

2000 Engineer of Distinction



Sandra K. Dudley

B.S. Chemical Engineering, TTU, 1985

M.A. Education, TTU, 1988

Ph.D. Engineering, TTU, 1991

Project Manager
Energy, Environment & Systems Business Group
CH2M Hill
Atlanta, Georgia

Citation

Sandra Dudley is a native of Dickson, Tennessee. She holds a B.S., magna cum laude, in Chemical Engineering; an M.A. in Education; and a Ph.D. in Engineering from Tennessee Technological University. Undergraduate and graduate honors include the American Institute of Chemical Engineers Chapter Scholarship Award, Tennessee Technological University Engineering Award, Who's Who in American Colleges and Universities, and American Chemical Society Environmental Chemistry Division Student Award. She is a registered professional engineer in Tennessee.

Dr. Dudley began her post-graduate career with Martin Marietta Energy Systems as a Development Engineer at its Oak Ridge Y-12 facility. She optimized chemical treatment processes for the site's wastewater treatment plant and prepared decontamination/decommissioning plans for a building previously used for lithium enrichment.

Upon joining Eastman Chemical Company in 1992, Dr. Dudley was instrumental in the formation of a new Environmental Research Laboratory. She directed a corporate biofiltration research program which resulted in the commercialization of an award-winning biofilter for the reduction of air emission, odors, and operating costs.

In a variety of engineering, research, and management positions at Eastman, she spearheaded other innovative environmental projects which improved emissions control and achieved multi-million dollar cost savings. She led the consolidation of five pilot plant areas, standardizing environmental, safety, administrative, and training systems for over 125 employees while establishing an all-time safety record. As manager of Tennessee Eastman Division's industrial wastewater treatment plant, she was also responsible for the site's Waste Minimization Program. She later provided guidance to operating divisions for Clean Air Act issues, including primary responsibility for NSPS compliance, and led internal Clean Air Act compliance reviews.

While employed by Eastman, Dr. Dudley was active in the East Tennessee Section of the American Institute of Chemical Engineers, where she held numerous offices including Chair. In the Tennessee Society of Professional Engineers, she led the local MathCounts program and was Co-Chair for the local celebration of National Engineers Week. She was honored in 1998 by the Society as Tennessee Young Engineer of the Year and by Tennessee Technological University as Outstanding Young Alumnus.

Dr. Dudley is currently a Project Manager in the Energy, Environment & Systems Business Group of CH2M HILL, an international engineering consulting firm based in Denver, Colorado. She joined the company's Atlanta office in January 2000 and is responsible for the management of a diversity of environmental engineering projects of industrial clients.

Active at the national level of the American Institute of Chemical Engineers, Dr. Dudley serves as Director of the Environmental Division, Chair of the Local Section Committee, and Chair of the 2000 Topical Conference on Process Innovation and Technology Transfer. She is also a member of the editorial board of *Environmental Progress*, the Government Relations Committee, and the Career Ambassadors Program.

Dr. Dudley enjoys volunteer activities such as Girl Scouts, Big Brothers/Big Sisters, the American Cancer Society, and various educational and church programs. She treasures most the relationships with friends and colleagues who make her endeavors interesting, rewarding, and delightful. She looks forward to establishing residence in Atlanta during 2000 with her pets, Muffin and Meg, and continuing to grow through a meaningful career and personal life.



2000 Engineer of Distinction Sandra Dudley receives her citation from Dr. Rafael Bustamante