 106-117. (Ch. 2) \* MF 0546
- B111 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, University of Illinois for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* MF 0268
- 166 Kukla, G. K., 1979. "Probability of Expected Climate Stresses in North America in the Next One Million Years," A Summary of FY-1978 Consultant Input for Scenario Methodology Development, B. L. Scott (ed.), PNL-2851, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6)
- B113 Kunk, J. R., and T. D. Ault, 1982. "Hydrologic Barrier Geophysical Study, Yakima Barricade Area," Geophysical Interpretation of Hydrological Barrier, (Internal Letter 10110-AMT-82-015 from A. M. Tallman to F. A. DeLuca, Rockwell Hanford Operations, Richland, Washington, January 29, 1982). (CRD C.5) \* 2 MF 1787
- B114 Lambrechts, J. de V., 1967. "Optimization of Ventilation and Refrigeration in Deep Mines," Journal of Mine Ventilation Society of South Africa, Vol. 20, No. 4, pp. 57-64. (CRD C.8) \* 10 MF 1788
- B115 Landon, R. D., 1984. X-Ray Fluorescence Data From Deep Boreholes in the Pasco Basin, SD-BWI-DP-043, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* MF 0419
- B116 Landon, R. D., 1985. Deep Borehole Stratigraphic Correlation Charts, SD-BWI-DP-035 Rev. 3, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5) \* MF 1789 DSI 10/22

- 167 Lane, D. L., M. J. Apted, C. C. Allen, and J. Myers, 1983a. The Basalt/Water System: Considerations for a Nuclear Waste Repository, RHO-BW-SA-320, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 168 Lane, D. L., T. E. Jones, and M. H. West, 1984. "Preliminary Assessment of Oxygen Consumption and Redox Conditions in a Nuclear Waste Repository in Basalt," Geochemical Behavior of Disposal Radioactive Waste, G. S. Barney, J. D. Navratil, and W. W. Schulz (eds.), ACS Symposium Series 246, 1984, American Chemical Society, Washington, D.C.; also RHO-BA-SA-283 P, Rockwell Hanford Operations, Richland, Washington.
- B117 Langmuir, D., 1971. "Eh-pH Determination," Procedures in Sedimentary Petrology, R. E. Carver (ed.), Wiley Interscience, New York, New York, pp. 597-635. (CRD C.5) \* MF 2289
- A63 Lappin, A. R., R. G. Van Buskirk, D. O. Enniss, S. W. Butlers, F. M. Prater, C. B. Muller, and J. L. Bergosh, 1982. Thermal Conductivity, Bulk Properties, and Thermal Stratigraphy of Silicic Tuffs from The Upper Protion of Hole USW-G1, Yucca Mt., Nye County, Nevada, SAND81-1873, Sandia National Laboratory, Albuquerque, New Mexico. (Ch. 6)
- B395 Larvie, F. C., 1985. Basalt Waste Isolation Project Exploratory Shaft - Phase I Calculations for Non-Radiological Pollutants (letter from Morrison-Knudsen Company, Inc., to H. W. Brandt, Rockwell Hanford Operations, Richland, Washington, August 21, 1985). (Ch. 5) \* 12 MF 1101
- 169 LaSala, A. M., Jr., and G. C. Doty, 1971. Preliminary Evaluation of Hydrologic Factors Related to Radioactive Waste Storage in Basaltic Rocks at the Hanford Reservation, Washington, Open File Report, U.S. Geological Survey, Washington, D.C. (Ch. 3, 6)
- 170 LaSala, A. M., 1973. (Letter to O. E. Elgert, Director of Production and Waste Management Programs Division, U.S. Atomic Energy Commission, Richland, Washington, July 16, 1973). (Ch. 3)
- 171 LaSala, A. M., Jr., G. C. Doty, and E. J. Pearson, Jr., 1973. A Preliminary Evaluation of Regional Groundwater Flow in South-Central Washington, Open File Report, U.S. Geological Survey, Washington, D.C. (Ch. 3, 6)

- B118 LaSala, A. M., Jr., and G. C. Doty, 1975. Geology and Hydrology of Radioactive Solid-Waste Burial Grounds at the Hanford Reservation, Washington, Open File 75-625, U.S. Geological Survey for the Energy Research and Development Administration, Washington, D.C. (CRD C.4) \*  
MF 1791
- 172 LATA (Los Alamos Technical Associates, Inc.), 1981. Preliminary Risk Assessment Results for a Nuclear Waste Repository in Basalt, LATA-RHO-04-02A, Los Alamos, New Mexico. (Ch. 6, CRD C.5)
- 173 Laubscher, D., and H. Taylor, 1976. "The Importance of Geomechanics Classification of Jointed Rock Masses in Mining Operations," Proceedings of the Symposium on Exploration for Rock Engineering, Johannesburg, South Africa, November: (Ch. 6)
- B119 Laubscher, H. P., 1977. Structural Analysis of Post-Yakima Deformation, Columbia Plateau, Washington, Draft, for Washington Public Power Supply System, Richland, Washington. (Ch. 3, CRD C.5) \* 2  
MF 1792
- A64 Laubscher, H. P., 1981. "Models of the Development of Yakima Deformation," Final Safety Analysis Report WNP-2, Amendment No. 18, Appendix 2.5-0, Washington Public Power Supply System, Richland, Washington. (Ch. 2, 6)
- 174 Laval, W. N., 1956. Stratigraphy and Structural Geology of Portions of South-Central Washington, Ph.D. Dissertation, University of Washington, Seattle, Washington. (Ch. 3)
- B120 Law, A. G., and R. M. Allen, 1984. Results of the Separations Area Ground-Water Monitoring Network for 1983, RHO-RE-SR-84-24 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 4, CRD C.7) \* 4  
MF 1793
- A65 LBL (Lawrence Berkeley Laboratory), 1982. "Evaluation of Geochemical Data," (letter from D. J. Watkins to R. W. Bryce, Rockwell Hanford Operations, December 3, 1982). (NOTE: Microfiche title reads LBL, 1983; in error.) (Ch. 3, CRD C.4)
- 177 Leaming, G. F., 1981. An Evaluation of Water-Resource Economics within the Pasco Basin, Washington, RHO-BWI-C-121, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6)

- A66 Leaming, G. F., and J. D. Davis, 1983. Mineral Resource Analysis of the Proposed Site for Underground Storage of High-Level Commercial Nuclear Waste, Hanford, Washington, RHO-BW-SA-265 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B345 Lee, W. H. K., and S. W. Stewart, 1981. "Principles and Applications of Microearthquake Networks," Advances in Geophysics Supplement 2, Academic Press, p. 4, copyright 1981, by Academic Press, Inc. (Ch. 2) \* 11 MF 2297
- A67 Lee, W. W., K. Nair, and G. Smith, 1978. Basalt Waste Isolation Disruptive Event Analysis, RHO-BWI-C-43, Woodward-Clyde Consultants for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.9)
- 178 Lehnhoff, T. F., B. Stefansson, K. Thirumalai, and T. M. Wintczak, 1982. The Core Disking Phenomenon and its Relation to In-Situ Stress at Hanford, SD-BWI-TI-085, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5, C.8)
- B121 Leland, D. E., K. E. Powell, and R. S. Anderson, Jr., 1980. "A Fluoride Overfeed Incident at Harbor Springs, Michigan," Journal of American Water Works Association, Vol. 72, No. 4, p. 240, Copyright 1980, reprinted by permission of The American Water Works Association. (Ch. 6, CRD C.5) \* 3 c MF 1796
- 179 Leonhart, L. S., 1979. Surface Hydrologic Investigations of the Columbia Plateau Region, Washington, RHO-BWI-ST-6, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, CRD C.4)
- 180 Leonhart, L. S., 1980. Assessment of the Effects of Existing Major Dams Upon a Radioactive Waste Repository Within the Hanford Site, RHO-BWI-LD-26, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 6)
- 181 Leonhart, L. S., R. L. Jackson, D. L. Graham, G. M. Thompson, and L. W. Gelhar, 1982. Groundwater Flow and Transport Characteristics of Flood Basalts as Determined from Tracer Experiments, RHO-BW-SA-220 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)

- A68 Leonhart, L. S., R. L. Jackson, D. L. Graham, L. W. Gelhar, G. M. Thompson, B. Y. Kanehiro, C. R. Wilson, 1985. Analysis and Interpretation of a Recirculating Tracer Experiment Performed on a Deep Basalt Flow Top, RHO-BW-SA-300 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.5)
- B122 Lindberg, J. W., 1986. Width and Infilling of Fractures in Four Grande Ronde Basalt Flows Beneath the Reference Repository Locat on, SD-BWI-TI-282, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.5) MF 1797
- B123 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. (Ch. 6, CRD C.5) \* 2 c MF 1798
- A69 Loffland Brothers Company, 1974. "It's Loffland Again... History Repeats as World Record Set at 31,441 Feet," Drilling is our Business, Volume XVIII, No. 2. (Ch. 6)
- A70 Loken, M. C., 1983. A Priori Numerical Prediction of Various In Situ Accelerated Borehole Closure Experiment, ONWI-237, Battelle Memorial Institute, Columbus, Ohio, p. 9. (Ch. 6)
- 183 Long, P. E. 1978. Characterization and Recognition of Intraflow Structures, Grande Ronde Basalt, RHO-BWI-LD-10, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)
- 185 Long, P. E., and N. J. Davidson, 1981. "Lithology of the Grande Ronde Basalt with Emphasis on the Umtanum and McCoy Canyon Flows," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 6)
- B290 Long, P. E., and R. A. Duncan, 1982. "<sup>40</sup>Ar/<sup>39</sup>Ar Ages of Columbia River Basalts from Deep Boreholes in South-Central Washington," abstract, proceedings of 33rd Alaska Science Conference, American Association for the Advancement of Science, Arctic Division, Fairbanks, Alaska, September; also RHO-BW-SA-233 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3) \* MF 0278

- 186 Long, P. E., and R. D. Landon, 1981. "Stratigraphy of Grande Ronde Basalt," Subsurface Geology of the Cold Creek Syncline, C. M. Myers, and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, C.4)
- 187 Long and WCC (Long, P. E., and Woodward-Clyde Consultants), 1984. Repository Horizon Identification Report, SD-BWI-TY-001 DRAFT, Vols. 1 and 2, for Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 4, 6, CRD C.4, C.5)
- A71 Loo, W. W., R. C. Arnett, L. S. Leonhart, S. P. Luttrell, W. R. McSpadden, and I. Wang, 1984. Effective Porosities of Basalt: A Technical Basis for Values and Probability Distributions Used in Preliminary Performance Assessments, SD-BWI-TI-254, Rockwell Hanford Operations, Richland, Washington. (CRD C.5)
- B291 Lumsden, J. B., 1985. Pitting Behavior of Low-Carbon Steel, SD-BWI-TS-014, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 189 Luzier, J. E., and R. J. Burt, 1974. Hydrology of Basalt Aquifers and Depletion of Groundwater in East-Central Washington, Water-Supply Bulletin 33, Washington State Department of Ecology, Olympia, Washington, in cooperation with the U.S. Geological Survey, Washington, D.C. (Ch. 2, 3, 6, CRD C.4, C.5)
- 188 Luzier, J. E., and J. A. Skrivan, 1973. Digital Simulation and Projection of Water-Level Declines in Basalt Aquifers of the Odessa-Lind Area, East-Central Washington, Open-File Report, U.S. Geological Survey, Tacoma, Washington, in cooperation with State of Washington Department of Ecology, Olympia, Washington. (Ch. 2, CRD C.4, C.5)
- 190 Luzier, J. E., J. W. Bingham, R. J. Burt, and R. A. Barker, 1968. Groundwater Survey Odessa-Lind Area, Washington, Water-Supply Bulletin 36, Washington State Division of Water Resources, Olympia, Washington. (Ch. 2)
- 191 Mack, R. N., V. M. Bryant, Jr., and R. Fryxell, 1976. "Pollen Sequence from the Columbia Basin, Washington: Reappraisal of Postglacial Vegetation," The American Midland Naturalist, Vol. 95, No. 2, pp. 390-397. (Ch. 6)

\* 5  
MF 1922

- 192 Mack, R. N., N. W. Rutter, S. Valastro, and V. M. Bryant, Jr., 1978c. "Late Quaternary Vegetation History at Waits Lake, Colville River Valley, Washington," Botanical Gazette, Vol. 139, No. 4, pp. 499-506. (Ch. 6)
- 193 Mack, R. N., N. W. Rutter, V. M. Bryant, Jr., and S. Valastro, 1978a. "Late Quaternary Pollen Record from Big Meadow, Pend Oreille County, Washington," Ecology, Vol. 59, No. 5, pp. 956-966. (Ch. 6)
- 194 Mack, R. N., N. W. Rutter, V. M. Bryant, Jr., and S. Valastro, 1978b. "Reexamination of Postglacial Vegetation History in Northern Idaho: Hager Pond, Bonner, County," Quaternary Research, Vol. 10, pp. 241-255. (Ch. 6)
- 196 Mackin, J. H., 1961. A Stratigraphic Section in the Yakima Basalt and the Ellensburg Formation in South-Central Washington, Report of Investigations 19, Washington Division of Mines and Geology, Olympia, Washington. (Ch. 2, CRD C.5)
- B124 MacNish, R. D., and R. A. Barker, 1976. Digital Simulation of a Basalt Aquifer System, Walla Walla River Basin, Washington and Oregon, Water-Supply Bulletin No. 44, State of Washington Department of Ecology, Olympia, Washington, in cooperation with U.S. Geological Survey, Washington, D.C. (Ch. 3, 6, CRD C.5) \* MF 2312
- B125 Makhijani, A., and K. M. Tucker, 1985. Heat, High Water, and Rock Instability at Hanford, Health and Energy Institute, Washington, D.C. (CRD C.5, C.8) \* 3 MF 1800
- A72 Malhotra, S., and D. Manninen, 1980. Migration and Residential Location of Workers at Nuclear Power Plant Construction Sites, Vol. II, Battelle Memorial Institute, Seattle, Washington, pp. 33-80. (Ch. 4, 5)
- B346 Mankinen, E. A., and G. B. Dalrymple, 1979. "Revised Geomagnetic Polarity Time Scale for the Interval 0-5 m.y.B.P.," Journal of Geophysical Research, Vol. 84, No. B2, pp. 615-626. (Ch. 3) \* 11 MF 1964
- B126 Matthews, C. S., and D. G. Russell, 1967. Pressure Buildup and Flow Tests in Wells, Society of Petroleum Engineers of the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., Vol. 1, Henry L. Doherty Series, Dallas, Texas. (CRD C.4) \* 3 c MF 1801

