

US EPA ARCHIVE DOCUMENT

8.0 References

- Allison, J.D., and E.M. Perdue. 1994. Modeling metal-humic interactions with MINTEQA2. In N. Senesi and T.M. Miano, editors, *Humic Substances in the Global Environment and Implications on Human Health*. Elsevier Science BV, Amsterdam, Netherlands.
- Armbrust, K.L., Y. Okamoto, J. Grochulska, and A.C. Barefoot. 1999. Predicting the dissipation of bensulfuron methyl and azimsulfuron in rice paddies using the computer model EXAMS2. *J. Pesticide Sci.* 24(4):357-363.
- ASTM. 1996. *Standard Guide for Developing and Evaluating Ground-Water Modeling Codes*. ASTM Subcommittee D-18.21.10, Tracking Number D18.21.92.07.
- Bowers, J.F., and A.J. Anderson. 1981. *An Evaluation Study for the Industrial Source Complex (ISC) Dispersion Model*. EPA-450/4-81-002. U.S. Environmental Protection Agency, Research Triangle Park, NC.
- Burns, L.A. 1997. *Exposure Analysis Modeling System (EXAMS II): User's Guide for Version 2.97.5*. EPA-600/R-97/047. U.S. Environmental Protection Agency, Athens, GA.
- Burns, L.A., D.M. Cline, and R.R. Lassiter. 1982. *Exposure Analysis Modeling System (EXAMS): User Manual and System Documentation*. EPA-600/3-83-023. U.S. Environmental Protection Agency, Environmental Research Laboratory, Athens, GA.
- Christensen, J.B., and T.H Christensen. 1999. Complexation of DOC in polluted groundwater: A comparison of approaches using resin exchange, aquifer material sorption, and computer speciation models (WHAM and MINTEQA2). *Environmental Science & Technology* 33:3857-3863.
- Christensen, J.B., and T.H Christensen. 2000. The effect of pH on the complexation of Cd, Ni, and Zn by dissolved organic carbon from leachate-polluted groundwater. *Water Research* 34:3743-3754.
- Christensen, J.B., J.J. Botma, and T.H Christensen. 1999. Complexation of Cu and Pb by DOC in polluted groundwater: A comparison of experimental data and predictions by computer speciation models (WHAM and MINTEQA2). *Water Research* 33(15):3231-3238.
- Cousins, I.T., C.D. Watts, and R. Freestone. 1995. Field measurement and modelling the fate of aniline and lindane in a UK lowland river. *Environmental Technology* 16:515-526.

- Cox, W.M., and G.K. Moss. 1985. *Evaluation of Rural Air Quality Simulation Models, Addendum A: Muskingum River Data Base*. EPA-450/83-003a. U.S. Environmental Protection Agency, Research Triangle Park, NC.
- Cox, W.M., H.W. Rorex, and G.K. Moss. 1986. *Evaluation of Rural Air Quality Simulation models, Addendum C: Kincaid SO₂ Data Base*. EPA-450/83-003c. U.S. Environmental Protection Agency, Research Triangle Park, NC.
- Cox, W.M., H.W. Rorex, G.K. Moss, and K.W. Baldrige. 1987. *Evaluation of Rural Air Quality Simulation models, Addendum D: Paradise SO₂ Data Base*. EPA-450/83-003d. U.S. Environmental Protection Agency, Research Triangle Park, NC.
- Davis, A., M.V. Ruby, and P.D. Bergstrom. 1992. Bioavailability of arsenic and lead in soils from the Butte, Montana, mining district. *Environmental Science & Technology* 26(3):461-468.
- Dewar, M.J.S. 1969. *The Molecular Orbital Theory of Organic Chemistry*. McGraw Hill, New York, NY.
- Dewar, M.J.S., and R.C. Dougherty. 1975. *The PMO Theory of Organic Chemistry*. Plenum Press, New York, NY.
- Doyle, T.A., A. Davis, and D.D. Runnels. 1994. Predicting the environmental stability of treated copper smelter flue dust. *Applied Geochemistry* 9:337-350.
- Drever, J.I. 1997. *The Geochemistry of Natural Waters- Surface and Groundwater Environments*, 3rd ed. Prentice-Hall, Upper Saddle River, NJ.
- Dzombak, D.A. 1987. *A Practical Guide for Use of the Generalized Two Layer Sorption Model*. Prepared for the U.S. Environmental Protection Agency, Athens, GA.
- ERG (Eastern Research Group, Inc.). 1999. *Peer Review of EPA's Hazardous Waste Identification Rule Risk Assessment Model LAU/Waste Pile/Landfill Source Models and Watershed Module Background and Implementation for the Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA) for HWIR99 – Draft*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, under Contract No. 68-W-99-001.
- Felmy, A.R., D.C. Girvin, and E.A. Jenne. 1984. *MINTEQ – A Computer Program for Computing Aqueous Equilibria*. Prepared by Battelle Pacific Northwest Laboratories for the U.S. Environmental Protection Agency, Athens, GA.
- Fish, W., D.A. Dzombak, and F.M.M. Morel. 1986. Metal-humate interactions, 2: Application and comparison of models. *Environmental Science & Technology* 20:676-683.
- Fotovat, A., and R. Naidu. 1997. Ion exchange resin and MINTEQa2 speciation of Zn and Cu in alkaline sodic and acid soil extracts. *Australian Journal of Soil Research* 35:711-726.

