

Paul T. Otis

Education

Ph.D., Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, May, 1999

M.S., Industrial Engineering, Louisiana State University, May 1985

B.S., Chemical Engineering, Texas A&M University, December 1980

Employment History

Present	Mitretek Systems, McLean, VA, Lead Simulation Modeling Engineer
1997 - 1998	Mitretek Systems, McLean, VA, Senior Simulation Modeling Engineer
1991 - 1996	Battelle Pacific Northwest National Laboratory, Washington, D.C., Senior Research Engineer
1991 - 1991	The Cadmus Group, Newington, VA, Project Manager
1989 - 1991	Virginia Polytechnic Institute and State University, Blacksburg, VA, Research Assistant
1985 - 1989	Battelle Pacific Northwest National Laboratory, Richland, WA, Research Engineer
1983 - 1985	Louisiana State University, Baton Rouge, LA, Teaching Assistant
1982 - 1983	G.H.R. Energy, Destrehan, LA, Process Control Engineer
1981 - 1982	Parsons Process Engineering, Houston, TX, Associate Process Design Engineer
1978 - 1980	Co-op Program, Nalco Chemical Company, Sugarland, TX, Engineering Assistant

Work Experience

Mr. Otis is currently developing and applying a discrete event simulation model of the Tooele Chemical Agent Disposal Facility for the Army Program Manager for Chemical Demilitarization. In addition, Mr. Otis is analyzing design and plant operations data to perform reliability, availability, and maintainability analyses for existing and planned chemical agent disposal facilities. Other related experience includes the development of simulation models of the surface facilities for the proposed high level nuclear waste repository and of the proposed Monitored Retrievable Storage facility (for interim storage before final burial in the repository). Other analytical work related to manufacturing includes the development of a business and current information systems model for the Lake City Army Ammunition Plant in Independence, Missouri. Mr. Otis also conducted engineering economics studies of this plant. In addition, Mr. Otis performed water use reduction analysis and bottleneck identification analysis for a printed circuit board manufacturing facility.

Management and business process analysis experience includes work as the primary contractor support for the development of the Department of Energy, Office of Energy Research Headquarters pollution prevention program development. This included the development of strategy and implementation plans for pollution prevention programs at Department of Energy facilities. Mr. Otis was also the contractor manager for the development of the Department of Energy, World Wide Web pollution prevention information exchange system. Additionally, he managed a Design for Environment (DfE) project and worked with Department of Energy facilities to implement pollution prevention during design. Mr. Otis has managed various projects for the EPA's Office of Water.

Mr. Otis has conducted regulatory analyses for the Department of Energy to include the analysis of the impact of land disposal restrictions under RCRA, and regulatory requirements for clean-up of sites under CERCLA. Other regulatory experience includes detailed analysis of permits, case law, requirements, and variances under the Clean Water Act.

Mr. Otis has worked in both plant operations and process design in the petrochemical industry. Plant operations experience includes plant engineering in a 350,000 barrel/day oil refinery. Process design experience includes the development of process specifications for equipment to include pumps, knock-out drums, distillation columns, transfer lines, pressure relief systems, furnaces, heat exchangers, and instrumentation.

Awards and Registrations

Registered Professional Chemical Engineer

Mitretek Systems Distinguished Accomplishment Award, October, 1998

Conferences and Symposia

Triantis, K. P and P. T. Otis, 1998, "Dominance-Based Measurement of Environmental and Productive Performance for Manufacturing," Georgia Productivity Conference, Athens, Georgia, November.

Otis, P. T. and K. P. Triantis, 1996, "Measurement of the Manufacturing Productivity and the Environmental Effects of Pollution Prevention," 19th World Energy Engineering Congress, November 6-8, Atlanta, Georgia.

Otis, P. T., 1994, "DOE's Pollution Prevention Information Exchange Clearinghouse (EPIC)," Proceedings of the U.S. Department of Energy Pollution Prevention Conference X, May 3-5, Denver, Colorado.

Otis, P. T. and A. E. Edelman, 1993, "Use of the DOE Wide Area Network for Pollution Prevention Information Exchange," Proceedings of the U.S. Department of Energy Waste Minimization/Pollution Prevention Conference IX, April 11-13, San Francisco, California.

Chockie, A. D., C. J. Hostick, and P. T. Otis, 1986, A Computer Simulation Model for Facility Performance Assessment: A Case Study of Nuclear Spent Fuel Handling Facility Operations, Winter Simulation Conference, January, San Diego, California.

Recent (1990 and after) Reports

Otis, P. T., J. Hua, and T. C. Cain, 1999, *TOCDF Simulation Model User Manual*, MTR 1998-20, April, Mitretek Systems, McLean, Virginia.

Otis, P. T., M. A. Berger, J. Hua, and K. S. Werpetinski, 1998, *JACADS Data Summary and Model Validation for M360 Projectiles*, MTR 1998-15, August, Mitretek Systems, McLean, Virginia.

Otis, P. T., K. S. Werpetinski, T. C. Cain, P. Trinchieri, and M. A. Berger, 1998, *Verification and Validation of the Tooele Chemical Agent Disposal Facility Simulation Model, Volume I and Volume II*, June, Mitretek Systems, McLean, Virginia.

Otis, P. T. and M. A. Berger, 1998, *RAM Assessment of TOCDF MC-1 Bomb Processing*, June, Mitretek Systems, McLean, Virginia.

Berger, M.A., P.T. Otis, and K.S. Werpetinski, 1998, Reliability, Availability, and Maintainability (RAM) Assessment Implementation Plan, MTR 1998-4, February, Mitretek Systems, McLean, Virginia.

Otis, P.T., R.D. Quinn and J.R. Friedman, 1992, Integration of Phased Remedial Investigation and Feasibility Studies - An Analysis of U.S. Department of Energy Sites, July, Prepared for U.S. Department of Energy, Pacific Northwest National Laboratory, Richland, Washington.

Allen, M.A., P. T. Otis, et. al., 1990, Combined Sewer Overflows Permit Writer's Manual, Prepared for Environmental Protection Agency Office of Water, The Cadmus Group Inc., Newington, Virginia.

Freer, L.J., and P.T. Otis, 1990, Regulatory Systems Information Requirements, Prepared for Environmental Protection Agency Office of Water, The Cadmus Group Inc., Newington, Virginia.

Etheridge, M.B., P.T. Otis, et. al. 1990, Storm Water Guidance Impact Analysis Volume II: Case Studies, Prepared for Environmental Protection Agency Office of Water, The Cadmus Group Inc., Newington, Virginia.