- 197 McCormack, W. D., J. V. Ramsdell, and B. A. Napier, 1984. Hanford Dose Overview Program: Standardized Methods and Data for Hanford Environmental Dose Calculations, PNL-3777 Rev. 1, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, 6)
- B127 McFarland, C. R., 1983. Oil and Gas Exploration in Washington, 1900-1982, Circular 75, State of Washington, Department of Natural Resources, Division of Geology and Earth Resources Information, Olympia, Washington. (Ch. 6, CRD C.5) \* MF 0291
- B292 McGhan, V. L., and D. W. Damschen, 1979. Hanford Wells, PNL-2894, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3) \* 4 MF 2322
- B128 McGhan, V. L., P. J. Mitchell, and R. S. Argo, 1985. Hanford Wells, PNL-5397, Pacific Northwest Laboratory, Richland, Washington. (CRD C.4) \* MF 2321
- 198 McGinnis, K., and D. Schua, 1983. The Downside of Nuclear Plant Construction, Northwest Regional Economic Conference, Bellingham, Washington. (Ch. 3)
- 199 McKee, E. H., D. A. Swanson, and T. L. Wright, 1977. "Duration and Volume of Columbia River Basalt Volcanism; Washington, Oregon, and Idaho," Geological Society of America Abstracts with Programs, Vol. 9, No. 4, pp. 463-464. (Ch. 2, 3, 6)
- 200 McKee, E. H., P. R. Hooper, and W. D. Kleck, 1981. "Age of Imnaha Basalt-Oldest Basalt Flows of the Columbia River Basalt Group, Northwestern United States," Isochron West, No. 31, pp. 31-33. (Ch. 2)
- B396 McMillan, K., R. W. Cross, and P. E. Long, 1985. Vesicular Zones of the Cohasset Flow, Grande Ronde Basalt, Washington, RHO-BW-SA-517, abstract, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \* 14 MF 1102
- A73 McSweeney, T. I., R. W. Peterson, and R. Gupta, 1984. "The Costs and Impacts of Transporting Nuclear Waste to Candidate Repository Sites," Proceedings of the 1983 Civilian Radioactive Waste Management Information Meeting, CONF 831217, December 1983, Washington, D.C., pp. 351-361. (Ch. 6)

- 201 Means, J. L., 1982. The Organic Geochemistry of Deep Groundwaters, ONWI-268, Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio. (Ch. 6)
- 202 Merriam, J. C., and J. P. Buwalda, 1917. "Age of Strata Referred to the Ellensburg Formation in the White Bluffs of the Columbia River," Bulletin of Geology, Vol. 10, No. 15, University of California, pp. 255-264. (Ch. 3)
- B129 Meyer, W., 1985. "U.S. Geological Survey Testimony Before the Subcommittee on General Oversight, Northwest Power, and Forest Management," Committee on Interior and Insular Affairs, U.S. House of Representatives, Washington, D.C., April 15. (CRD C.4, C.5) \* 3  
MF 1802
- B130 Meyer, R. E., W. D. Arnold, and F. E. Case, 1984. Valence Effects on the Sorption of Nuclides on Rocks and Minerals, NUREG/CR-3389, ORNL-5978, Oak Ridge National Laboratory, Oak Ridge, Tennessee, for U.S. Nuclear Regulatory Commission, Washington, D.C. (Ch. 6, CRD C.5) \* 2  
MF 2330
- B383 Miller, R. J., 1979b. Determination of Basalt Physical and Thermal Properties at Varying Temperatures, Pressures, and Moisture Contents, Third Progress Report, Fiscal Year 1979, RHO-BWI-C-55, Colorado School of Mines for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 11  
MF 2331
- B384 Miller, R. J., 1979a. Determination of Basalt Physical and Thermal Properties at Varying Temperatures, Pressures, and Moisture Contents, Second Progress Report, Fiscal Year 1979, RHO-BWI-C-54, Colorado School of Mines for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 11  
MF 2332
- B382 Miller, R. J., and R. C. Bishop, 1979. Determination of Basalt Physical and Thermal Properties at Varying Temperatures, Pressures, and Moisture Contents, First Progress Report, Fiscal Year 1979, RHO-BWI-C-50, Colorado School of Mines for Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 11  
MF 2333
- A74 Mitchell, S. J., 1984. Direct Shear Testing Data Reduction, Computational Brief 00066, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)

- B131 Mitchell, S. J., 1986. "Evaluation of Damaged Rock Zone Around Repository Openings," computational brief, J. F. T. Agapito and Associates for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.8) MF 1803
- 203 Mitchell, T. H., and K. A. Bergstrom, 1983. "Pre-Columbia River Basalt Group Stratigraphy and Structure in the Central Pasco Basin," Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, RHO-BWI-ST-19 P, J. A. Caggiano and D. W. Duncan (eds.), Rockwell Hanford Operations, Richland, Washington, pp. 4-1 through 4-18. (Ch. 2, CRD C.5)
- 204 Moak, D. J., 1981. "Borehole Geologic Studies," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.5)
- 205 Moore, D. E., C. A. Morrow, and J. D. Byerlee, 1983. "Chemical Reactions Accompanying Fluid Flow Through Granite Held in a Temperature Gradient," Geochimica Cosmochimica Acta, Vol. 47, pp. 445-453. (Ch. 6)
- B293 Moore, E. I., G. C. Ulmer, and D. E. Grandstaff, 1985. "Hydrothermal Interaction of Columbia Plateau Basalt from the Umtanum Flow (Washington, U.S.A.) with its Coexisting Groundwater," Chemical Geology, Vol. 49, pp. 53-71; also SD-BWI-TI-228, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* MF 1494
- 206 Morgan, M. T., 1979. Thermal Conductivity of Rock Salt from Louisiana Salt Domes, ORNL/TM-6809, Oak Ridge National Laboratory, Oak Ridge, Tennessee. (Ch. 6)
- B132 Morris, J. C., and W. Stumm, 1967. "Redox Equilibria and Measurements of Potential in the Aquatic Environment," Equilibrium Concepts in Natural Water Systems, W. Stumm (ed.), American Chemical Society Series 67, Washington, D.C., pp. 270-285. (CRD C.5) \* c MF 0561
- A75 Morrison-Knudsen, Co., Inc., 1983a. Assessment of Conducting a Large Shaft Demonstration Test Utilizing Geodrill Rig 32, SD-BWI-ER-008, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)

- A76 Morrison-Knudsen, Co., Inc., 1983b. Potential Geologic Hazards in the Long-Hole Interval ES-1 Shaft Site, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)
- A77 Morrison-Knudsen, Co., Inc., 1984. Large Shaft Development Study, SD-BWI-ER-007, for Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)
- A78 MSHA (Mine Safety and Health Administration), 1983. "Gassy Mines," Safety and Health Standards - Metal and Nonmetal Underground Mines, Title 30, Code of Federal Regulations, Part 57, Subpart 57.21, Washington, D.C. (Ch. 5, 6, CRD C.8)
- 207 Mullineaux, D. R., R. E. Wilcox, W. F. Ebaugh, R. Fryxell, and M. Rubin. 1977. "Age of the Last Major Scabland Flood of Eastern Washington, as Inferred from Associated Ash Beds of Mount St. Helens Set S," Geological Society of America Abstracts with Program, Vol. 9, No. 7, p. 1105. (Ch. 2, 3)
- A79 Murphy, P. J., and G. D. Johnpeer, 1981. An Assessment of Geothermal Resource Potential - Pasco Basin and Vicinity, Washington, RHO-BW-CR-128 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 210 Myers, C. W., S. M. Price, J. A. Caggiano, M. P. Cochran, W. H. Czimer, N. J. Davidson, R. C. Edwards, K. R. Fecht, G. E. Holmes, M. G. Jones, J. R. Kunk, R. D. Landon, R. K. Ledgerwood, J. T. Lillie, P. E. Long, T. H. Mitchell, E. H. Price, S. P. Reidel, and A. M. Tallman, 1979. Geologic Studies of the Columbia Plateau: A Status Report, RHO-BWI-ST-4, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 4, 6, CRD C.4, C.5)
- 208 Myers, C. W., 1981. "Bedrock Structure of the Cold Creek Syncline Area," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)
- 209 Myers, C. W., and S. M. Price (eds.), 1981. Subsurface Geology of the Cold Creek Syncline, RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 4, 6, CRD C.4, C.5)

- B392 Myers, J., M. J. Apted, and J. J. Mazer, 1984. Hydrothermal Reaction of Simulated Waste Forms with Basalt under Conditions Expected in a Nuclear Waste Repository in Basalt, RHO-BW-ST-59 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* 12  
MF 0732
- A80 Myrvang, H. M., and E. Grimstad, 1983. "Rock Burst Problems in Norwegian Highway Tunnels-Recent Case Histories," Rock Burst: Prediction and Control, Proceedings of Symposium Organized by the Institution of Mining and Metallurgy in Association with Institution of Mining Engineers, London, England, October 1983, pp. 133-140. (Ch. 6)
- A81 Napier, B. A., 1981. Standardized Input for Hanford Environmental Impact Statements - Part 1, PNL-3509, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6)
- B134 Nash, K. L., and J. M. Cleveland, 1984. "The Thermodynamics of Plutonium(IV) Complexation by Fluoride and its Effect on Plutonium(IV) Speciation in Natural Waters," Radiochemica Acta, Vol. 36, pp. 129-134. (Ch. 6, CRD C.5) \* 2  
MF 1808
- 212 National Academy of Sciences-National Research Council, 1978. Geologic Criteria for Repositories for High-Level Radioactive Waste, Panel on Geologic Site Criteria, Committee on Radioactive Waste Management, Washington, D.C. (Ch. 2)
- B135 National Academy of Sciences-National Research Council, 1983. A Study of the Isolation System for Geologic Disposal of Radioactive Wastes, Waste Isolation Systems Panel, National Academy Press, Washington, D.C. (CRD C.8) \* 10  
MF 1497
- B136 NCRP (National Council on Radiation Protection and Measurements), 1975. Natural Background Radiation in the United States, NCRP Report 45, Washington, D.C., p. 124. (CRD C.6) \* 2  
MF 1809
- 214 National Environmental Policy Act of 1969. Public Law 91-190, 83 Stat. 852, 42 USC 4321, Sections 102(2)(C) and (E). (App. B)
- 213 Nealey, S. M., and W. L. Rankin, 1978. Nuclear Knowledge and Nuclear Attitudes: Is Ignorance Bliss?, Contract EW-78-C-06-1076, B-HARC-411-002, for the U.S. Department of Energy, Seattle, Washington. (Ch. 3)

- B137 Nelson, D. M., R. P. Larsen, and W. R. Penrose, 1984. "Chemical Speciation of Pu in Natural Waters," Workshop on Environmental Research for Actinide Elements, Hilton Head Island, South Carolina. (CRD C.5) \* 2 MF 1810
- A83 Neretnieks, I., 1982. The Movement of a Redox Front Downstream from a Repository for Nuclear Waste, SKBF/KBS Teknisk Rapport, 82-16, Royal Institute of Technology, Stockholm, Sweden. (Ch. 6)
- A84 Neretnieks, I., and B. Aslund, 1983. The Movement of Radionuclides Past a Redox Front, SKBF/KBS Teknisk Rapport, 83-66, Royal Institute of Technology, Stockholm, Sweden. (Ch. 6)
- 215 Neuman, S. P., 1982, "Statistical Characterization of Aquifer Heterogeneities: An Overview," Recent Trends in Hydrogeology, T. N. Narasimhan (ed.), Special Paper 189, Geological Society of America, pp. 81-102. (Ch. 3, CRD C.5)
- B138 Neuman, S. P., and P. A. Witherspoon, 1972. "Field Determination of the Hydraulic Properties of Leaky Multiple Aquifer Systems," Water Resources Research, Vol. 8, No. 5, pp. 1284-1289. (CRD C.4, C.5) \* c MF 2362
- 216 Newcomb, R. C., 1961. Storage of Groundwater Behind Subsurface Dams in Columbia River Basalt, Washington, Oregon, and Idaho, Professional Paper 383-A, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- 217 Newcomb, R. C., 1965. Geology and Groundwater Resources of the Walla Walla River Basin, Washington-Oregon, Water-Supply Bulletin 21, Washington State Division of Water Resources, Olympia, Washington. (Ch. 2, 3, 6)
- B139 Newcomb, R. C., 1969. "The Columbia River Group: Its Tectonic Structure in Washington, Oregon, and Idaho," Proceedings, Second Columbia River Basalt Symposium, Eastern Washington State College, Cheney, Washington, March, pp. 173-175. (CRD C.5) \* 2 MF 1811
- B140 Newcomb, R. C., 1970. Tectonic Structure of the Main Part of the Basalt of the Columbia River Group, Washington, Oregon, and Idaho, Miscellaneous Investigations Series, Map I-587, U.S. Geological Survey, Washington, D.C. (Ch. 2, CRD C.5) \* 5 TLC MF 2363

- 218 Newcomb, R. C., 1972. Quality of the Groundwater in Basalt of the Columbia River Group. Washington, Oregon and Idaho, Water-Supply Paper 1999-N, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- 219 Newcomb, R. C., J. R. Strand, and F. J. Frank, 1972. Geology and Groundwater Characteristics of the Hanford Reservation of the U.S. Atomic Energy Commission, Washington, Professional Paper 717, U.S. Geological Survey, Washington, D.C. (Ch. 3, 6)
- 220 Newcomb, R. C., 1982. "Groundwater in the Columbia River Basalt," Hydrogeology of Volcanic Terrains, K. B. Powar and S. S. Thigale (eds.), Poona University Press, Poona, India. (Ch. 2, 3, 6, CRD C.4)
- B141 Nguyen, V. V., and L. Lehman, 1985. "Interscale Transfer of Information in Nuclear Waste Repository Multibarrier Systems," Proceedings of the Western Regional Ground Water Conference of the NWWA Ground Water Technology Division, Reno, Nevada. (CRD C.5) \* 9 MF 1813
- 221 Nickmann, R. J., 1979. The Palynology of Williams Lake Fen, Spokane County, Washington, Master of Science thesis, Eastern Washington University, Cheney, Washington. (Ch. 6)
- 222 Nickmann, R. J., and E. Leopold, 1980. A Postglacial Pollen Record from Goose Lake, Okanogan County, Washington: Evidence for an Early Holocene Cooling, Contribution 82-2, Quaternary Research Center, University of Washington, Seattle, Washington. (Ch. 6)
- 223 Noise Control Act of 1972, Public Law 92-574, 86 Stat. 1234. (Ch. 6, CRD C.7)
- A85 Noonan, A. F., K. Fredriksson, and J. Nelen, 1980. Phase Chemistry of the Umtanum Basalt, A Reference Repository Host in the Columbia Plateau, RHO-BWI-SA-77, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B142 Northwest Power Planning Council, 1985. Economic, Demographic, and Fuel Price Assumptions, Draft Assumptions, Portland, Oregon. (CRD C.7) \* 1 MF 1815
- 224 NPS (U.S. National Park Service), 1983. "National Registry of Natural Landmarks, U.S. National Park Service," Federal Register, Vol. 48, No. 41, p. 8702. (Ch. 3)

