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Daniel P. Boyd & Associates

DANIEL P. BOYD

EDUCATION

University of Maryland, B.S., (1963), Chemical Engineering
University of Maryland, M.S., (1965), Chemical Engineering
University of Maryland, Ph.D., (1968), Materials Science

EXPERIENCE

Dr. Boyd has more than thirty (30) years of professional experience. His career has focused on the regulatory interface between government and industry. He is an expert on risk assessment and regulatory development. His regulatory consulting has included the development of plant emission profiles, risk assessments, air quality modeling, and plant ventilation design. He pioneered and developed methodologies to assess current and historical exposures for employees and the community. Dr. Boyd is an expert in both the technical and administrative aspects of environmental and occupational safety and health programs, and served as Director of the Office of Standards Development, Occupational Safety and Health Administration, Washington, D.C. He has worked with Federal, State and Local Government regulatory authorities. He has qualified as an expert witness in toxic tort litigation. His professional experience includes:

President and Chief Executive Officer, Daniel P. Boyd & Company, Queenstown, Maryland, 1976 - present.

Director, Office of Standards Development, U.S. Department of Labor, OSHA, Washington, D.C., 1973 - 1976.

Professor of System Safety and Management, The University of Southern California, Los Angeles, California, 1971-1978

Professor of Engineering Management and Director of Program Management, The Defense Systems Management School, Ft. Belvoir, Virginia, 1971 - 1973.

Associate Professor of Management Science, The George Washington University, Washington, D.C., 1969 - 1971.

Director, Science and Engineering Training, U.S. Civil Service Commission, Washington, D.C., 1967 - 1969.

Research and Development Supervisor, The Harry Diamond Laboratories, Washington, D.C., 1964 - 1967.

Chemical Engineer, E.I. DuPont deNemours and Company, Wilmington, Delaware, 1963.

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AWARDS, PUBLIC AND COMMUNITY SERVICE

Eagle Scout, Boy Scouts of America (1954)

Army Special Act Award (1965) for the development of the technology for proximity fuzing power supply systems.

University of Maryland Visitors Board (1995). Established to further the interests and welfare of the University of Maryland at College Park and to provide guidance and advice to the president.

Distinguished University of Maryland Engineering Alumni Award (1995).

PUBLICATIONS, PRESENTATIONS AND REPORTS

"Role of Films and Waves on Gas Absorption," with J. M. Marchello, Ch. E. Science, Vol. 21, 1966.

"A Fast Charge Power Supply," with R. H. Comyn, Harry Diamond Laboratories, TR-1354, July, 1967.

"Feasibility of Heat Paper Sandwich and Oxidant Infiltrated Iron-Powder Blocks as PS 201A Heat Sources (U)," with F. C. Krieger, Harry Diamond Laboratories, 1967.

"Potentiostatic Studies of the Zinc Electrode," with W. H. Steuernagle and W. C. Cowherd, HDL-R940-68-1, 1968.

"Roles of Films and Waves on gas Absorption (M.S. Thesis)." University of Maryland, 1968.

"Training Needs of Federal Scientists and Engineers in Government." U.S. Civil Service Commission, 1968.

"Anodic Zinc Passivation in Alkaline Solutions, (Ph.D. Dissertation)" University of Maryland, College Park, Maryland, 1968.

"Iron Powder for the PS 201A Power Supply." TR-1404, 1969.

"The Role of Continuing Education in the Federal Government." Post Degree Continuing Education Conference, Princeton University, May 16-17, 1973. Published as proceedings.

"Corrective Maintenance of Aircraft Systems: A Methodology for Analyzing and Improving Technician Performance." Ninth Annual FAA International Aviation Maintenance Symposium, December, 1973, presented for R. H. Cremer.

"Asbestos-Health Relationship in the Workplace," Asbestos

Information Association Industry-Government Conference, Washington, D.C., September, 1974. Published as proceedings.

"Decision Making in Modern Society." Symposium on Principles of Decision Making for Chemicals in the Environment. National Academy of Sciences, Washington, D.C., September, 1974.

"Get Ready for Tough, New Occupational Health Standards." Occupational Hazards Executive Report, Fall, 1974. Contributor.

"Are You Ready for New OSHA Performance Standards?" Occupational Hazards, September, 1974, p. 111-114. Contributor.

"The VC Standard - The Arguments are In - OSHA's Decision is Imminent." Occupational Hazards, September, 1974, p. 101-105. Contributor.