- Frandsen, A.K., and C.H. Gammons. 2000. Heavy metal complexation with aqueous sulfide in an anaerobic treatment wetland. In *Wetlands and Remediation: An International Conference*. Battelle Press, Columbus, OH.
- Frind, E.O., and G.E. Hokkanen. 1987. Simulation of the Borden Plume Using the Alternating Direction Galerkin Technique. *Water Resources Res.* 23:918-930.
- Games, L.M. 1982. Field validation of Exposure Analysis Modeling System (EXAMS) in a flowing stream. In K.L. Dickson, A.W. Maki, and J. Cairns, Jr., editors, *Modeling the Fate of Chemicals in the Aquatic Environment*. Ann Arbor Science Publishers, Ann Arbor, MI.
- GCA Corporation. 1982. *Evaluation and Selection of Models for Estimating Air Emissions from Hazardous Waste Treatment, Storage and Disposal Facilities*. Draft Final Report. Prepared for Peer Review. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-02-3168.
- Geraghty, J.J., D.W. Miller, F. Van Der Leeden, and F.L. Troise. 1973. *Water Atlas of the United States*. Water Information Center Publication, Port Washington, NY.
- Gobas, F.A. 1993. A model for predicting the bioaccumulation of hydrophobic organic chemicals in aquatic food-webs: application to Lake Ontario. *Ecological Modelling* 69:1-17.
- Hadermann, J. 1980. Radionuclide transport through heterogeneous media. *Nuclear Technology* 47:311-323.
- Hammett, L.P. 1970. *Physical Organic Chemistry*, 2nd ed. McGraw Hill, New York, NY.
- Hargreaves, G.H. 1975. Moisture Availability and Crop Production. *Trans. Am. Soc. Agric. Eng.* 18(5).
- HGL (HydroGeoLogic, Inc.). 1993. *Response to Review Comments on EPACMTP Unsaturated Zone and Saturated Zone Modules by TetraTech, Inc.* HGL, Herndon, VA.
- HGL (HydroGeoLogic, Inc.). 2000. *Implementation of the Test Plan for the HWIR99 Land Application Unit Module*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W7-0035.
- HGL (HydroGeoLogic, Inc.). 2003. *Verification and Validation of the EPA's Composite Model for Transformation Products (EPACMTP), and its Derivatives*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Hodgkinson, D.P., and P.R. Maul. 1985. *One-dimensional Modeling of Radionuclide Migration Through Permeable and Fractured Rock for Arbitrary Length Decay Chains using Numerical Inversion of Laplace Transforms*. Rep. AERE-R-11880, UK Atomic Energy Authority, Oxfordshire, England.