- A87 NRC (U.S. Nuclear Regulatory Commission), 1972. Assumptions Used for Evaluating the Potential Radiological Consequences of a Fuel Handling Accident in the Fuel Handling and Storage Facility for Boiling and Pressurized Water Reactors, Safety Guide 1.25, Washington, D.C. (Ch. 6)
- B143 NRC (U.S. Nuclear Regulatory Commission), 1975. General Site Suitability Criteria for Nuclear Power Stations, Regulatory Guide 4.7 Rev. 1, Office of Standards Development, Washington, D.C., pp. 4 and 9. (Ch. 6, CRD C.7) \* 2  
MF 1816
- B144 NRC (U.S. Nuclear Regulatory Commission), 1977. Design Basis Floods for Nuclear Power Plants, Regulatory Guide 1.59 Rev. 2, Office of Standards Development, Washington, D.C., pp. 1, 3, 5-9, 11-39, 41-66; replacement pp. 19-22, 27-30. (CRD C.4) \* 3  
MF 1818
- 230 NRC (U.S. Nuclear Regulatory Commission), 1978. "Proposed Statement of General Policy, Licensing Procedures for Geologic Repositories for High-Level Radioactive Wastes," Federal Register, Vol. 43, No. 223, pp. 53869-53872. (Ch. 2)
- 226 NRC (U.S. Nuclear Regulatory Commission), 1980. Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, NUREG 0654/FEMA-REP-1, Rev. 1, Washington, D.C. (Ch. 6, CRD C.7)
- A89 NRC (U.S. Nuclear Regulatory Commission), 1980. Technical Criteria for Regulating Geologic Disposal of High-Level Radioactive Waste, Title 10, Code of Federal Regulations Part 60 (Draft), Washington, D.C. (Ch. 2)
- 233 NRC (U.S. Nuclear Regulatory Commission), 1982a. Draft Environmental Impact Statement Related to the Construction of Skagit/Hanford Nuclear Projects, Units 1 and 2, NUREG-0894, Washington, D.C. (Ch. 3, CRD C.4)
- 235 NRC (U.S. Nuclear Regulatory Commission), 1982b. Safety Evaluation Report (Related to the Operation of WPPSS Nuclear Project) No. 2, NUREG-0892, Supplement No. 1, Washington, D.C. (Ch. 3, 6, CRD C.4)

- 238 NRC (U.S. Nuclear Regulatory Commission), 1983. Draft Site Characterization Analysis of the Site Characterization Report for the Basalt Waste Isolation Project, NUREG-0960, 2 Vols., Office of Nuclear Material Safety and Safeguards, Washington, D.C. (Ch. 3, 4, 6, CRD C.4, C.5)
- A91 NRC (U.S. Nuclear Regulatory Commission), 1983a. BWIP Site Technical Position No. 1.1: Hydrogeologic Testing Strategy for the BWIP Site, draft, Division of Waste Management, Washington, D.C. (Ch. 6, CRD C.5)
- B145 NRC (U.S. Nuclear Regulatory Commission), 1984. Determination of Radionuclide Solubility in Groundwater for Assessment of High-Level Waste Isolation, Washington, D.C. (CRD C.5) \* 2 MF 1510
- B146 NRC (U.S. Nuclear Regulatory Commission), 1984. Rules of Practice for Domestic Licensing Proceedings, Title 10, Code of Federal Regulations, Part 2, Washington, D.C. (CRD C.6) \* 9 MF 1824
- B147 NRC (U.S. Nuclear Regulatory Commission), 1984. Reactor Site Criteria, Title 10, Code of Federal Regulations, Part 100, Washington, D.C., pp. 815-818. (Ch. 2, 6, CRD C.5, C.7, App. B) \* 2 MF 1825
- B367 NRC (U.S. Nuclear Regulatory Commission), 1985. Disposal of High-Level Radioactive Wastes in Geologic Repositories; Licensing Procedures, Title 10, Code of Federal Regulations, Part 60, Washington, D.C. (Ch. 4, 5, 6, CRD C.4, C.5, C.6, C.7, C.9, App. B) \* 9 MF 1986
- B347 NRC (U.S. Nuclear Regulatory Commission), 1985b. Domestic Licensing of Production and Utilization Facilities, Title 10, Code of Federal Regulations, Part 50, Washington, D.C. (App. B) \* 9 MF 1965
- B349 NRC (U.S. Nuclear Regulatory Commission), 1985c. Standards for Protection Against Radiation, Title 10, Code of Federal Regulations, Part 20, Washington, D.C. (Ch. 6, CRD C.4, C.6, App. B) \* 9 MF 1967
- A94 Nuclear Assurance Corporation, 1981. Underwater Nuclear Fuel Disassembly and Rod Storage, DOE/ET-47912-1, Vol. I, U.S. Department of Energy, Washington, D.C. (Ch. 6)

- 239 Nuclear Waste Policy Act of 1982, Public Law 97-425, 96 Stat. 2201, 42 USC 10101, 1983. (Ch. 2, 3, 4, 5, 6, CRD C.4, C.5, C.7, C.9, App. B)
- B148 Oberg, G. C., 1966. Design Criteria, 216-A-37 Crib Revision 1, ISO-566, Isochem, Inc., Richland, Washington. (Ch. 4, CRD C.7) \* 3  
MF 1826
- B295 ODT (Oregon Department of Transportation), 1984a. Traffic Volume Tables for 1983, Highway Division, Traffic Section, Salem, Oregon, pp. 26, 27, and 61. (Ch. 3) \* 6  
MF 1924
- B296 ODT (Oregon Department of Transportation), 1984b. 1983 Traffic Accidents and Accident Rates on the State Highway System, Highway Division, Traffic Engineering Section, Salem, Oregon, pp. 43-45 and 112. (Ch. 3) \* 6  
MF 1925
- B297 ODT (Oregon Department of Transportation), 1985. (Letter from J. W. Sheldrake, Highway Division, Maintenance Section, to B. G. Erlandson, Rockwell Hanford Operations, July 25, 1985.) (Ch. 3) \* 6  
MF 1926
- B149 Ohmoto, H., and A. C. Lasaga, 1982. "Kinetics of Reactions Between Aqueous Sulfates and Sulfides in Hydrothermal Systems," Geochimica et Cosmochimica Acta, Vol. 46, pp. 1727-1745. (CRD C.5) \* c  
MF 0302
- 240 Olofsson, U., B. Allard, B. Torstenfelt, and K. Andersson, 1982. "Properties and Mobilities of Actinide Colloids in Geologic Systems," Scientific Basis for Radioactive Waste Management V, W. Lutze (ed.), Vol. 5, pp. 755-764.
- 241 Olofsson, U. and B. Allard, 1983. "Complexes of Actinides with Naturally Occurring Organic Substances," Literature Survey Technical, KBS Report 83-09, Stockholm, Sweden. (Ch. 6)
- 242 ONWI (Office of Nuclear Waste Isolation), 1980. Site Qualification Criteria, Draft, ONWI-33(2), Battelle Memorial Institute, Columbus, Ohio. (Ch. 2)
- B150 Orange, A., and E. Berkman, 1985. Interpretation of Magnetotelluric Data, Pasco Basin, South Central Washington, SD-BWI-TI-233, for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.5) \*  
MF 1827

- A96 Ornstein, P. M., M. R. Knapp, and J. C. Belote, 1983. "Regulatory Issues in Performance Assessment for High-Level Waste," Proceedings of the Civilian Radioactive Waste Management Information Meeting, CONF831217, Washington, D.C., December. (Ch. 6)
- A97 Ortiz, N. R., and K. K. Wahi, 1983. Technical Assistance for Regulatory Development: Review and Evaluation of the EPA Standard 40 CFR 191, for Disposal of High-Level Waste, NUREG/CR-3235, SAND 82-1557, Vol. 1, Sandia National Laboratories, Albuquerque, New Mexico, for the U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 1-16. (Ch. 6)
- A98 Ortlepp, W. D., 1970. "An Empirical Determination of the Effectiveness of Rock Bolt Support Under Impulse Loading," Proceedings of the International Symposium on Large Permanent Underground Openings, T. L. Brekke and F. A. Jorstand (eds.), Oslo, Norway, pp. 197-206. (Ch. 6)
- 243 Pacific Northwest River Basins Commission, 1981. Irrigated Lands in the Pacific Northwest, 1980, Land Resources Committee for the Depletions Task Force of the Columbia River Water Management Group, Vancouver, Washington. (Note: Microfiche title reads Pacific Northwest River Basins Commission, 1980; in error.) (Ch. 2)
- A99 Pacific Northwest Utilities Conference Committee, 1984. Northwest Regional Forecast of Power Loads and Resources July 1984-June 2004, Portland, Oregon, pp. II-3 through II-5. (Ch. 4)
- 244 Packer, D. R., and M. H. Petty, 1979. Magnetostratigraphy of the Grande Ronde Basalt, Pasco Basin, Washington, RHO-BWI-C-46, Woodward-Clyde Consultants for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4)
- B151 Paillet, F. L., 1985. Acoustic-Televiwer and Acoustic-Waveform Logs used to Characterize Deeply Buried Basalt Flows, Hanford Site, Benton County, Washington, Open File Report 85-419, U.S. Geological Survey, Washington, D.C. (CRD C.8) \*  
MF 2389
- B298 Palmer, R. A., R. G. Johnston, and M. I. Wood, 1983. Determination of an Upper Temperature Limit for Bentonite as a Backfill Component in a Nuclear Waste Repository in Basalt, RHO-BW-ST-47 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \*  
MF 1519

- 247 Papadopoulos, I. S., and H. H. Cooper, Jr., 1967. "Drawdown in a Well of Large Diameter," Water Resources Research, Vol. 3, No. 1, pp. 241-244. (Ch. 3)
- A100 Parzen, E., 1962. Stochastic Processes, Holden-Day, Inc., San Francisco, California, pp. 144-159. (Ch. 6)
- B152 Patterson, J. K., 1984. Borehole RRL-6 Report, SD-BWI-TI-167, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \*  
MF 2393
- B153 Peacor, D. R., E. J. Essene, J. H. Lee, and L. C. Kuo, 1984. "Analysis of Factors Affecting the Stability of Backfill Materials," NRC Nuclear Waste Geochemistry '83, NUREG/CP-0052, D. H. Alexander and G. F. Birchard (eds.), U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 235-293. (Ch. 6, CRD C.4) \* 2  
MF 1828
- B154 Peck, D. L., 1985. "U.S. Geological Survey Response to Subcommittee Questions on the Hanford Nuclear Reservation" (letter from U.S. Department of Interior to E. J. Markey, Chairman, Subcommittee on Energy Conservation and Power, Committee of Energy and Commerce, House of Representatives, July 26, 1985). (CRD C.4, C.5) \* 3  
MF 1829
- A101 Peele, R., (ed.), 1947. Mining Engineers' Handbook, 3rd ed., John Wiley & Sons, New York, New York, pp. 14-56, 14-59 through 14-61, and 14-63. (Ch. 6)
- 251 Pepping, R. E., R. J. Campana, D. D. Jensen, and P. H. Raabe, 1981. Risk Analysis Methodology for Spent Fuel Repositories in Bedded Salt: Reference Repository Definition and Contributions from Handling Activities, NUREG/CR-1931, SAND81-0219, Sandia National Laboratories, Albuquerque, New Mexico, for the U.S. Nuclear Regulatory Commission, Washington, D.C., pp. 3-11 through 3-34. (Ch. 6)
- 252 Petrie, G. M., J. T. Lindberg, and M. G. Foley, 1981. Geological Simulation Model for a Hypothetical Site in the Columbia Plateau, PNL-3542, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6)
- B243 Pigg, J. H., 1961. The Lower Tertiary Sedimentary Rocks in the Pilot Rock and Heppner Areas, Oregon, Master of Science thesis, University of Oregon, Eugene, Oregon. (Ch. 2) \*  
MF 0307

- 8299 Pitman, S. G., 1985. Slow-Strain-Rate Testing of 9%Cr-1%Mo Wrought Steel and ASTM A27 Cast Steel in Hanford Grande Ronde Groundwater, SD-BWI-TS-008, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \*
- 248 PNL (Pacific Northwest Laboratory), 1967. The Effects of Ben Franklin Dam on Hanford, BNWL-412, Pacific Northwest Laboratories, Richland, Washington. (Ch. 3) MF 1525
- A102 PNL (Pacific Northwest Laboratory), 1983. "Preliminary Draft of a Proposed Hydrogeochemistry Research Plan for the Site Characterization Activity of the Basalt Waste Isolation Project at Rockwell Hanford Operations," (letter from J. Fruchter to R. Smith, Rockwell Hanford Operations, October 7, 1983; second draft of letter report submitted December 1983). (Ch. 3, CRD C.4)
- 253 Porter, S. C. 1977. "Present and Past Glaciation Threshold in the Cascade Range, Washington, U.S.A.: Topographic and Climatic Controls, and Paleoclimate Implications," Journal of Geology, Vol. 18, No. 78, pp. 101-116. (Ch. 6)
- A103 Prater, L. S., J. T. Rieger, C. S. Cline, E. J. Jensen,, T. L. Liikala, K. R. Oster, and P. A. Eddy, 1984. Groundwater Surveillance at the Hanford Site for CY 1983, PNL-5041, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, CRD C.4, C.5, C.6).
- B350 Prescott, W. H., and J. C. Savage, 1984. Crustal Deformation Near Hanford, Open-File Report 84-797, U.S. Geological Survey, Menlo Park, California. (Ch. 2, 3, 6) \*
- A104 Presley, C. K., 1981. Drilled Shafts - An Alternative Approach to Mine Development, the Northwest Mining Association, Spokane, Washington. (Ch. 6) MF 0573
- 254 Price, E. H., 1980. "Mesoscopic Shear Zone Evolution in Multilayered Basalt Folded at Shallow Depths," Geological Society of America Abstracts with Programs, Vol. 12, No. 7, p. 503. (Ch. 3)

- 255 Price, E. H., 1981. "Distribution of Strain Features within Selected Yakima Fold Structures and Extrapolation of their Nature into the Cold Creek Syncline Area," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington, pp. 7-1 through 7-19. (Ch. 3, CRD C.5)
- 256 Price, E. H., 1982. Structural Geometry, Strain Distribution, and Tectonic Evolution of Umtanum Ridge at Priest Rapids, and a Comparison with Other Selected Localities Within Yakima Fold Structures, South-Central Washington, Ph.D. dissertation, Washington State University, Pullman, Washington; also RHO-BWI-SA-138, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 6, CRD C.5)
- B156 Price K. R., J. M. V. Carlile, R. L. Dirkes, R. E. Jaquish, M. S. Trevathan, and R. K. Woodruff, 1985. Environmental Monitoring at Hanford for 1984, PNL-5407, Pacific Northwest Laboratory, Richland, Washington. (Ch. 2, 3, 6, CRD C.4, C.6)
- A105 Price, K. R., J. M. V. Carlile, R. L. Dirkes, and M. S. Trevathan, 1984. Environmental Surveillance at Hanford for CY 1983, PNL-5038, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, CRD C.4, C.5, C.6)
- 257 Price, S. M., 1977. An Evaluation of Dike-Flow Correlations Indicated by Geochemistry, Chief Joseph Swarm, Columbia River Basalt, Ph.D. Dissertation, University of Idaho, Moscow, Idaho; also RHO-SA-59, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3)
- 258 PSPL (Puget Sound Power & Light Company), 1981. Skagit/Hanford Nuclear Project: Application for Site Certification/Environmental Report, Volume 2, Bellevue, Washington. (Ch. 3, 5, 6)
- 259 PSPL (Puget Sound Power & Light Company), 1982. Skagit/Hanford Nuclear Project, Preliminary Safety Analysis Report, Vol. 4, App. 20, Amendment 23, Bellevue, Washington, pp. 2R-22 and 2R-23. (Ch. 2, 3, 6, CRD C.4, C.5)
- B300 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. (Ch. 6)