"On the Horns of a Vinyl Chloride Dilemma," Fortune, October, 1974. Contributor, interviewed by P. H. Weaver.

"New Program is Planned to Help OSHA." ANSI Reporter, September, 1974. Contributor.

"OSHA Launches Dual Effort to Reduce Job Health Hazards." National Journal Reporter, December, 1974. Interviewed by Linda E. Demkovich.

"OSHA's Standards Chief Seeks 400 New Standards." American Machinist, August, 1974. Interviewed by staff reporter.

"Occupational Noise Exposure." Proceedings of Noise - Con 75, National Bureau of Standards, Washington, D.C., 1975, p. 151-156.

"OSHA's Proposed New Noise Standard: Showdown Ahead." Occupational Hazards Magazine, July, 1975, p. 29-33. Contributor.

"OSHA Rushes Ahead on Health Standards." Chemical and Engineering News, September, 1975. Interviewed by Janice R. Long.

"No Easy Decisions." Job Safety and Health, Vol. 3, No. 5, May, 1975. Interviewed by George Clark.

"Asbestos - OSHA's Revision." Proceedings - Asbestos Information Association of North America. Second Annual Industry - Government Conference, Washington, D.C., September, 1975.

"Dispelling the Standards Myths." Trial Magazine, September/October, 1975, p. 13.

"A Combined Assault on Industrial Poisons." Business Week,

October 13, 1975. Interviewed by staff reporter.

"Vinyl Chloride - A Case Study." The Harvard School of Public Health, Boston, Massachusetts, 1976.

"Occupational Safety and Health." A Report of the Commission of Federal Paperwork, with L. Werts and C. Hackler, July 6, 1976.

"Comments on OSHA Standards - Walking, Working Surfaces." OSHA Docket D, September 20, 1976. Prepared for the United States Chamber of Commerce.

"Comments on OSHA Standards - Fire Protection." OSHA Docket L, September 20, 1976. Prepared for the United States Chamber of Commerce.

"Comments on OSHA Standards - Anhydrous Ammonia." OSHA Docket AA, September 20, 1976. Prepared for the United States Chamber of Commerce.

"A Report of the Commission on Federal Paperwork - Rulemaking," with Wagner, S., Keef A.J., McCord, E. and J. Tyssee, Washington, D.C., July 15, 1977.

"A Report on the Air Force Occupational Safety and Health Programs." United States Air Force, Washington, D.C., November 15, 1977.

"Recordkeeping and Monitoring." Toxic Substances Control Conference, December 8, 1977. Published as proceedings.

"An Investigation to Observe the Best Available Technology Applied in Sweden to Reduce Employee Exposure to Styrene." The Society of the Plastics Industry, Inc., New York, New York, March, 1980.

"An Industrial Hygiene Survey for the Cellosolve Compounds Conducted at the Guilford, Connecticut Plant of the AM Bruning Company." Martin, Craig, Chester & Sonnenschein, Chicago, Illinois, April, 1983.

"Environmental Survey for Boundary Noise Levels at the Dart & Kraft, Inc. Neshanic Station High Temperature Polymer Facility," Dart & Kraft, Inc., Paramus, New Jersey, April, 1983.

"Mortality of Styrene Production, Polymerisation and Processing Workers at a Site in the North West of England." The Society of the Plastics Industry, Inc., New York, New York, May, 1983.

"Laboratory Safety and Health Inspection for Dart & Kraft, Inc." Dart Industries, Inc., Paramus, New Jersey, June, 1983.

"Determination of Asbestos Hazard Level at the Federal Building." The U.S. Department of Justice, Washington, D.C., March, 1984.

"Respiratory Protection Program." Carver Boat Corporation, Pulaski, Wisconsin, April, 1984.

"Evaluation of Airborne Asbestos Fiber Concentrations in the Safeway and Star Office Buildings." The U.S. Department of Justice, Washington, D.C., April, 1984.

"Development of Standard Operating Procedures and Monitoring Guidelines for the Control of Asbestos." The U.S. Department of Justice, Washington, D.C., May, 1984.

"Evaluation of Dallas Federal Center Building Relative to Potential Asbestos Presence." The U.S. Department of Justice, Washington, D.C., May, 1984.

"An Analysis to Assess Asbestos Presence Within the Office Space of the Department of Justice at 26 Federal Plaza, New York, New York." The U.S. Department of Justice, Washington, D.C., June, 1984.

"Comments on OSHA Requirements in Ruth Ruane Vs. Terminal Construction Company." Tompkins, McGuire & Wachenfeld, Newark, New Jersey, August, 1984.