- Horst, T.W. 1983. A correction to the Gaussian source-depletion model. In H.R. Pruppacher, R.G. Semonin, and W.G.N. Slinn, editors, *Precipitation Scavenging, Dry Deposition and Resuspension*. Elsevier, New York, NY.
- Irwin, J.S. 2002. *A Historical Look at the Development of Regulatory Air Quality Models for the United States Environmental Protection Agency*. NOAA Technical Memorandum, OAR ARL-244. National Oceanic and Atmospheric Administration, Silver Spring, MD.
- Jenne, E.A. 1994. *Geochemical Model "Validation": Reliability of Solubility Equilibria Calculated with Field Data from an Acidic Metal-rich Plume near Globe, Arizona*. Prepared by Battelle Pacific Northwest Laboratories for the U.S. Environmental Protection Agency, Athens, GA.
- Jensen, D.L., J.K. Boddum, S. Redemann, and T.H. Christensen. 1998. Speciation of dissolved iron(II) and manganese(II) in a groundwater pollution plume. *Environmental Science & Technology* 32(18):2657-2664.
- Karickhoff, S.W., and M. Long. 1995. U.S. Environmental Protection Agency Internal Report, April 10.
- Khoe, G.H., and G. Sinclair. 1991. Chemical modeling of the neutralisation process for acid uranium mill tailings. *Proceedings, Hydrometallurgy and Aqueous Processing Symposium*. Annual Meeting of the Metallurgical Society of AIME, New Orleans, LA.
- Kolset, K., and A. Heiberg. 1988. Evaluation of the fugacity (FEQUM) and the EXAMS chemical fate and transport models: a case study on the pollution of the Norrsundet Bay (Sweden). *Wat. Sci. Tech.* 20(2):1-12.
- Lemer, J.E., and E. Grunwald. 1965. *Rates of Equilibria of Organic Reactions*. John Wiley and Sons, New York, NY.
- Lindsay, W. L., and H.A. Ajwa. 1995. Use of MINTEQA2 for Teaching Soil Chemistry. In R.H. Loeppert, A.P. Schwab, and S. Goldberg, editors, *Chemical Equilibrium and Reaction Models*. Soil Science Society of America, Special Publication 42, Madison, WI.
- Little, K., and J. Baskir. 2000a. *Response to Independent Reviewer Comments on LAU Module Verification Testing*. Memorandum prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Little, K., and J. Baskir. 2000b. *Response to Independent Reviewer Comments on Landfill Module Verification Testing*. Memorandum prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Little, K., and J. Baskir. 2000c. *Response to Independent Reviewer Comments on Waste Pile Module Verification Testing*. Memorandum prepared for the U.S. Environmental

- Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Little K., and J. Baskir. 2000d. *Response to Independent Reviewer Comments on Regional Watershed Module Verification Testing*. Memorandum prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Londergan, R.J., D.H. Minott, D.J. Wackter, and D. Bonitta. 1982. *Evaluation of Rural Air Quality Simulation Models*. EPA-450/4-83-003. U.S. Environmental Protection Agency, Research Triangle Park, NC.
- Loux, N.T., D.S. Brown, C.R. Chapin, J.D. Allison, and S.M. Hassan. 1989. Chemical speciation and competitive cationic partitioning on a sandy aquifer material. *Chemical Speciation and Bioavailability* 1:111-125.
- Lowry, T.H., and K.S. Richardson. 1987. *Mechanism and Theory in Organic Chemistry*, 3rd ed. Harper and Row, New York, NY.
- Marin, C.M., V. Guvanasen, and Z.A Saleem. 2003. The 3MRA risk assessment framework - a flexible approach for performing multimedia, multipathway, and multireceptor risk assessments under uncertainty. *International Journal of Human and Ecological Risk Assessment* (in press; scheduled for publication December 2003).
- Marani, D., G. Macchi, and M. Pagano. 1995. Lead precipitation in the presence of sulphate and carbonate: Testing of thermodynamic predictions. *Water Research* 29(4):1085-1092.
- Maul, P.R. 1980. *Atmospheric Transport of Sulphur Compound Pollutants*. MID/SSD/80/0026/R. Central Electricity Generating Board, Nottingham, England.
- Morrey, J.R., C.T. Kincaid, and C.J. Hostetler. 1985. *Geochemical Models for Solute Migration, Volume 3: Evaluation of Selected Computer Codes for Modeling Aqueous Solutions and Solute Migration in Soils and Geologic Media*. EA-3417. Battelle Pacific Northwest Laboratories, Richland, WA.
- Ogata, A. 1970. *Theory of Dispersion in a Granular Medium*. U.S. Geological Survey Professional Paper 411-1:1-34.
- Ogata, A., and R.B. Banks. 1961. *A Solution of the Differential Equation of Longitudinal Dispersion in Porous Media*. U.S. Geological Survey Professional Paper 411-A.
- Palmer, F.B, C.A. Butler, M.H. Timperley, and C.W. Evans. 1998. Toxicity to embryo and adult zebrafish of copper complexes with two malonic acids as models for dissolved organic matter. *Environmental Toxicology and Chemistry* 17(8):1538-1545.