\* 2  
MF 1833

\* 10  
MF 1927

- B157 Raisz, E., 1945. "The Olympic-Wallowa Lineament," American Journal of Science, Vol. 243-A, pp. 479-485. (Ch. 2, 3, CRD C.4) \* c  
MF 0575
- B158 Ramey, H. J., 1982. "Well-Loss Function and the Skin Effect: A Review," Geology Society of America, Special Paper 189, pp. 265-271. (CRD C.4) \* 3  
MF 1834
- 260 Ramsdell, J. V., 1981. Hanford 200 East Area Ambient NO<sub>x</sub> Concentrations February 1968 through February 1969, PNL-3996, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- B351 Rand McNally, 1985. "Most Rapidly Growing PMSA's and MSA's 1970-1980," Rand McNally Commerical Atlas and Marketing Guide, 116th Ed., Chicago, Illinois, p. 112. (Ch. 3) \* 12  
MF 1969
- 262 Rasmussen, N. H., 1967. "Washington State Earthquakes 1840 through 1965," Bulletin of the Seismological Society of America, Vol. 57, No. 3, pp. 463-476. (Ch. 2, 6)
- B301 Reed, D. T., S. D. Bonar, and M. F. Weiner, 1985. Effect of Ionizing Radiation on Waste Package Performance in a Basalt High Level Waste Repository, RHO-BW-SA-462, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 5  
MF 1928
- B244 Reidel, S. P., 1978. Geology of the Saddle Mountains Between Sentinel Gap and 119° 31' Longitude, RHO-BWI-LD-4, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3) \* 11  
MF 2416
- 267 Reidel, S. P., 1983. "Stratigraphy and Petrogenesis of the Grande Ronde Basalt from the Deep Canyon Country of Washington, Oregon, and Idaho," Geological Society of America Bulletin, Vol. 94, pp. 519-542; also RHO-BWI-SA-114, Rockwell Hanford Operations, Richland, Washington. (Ch. 2)
- B159 Reidel, S. P., 1984. "The Saddle Mountains: The Evolution of an Anticline in the Yakima Fold Belt," American Journal of Science, Vol. 284, pp. 942-978; also RHO-BW-SA-263 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, 6, CRD C.5) \* c  
MF 2418

- 268 Reidel, S. P., R. W. Cross, and K. R. Fecht, 1983. "Constraints on Tectonic Models as Provided from Strain Rates," Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, J. A. Caggiano and D. W. Duncan (eds.), RHO-BW-ST-19 P, Rockwell Hanford Operations, Richland, Washington, pp. 5-1 through 5-19. (Ch. 2, 3, 6, CRD C.5)
- 264 Reidel, S. P., and K. R. Fecht, 1981. "Wanapum and Saddle Mountains Basalts of the Cold Creek Syncline Area," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4)
- 266 Reidel, S. P., and K. R. Fecht, 1982. Uplift and Subsidence Rates in the Central Columbia Plateau and Their Relation to Siting a Waste Repository at Hanford, Washington, RHO-BW-SA-187 P, Rockwell Hanford Operation, Richland, Washington. (Ch. 2)
- 263 Reidel, S. P., R. K. Ledgerwood, C. W. Myers, M. G. Jones, and R. D. Landon, 1980. "Rate of Deformation in the Pasco Basin During the Miocene as Determined by Distribution of Columbia River Basalt Flows," Geological Society of America Abstracts with Programs, Vol. 12, No. 3, p. 149; also, RHO-BWI-SA-29, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4)
- 265 Reidel, S. P., P. E. Long, C. W. Myers, and J. Mase, 1981. New Evidence for Greater Than 3.2 Kilometers of Columbia River Basalt Beneath the Central Columbia Plateau, RHO-BWI-SA-162A, Rockwell Hanford Operations, Richland, Washington. (Ch. 2)
- B160 Reidel, S. P., G. R. Scott, D. R. Bazard, R. W. Cross, and B. Dick, 1984. "Post-12 Million Year Clockwise Rotation in the Central Columbia Plateau, Washington," Tectonics, Vol. 3, No. 2, pp. 251-273; also RHO-BWI-SA-296 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, CRD C.5)
- B161 Relyea, J. F., D. P. Trott, C. V. McIntyre, and C. G. Rieger, 1985. Diffusion of Tritium and Chloride in Basalt-Bentonite Mixtures, RHO-BW-SA-431 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)

\*  
MF 2420

\* 4  
MF 1835

- 269 Relyea, J. F., and M. I. Wood, 1984. An Analytical One-Dimensional Model for Predicting Waste Package Performance, SD-BWI-TI-232, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)
- 8302 Resource Conservation and Recovery Act of 1976. Public Law 94-580, 90 Stat. 2795, 42 USC 6901. (Ch. 5) \* 9, 13  
MF 1929
- 271 Rice, D. G., 1968a. Archaeological Reconnaissance - Ben Franklin Reservoir Area, 1968, Laboratory of Anthropology, Washington State University, Pullman, Washington. (Ch. 3)
- 272 Rice, D. G., 1968b. Archaeological Reconnaissance - Hanford Atomic Works, Laboratory of Anthropology, Washington State University, Pullman, Washington. (Ch. 3, CRD C.7)
- 274 Rice, D. G., 1984b. FY 83 Summary Report for Archaeological Survey and Monitoring of Initial Excavations within the Basalt Waste Isolation Reference Repository Site, Hanford Reservation, Washington, SD-BWI-TA-007, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 4, 5, 6)
- 8162 Rice, D. G. 1984. Archaeological Inventory of the Basalt Waste Isolation Project, Hanford Reservation, Washington, SD-BWI-TA-006, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 4, 5, 6, CRD C.7) \*  
MF 1837
- A106 Richardson, P., 1984. Australia's Largest Blind Drilled Shaft, paper presented at the American Society of Civil Engineers Meeting, Atlanta, Georgia, May. (Ch. 6)
- 276 Rickard, W. H., R. E. Fitzner, and C. E. Cushing, 1981. "Biological Colonization of an Industrial Pond: Status After Two Decades," Environmental Conservation, Vol. 8, No. 3, pp. 241-247. (Ch. 3)
- 277 Rickard, W. H., W. C. Hanson, R. E. Fitzner, 1982. "The Non-Fisheries Biological Resources of the Hanford Reach of the Columbia River," Northwest Science, Vol. 56, No. 1, pp. 62-76. (Ch. 3)

- 278 Rietman, J. D., 1966. Remanent Magnetization of the Late Yakima Basalt, Washington State, No. 67-4422, Ph.D. dissertation, Stanford University Thesis, University Microfilms International, Ann Arbor, Michigan. (Ch. 3, CRD C.4)
- B245 Rigby, J. G., K. L. Othberg, N. P. Campbell, L. Hanson, E. Kiver, D. Stradling, and G. Webster, 1979. Reconnaissance Surficial Geologic Mapping of the Late Cenozoic Sediments of the Columbia Basin, Washington, Open-File Report 79-3, State of Washington Department of Natural Resources, Division of Geology and Earth Resources, Olympia, Washington. (Ch. 2)
- 280 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1983. Conceptual Systems Design Description, Nuclear Waste Repository in Basalt, Project B-301, SD-BWI-SD-005, Rev. 0-0, 3 Vols., for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, 6, CRD C.4, C.7)
- A107 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1983. Exploratory Shaft Phase I Title II Design Report Systems Design Description, SD-BWI-DR-001, 2 Vols., for Rockwell Hanford Operations, Richland, Washington, Section 2.2.11. (Ch. 4)
- 281 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1984. Task V, Engineering Study No. 6, Tunnel Optimization, SD-BWI-ES-015, Rev. 0, for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, CRD C.4)
- A108 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1984a. Task V, Engineering Study No. 1, Assessment of the Impact on the NWRB Conceptual Design of Increasing Receipts to a Total Waste Equivalent of 72,000 Metric Tons of Heavy Metal, SD-BWI-ES-021, for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, CRD C.4)
- A109 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1984a. Task V, Engineering Study No. 5, Shaft Optimization Study, SD-BWI-ES-016, for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, 6, CRD C.4)

MF 2425

- B407 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1985. Task V, Engineering Study No. 9, Repository Underground Layout (Draft), SD-BWI-ES-023, for Rockwell Hanford Operations, Richland, Washington. (NOTE: Date on reference (1984) is in error. Correct date is 1985.) (Ch. 5, 6, CRD C.4) MF 1076
- A110 RKE/PB (Raymond Kaiser Engineers, Inc./Parson Brinkerhoff Quade & Douglas, Inc.), 1984d. Task V, Engineering Study No. 7, Waste Emplacement Optimization, SD-BWI-ES-018, for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, 6, CRD C.4, C.8)
- B163 Robbins, S. L., J. R. Kunk, and F. G. Clutson, 1983. Principal Facts and Density Estimates for Borehole Gravity Stations in Boreholes RRL-3, -4, -5, -6B, -7, -8, and -9 at the Hanford Site, Benton County, Washington, Open-File Report 83-386, U.S. Geological Survey, Washington, D.C.; also RHO-BW-CR-139 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 2 MF 1840
- 282 Robertson, J. B., 1983. "Review Comments by the U.S. Geological Survey on Site Characterization Report for the Basalt Waste Isolation Project, DOE/RL-82-3," (letter to O. L. Olson, Project Manager, Basalt Waste Isolation Project Office, Richland, Washington, May 6, 1983). (Ch. 4, 6, CRD C.4, C.5)
- 283 Robinson, J. H., 1971. Hydrology of Basalt Aquifers in the Hermiston-Ordinance Area, Umatilla and Morrow Counties, Oregon, Hydrologic Investigations Atlas HA-387, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- 284 Rockwell (Rockwell Hanford Operations), 1980. Identification of Candidate Sites Suitable for a Geologic Repository in Basalt Within Hanford, RHO-BWI-LD-24, Richland, Washington. (Ch. 2)
- 285 Rockwell (Rockwell Hanford Operations), 1981. Comparison of NWTs-33(2) Criteria and BWIP Screening Considerations, RHO-BW-EV-1 P, Richland, Washington. (Ch. 2)
- B165 Rockwell (Rockwell Hanford Operations), 1981. Hydrology and Geology Overview Committee Reports and Responses from the Basalt Waste Isolation Project, RHO-BWI-LD-50, Richland, Washington. (CRD C.5) \* 3 MF 1842

- B352 Rockwell (Rockwell Hanford Operations), 1982. The Identification of a Preferred Site for the Exploratory Shaft Within the Reference Repository Location: Hanford Site, RHO-BWI-ST-16, Richland, Washington. (Ch. 2) \* 11  
MF 0583
- B353 Rockwell (Rockwell Hanford Operations), 1983. Status of Nuclear Regulatory Commission Concerns Pertaining to the Site Characterization Report, SD-BWI-DIC-001, Richland, Washington. (CRD C.4) \*  
MF 0427
- 286 Rockwell (Rockwell Hanford Operations), 1983a. Exploratory Shaft Test Plan, DRAFT SD-BWI-TP-007, Rev. 0-0, Richland, Washington. (Ch. 6, CRD C.4)
- A112 Rockwell (Rockwell Hanford Operations), 1983b. Preliminary Performance Requirements and Criteria for the Seal System of a Nuclear Waste Repository in Basalt, SD-BWI-CR-015, App. C, Richland, Washington, p. 100. (Ch. 6)
- 287 Rockwell (Rockwell Hanford Operations), 1983b. Rock Mechanics Data Package, SD-BWI-DP-041 Rev. 0-0, Richland, Washington. (Ch. 6)
- A117 Rockwell (Rockwell Hanford Operations), 1984. Two-Phase Feasibility Study, SD-BWI-ES-020, Richland, Washington. (Ch. 5, CRD C.4)
- A114 Rockwell (Rockwell Hanford Operations), 1984b. Borehole Completion Report, Borehole RRL-6, SD-BWI-TI-167, Richland, Washington. (Ch. 6)
- A116 Rockwell (Rockwell Hanford Operations), 1984d. Preliminary Survey of Applicable Regulations and Repository Operations as a Basis for a Nuclear Waste Repository Safety Analysis, SD-BWI-TA-009 Rev. 0, Richland, Washington. (Ch. 6, CRD C.6)
- B304 Rockwell (Rockwell Hanford Operations), 1985. Site Characterization Plan Conceptual Design Criteria Document, SD-BWI-CR-022 Rev. 1, Richland, Washington. (Ch. 6) \* 7  
MF 1931

- 289 Rockwell and RKE/PB (Rockwell Hanford Operations and Kaiser Engineers, Inc./Parsons Brinkerhoff Quade & Douglas, Inc.), 1982. Nuclear Waste Repository in Basalt, Project B-301, Functional Design Criteria, SD-BWI-FDC-006 Rev. 0-0, Richland, Washington. (Ch. 6, CRD C.4)
- 290 Rogers, L. E., and W. H. Rickard, 1977. Ecology of the 200 Area Plateau Waste Management Environs: A Status Report, PNL-2253, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- 291 Rohay, A. C., and J. D. Davis, 1983. "Contemporary Deformation in the Pasco Basin Area of the Central Columbia Plateau," Preliminary Interpretation of the Tectonic Stability of the Reference Repository Location, Cold Creek Syncline, Hanford Site, J. A. Caggiano and D. W. Duncan (eds.), RHO-BWI-ST-19 P, Rockwell Hanford Operations, Richland, Washington, pp. 6-1 through 6-30. (Ch. 2, 3, 6, CRD C.8)
- B166 Rohay, A. C., D. W. Glover, and S. D. Malone, 1985. "Time-Term Analysis of Upper Crustal Structure in the Columbia Basin, Washington," Earthquake Notes, The Seismological Society of America 1985 Annual Meeting, Austin, Texas; also, RHO-BW-SA-435 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.4, C.5) \* 11  
MF 1845
- A118 Rosengren, K. J., and J. C. Jaeger, 1968. "The Mechanical Properties of Interlocked Low-Porosity Aggregate," Geotechnique, Vol. 18, No. 3, pp. 317-326. (Ch. 5, 6, CRD C.8)
- 292 Ross, M. E., 1978. Stratigraphy, Structure, and Petrology of the Columbia River Basalt in a Portion of the Grande Ronde-Blue Mountains Area of Oregon and Washington, RHO-SA-58, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3)
- B354 Routson, R. C., W. H. Price, D. J. Brown, and K. R. Fecht, 1979. High Level Waste Leakage from the 241-T-106 Tank at Hanford, RHO-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \* 16  
MF 1972
- B167 Ruckelshaus, W. D., 1984. Plateau of Hope: Some Perspectives on Environmental Achievement, speech given to the National Press Club, May 22, pp. 9-10. (CRD C.5) \* 2  
MF 1846

- B385 Ruddiman, W. W., and A. McIntyre, 1976. "Northeast Atlantic Paleoclimatic Changes Over the Past 600,000 Years," Investigation of Late Quaternary Paleoceanography of Paleoclimatology, R. M. Cline and J. D. Hays (eds.), Memoir 145, Geological Society of America, Boulder, Colorado, pp. 111-146, Ref. pp. 134-136. (Ch. 6) MF 1556
- B168 Runchal, A. K., M. W. Merkhofer, E. Olmsted, and J. D. Davis, 1984. Probability Encoding of Hydrologic Parameters for Basalt, Elicitation of Expert Opinions from a Panel of Five Consulting Hydrologists, RHO-BW-CR-145 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* 9 MF 1847
- B305 Runchal, A. K., M. W. Merkhofer, E. Olmsted, and J. D. Davis, 1984b. Probability Encoding of Hydrologic Parameters for Basalt: Elicitation of Expert Opinions from a Panel of Three Basalt Waste Isolation Project Staff Hydrologists, RHO-BW-CR-146 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5) \* 9 MF 1932
- B306 Runchal, A. K., B. Sagar, R. G. Baca, and N. W. Kline, 1986. PORFLO--A Continuum for Fluid Flow, Heat Transfer, Mass Transport in Porous Media: Model Theory Benchmarking, RHO-BW-CR-150, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) MF 1933
- B169 Sagar, B., and P. M. Clifton, 1983. Numerical Modeling of Parametric Uncertainties in Flow Through Porous Media Development and Initial Testing of PORSTAT, RHO-BW-CR-140 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 9 MF 1848
- 294 Sagar, B., and A. Runchal, 1982. "Permeability of Fractured Rock: Effect of Fracture Size and Data Uncertainties," Water Resources Research, Vol. 18, No. 2, pp. 266-274. (CRD C.4, C.5)
- A119 Sagar, B., P. W. Eslinger, R. G. Baca, and R. P. Anantatmula, 1984. Probabilistic Modeling of Radionuclide Release at the Waste Package Subsystem Boundary of a Repository in Basalt, SD-BWI-TA-012, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- 295 Saito, T., K. Tsukada, E. Inami, H. Inoma, and Y. Ito, 1983. "Study on Rock Bursts at the Face of a Deep Tunnel, the KANETSU Tunnel in Japan Being an Example," Proceedings of the 5th Congress in Rock Mechanics, International Society of Rock Mechanics, Melbourne, Australia, pp. D-203 through D-206. (Ch. 6, CRD C.8)