"Controlling Styrene Emissions in The RP Industry." The Society of the Plastics Industry, Inc., New York, New York, October, 1984.

"Renovation Activities to the 16th Floor of the Federal Building, 450 Golden Gate Avenue, San Francisco, California." The U.S. Department of Justice, Washington, D.C., November, 1984.

"All Seasons Industries -- Pilot Plant Styrene Air Sampling Results and Design Recommendations." All Seasons Industries, Markle, Indiana, February, 1985.

"A Study to Assess the Impact of PCB Contamination and Potential Health Effects from Fluorescent Ballast Failures in The Star Building, Washington, D.C." The U.S. Department of Justice, Washington, D.C., September, 1985.

"4,4-Methylene Dianiline Airborne Sampling and Analytical Methods." The U.S. Department of Labor, Washington, D.C., September, 1985.

"Evaluation of Asbestos Hazard at The Department of Justice - Main Building." The U.S. Department of Justice, Washington, D.C., October, 1985.

"Industrial Hygiene Survey and Engineering Control Design to Reduce Exposures to Styrene and Other Chemical Contaminants." Monark Boat Company, Monticello, Arkansas, December, 1985.

"A Medical Surveillance Program for 2-Nitropropane Workers at the Sterlington, Louisiana Facility of the Angus Chemical Company." Angus Chemical Company, Northbrook, Illinois, January, 1986.

"Evaluation of Pesticide Vapor Levels in a Home in Bourge, Louisiana." Watkins, Walker & Hermann, Houma, Louisiana, March, 1986.

"Evaluation of Pesticide Vapor Levels in a Home." White, Koch, Kelly & McCarthy, Santa Fe, New Mexico, July, 1986.

"Assessment of Fish PCB Levels, and The Numbers of Fishermen and Their Catch in Lake Michigan." K.S. Crump & Company, Ruston, Louisiana, September, 1986.

"Engineering Control Design To Reduce Exposure to Styrene and Other Chemical Contaminants." Lear Siegler Marine, Fall River, Massachusetts, October, 1986.

"Ventilation System Design to Control Chemical Exposures at Aromatic, Heber Spring, Arkansas." December, 1986.

"Regulation of PCBs, Furans and Dioxin." Forensic Technologies International, Annapolis, Maryland, December, 1986.

"Evaluation of Commercial Building for Presence of Polychloroaromatic Compounds." Bechtel National, Inc., San Francisco, California, January, 1987.

With Crump, K. S., Rodgers, P. and T. S. Milby, "Risk Assessment of Polychlorinated Biphenyls for Outboard Marine Corporation," Outboard Marine Corporation, February, 1987.

"Evaluation of Styrene Vapor Concentrations at Kexes/Ornyte Plant in Chino, California." Kexes Corporation, Minneapolis, Minnesota, March, 1987.

"Medical Surveillance Program for Angus Chemical Company." Angus Chemical Company, Northbrook, Illinois, May, 1987.

"An Engineering Evaluation of the Cal West Separator." Mr. Steven Mitchell, Hermosa Beach, California, June, 1987.

"Discussion of The Diagnosis of Porphyria in a Patient," with D. Tschudy, Rollins, Inc., Atlanta, Georgia, July 16, 1987.

"Styrene: Impact of Reclassification as a Possible Carcinogen," with P. L. de la Cruz, Styrene Information and Research Center,

Washington, D.C., July, 1987.

"Styrene Oxide." Xerxes Corporation, Minneapolis, Minnesota, August, 1987.

"Environmental Fate of Styrene." Xerxes Corporation, Minneapolis, Minnesota, August, 1987.

"Health Effects of Fiberglass." Xerxes Corporation, Minneapolis, Minnesota, August, 1987.

"Evaluation of Styrene Vapor Concentrations at All Seasons Industries in Peru, Indiana." All Seasons Industries, Markle, Indiana, January, 1988.

"Testimony on the EPA Drinking Water Criteria Document before the EPA Science Advisory Board," Styrene Information and Research Center, February 1988.

"Comments on the Proposed Occupational Safety and Health Administration Proposed Air Contaminants Rule," Styrene Information and Research Center, July 1988.

"Testimony Presented before the Occupational Safety and Health Administration on the Proposed OSHA Air Contaminants Rule, Washington D.C.," Styrene Information and Research Center, August 1988.

"Post Hearing Brief of the National Marine Manufacturing Association In the Matter of Air Contaminants Proposed Rule, Occupational Safety and Health Administration," National Marine Manufacturing Association, October 1988.