- PNNL (Pacific Northwest National Laboratory). 2000. *Independent Tests for the Watershed Module*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Pollard, J.E., and S.C. Hern. 1985. A field test of the EXAMS model in the Monongahela River. *Environmental Toxicology and Chemistry* 4:361-369.
- Research Triangle Institute (RTI). 1985. *Preliminary Assessment of Aerated Waste Treatment Systems at Hazardous Waste Treatment, Storage and Disposal Facilities*. Final Report. Prepared for the U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH, under Contract No. 68-02-3992.
- Research Triangle Institute (RTI). 1998. *QA/QC Summary for Wastewater Source Modules (Tanks and Surface Impoundments)*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W-98-085.
- Research Triangle Institute (RTI). 2000a. *Independent Data Testing for the Hazardous Waste Identification Rule—Draft*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2000b. *Land Application Unit Module Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Research Triangle Institute (RTI). 2000c. *Land Application Unit Module Verification Testing: ERRATA*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Research Triangle Institute (RTI). 2000d. *Landfill Module Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Research Triangle Institute (RTI). 2000e. *Test Plan for the HWIR Human Exposure Module*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2000f. *Wastepile Module Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Research Triangle Institute (RTI). 2000g. *Watershed Module Internal Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Research Triangle Institute (RTI). 2001. *Exposure Analysis for Dioxins, Dibenzofurans, and Co-Planar Polychlorinated Biphenyls in Sewage Sludge: Preliminary Draft*. Prepared for the U.S. Environmental Protection Agency, Office of Water, Washington, DC.

- Research Triangle Institute (RTI). 2002a. *3MRA Aerated Tank Module Test Documentation*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002b. *3MRA Aerated Tank Module Test Plan*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002c. *3MRA Surface Impoundment Module Test Documentation*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002d. *3MRA Surface Impoundment Module Test Plan*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002e. *Aquatic Food Web (AFW) Module—Test Plan*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002f. *Aquatic Food Web Internal Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002g. *Ecological Exposure (EcoEx) Module—Test Plan*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002h. *Ecological Exposure Module Internal Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002i. *Ecological Risk Module Internal Verification Testing*. Prepared for U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002j. *Ecological Risk (Ecological Risk) Module—Test Plan*. Prepared for U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002k. *Farm Food Chain (FFC) Module—Test Plan*. Prepared for U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002m. *Farm Food Chain Module Internal Verification Testing*. Prepared for U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.