- 296 Salter, P. F., L. L. Ames, and J. E. McGarrah, 1981. The Sorption Behavior of Selected Radionuclides on Columbia River Basalts, RHO-BWI-LD-48, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B227 Salter, P. F., L. L. Ames, and J. E. McGarrah, 1981a. Sorption of Selected Radionuclides on Secondary Minerals Associated with the Columbia River Basalts, RHO-BWI-LD-43, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 1  
MF 2448
- 297 Salter, P. F., and G. K. Jacobs, 1982. "Evaluation of Radionuclide Transport: Effect of Radionuclide Sorption and Solubility," Scientific Basis for Nuclear Waste Management V, W. Lutze (ed.), Vol. 5, Berlin, Germany, June, pp. 801-810; also, RHO-BW-SA-192 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- A120 Salter, P. F., and G. K. Jacobs, 1983. BWIP Data Packages for Reference Solubility and  $K_d$  Values, SD-BWI-DP-001, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.5)
- B170 Sandness, G. A., J. W. Lindberg, C. S. Kimball, B. L. Scott, and J. G. Stephan, 1979. Interim Report on Geologic Remote Sensing of the Columbia Plateau, PNL-3140, Pacific Northwest Laboratory, Richland, Washington. (CRD C.5) \* 2  
MF 2450
- 299 Savage, J. C., M. Lisowski, and W. H. Prescott, 1981. "Geodetic Strain Measurements in Washington," Journal of Geophysical Research, Vol. 86, No. B6, pp. 4929-4940. (Ch. 2)
- B171 Savitz, D. A., 1983. "A Critical Review of the Hanford Worker Studies: Cancer Risk and Low-Level Radiation," Epidemiology Applied to Health Physics, Proceedings of the Health Physics Society, CONF-830101, Albuquerque, New Mexico, pp. 495-503. (CRD C.7) \* 1  
MF 1849
- 300 Sceva, J. E., F. A. Watkins, Jr., and W. N. Schlax, Jr., 1949. Geology and Groundwater Resources of Wenas Creek Valley, Yakima County, Washington, Open-File Report, U.S. Geological Survey, Tacoma, Washington. (Ch. 2)
- B172 Schatz, A. L., 1984. Unconfined Aquifer and Rattlesnake Ridge Aquifer Water-Level Measurements Data Maps, H-2-38396 Rev. 18, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \* 7  
MF 1566

- 301 Schmid, C. F., and S. E. Schmid, 1969. Growth of Cities and Towns, State of Washington, Washington State Planning and Community Affairs Agency, Olympia, Washington, Tables 4:III and 4:V. (Ch. 3)
- 303 Schmincke, H. U., 1964. Petrology, Paleocurrents, and Stratigraphy of the Ellensburg Formation and Interbedded Yakima Basalt Flows, South-Central Washington, Ph.D. dissertation, The Johns Hopkins University, Baltimore, Maryland, pp. 184-187; also in Geological Society of America Bulletin, Vol. 78, No. 3, p. 319. (Ch. 3)
- 304 Schmincke, H. U., 1967a. "Graded Lahars in the Type Sections of the Ellensburg Formation, South-Central Washington," Journal of Sedimentary Petrology, Vol. 37, No. 2, pp. 438-448. (Ch. 3)
- 305 Schmincke, H. U., 1967b. "Stratigraphy and Petrography of Four Upper Yakima Basalt Flows in South-Central Washington," Geological Society of America Bulletin, Vol. 78, pp. 1385-1422. (Ch. 3)
- B307 Schramke, J. A., S. A. Simonson, and D. G. Coles, 1984. A Report on the Status of Hydrothermal Testing of Fully Radioactive Waste Forms and Basalt Repository Waste Package Components, SD-BWI-TI-253, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \*  
MF 1568
- B356 Schuster, R. L., and W. H. Hays, 1984. Evidence of Tectonic Stability Along the Middle Columbia River, Washington, in Quaternary Time, Open File Report 83-365, U.S. Geological Survey, Denver, Colorado. (NOTE: Reference should read Hays and Schuster 1984.) (Ch. 6) \* 15  
MF 1974
- B173 Schwab, G. E., R. M. Colpitts, Jr., and D. A. Schwab, 1979. Spring Inventory of the Rattlesnake Hills, RHO-BWI-C-47, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \*  
MF 0329
- B386 Shackleton, N. J., and N. D. Opdyke, 1973. "Oxygen Isotope and Paleomagnetic Stratigraphy of Equatorial Pacific Core V28-238: Oxygen Isotope Temperatures and Volumes on a 10/5 and 10/6 Year Scale," Quaternary Research, Vol. 3, pp. 39-55. (Ch. 6) \*  
MF 1574
- B246 Shaw, H. R., and D. A. Swanson, 1970. "Eruption and Flow Rates of Flood Basalts," Proceedings of the Second Columbia River Basalt Symposium, Eastern Washington State College Press, Cheney, Washington, pp. 271-299. (Ch. 2) \* 3 15  
MF 1172

- B357 Sheehan, M. V., 1984. "Rare plant survey report for Hanford Reservation," (memorandum from State of Washington, Department of Natural Resources, to M. M. McCarthy, Rockwell Hanford Operations, September 25, 1984). (Ch. 3) MF 1975
- 306 Sheriff, S. D., and R. D. Bentley, 1980. "Anomalous Paleomagnetic Directions from the Miocene Wanapum Basalt, Washington and Oregon," EOS, Transactions of the American Geophysical Union, Vol. 61, No. 46, p. 949. (Ch. 3)
- B247 Shubat, M. A., 1979. Stratigraphy, Petrochemistry, Petrography, and Structural Geology of the Columbia River Basalt in the Minam-Wallowa River Area, Northeast Oregon, Master of Science thesis, Washington State University, Pullman, Washington. (Ch. 2) \* 3 MF 2461
- 308 Silar, J., 1969. Groundwater Studies and Ages in the Eastern Columbia Basin, Washington, Bulletin 315, College of Engineering, Washington State University, Pullman, Washington. (Ch. 2)
- A121 Silling, S. A., 1983. Final Technical Position on Documentation of Computer Codes for High-Level Waste Management, NUREG-0856F, U.S. Nuclear Regulatory Commission, Washington, D.C. (Ch. 6)
- B358 Singh, M. M., 1981. "Strength of Rock," Physical Properties of Rocks and Minerals, Y. S. Touloukian and C. Y. Ho (eds.), McGraw-Hill/CINDAS, Data Series on Material Properties, Vol. II-2, New York, New York, pp. 83-121. (Ch. 6) \* MF 2463
- B174 Sisson, J. B., and K. R. Fecht, 1981. "Percolation Test Results for the Proposed Z-19 Ditch Replacement" (Internal Letter 72710-81-110 to W. F. Heine, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 7 MF 1850
- B175 Sisson, J. B., and M. J. Graham, 1982a. "Percolation Test Results for the Proposed Power House Pond" (Internal Letter 72710-82-118 to W. F. Heine, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 3 MF 1851
- B176 Sisson, J. B., and M. J. Graham, 1982b. "Percolation Rates at the Proposed UO<sub>3</sub> Facility" (Internal Letter 72710-82-081 to W. F. Heine, Rockwell Hanford Operations, Richland, Washington). (Ch. 4, CRD C.7) \* 4 MF 1852

- 309 Skaggs, R. L., and W. H. Walters, 1981. Flood Risk Analysis of Cold Creek Near the Hanford Site, RHO-BWI-C-120, PNL-4219, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.8)
- B248 Skehan, J. W., 1965. A Continental-Oceanic Crustal Boundary in the Pacific Northwest, AFCRL-65-904, Air Force Cambridge Research Laboratories, Office of Aerospace Research, Bedford, Massachusetts. (Ch. 2) \* 3  
MF 2464
- B177 Slemmons, D. B., 1982. "Independent Assessment of Geologic and Seismologic Data to Determine Fault Capability and Earthquake Parameters for the Washington Public Power Supply System Project No. 2," Safety Evaluation Report Related to the Operation of WPPSS Nuclear Project No. 2, NUREG-0892, Supp. 1, U.S. Nuclear Regulatory Commission, Washington, D.C. (Ch. 6, CRD C.4, C.5) \*  
MF 2467
- B308 SMDH (State of Montana Department of Highways), 1985. (Letter from O. A. Johnson, Maintenance and Equipment Division, to B. G. Erlandson, Rockwell Hanford Operations, Richland, Washington, August 1, 1985.) (Ch. 3) \* 6  
MF 1935
- 310 Smith, M. J., G. J. Anttonen, G. S. Barney, W. E. Coons, F. N. Hodges, R. G. Johnston, J. D. Kaser, R. M. Manabe, S. C. McCarel, E. L. Moore, A. F. Noonan, J. E. O'Rourke, W. W. Schulz, C. L. Taylor, B. J. Wood, and M. I. Wood, 1980. Engineered Barrier Development for a Nuclear Waste Repository Located in Basalt: An Integration of Current Knowledge, RHO-BWI-ST-7, Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 6)
- B309 Smyth, J. R., 1982. "Zeolite Stability Constraints on Radioactive Waste Isolation in Zeolite-Bearing Volcanic Rocks," Journal of Geology, Vol. 90, pp. 195-202. (Ch. 6) \* 10  
MF 1584
- 311 Snow, D. T., 1965. A Parallel Plate Model of Fractured Permeable Media, Ph.D. dissertation, University of California, Berkeley, California. (Ch. 3)
- A122 Snow, D. T., 1968. "Rock Fracture Spacings, Openings, and Porosities," Journal of the Soil Mechanics and Foundations Division, Vol. 94, No. SMI, pp. 73-91. (Ch. 6)

- B178 Sommer, D. J., R. G. Rau, and D. C. Robinson, 1981. Population Estimates for the Areas within a 50-Mile Radius of Four Reference Points on the Hanford Site, PNL-4010, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, CRD C.7) \* 3  
MF 1854
- A123 Sonnichsen, J., 1984. Basalt Waste Isolation Project Performance Assessment Plan, SD-BWI-PAP-001, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B310 Sorooshian, S., D. R. Davis, and T. C. Rasmussen, 1985. "Prediction Model Validations, Water Level Correlations, and Gradient Analysis for Water Levels Measured at Wells DC-19, DC-20, and DC-22 in Nine Hydro-Stratigraphic Units from the Basal Ringold to the Umtanum" (letter report from the University of Arizona, Tucson, Arizona, to Rockwell Hanford Operations, Richland, Washington, June 15, 1985). (Ch. 3) \* 4  
MF 1936
- B179 Spane, F. A., Jr., 1979. "Response to Hydrologic Questions Raised by P. A. Witherspoon" (Letter No. R79-3723 to Dr. Paul A. Witherspoon, Lawrence Berkeley Laboratory, University of California, Berkeley, California, December 21, 1979). (CRD C.5) \* 3  
MF 1855
- B180 Spane, F. A., Jr., 1981. Hydrogeologic Properties and Hydrochemistry for the Levey Interbed at Well 669-S11-E12A, Hanford Site, Washington, RHO-BWI-LD-27, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \*  
MF 0340
- B311 Spane, F. A., Jr., 1982. Hydrologic Studies Within the Pasco Basin, RHO-BW-SA-251 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \*  
MF 0341
- B312 Spane, F. A., Jr., and R. B. Mercer, 1985. HEADCO: A Program for Converting Observed Water Levels and Pressure Measurements to Formation Pressure and Standard Hydraulic Head, RHO-BW-ST-71 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3) \* 4  
MF 1937
- A125 Spane, F. A., Jr., and P. D. Thorne, 1984. Effects of Drilling Fluid Invasion on Hydraulic Characterization of Low Permeability Basalt Horizons - A Field Evaluation, SD-BWI-TI-176 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4)

- 313 Spane, F. A., Jr., P. D. Thorne, and W. H. Chapman-Riggsbee, 1983. Results and Evaluation of Experimental Vertical Hydraulic Conductivity Testing at Borehole DC-4 and DC-5, SD-BWI-TI-136, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)
- A124 Spanier, J., and E. M. Gelbard, 1969. Monte Carlo Principal and Neutron Transport Problems, Addison-Wesley Publishing Company, Reading, Massachusetts, pp. IX-XIV. (Ch. 6)
- B405 Spinks, J. W. T., and R. J. Woods, 1976. An Introduction to Radiation Chemistry, 2nd Edition, John Wiley & Sons, New York, New York, p. 443. (Ch. 6) \* 13  
MF 1591
- B181 Spitsyn, V. I., S. V. Kryuchkov, and A. F. Kuzina, 1983. "Reduction of Pertechnetate Ions in Nitric Acid Solutions by Hydrazine," Radiokhimiya, Vol. 25, No. 4, pp. 497-502, copyright 1984 Plenum Publishing Corporation. (CRD C.5) \* 1 c  
MF 1856
- B182 SSC (Seismograph Service Corporation), 1979. Final Report on a Seismic Reflection Survey Conducted in Benton and Grant Counties, Washington, B067305, for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 8  
MF 1857
- B183 SSC (Seismograph Service Corporation), 1980. Final Report on a Seismic Reflection Survey Conducted in Benton County, Washington, B067306, for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 8  
MF 1858
- B184 Staal, E., and C. Faurholt, 1951. "Carbamates. IV. The Carbamate of Hydrazine," Dansk Tidsskrift for Farmaci, Vol. 25, pp. 1-12. (CRD C.5) \* 8  
MF 1859
- A126 State of Washington, 1969. April 1, 1969 Population, Counties and Municipalities, State of Washington, Population Series No. 2, Washington State Planning and Community Affairs Agency, Olympia, Washington, Table 2. (Ch. 3)
- B185 State of Washington, 1972. Environmental Radiation Surveillance, in Washington State, 11th Annual Report July 1971-June 1972, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2  
MF 1860