"Post Hearing Brief of the Styrene Information and Research Center in the Matter of the Occupational Safety and Health Administration Proposed Air Contaminants Rule," Styrene Information and Research Center, October 1988.

"Analysis of Additional Risks of the Current Cleanup Proposal for Waukegan Harbor." Gardner, Carton & Douglas, Chicago, Illinois, December, 1988.

"Testimony Regarding the Washington State PEL Rulemaking on the Reinforced Plastics Industry," National Marine Manufacturing Association and the Society of the Plastics Industries, June, 1989.

"Testimony Regarding the Oregon Permissible Exposure Limit on Styrene," National Marine Manufacturing Association and the Society of the Plastics Industries, July 1989.

"Testimony Before the U. S. Environmental Protection Agency

Regarding a Proposal to Establish an MCL and MCLG for Styrene and Thirty-seven Other Chemicals," The Styrene Information and Research Center, July 1989.

"An Evaluation of the Health Hazards of Ammonia Industrial Hygiene Survey Engineering Control Design of the Diazo Facility." The U.S. Bureau of Census, Washington, D.C., August, 1989.

"Testimony Regarding the Impact of Plant Boundary Emission Limits on the Reinforced Plastics Industry Proposed by the State of North Carolina," National Marine Manufacturing Association, August 1989.

"Comments of the Styrene Information and Research Center on Proposed Rule of the National Primary and Secondary Drinking Regulations," Styrene Information and Research Center, August 1989.

"Evaluation of Styrene Vapor Concentrations in Boat Manufacturing Facility, Miami, Florida." Cigarette Racing Team, North Miami, Florida, September, 1989.

"Evaluation of Chemical Vapor Concentrations in Bureau of Census Photoprocessing Facility in Baltimore, MD.," U. S. Bureau of Census, Washington, D. C., September, 1988.

"Evaluation of the Ventilation Design in the Photoprocessing Facility at the Bureau of Census in San Diego, CA," U. S. Bureau of Census, Washington, D. C., November 1989.

"Employee Manual - Occupational Hazards of Ammonia," U. S. Bureau of the Census, Washington, D. C., December 1989.

"Reducing Worker Exposure to Styrene," with N. B. Jurinski and R. A. Haberlein, The Composites Institute of the Society of the Plastics Industry, Inc., New York, NY, 1989.

"Site Visit and Recommendations for Engineering Control Systems for the Control of Styrene Vapors at the Goldshield Fiberglass Corporation Decatur Facility," with R. A. Haberlein, Daniel P. Boyd Co. technical report for Goldshield, Riverside, CA, June, 1989.

"Ventilation System for the Control of Styrene Vapors in a FRP Filament-winding Field Facility," with R. A. Haberlein, Daniel P. Boyd & Co. technical report for Ershigs Incorporated, Bellingham, WA, June 1989.

"Regulation of Styrene as a Carcinogenic Air Pollutant," with Miller, R., Bond, G. and R. Nolan, Styrene Information and Research Center, Washington D. C., January 1990.

Testimony before the Michigan Department of Natural Resources Air Pollution Control Commission regarding the control of styrene as a carcinogenic air pollutant, Styrene Information and Research Center, Lansing, Michigan, January 16, 1990.

Testimony before the Michigan Department of Public Health regarding a proposed styrene standard, Lansing, Michigan, January 17, 1990.

"Deward Frank West Preliminary Styrene Exposure Assessment," a joint D.P. Boyd & HRD confidential technical report for Glastec, Gainsville, TX, May, 1990.

"Doreen Bergen Preliminary Chemical Exposure Report," Engineering Environmental confidential technical report for Crestliner, Little Falls, MN, November, 1991.

"Mixing Process Emissions Study for the Glastic Corporation South Euclid Facility," "Solvent 85 Emissions Study for the Glastic Corporation South Euclid Facility," and "Fiber Optics Line Emissions Study for the Glastic Corporation South Euclid Facility," Engineering Environmental technical report for Glastic, South Euclid, OH, April, 1992.

"Fenceline Styrene Concentration Modeling at Three Virginia Plants," Engineering Environmental technical report for Virginia Department of Air Pollution Control, Richmond, VA, March, 1992.

"Point-of-Use Dynamic Styrene Emission Testing at the Salisbury Bayliner Facility," Engineering Environmental technical report for U.S. Marine Bayliner, Salisbury, MD, February, 1992.