- Research Triangle Institute (RTI). 2002n. *Terrestrial Food Web Internal Verification Testing*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Research Triangle Institute (RTI). 2002p. *Terrestrial Food Web (TFW) Module—Test Plan*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Routh, J., and M. Ikramuddin. 1996. Trace element geochemistry of Onion Creek near Van Stone lead-zinc mine (Washington, USA) – chemical analysis and geochemical modeling. *Chemical Geology* 133:211-224.
- Sample, B.E., M.S. Alpin, R.A. Effroymsen, G.W. Suter, and C.J.E. Welsh. 1997. *Methods and Tools for Estimation of the Exposure of Terrestrial Wildlife to Contaminants*. Environmental Sciences Division Publication Number 4650, Oak Ridge National Laboratory, Oak Ridge, TN.
- Sample, B.E., J.J. Beauchamp, R.A. Efroymsen, and G.W. Suter, II. 1998. *Development and Validation of Bioaccumulation Models for Small Mammals*. Prepared for the U.S. Department of Energy, under Contract No. DE-AC05-84OR21400.
- Saunders, J.A., and L.E. Toran. 1995. Modeling of radionuclide and heavy metal sorption around low- and high-pH waste disposal sites at Oak Ridge, Tennessee. *Applied Geochemistry* 10:673-684.
- Schramm, K.-W., M. Hirsch, R. Twele, and O. Eutzinger. 1988. Measured and modeled fate of Disperse Yellow 42 in an outdoor pond. *Chemosphere* 17(3):587-595.
- Schroeder, K., R. Clickner, and E. Miller. 1987. *Screening Survey of Industrial Subtitle D Establishments*. Draft Final Report. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.
- Schwede, D.B., and J.O. Paumier. 1997. Sensitivity of the Industrial Source Complex model to input deposition parameters. *J. Applied Meteorology* 36:1096-1106.
- Shamir, U.Y., and D.R.F. Harlemann. 1967. Dispersion in layered porous media. *J. of the Hydraulics Division, Amer. Soc. Civ. Engr.* 93(5):237-260.
- Snyder, S. 2000. *HWIR Farm Food Chain—Review of Compiled Code Executables and Review of the Implementation of the Test Plan*. Memorandum from Sandra Snyder to Gene Whelan, June 8.
- Springer, C., P.D. Lunney, and K.T. Valsaraj. 1984. *Emission of Hazardous Chemicals from Surface and Near Surface Impoundments to Air*. U.S. Environmental Protection Agency, Solid and Hazardous Waste Research Division, Cincinnati, OH. Project Number 808161-02.

- Stollenwerk, K.G. 1994. Geochemical interactions between constituents in acidic groundwater and alluvium in an aquifer near Globe, Arizona. *Applied Geochemistry* 9:353-369.
- Stollenwerk, K.G. 1995. Modeling the effects of variable groundwater chemistry on the adsorption of molybdate. *Water Resources Research* 31(2):347-357.
- Stollenwerk, K.G. 1996. Simulations of reactions affecting transport of constituents in the acidic plume, Pinal Creek basin, Arizona, *U.S. Geological Survey Water-Supply Paper* 2466:21-49.
- Strimaitis, D.G., J.C. Chang, and J.S. Scire. 1993. *Development of ISC-COMPDEP and User Instructions*. Sigma Research Corporation, Concord, MA.
- Sudicky, E.A., Y.S. Wu, and Z. Saleem. 1991. *Semi-analytical Approach for Simulating Transport of a Seven-Member Branched Decay Chain in 3D Groundwater Systems*. American Geophysical Union Spring meeting, Baltimore, MD.
- Taft, R.W. 1987. *Progress in Organic Chemistry*, Vol.16. John Wiley and Sons, New York, NY.
- Tetra Tech. 2000a. *Independent Tests for Aquatic Food Web Module*. Memorandum from Tetra Tech to RTI. June 5.
- Tetra Tech. 2000b. *Independent Tests for Ecological Exposure Module*. Memorandum from Tetra Tech to RTI. June 8.
- Tetra Tech. 2000c. *Independent Tests for Ecological Risk Module*. Memorandum from Tetra Tech to RTI. June 5.
- Tetra Tech. 2000d. *Independent Tests for Landfill Module*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Tetra Tech. 2000e. *Independent Tests for Terrestrial Food Web Module*. Memorandum from Tetra Tech to RTI. June 5.
- Tetra Tech. 2000f. *Independent Tests for Waste Pile Module*. Prepared for the U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC, under Contract No. 68-W6-0053.
- Tynan, P., C.D. Watts, A. Sowray, and I. Hammond. 1991. The transport and the fate of organic pollutants in rivers II – Field measurement and modelling for styrene, xylenes, dichlorobenzenes and 4-phenyldodecane. In G. Angletti and A. Bjorseth A., editors, *Proceedings of the Sixth European Symposium Organised within the Framework of Concerted Action Organic Micropollutants in the Aquatic Environment*. Cost 641 Working Party 2, Lisbon, Portugal.