- B186 State of Washington, 1973. Environmental Radiation Surveillance, in Washington State, 12th Annual Report July 1972-June 1973, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2 MF 1861
- A127 State of Washington, 1973. Population Trends, 1973, Population Studies Division, Office of Program Planning & Fiscal Management, Olympia, Washington, Table 9. (Ch. 3)
- B187 State of Washington, 1974. Environmental Radiation Surveillance, in Washington State, 13th Annual Report July 1973-June 1974, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2 MF 1862
- A128 State of Washington, 1974. Population Trends, 1974, Population Studies Division, Office of Program Planning & Fiscal Management, Olympia, Washington, Table 6. (Ch. 3)
- B188 State of Washington, 1975. Environmental Radiation Surveillance, in Washington State, 14th Annual Report July 1974-June 1975, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2 MF 1863
- A129 State of Washington, 1975. Population Trends, 1975, Population Studies Division, Office of Program Planning & Fiscal Management, Olympia, Washington, Table 5. (Ch. 3)
- B189 State of Washington, 1976. Environmental Radiation Surveillance, in Washington State, 15th Annual Report July 1975-June 1976, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2 MF 1864
- A130 State of Washington, 1976. Population Trends, 1976, Population Studies Division, Office of Program Planning & Fiscal Management, Olympia, Washington, Table 5. (Ch. 3)
- A131 State of Washington, 1977. Population Trends, 1977, Population Studies Division, Office of Fiscal Management, Olympia, Washington, Table 5. (Ch. 3)
- A132 State of Washington, 1978. Population Trends, 1978, Population Enrollment and Economic Studies Division, Office of Financial Management, Olympia, Washington, Table 5. (Ch. 3)

- 314 State of Washington, 1979. Population Trends 1979, Population, Enrollment, and Economic Studies Division, Office of Financial Management, Olympia, Washington, Tables 1 and 5. (Ch. 3)
- 315 State of Washington, 1980. Population Trends 1980, Forecasting and Support Division, Office of Financial Management, Olympia, Washington, Table 2. (Ch. 3)
- B190 State of Washington, 1980. Washington Agricultural Statistics, 1979, Washington Crop and Livestock Reporting Service, Olympia, Washington, pp. 8, 20-31, 35, 37-39, 42-44, 52-59. (CRD C.7) \*  
MF 1865
- 316 State of Washington, 1981a. Population Trends for Washington State, Forecasting and Estimation Division, Office of Financial Management, Olympia, Washington, Table 4. (Ch. 3)
- 317 State of Washington, 1981b. Washington State Register of Historic Places, Office of Archaeology and Historic Preservation, Olympia, Washington. (Ch. 3)
- 319 State of Washington, 1982a. Annual Planning Report 1982: Richland-Kennewick-Pasco SMSA, Employment Security Department, Olympia, Washington. (Ch. 3)
- B191 State of Washington, 1982. Environmental Radiation Program, 21st Annual Report, July 1981-June 1982, Department of Social and Health Services, Olympia, Washington. (CRD C.6) \* 2  
MF 1866
- 320 State of Washington, 1982b. Population Trends for Washington State, Forecasting and Estimation Division, Office of Financial Management, Olympia, Washington, Table 14. (Ch. 3, 6)
- A133 State of Washington, 1982c. "Washington and Benton and Franklin Counties," Forecasts of the State and County Populations by Age and Sex: 1985-1990, Special Report No. 59, Forecasting and Estimation Division, Office of Financial Management, Olympia, Washington. (Ch. 3)
- 321 State of Washington, 1983. "Comments of the State of Washington on the U.S. Department of Energy Site Characterization Report for the Basalt Waste Isolation Project," (letter from S. E. Gould to R. L. Morgan, Project Director, Nuclear Waste Policy Act Project Office, U.S. Department of Energy, Washington, D.C., May 24, 1983). (Ch. 4)

- 322 State of Washington, 1983a. Population Trends for Washington State, Forecasting and Estimation Division, Office of Financial Management, Olympia, Washington, Table 12. (Ch. 3)
- 323 State of Washington, 1983b. Resident Civilian Labor Force and Employment in the Richland-Kennewick-Pasco SMSA (Benton-Franklin Counties) 1976-1982, Employment Security Department, Research and Analysis Branch, Olympia, Washington. (Ch. 3)
- 324 State of Washington, 1983c. Washington State Special Animal Species, Washington Department of Game, Nongame Wildlife Program, Olympia, Washington. (Ch. 3)
- B377 State of Washington, 1984. Endangered, Threatened and Sensitive Vascular Plants of Washington, Washington Natural Heritage Program, Olympia, Washington. (Ch. 3, 5, 6) \*  
MF 1995
- 3192 State of Washington, 1984. Washington Agricultural Statistics, 1983-1984, Washington Crop and Livestock Reporting Service, Olympia, Washington, pp. 14-16, 27, 39, 41, 43, 45-47, 52-53, 62-64. (CRD C.7) \* 1  
MF 1867
- A134 State of Washington, 1984a. Annual Demographic Information, January 1984, Employment Security Department, Research Analysis Branch, Olympia, Washington, Table 1. (Ch. 3)
- A135 State of Washington, 1984b. Labor Force, Employment, and Unemployment for Richland-Kennewick-Pasco MSA, 1979-1984, Research and Analysis Branch, Employment Securities Department, Olympia, Washington.
- B359 State of Washington, 1984b. 1983 Fisheries Statistical Report, Department of Fisheries, Olympia, Washington. (CRD C.7) \* 7  
MF 1977
- B360 State of Washington, 1984c. Summary and Analysis, Heavy Truck-Hazardous Material Accidents, 1983, Washington Utilities and Transportation Commission, Olympia, Washington. (Ch. 3) \* 7  
MF 1978
- B319 State of Washington, 1984d. 1983 Highway Traffic Accident Report, Department of Transportation, Planning, Research, and Public Transportation Division, Olympia, Washington, preamble and pp. 1-38, 51, 53, 64, 65, 89, 96, and 97. (Ch. 3) \* 6  
MF 1941

- A136 State of Washington, 1984e. 1984 Population Trends for Washington State, Forecasting and Estimating Division, Office of Financial Management, Olympia, Washington, Tables 1 and 12. (Ch. 3)
- B318 State of Washington, 1984f. 1983 Annual Traffic Report, Department of Transportation, Planning, Research, and Public Transportation Division, Olympia, Washington, preamble, index, and pp. 21, 26, 45, 79, 87, and 88. (Ch. 3) \* 6  
MF 1940
- B378 State of Washington, 1985. Update to the 1984 List of Endangered, Threatened and Sensitive Vascular Plants of Washington, Washington Natural Heritage Program, Olympia, Washington. (Ch. 3, 5, 6) \*  
MF 1996
- 325 Stephen, J. G., H. P. Foote, and V. L. Coburn, 1979. Well Location and Land-Use Mapping in the Columbia Plateau Area, RHO-BWI-C-61, PNL-3295, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 2)
- B193 Stoffel, K. L., and M. A. Korosec, 1984. "Low Temperature Geothermal Resources of the Columbia Basin, Eastern Washington," Washington Geologic Newsletter, Vol. 12, No. 4, p. 5-11. (Ch. 6, CRD C.5) \* 11  
MF 1594
- 326 Stone, W. A., D. E. Jenne, and J. M. Thorp, 1972. Climatography of the Hanford Area, BNWL-1605, Battelle, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- 327 Stone, W. A., J. M. Thorp, O. . . Gifford, and D. J. Hoitink, 1983. Climatological Summary for the Hanford Area, PNL-4622, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3, 6, CRD C.4)
- 328 Stottlemire, J. A., G. M. Petrie, G. L. Benson, and J. T. Zellmer, 1981. A Conceptual Model for Release Scenario Analysis of a Hypothetical Site in Columbia Plateau Basalts, PNL-2892, Pacific Northwest Laboratory, Richland, Washington. (Ch. 6)
- A138 Strait, S. R., and R. B. Mercer, 1984. Hydraulic Property Data From Selected Test Zones on the Hanford Site, SD-BWI-DP-051 Rev. 0, Rockwell Hanford Operation, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)

- B194 Strait, S. R., and B. A. Moore, 1982. Geohydrology of the Rattlesnake Ridge Interbed in the Gable Mountain Pond Area, RHO-ST-38, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \* MF 0347
- B195 Strait, S. R., and F. A. Spane, Jr., 1982. Preliminary Results of Hydrologic Testing the Composite Middle Sentinel Bluffs Basalt Flow Bottom at Borehole RRL-2, (3,247-3,344 ft), SD-BWI-TI-095 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 0437
- B372 Strait, S. R., and F. A. Spane, Jr., 1982b. Preliminary Results of Hydrologic Testing the Composite Umtanum Basalt Flow Top at Borehole RRL-2 (3,568-3,781 feet), SD-BWI-TI-105, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 0438
- B373 Strait, S. R., and F. A. Spane, Jr., 1983b. Preliminary Results of Hydrologic Testing the Middle Sentinel Bluffs Flow Top at Borehole RRL-2 (2,981-3,000 feet), SD-BWI-TI-102, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 0436
- 329 Strait, S. R., and F. A. Spane, Jr., 1983. Preliminary Results of Hydrologic Testing in the Umtanum Basalt Fracture Zone at Borehole RRL-2 (3,781-3,827 ft), SD-BWI-TI-089, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4, C.5)
- B196 Strait, S. R., and F. A. Spane, Jr., 1984. Hydrologic Test Results for the Upper Cohasset Flow Interior at Borehole RRL-2, Hanford Site, Washington State, RHO-BW-ST-51 P, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* 3 MF 1868
- 330 Strait, S. R., F. A. Spane, Jr., R. L. Jackson, and W. W. Pidcoe, 1982. Hydrologic Testing Methodology and Results from Deep Basalt Boreholes, RHO-BW-SA-189, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4)
- B197 Streltsova, T. D., 1976. "Hydrodynamics of Groundwater Flow in a Fractured Formation," Water Resources Research, Vol. 12, No. 3, pp. 405-414. (CRD C.5) \* 3 c MF 1869
- 331 Stumm, W., and J. J. Morgan, 1981. Aquatic Chemistry: An Introduction Emphasizing Chemical Equilibria in Natural Waters, John Wiley & Sons, New York, New York, pp. 490-493 and 647. (Ch. 6)

- A139 Sublette, W. R., 1983. Geomechanics Laboratory Characterization of Borehole RRL-2 Rock Core, SD-BWI-TRP-004, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B374 Sublette, W. R., 1983b. Rock Mechanics Data Package, SD-BWI-DP-041, Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* MF 2492
- B315 Sula, M. J., and P. J. Blumer, 1981. Environmental Surveillance at Hanford for CY 1980, PNL-3728, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3) \* MF 1602
- B361 Sula, M. J., W. D. McCormack, R. L. Dirkes, K. R. Price, and P. A. Eddy, 1982. Environmental Surveillance at Hanford for CY 1981, PNL-4211, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3) \* MF 1604
- 333 Sula, M. J., P. J. Blumer, R. L. Dirkes, and J. M. V. Carlile, 1983a. Environmental Status of the Hanford Site for CY 1982, PNL-4658, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- 332 Sula, M. J., J. M. V. Carlile, K. R. Price, W. D. McCormack, 1983b. Environmental Surveillance at Hanford for CY 1982, PNL-4657, Pacific Northwest Laboratory, Richland, Washington. (Ch. 3)
- 334 Summers, W. K., 1975. Water Import and Waste Disposal Measurements in the 200 Areas of the Hanford Reservation, CA-198-WKS-1, ARH-C-10, Atlantic Richfield Hanford Company, Richland, Washington. (Ch. 6)
- B198 Susak, N. J., A. Friedman, S. Fried, and J. C. Sullivan, 1983. "The Reduction of Neptunium(VI) by Basalt and Olivine," Nuclear Technology, Vol. 63, pp. 266-270. (Ch. 6, CRD C.5) \* 1 c MF 0350
- B391 Swanson, L. C. and B. A. Leventhal, 1984. Water-Level Data and Borehole Description for Monitoring Wells Used by the Basalt Waste Isolation Project, SD-BWI-DP-042, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, CRD C.4) \* 11 MF 1999

- 337 Swanson, D. A., and T. L. Wright, 1976. "Guide to Field Trip Between Pasco and Pullman, Washington, Emphasizing Stratigraphy and Vent Areas and Intracanyon Flows of the Yakima Belt," in Proceedings, Geological Society of America, Cordilleran Section Meeting, Field Guide 1, Pullman, Washington, pp. 1-33. (Ch. 2, 3)
- B362 Swanson, D. A., and T. L. Wright, 1981. "Guide to Geologic Field Trip between Lewiston, Idaho and Kimerbly, Oregon, Emphasizing the Columbia River Basalt Group," Guides to some Volcanic Terranes in Washington, Idaho, Oregon and Northern California, D. A. Johnston and J. Donnelly-Nolan (eds.) U.S. Geological Survey Circular 838, Alexandria, Virginia. (Ch. 2) \* 11  
MF 2502
- B201 Swanson, L. C., and S. E. Wilcox, 1985. Water-Level Data for Monitoring Wells Used by the Basalt Waste Isolation Project from October 1, 1984 through March 31, 1985, SD-BWI-DP-064, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4) \* 3  
MF 1606
- 336 Swanson, D. A., T. L. Wright, and R. T. Helz, 1975. "Linear Vent Systems and Estimated Rates of Magma Production and Eruption for the Yakima Basalt on the Columbia Plateau," American Journal of Sciences, Vol. 275, No. 8, pp. 877-905. (Ch. 2)
- 338 Swanson, D. A., T. L. Wright, V. E. Camp, J. N. Gardner, R. T. Helz, S. M. Price, and M. E. Ross, 1977. Reconnaissance Geologic Map of the Columbia River Basalt Group, Pullman and Walla Walla Quadrangles, Southeast Washington and Adjacent Idaho, Open-File Report 77-100, U.S. Geological Survey, Denver, Colorado. (Ch. 2)
- B200 Swanson, D. A., T. L. Wright, V. E. Camp, J. N. Gardner, R. T. Helz, S. M. Price, S. P. Reidel, and M. E. Ross, 1980. Reconnaissance Geologic Map of the Columbia River Basalt Group Pullman and Walla Walla Quadrangles, Southeast Washington and Adjacent Idaho, Miscellaneous Investigations Series, Map I-1139, U.S. Geological Survey, Denver, Colorado. (Ch. 2, CRD C.4) \* 8 TLC  
MF 2504
- 335 Swanson, D. A., J. L. Anderson, R. D. Bentley, V. E. Camp, J. N. Gardner, and T. L. Wright, 1979a. Reconnaissance Geologic Map of the Columbia River Basalt Group in Eastern Washington and Northern Idaho, Open-File Report 79-1363, U.S. Geological Survey, Washington, D.C. (Ch. 2, 3, 6, CRD C.5)