"Odor Investigation at the Xerxes Anaheim Plant," Engineering Environmental technical report for Xerxes Corporation, Anaheim, CA, January, 1992.

"Health Risk Assessment for the Glastic Corporation South Euclid Facility," Engineering Environmental technical report for Glastic, South Euclid, OH, May, 1992.

"Feasibility of Engineering Controls for the Tower Area at the Justin Tank Facility," Engineering Environmental technical report for MFG Justin, Georgetown, DE, June, 1992.

"Health Risk Assessment for the Glastic Corporation Jefferson Facility," Engineering Environmental technical report for Glastic, South Euclid, OH, June, 1992.

"Dust Exposure Report for Asbury Graphite's Asbury, New Jersey Plant," Engineering Environmental technical report for Asbury Carbons, Asbury NJ, November 1992.

Corporation, October, 1993.

"Reasonable Available Control Technology for the Brunswick Marine's Astro Boat Facility in Murfreesboro, Tennessee," Engineering Environmental Report prepared for the Brunswick Marine Corporation, October, 1993.

"An Industrial Hygiene Survey of the Avon Ohio Facility - In Response to Community Odor Complaints", with Jurinski, N. B. and J. Jurinski, Prepared for the Xerxes Corporation, Minneapolis, MN, November 1993.

"Styrene Odor Impact Assessment and Proposed Ventilation Designs for the GW Composites, Inc Facility in O'Fallon, Missouri," Engineering Environmental Report prepared for GW Composites Inc, September, 1994.

"Reasonably Available Control Technology and Best Available Control Technology for the GW Composites, Inc Facility in O'Fallon Missouri," Engineering Environmental Report prepared for GW Composites, Inc, September, 1994.

"MACT Survey - MACT Determination for Fiberglass Boat Manufacturing; a Tier 1 Analysis," prepared for the National Marine Manufacturing Association, Washington, DC, December, 1994.

"Historical Exposure Modeling of the Chemical Vapor Emissions from the Scott Specialty Gases Facility in Houston, Texas," prepared for Baker & Botts, Houston, TX, Engineering Environmental Report, December, 1994.

"Maximum Achievable Control Technology for a Hypothetical Fiberglass Boat Manufacturing Facility," prepared for the National Marine Manufacturing Association, Washington, DC, January, 1995.

"Risk of Cancer from Exposure to Styrene in the Reinforced Plastics Industry," prepared for the Formica Corporation, Cincinnati, OH, January, 1995.

"Experimental Determination of Mass Diffusion Rates for Styrene and Benzene from Expanded Polystyrene Produced from Two Different Catalysts," report prepared for the Huntsman Chemical Company, Chesapeake, VA, January, 1995.

"Flammability Risk Assessment for Low Flash No. 2 Fuel Oil," prepared for the UNO-VEN Corporation, Arlington Heights, IL, Engineering Environmental Report, February, 1995.

"Dispersion Model Analysis of a Short-Term Phosgene Gas Release at the Scott Specialty Gases Facility in Houston, Texas," prepared for Scott Specialty Gases, Houston, Texas, Engineering

Environmental Report, March, 1995.

"Styrene Source Test Plan for the Aqua Glass Facility in Klamath Falls, Oregon," prepared for Aqua Glass Corporation, Klamath Falls, OR, February, 1995.

"Styrene Source Test Report for the Aqua Glass Facility in Klamath Falls, Oregon," prepared for Aqua Glass Corporation, Klamath Falls, OR, March 1995.

"A Review of Styrene's Properties, Industrial Uses, Fate, Health Effects, Odor and Regulations," prepared for the Aqua Glass Corporation, Klamath Falls, OR, May 1995.

"Vapor Dispersion Modeling of the Styrene Emissions from the Aqua Glass West Facility in Klamath Falls, Oregon," prepared for the Aqua Glass Corporation, Klamath Falls, OR, June 1995.

"A Voluntary Compliance Agreement between OSHA and the Styrene Industry," prepared on behalf of the Styrene Industry, January, 1996.

"Experimental Determination of Emissions from Structural Insulated Panels Containing Expanded Polystyrene Cores," prepared with James E. Shannon, Huntsman Corporation, Chesapeake, VA, February 1996.

"Analysis and Recommendations to W. W. Grainger, Inc. Regarding an Interpretation of the Requirements of the Hazard Communication Standard as it Impacts the Distribution of Material Safety Data Sheets," prepared for the W. W. Grainger Company, Lincolnshire, IL, March, 1996.