- U.S. EPA (Environmental Protection Agency). 1977. *User's Manual for Single-Source (CRSTER) Model*. EPA-450/2-77-013. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1989. *Review and Evaluation of Area Source Dispersion Algorithms for Emission Sources at Superfund Sites*. EPA-450/4-89-020. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1990. *Methodology for Assessing Health Risks Associated with Indirect Exposure to Combustor Emissions*. EPA-600/6-90-003. Office of Health and Environmental Assessment, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1991. *Hazardous Waste TSDF - Background Information for Proposed RCRA Air Emission Standards*. EPA-450/3-89-023a, Appendix C, and EPA-450/3-89-023b, Appendix F. Office of Air Quality Planning and Standards, Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1992a. *Summary of Quality Assurance and Equivalence Tests Performed on the ISC2 Models*. Project report for WA No. 68D00124. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1992b. *Sensitivity Analysis of a Revised Area Source Algorithm for the Industrial Source Complex Short Term Model*. EPA-454/R-92-015. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1992c. *Summary of the Quality Assurance and Equivalence Tests Performed on the Modified Area Source Algorithm for the ISCST2 Model*. Project report for WA No. I-27, 68D00124. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1992d. *Comparison of a Revised Area Source Algorithm for the Industrial Source Complex Short Term Model and Wind Tunnel Data*. EPA-454/R-92-014. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1992e. Memorandum dated November 6, 1992 from the Office of Research and Development, Athens, GA, to the Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1994a. *Air Emission Models for Waste and Wastewater*. EPA-453/R-94-080A. Office of Air Quality Planning and Standards, Research Triangle Park, NC. CHEMDAT8 program can be downloaded at <http://www.epa.gov/ttn/chief/software/water/water8.html>.
- U.S. EPA (Environmental Protection Agency). 1994b. *Development and Testing of a Dry Deposition Algorithm (Revised)*. EPA-454/R-94-015. Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1995. *User's Guide for the Industrial Source Complex (ISC3) Dispersion Models. Volume II: Description of Model Algorithms*. EPA-

- 454/B-95-003b. Office of Air Quality Planning and Standards, Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 1996a. *EPACMTP Sensitivity Analysis*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1996b. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP): Background Document*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1996c. *EPA's Composite Model for Leachate Migration with Transformation Products, EPACMTP, Background Document for Finite Source Methodology for Chemicals with Transformation Products*. R09-96-588. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1996d. *Modeling approach for simulating three-dimensional migration of land disposal leachate with transformation products. Volume I: Background document for the unsaturated zone and saturated zone modules*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1996e. *Background Document for Metals; EPA Composite Model for Leachate Migration with Transformation Products (EPACMTP)*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1997a. *EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP): User's Guide*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1997b. *Test and Verification of EPA's Composite Model for Leachate Migration with Transformation Products (EPACMTP)*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1998a. *Guidelines for Ecological Risk Assessment*. EPA/630/R-95/002F. Risk Assessment Forum, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1998b. *Methodology for Assessing Health Risks Associated with Multiple Exposure Pathways to Combustor Emissions. Update to EPA-600/6-90-003 Methodology for Assessing Health Risks Associated with Indirect Exposure to Combustor Emissions*. EPA-600/R-98-137. National Center for Environmental Assessment, Cincinnati, OH.
- U.S. EPA (Environmental Protection Agency). 1998c. *MINTEQA2/PRODEFA2, A Geochemical Assessment Model for Environmental Systems: User Manual Supplement for Version 4.0*. Prepared by HydroGeoLogic, Inc., under Contract No. 68-C6-0020.