- 339 Swanson, D. A., T. L. Wright, P. R. Hooper, and R. D. Bentley, 1979b. Revisions in Stratigraphic Nomenclature of the Columbia River Basalt Group, Bulletin 1457-G, U.S. Geological Survey, Washington, D.C. (Ch. 2, 3, CRD C.4)
- 340 Swanson, D. A., J. L. Anderson, V. E. Camp, P. R. Hooper, W. H. Taubeneck, and T. L. Wright, 1981. Reconnaissance Geologic Map of the Columbia River Basalt Group, Northern Oregon and Western Idaho, Open-File Report 81-0797, U.S. Geological Survey, Washington, D.C. (Ch. 2, 6, CRD C.5)
- B250 Tabor, R. W., R. B. Waitt, Jr., V. A. Frizell, Jr., D. A. Swanson, G. R. Byerly, and R. D. Bentley, 1982. Geologic Map of the Wenatchee 1:100,000 Quadrangle, Central Washington, Miscellaneous Investigations Series, Map 1-1311, U.S. Geological Survey, Washington, D.C. (Ch. 2) \* 5 TLC MF 2509
- A141 Tallman, A. M., K. R. Fecht, M. C. Marratt, and G. V. Last, 1979. Geology of the Separations Areas, Hanford Site, South-Central Washington, RHO-ST-23, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 341 Tallman, A. M., J. T. Lillie, and K. R. Fecht, 1981. "Suprabasalt Sediments of the Cold Creek Syncline Area," Subsurface Geology of the Cold Creek Syncline, C. W. Myers and S. M. Price (eds.), RHO-BWI-ST-14, Rockwell Hanford Operations, Richland, Washington. (Ch. 3)
- 342 Tanaka, H. H., G. Barrett, and L. Wildrich, 1979. Regional Basalt Hydrology of the Columbia Plateau, RHO-BW-C-60, Washington State Department of Ecology for Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3, CRD C.4, C.5)
- B202 Tanaka, H. H., A. J. Hansen, Jr., and J. A. Skrivan, 1974. Digital-Model Study of Ground-Water Hydrology, Columbia Basin Irrigation Project Area, Washington, Water-Supply Bulletin 40, State of Washington Department of Ecology, Olympia, Washington, in cooperation with U.S. Geological Survey, Washington, D.C. (Ch. 3, 6, CRD C.5) \* MF 0598
- B203 Tanner, D. B., 1984. Washington Travel and Tourism Report, 1983 Review, Division of Tourism, State of Washington Department of Commerce and Economic Development, Olympia, Washington. (CRD C.7) \* 3 MF 1890

- B204 Tarkoy, P. J., 1979. "Predicting Raise and Tunnel Boring Machine Performance: State of the Art," Proceedings of Rapid Excavation and Tunneling Conference, A. C. Maevis and W. A. Hustrulid (eds.), Vol. 1, American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., Atlanta, Georgia, June. (CRD C.4) \* 7  
MF 1870
- 343 Taubeneck, W. H., 1970, "Dikes of Columbia River Basalt in North-Eastern Oregon, Western Idaho, and Southeastern Washington," Proceedings of the Second Columbia River Basalt Symposium, Cheney, Washington, March 1969, E. H. Gilmour and D. Stradling (eds.), Eastern Washington State College Press, Cheney, Washington, pp. 73-96. (Ch. 2, 3)
- B320 Teague, L. S., 1980. Secondary Minerals Found in Cores DC2A1 and DC2A2 Taken from the Grande Ronde Basalt Formation, Pasco Basin, Washington, LBL-10387, Lawrence Berkeley Laboratory, Berkeley, California. (Ch. 6) \*  
MF 0355
- B205 Thackston, J. W., L. M. Preslo, D. E. Hoexter, and N. Donnelly, 1984. Results of Hydraulic Tests at Gibson Dome No. 1, Elk Ridge No. 1, and E. J. Kubat Boreholes, Paradox Basin, Utah, ONWI-491, Woodward-Clyde Consultants for the Office of Nuclear Waste Isolation, Battelle Memorial Institute, Columbus, Ohio. (CRD C.4) \* 6  
MF 1871
- 344 Theis, C. W., 1935. "The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Groundwater Storage," EOS, Transactions of the American Geophysical Union, Vol. 16, pp. 519-524. (Ch. 3)
- B365 Thimons, E. D., J. F. McCoy, and J. R. Marks, 1985. "Spray Cooling Developments," Mine Ventilation, Pierre Mousset-Jones (ed.), proceedings of the 2nd U.S. Mine Ventilation Symposium, Reno, Nevada, September, pp. 599-606. (CRD C.8) \* 9  
MF 1984
- A142 Thimons, E. D., R. P. Vinson, and F. N. Kissell, 1985. Forecasting Methane Hazards in Metal and Nonmetal Mines, Report of Investigations 8392, U.S. Department of Interior, Bureau of Mines, Washington, D.C. (Ch. 6)
- B206 Thorne, P. D., and F. A. Spane, Jr., 1985. "A Comparison of Under-Pressure and Over-Pressure Pulse Tests Conducted in Low-Permeability Basalt Horizons at the Hanford Site, Washington State," Hydrogeology of Rocks of Low Permeability, International Association of Hydrogeologists, Memoires, Vol. XVII, Tucson, Arizona, January, pp. 639-649. (CRD C.4) \* 3  
MF 1872

- 345 Tolan, T. L., 1982. The Stratigraphic Relationships of the Columbia River Basalt Group in the Lower Columbia River Gorge of Oregon and Washington, Master of Science thesis, Portland State University, Portland, Oregon, pp. 112-117 and 129-131. (Ch. 6)
- B207 Tolan, T. L., and M. H. Beeson, 1984. "Intracanyon Flows of the Columbia River Basalt Group in the Lower Columbia River Gorge and Their Relationship to the Troutdale Formation," Geological Society of America Bulletin, Vol. 95, pp. 463-477. (Ch. 2, CRD C.4) \* MF 0358
- 346 Toth, J., 1963. "A Theoretical Analysis of Groundwater Flow in Small Drainage Basins," Journal of Geophysical Research, Vol. 68, No. 16, pp. 4795-4812. (Ch. 2, 3)
- B210 Treaty with the Nez Perces, 1855. 12 Stat. 957. (Ch. 3, CRD C.7) \* MF 1875
- B208 Treaty with the Walla Walla, Cayuse, etc., 1855. 12 Stat. 945. (Ch. 3, CRD C.7) \* 1 MF 1873
- B209 Treaty with the Yakamas, 1855. 12 Stat. 951. (Ch. 3, CRD C.7) \* MF 1874
- B363 Tri-Cities Real Estate Research Committee, 1983. Tri-Cities Real Estate Research Report, Vol. 6, No. 2, Kennewick, Washington. (Ch. 3) \* 12 MF 1981
- B321 Uhlig, H. H., 1971. Corrosion and Corrosion Control, J. Wiley and Sons, New York, New York, p. 94. (Ch. 6) \* 4 c MF 1942
- B322 Ulmer, G. C., and D. E. Grandstaff, 1984. Icelandic Basaltic Geothermal Field: A Natural Analog for Nuclear Waste Isolation in Basalt, SD-BWI-TI-257, Rockwell Hanford Operations, Richland, Washington. (Ch. 6) \* 4 MF 1943
- B323 UNC (UNC Nuclear Industries), 1979. Environmental Report on the Operation of N Reactor and Fuels Fabrication Facilities, UNI-1313, Richland, Washington. (Ch. 6) \* 4 MF 1944

- 353 University of Washington, 1979. Annual Technical Report 1979 on Earthquake Monitoring of the Hanford Region, Eastern Washington Including Quarterly Technical Report 1979-B, Geophysics Program, Seattle, Washington. (Ch. 2)
- 349 U.S. Bureau of Economic Analysis, 1982. Regional Economic Information System, U.S. Department of Commerce, Washington D.C., Table 25. (Ch. 3)
- 350 U.S. Bureau of Economic Analysis, 1983. Regional Economic Measurement Division, U.S. Department of Commerce, Washington, D.C., Table 25. (NOTE: Microfiche title is VSBEA 1983; in error.) (Ch. 3)
- 351 USDA (U.S. Department of Agriculture), 1970. "National Wild and Scenic Rivers System, Notice of Selection of Rivers as Potential Additions," Federal Register, Vol. 35, No. 210. (Ch. 3, 6)
- 8211 USGS (U.S. Geological Survey), 1982. Water Resources Data, Washington, Water Year 1982, WA-82, 2 Vols., Washington, D.C. (CRD C.4) \* 16  
MF 1625
- 354 Van Alstine, D. R., and S. L. Gillett, 1981. Magnetostratigraphy of the Columbia River Basalt, Pasco Basin and Vicinity, Washington, RHO-BWI-C-110, Sierra Geophysics for Rockwell Hanford Operations, Richland, Washington. (Ch. 3)
- 8324 Vandergraaf, T. T., K. V. Ticknor, and I. M. George, 1984. "Reactions between Technetium in Solution and Iron-Containing Minerals Under Oxidic and Anoxic Conditions," Geochemical Behavior of Disposed Radioactive Waste, G. S. Barney, J. D. Navratil, and W. W. Schulz (eds.), ACS Symposium Series 246, American Chemical Society, Washington, D.C., pp. 25-43. (Ch. 6) \* 4 c  
MF 1945
- 355 Vandegrift, G. F., D. L. Bowers, T. J. Gerding, S. M. Fried, C. K. Wilbur, and M. G. Seitz, 1984. "Interaction of Groundwater and Basalt Fissure Surfaces and Its Effects on the Migration of Actinides," Geochemical Behavior of Disposed Radioactive Waste, G. S. Barney, J. D. Navratil, and W. W. Schulz (eds.), ACS Symposium Series 246, American Chemical Society, Washington, D.C. (Ch. 6, CRD C.5)

- 356 Van Denburgh, A. S., and J. F. Santos, 1965. Groundwater in Washington; Its Chemical and Physical Quality, Water-Supply Bulletin 24, Washington Division of Water Resources, Olympia, Washington. (Ch. 2)
- B212 Van Golf-Racht, T. D., 1982. "Fundamentals of Fractured Reservoir Engineering," Developments in Petroleum Science, Elsevier Scientific Publishing Co., New York, New York. (CRD C.5) \* 13 MF 1877
- B214 Vasey, J., 1983. "Design and Support of Excavations Subjected to High Horizontal Stress," Proceedings of the First International Conference on Stability in Underground Mining, C. O. Browner (ed.), American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc., Vancouver, British Columbia, Canada, August 1982, pp. 428-449. (CRD C.8) \* MF 2537
- A143 Voss, C. F., 1984. Application of Several Empirical Tunnel Design Methods for Estimating Support Requirements in an Underground Nuclear Waste Repository in Basalt, SD-BWI-ER-011, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.8)
- 357 WAC (Washington Administrative Code), 1973. "Chapter 173-124 - Quincy Groundwater Management Subarea and Zones, Chapter 173-128 - Odessa Groundwater Management Subarea, Chapter 173-130 - Odessa Groundwater Subarea Management Policy, Chapter 173-134 - The Establishment of Regulations for the Administration of the Quincy Groundwater Subarea Established Pursuant to RCW 90.44.130, Chapter 173-160 - Minimum Standards for Construction and Maintenance of Water Wells, Chapter 508-14 - Columbia Basin Projects Groundrules," Washington Administrative Code, Olympia, Washington. (Ch. 2)
- 358 Waitt, R. B., Jr., 1979. Late Cenozoic Deposits, Landforms, Stratigraphy, and Tectonism in Kittitas Valley, Washington, Professional Paper 1127, U.S. Geological Survey, Washington, D.C. (Ch. 2)
- 359 Waitt, R. B., Jr., 1980. "About Forty Last-glacial Lake Missoula Jokulhlaups Through Southern Washington," Journal of Geology, Vol. 88, No. 6, pp. 653-679. (Ch. 2, 3)

- 360 Waitt, R. B., Jr., and R. M. Thorson, 1983. "The Cordilleran Ice Sheet in Washington, Idaho, and Montana," Late-Quaternary Environment of the United States, Vol. 1, The Late Pleistocene, S. C. Porter (ed.), University of Minnesota Press, Minneapolis, Minnesota, pp. 53-70. (Ch. 6)
- 8251 Walker, G. W., 1977. Geologic Map of Oregon East of the 121st Meridian, Miscellaneous Investigations Series, Map I-902, U.S. Geological Survey, Denver, Colorado. (Ch. 2) \* 8 TLC MF 2541
- 361 Walters, K. L., and M. J. Grolier, 1960. Geology and Ground Water Resources of the Columbia Basin Project Area, Washington, Volume I, Water-Supply Bulletin No. 8, Washington Division of Water Resources, Olympia, Washington, pp. 25 and 338-350. (Ch. 2)
- 362 Wang, J. S. Y., D. C. Mangold, R. K. Spencer, and C. F. Tsang, 1983. Thermal Impact of Waste Emplacement and Surface Cooling Associated with Geologic Disposal of Nuclear Waste, NUREG/CR-2910, LBL-13341, Lawrence Berkeley Laboratory, Berkeley, California, for the U.S. Nuclear Regulatory Commission, Washington, D.C. (Ch. 6)
- 8215 Warren, J. E., and H. S. Price, 1961. "Flow in Heterogeneous Porous Media," Society of Petroleum Engineers Journal, Vol. 1, pp. 153-169. (CRD C.5) \* 12 MF 1879
- 363 Waters, A. C., 1955. "Geomorphology of South-Central Washington, Illustrated by the Yakima East Quadrangle," Geological Society of America Bulletin, Vol. 66, pp. 663-684. (Ch. 3)
- 364 Waters, A. C., 1961. "Stratigraphic and Lithologic Variations in the Columbia River Basalt," American Journal of Science, Vol. 259, pp. 583-611. (Ch. 2, 3)
- 365 Watkins, N. D., and A. K. Baksi, 1974. "Magnetostatigraphy and Oroclinal Folding of the Columbia River, Steens, and Owyhee Basalts in Oregon, Washington, and Idaho," American Journal of Science, Vol. 274, pp. 148-189. (Ch. 2, 3)
- A144 WCC (Woodward-Clyde Consultants), 1975. Socioeconomic Study: WPPSS Nuclear Projects 1 and 4, for Washington Public Power Supply System, Richland, Washington. (Ch. 3)

- 366 WCC (Woodward-Clyde Consultants), 1980. Assessment of the Effects of Surficial Geologic Processes in the Pasco Basin, RHO-BW-CR-129 P, for Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- 367 WCC (Woodward-Clyde Consultants), 1980. Site Locality Identification Study: Hanford Site, Vol. I: Methodology, Guidelines, and Screening; Vol. II: Data Cataloging, RHO-BWI-C-62, for Rockwell Hanford Operations, Richland, Washington. (Ch. 2)
- 368 WCC (Woodward-Clyde Consultants), 1981a. Study to Identify a Reference Repository Location for a Nuclear Waste Repository on the Hanford Site. Vol. I: Text; Vol. II: Appendices, RHO-BWI-C-107, for Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 6, App. 8)
- B252 WCC (Woodward-Clyde Consultants), 1981b. Task D5, Toppenish Ridge Study, for Washington Public Power Supply System, Richland, Washington. (Ch. 2) \*  
MF 0611
- A145 Webster, C. T., 1984. Fault Tree Analysis for Large Hole Drilling, SD-BWI-ER-013, Rockwell Hanford Operations, Richland, Washington. (Ch. 6)
- B216 Weeks, E. P., 1969. "Determining the Ratio of Horizontal to Vertical Permeability By Aquifer-Test Analysis," Water Resources Research, Vol. 5, No. 1, pp. 196-214. (CRD C.4) \* 3 c  
MF 1881
- A146 Westinghouse (Westinghouse Electric Corporation), 1985. Evaluation of Alternate Waste Package Concepts for Spent Fuel, SD-BWI-TI-202, for Rockwell Hanford Operations, Richland, Washington. (Ch. 5, CRD C.4)
- 369 Weston (Weston Geophysical Research), 1977. "Evaluation of Microearthquake Activity in Eastern Washington," in Preliminary Safety Analysis Report, Amendment 23, Appendix 2RJ, for Washington Public Power Supply System, Richland, Washington. (Ch. 2)
- B217 Weston (Weston Geophysical Research), 1978. Magnetic Modeling, Columbia Plateau Area, for Washington Public Power Supply System, Richland, Washington. (CRD C.5) \*  
MF 0613

- B228 Weston (Weston Geophysical Research), 1983. Interpretation of Seismic Refraction Data, Hanford Site, for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 5 TLC MF 1883
- B219 White, D. E., 1955. "Thermal Springs and Epithermal Ore Deposits," Economic Geology, 50th Anniversary Volume, pp. 99-154. (CRD C.8) \* 14 MF 1885
- B220 White, D. E., 1983. "Background Paper for Assessment of Basalt Lava Flows (BWIP), Washington," Appendix to Heat, High Water and Rock Instability at Hanford, A. Makhijani and K. M. Tucker, 1985, Health and Energy Institute, Washington, D.C. (CRD C.5, C.8) \* 2 MF 1886
- A147 White, L. A., M. J. Bell, and D. M. Rohrer, 1981. "Regulation of High-Level Radioactive Waste," Scientific Basis for Nuclear Waste Management, proceedings of the International Symposium on the Scientific Basis for Nuclear Waste management, C. J. M. Northrup, Jr. (ed.), Materials Research Society, Boston, Massachusetts, pp. 5-19, November 1979. (Ch. 6)
- B221 Whitfield, M., 1969. "Eh as an Operational Parameter in Estuarine Studies," Limnology and Oceanography, Vol. 19, American Society of Limnology and Oceanography, Grafton, Wisconsin, pp. 547-558. (CRD C.5) \* 1 c MF 0376
- B222 Whitfield, M. 1974. "Thermodynamic Limitations on the Use of the Platinum Electrode in Eh Measurements," Limnology and Oceanography, Vol. 19, American Society of Limnology and Oceanography, Grafton, Wisconsin, pp. 857-865. (CRD C.5) \* 4 c MF 2558
- 371 Wilbur, J. L., M. J. Graham, and A. H. Lu, 1983. Results of the Separations Area Groundwater Monitoring Network for 1982, RHO-RE-SR-83-24 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 4)
- B223 Wild and Scenic Rivers Act of 1968. Public Law 90-542, as amended 82 Stat. 906, 16 USC 1271. (CRD C.7) \* 10 MF 1887
- 373 Wilson, C. R., 1983. "Review of Results of Hydrologic Tests of the McCoy Canyon Flowtop Performed in Boreholes DC-7 and DC-8 at the BWIP Site," (letter from Lawrence Berkeley Laboratory, Berkeley, California to S. M. Baker, Rockwell Hanford Operations, Richland, Washington, June 22, 1983). (Ch. 3, CRD C.4)

- B224 Wilson, C. R., and B. Y. Kanehiro, 1983. Updated Recommendations for Standard Problems and Sensitivity Studies for Modeling the Groundwater System in the Pasco Basin, Hydrotechnique Associates, Berkeley, California, for Rockwell Hanford Operations, Richland, Washington. (CRD C.5) \* 3  
MF 1888
- 374 Winkler, H. G. F., 1974. Petrogenesis of Metamorphic Rocks, Springer-Verlag, New York, New York, pp. 168-203. (Ch. 6)
- A148 Wohlfeld, W., 1983. "Discussion of Bit Weight, Torque, and Fluid Flow," Assessment of Conducting a Large Shaft Demonstration Test Utilizing Geodril Rig 32, Morrison-Knudsen, Co., Inc., Richland, Washington, App. 8.4. (Ch. 6)
- B225 Wood, M. I., G. D. Aden, and D. L. Lane, 1982. Evaluation of Sodium Bentonite and Crushed Basalt as Waste Package Backfill Materials, RHO-BW-ST-21 P, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4) \*  
MF 0753
- B226 Wood, T. J., G. S. Mack, W. W. Pidcoe, and C. S. Cline, 1985. McGee Well Report, SD-BWI-TI-227, Rockwell Hanford Operations, Richland, Washington. (CRD C.4) \* 3  
MF 1889
- A149 Wood, M. I., J. F. Relyea, D. L. Lane, and R. A. Carlson, 1984. Chemical and Physical Properties of Waste Package Packing Materials, SD-BWI-TI-155 Rev. 0, Rockwell Hanford Operations, Richland, Washington. (Ch. 6, CRD C.4)
- 377 WPPSS (Washington Public Power Supply System), 1974. Preliminary Safety Analysis Report, Amendment 9, Richland, Washington, Figure 2B-1a. (Ch. 3)
- 378 WPPSS (Washington Public Power Supply System), 1977. WPPSS Nuclear Project No. 2 Environmental Report, operating license stage, Richland, Washington. (Ch. 3, 5, 6)
- A150 WPPSS (Washington Public Power Supply System), 1977b. Preliminary Safety Analysis Report, Amendment 23, Subappendix 2RA, Richland, Washington. (Ch. 6, CRD C.5)

- 379 WPPSS (Washington Public Power Supply System), 1981a. Final Safety Analysis Report: WPPSS Nuclear Project No. 2, Richland, Washington, Volume 2, pp. 2.4-1 through 2.4-12, 2.5-114, 2.5-118, 2.5-119, and 2.5-131 through 2.5-143. (Ch. 2, 3, 6, CRD C.5)
- 381 WPPSS (Washington Public Power Supply System), 1982. Technical Review of the Aquatic Monitoring Program of WNP-2, Richland, Washington. (Ch. 3)
- A151 WPPSS (Washington Public Power Supply System), 1983. Environmental Report, Washington Public Power Supply System, Nuclear Projects Nos. 1 and 4, pp. 2.2-5, 2.2-9 through 2.2-11, 2.4-3, and 5.1-6. (Ch. 3)
- 382 WPPSS (Washington Public Power Supply System), 1983. Washington Public Power Supply System Emergency Preparedness Plan, Washington Nuclear Projects 1, 2, and 4, Revision 3, Richland, Washington. (Ch. 6)
- 383 Wright, T. L., M. J. Grolier, and D. A. Swanson, 1973. "Chemical Variation Related to the Stratigraphy of the Columbia River Basalt," Geological Society of America Bulletin, Vol. 84, pp. 371-385. (Ch. 2, 3)
- 384 Wukelic, G. E., H. P. Foote, S. C. Blair, and C. D. Begej, 1981. Monitoring Land and Water-Use Dynamics in the Columbia Plateau Using Remote-Sensing Computer Analysis and Integration Techniques, RHO-BW-CR-122 P, PNL-4047, Pacific Northwest Laboratory for Rockwell Hanford Operations, Richland, Washington. (Ch. 2, 3)
- A152 Yeatman, R. A., and R. W. Bryce, 1984a. Water-Level Data Collected from Piezometer Clusters DC-19, DC-20, and DC-22, April 1 through April 30, 1984, SD-BWI-DP-045, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)
- A153 Yeatman, R. A., and R. W. Bryce, 1984b. Water-Level Data Collected from Piezometer Clusters DC-19, DC-20, DC-22, May 1 through May 30, 1984, SD-BWI-DP-048, Rockwell Hanford Operations, Richland, Washington. (Ch. 3, 6, CRD C.4, C.5)
- 8253 Zietz, I., B. C. Hearn, Jr., M. W. Higgins, G. D. Robinson, and D. A. Swanson, 1971. "Interpretation of an Aeromagnetic Strip Across the Northwestern United States," Geological Society of America Bulletin, Vol. 82, pp. 3347-3373. (Ch. 2)

\*  
MF 0621

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C1 American Antiquities Act. 16 USC 433.
- C2 American Indian Religious Freedom Act. 42 USC 1996.
- C3 Archaeological Resource Preservation Act. 16 USC 470.
- C4 Bald and Golden Eagle Protection Act. 16 USC 668-668d.
- C5 Clean Air Act. 42 USC 7401. (NOTE: See alphabetical listing of  
(B370) final EA references to locate a microfiche copy of this document.)
- C6 Clean Water Act of 1972. Federal Water Pollution Control Act,  
33 USC 1251.
- C7 Coastal Barrier Resources Act. 16 USC 3501-3510.
- C8 Comprehensive Environmental Response, Compensation, and Liability  
Act of 1980. 42 USC 9601-9657.
- C9 U.S. Department of Transportation Acts. 23 USC 136 and 49 USC 303.  
(NOTE: These citations are in error. The correct citation is  
49 USC 1651.)
- C10 Endangered Species Act. 16 USC 1531. (NOTE: See alphabetical  
(96) listing of final EA references to locate a microfiche copy of this  
document.)
- C11 Farmland Protection Policy Act. 7 USC 4201-4209. (NOTE: See  
(B335) alphabetical listing of final EA references to locate a microfiche  
copy of this document.) MF 1955
- C12 Farmland Protection Policy Act. 7 CFR 658, Soil Conservation  
Service, U.S. Department of Agriculture.
- C13 Federal Land Policy and Management Act of 1976. 43 USC 1701-1782.

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C14 Land Withdrawals. 43 CFR 2300, Bureau of Land Management,  
U.S. Department of Interior.
- C15 Fish and Wildlife Coordination Act. 16 USC 661-666.
- C16 Flood Plain/Wetlands Executive Orders. Executive Order 11988  
and 11990.
- C17 Floodplain/Wetlands Environmental Review Requirements.  
10 CFR 1022, U.S. Department of Energy.
- C18 Hazardous Materials Transportation Act. 49 USC 1801-1812. (NOTE:  
(B282) See alphabetical listing of final EA references to locate a  
microfiche copy of this document.)
- C19 Hazardous Materials Regulations - Subchapter C. 49 CFR 171-178,  
Research and Special Programs Administration, U.S. Department of  
Transportation.
- C20 Historic Sites, Buildings, and Antiquities Act. 16 USC 461-469.
- C21 Preservation of Historical Archaeological Data Threatened by Dam  
Construction or Alteration of Terrain. 16 USC 469-469c.
- C22 National Historic Preservation Act of 1966. As amended  
16 USC 470-470w-6.
- C23 Protection of Historic and Cultural Properties. 36 CFR 800,  
Advisory Council on Historic Preservation.
- C24 Protection and Enhancement of the Cultural Environment. Executive  
Order 11593.
- C25 Marine Protection Research and Sanctuaries Act of 1972.  
33 USC 1401-1444.

MF 1913

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C26 Ocean Dumping - Subchapter H. 40 CFR 220-228, U.S. Environmental Protection Agency.
- C27 Materials Act of 1979. 30 USC 601-604.
- C28 Free Use. 43 CFR 3620, Bureau of Land Management, U.S. Department of the Interior.
- C29 Migratory Bird Treaty Act. 16 USC 703-711.
- C30 List of Migratory Birds. 50 CFR 10.13, Fish and Wildlife Service, U.S. Department of Interior.
- C31 National Environmental Policy Act of 1969. 42 USC 4321-4361.  
(214) (NOTE: See alphabetical listing of final EA references to locate a microfiche copy of this document.)
- C32 Purpose, Policy, and Mandate. 40 CFR 1500, Council on  
(B328) Environmental Quality. (NOTE: See alphabetical listing of final EA references to locate a microfiche copy of this document. Reference is listed there as: Council on Environmental Quality, 1977.)
- C33 Nuclear Waste Policy Act of 1982. 42 USC 10101-10442. (NOTE: See  
(239) alphabetical listing of final EA references to locate a microfiche copy of this document.)
- C34 National Forest Organic Legislation. 16 USC 475.
- C35 Multiple-Use Sustained-Yield Act. 16 USC 528-531.
- C36 Forest and Rangeland Renewable Resources Planning and Research Acts, National Forest Management Act, and Renewable Resource Extension Act. 16 USC 1600-1676.
- C37 Prohibitions. 36 CFR 261, Forest Service, U.S. Department of Agriculture.

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C38 National Trails System. 16 USC 1241-1249.
- C39 National Wildlife Refuge Administration Act of 1966. 16 USC 668dd, 668ee.
- C40 The National Wildlife Refuge System - Subchapter C. 50 CFR 25, 27, 28 and 29, Fish and Wildlife Service, U.S. Department of Interior.
- C41 Noise Control Act of 1972 and the Quiet Communities Act of 1978.  
(223) 42 USC 4901. (NOTE: See alphabetical listing of final EA references to locate a microfiche copy of this document.)
- C42 Organic Act of the National Park Service. 16 USC 1 and 1901-1912.
- C43 Minerals Management. 36 CFR 9, National Park Service, U.S. Department of Interior.
- C44 Resource Conservation and Recovery Act of 1976. 42 USC 6901-6987.  
(B302) (NOTE: See alphabetical listing of final EA references to locate a microfiche copy of this document.)
- C45 Procedures for Decision Making. 40 CFR 124, U.S. Environmental Protection Agency.
- C46 Solid Wastes - Subchapter I. 40 CFR 260 through 266, 270, 280, U.S. Environmental Protection Agency.
- C47 Rivers and Harbors Act. 33 USC 401-413.
- C48 Permits for Structures of Work in or Affecting Navigable Waters of the United States. 33 CFR 322, Corps of Engineers, Department of the Army.
- C49 Safe Drinking Water Act. 42 USC 300f-300g-10.
- C50 National Pollutant Discharge Elimination System. 40 CFR 122, U.S. Environmental Protection Agency.

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C51 Underground Injection Control Program: Criteria and Standards. 40 CFR 146, U.S. Environmental Protection Agency.
- C52 Taylor Grazing Act. 43 USC 315-316o.
- C53 Grazing Administration - Exclusive of Alaska. 43 CFR 4100, Bureau of Land Management, U.S. Department of Interior.
- C54 (B223) Wild and Scenic Rivers Act. 16 USC 1271-1287. (NOTE: See alphabetical listing of final EA references to locate a microfiche copy of this document.)
- C55 Wild, Free-Roaming Horses and Burros Act. 16 USC 1331-1340.
- C56 Wild, Free-Roaming Horse and Burro Protection, Management, and Control. 43 CFR 4700, Bureau of Land Management, U.S. Department of Interior.
- C57 Wilderness Act. 16 USC 1131-1136.
- C59 DOE Real Estate Real Property Management. DOE Order 4300.1A.
- C60 Archaeology and Historic Preservation. Revised Code of Washington 27.34, 27.53; Washington Administrative Code 25.
- C61 Benton-Franklin-Walla Walla Air Pollution Control Authority.
- C62 Hazardous Waste Disposal. Revised Code of Washington 70.105; Washington Administrative Code 173-303.
- C63 Hydraulics Project. Revised Code of Washington 75.20.100; Washington Administrative Code 220-110.
- C64 Noise Control Act of 1974. Revised Code of Washington 70.107; Washington Administrative Code 173-60 through 70.

GENERAL REFERENCES IDENTIFIED IN  
TABLE 6-3 AND PAGE 6-44 OF THE  
FINAL ENVIRONMENTAL ASSESSMENT

- C65 Pollution Disclosure Act of 1971. Revised Code of Washington 90.52; Washington Administrative Code 173-40.
- C66 Public Water Supply. Revised Code of Washington 43.20.
- C67 Radioactive Waste. Revised Code of Washington 43.200.
- C68 Shoreline Management Act of 1971. Revised Code of Washington 90.58; Washington Administrative Code 173-16 through 28.
- C69 State Environmental Policy Act. Revised Code of Washington 43.21c; Washington Administrative Code 197-10.
- C70 Washington Clean Air Act. Revised Code of Washington 70.94; Washington Administrative Code 173-400 through 495.
- C71 Water Rights. Revised Code of Washington 90.03, 90.14, 90.44, 90.16..
- C72 Water Pollution Control Act. Revised Code of Washington 90.48; Washington Administrative Code 173-216 through 225.