- U.S. EPA (Environmental Protection Agency). 1998d. *Testing of the Sampled Chronological Input Model (SCIM) option in the enhanced ISCST3 Model for Use in the Hazardous Waste Identification Rule (HWIR99)*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999a. *Risk Characterization Report for the HWIR 99 Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA)*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999b. *Verification Document for HWIR99 Pseudo-Three Dimensional Aquifer Module*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999c. *Verification Document for HWIR99 Vadose-Zone Module*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999d. *Vadose and Saturated Modules Extracted from EPACMTP for HWIR99*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999e. *Chemical Data Base for HWIR99*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 1999f. *Changes in the MINTEQA2 Modeling Procedure for Estimating Metal Partition Coefficients in Groundwater*. Prepared by HydroGeoLogic, Inc., Herndon, VA.
- U.S. EPA (Environmental Protection Agency). 1999g. *A Framework for Finite-Source Multimedia, Multipathway, and Multireceptor Risk Assessment (3MRA), DRAFT Report*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 2000a. *HWIR Human Exposure Module Internal Verification Testing*. Prepared by Research Triangle Institute, Research Triangle Park, NC.
- U.S. EPA (Environmental Protection Agency). 2000b. *Peer Review of EPA's Hazardous Waste Identification Rule Risk Assessment Model—Background Document for the Human Exposure and Human Risk Modules for the Multimedia, Multipathway, and Multiple Receptor Risk Assessment (3MRA) Model*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 2000c. *Test Plan for HWIR99 Vadose-Zone*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 2000d. *Test Plan for HWIR99 Aquifer Module*. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 2000e. *Draft Test Plan for the HWIR Human Risk Module*. National Exposure Research Laboratory, Athens, GA. August.

- U.S. EPA (Environmental Protection Agency). 2001. *Industrial Surface Impoundments in the United States*. EPA-530/R-01-005. Office of Solid Waste, Washington, DC.
- U.S. EPA (Environmental Protection Agency). 2002a. *Quality Assurance Verification and Validation Tests for the Exposure Analysis Modeling System – EXAMS*. National Exposure Research Laboratory, Athens, GA.
- U.S. EPA (Environmental Protection Agency). 2002b. *Review of Validation Studies Concerning the U.S. EPA Geochemical Speciation Model MINTEQA2*. National Exposure Research Laboratory, Athens, GA.
- U.S. EPA (Environmental Protection Agency). 2003a. *Prediction of Chemical Reactivity Parameters and Physical Properties of Organic Compounds from Molecular Structure Using SPARC*. Internal Report. National Exposure Research Laboratory, Athens, GA.
- U.S. EPA (Environmental Protection Agency). 2003b. *Verification and Validation of the SPARC Model*. Internal Report. National Exposure Research Laboratory, Athens, GA.
- USDA (U.S. Department of Agriculture). 1986. *Urban Hydrology for Small Watersheds*. TR-55. Soil Conservation Service, Washington, DC.
- Van Genuchten, M.T., and W.J. Alves. 1982. *Analytical Solutions of the One-Dimensional Convective-Dispersion Solute Transport Equation*. U.S. Technical Bulletin 1661:151.
- Venkatram, A. 1998. *A Simple Model for Dry Deposition and Particle Settling*. Subcontractor Progress Report 2 (including addendum). EPA Contract No. 68D70002, Work Assignment No. 1-001.
- Webster, J.G., and K.S. Webster. 1995. Arsenic adsorption from geothermal water. In *Sixteenth Annual PNOG Geothermal Workshop Proceedings*. Philippine National Oil Company, Manila, Philippines.
- Westall, J.C. 1979. *MICROQL II. Computation of Adsorption Equilibria in BASIC*. Swiss Federal Institute of Technology, EAWAG, Deubendorf, Switzerland.
- Woodfine, D.G., R. Seth, D. Mackay, and M. Havas. 2000. Simulating the response of metal contaminated lakes to reductions in atmospheric loading using a modified QWASI model. *Chemosphere* 41:1377-1388.
- Woodrow, J.E., M.M. McChesney, and J.N. Seiber. 1990. Modeling the volatilization of pesticides and their distribution in the atmosphere. In D.E. Kurtz, editor, *Long Range Transport of Pesticides*. Lewis Publishers, Inc., Chelsea, Michigan.
- Yu, J.Y. 1996. Precipitation of Fe and Al compounds from the acid mine waters in Dogyae area, Korea: A qualitative measure of equilibrium modeling applicability and neutralization capacity. *Aquatic Geochemistry* 2:81-105.

Zachara, J.M., R.L. Schmidt, and E.A. Jenne. 1988. *Feasibility of Field Testing the MINTEQ Geochemical Code*. Prepared for the U.S. Environmental Protection Agency, by Battelle Pacific Northwest Laboratories, Richland, WA.