

EXPERIENCE (continued)

undergraduate and graduate level and included both lecture and laboratory courses.

- Developed and taught a course on exposure assessments and risk characterization to EPA Regional Superfund personnel, U.S. Air Force, and California Department of Health Services.
- Lectured to numerous groups on risk assessment and hazardous waste management, including the University of California, Rutgers University, Pace University Law School, and George Mason University.

PROFESSIONAL SOCIETIES

American Chemical Society
Society for Environmental Toxicology and Chemistry
Society for Risk Analysis
Hazardous Material Control Research Institute
American Society for Testing and Materials
Association for the Environmental Health of Soils

PROFESSIONAL ACTIVITIES

Peer reviewer for several journals including Environmental Science and Technology, Water Research, and Journal of the American Water Works Association.

Participant on the AWWARF/KIWA Committee for the joint publication of "Non-Specific Analysis in Water Treatment."

American Chemical Society contact for "Science Behind the News" on subjects of PCBs, dioxin, incineration, and exposure assessment.

Session Chairperson - Permitting and Risk Assessment - 1989 Conference on Hazardous Wastes and Hazardous Materials.

EPA/Clean Sites Workshop on Standard Exposure Assumptions and Superfund Cleanup Standards.

EPA Workshop on Technical Issues in CERCLA Municipal Settlements, December, 1991.

GRI Workshop on Mercury Contamination at natural Gas Industry Sites, January 1992.

PUBLICATIONS AND PRESENTATIONS

Chrostowski, P.C. 1994. Exposure assessment principles. In Patrick, D.E. (ed.). Handbook of Toxic Air Pollution. New York: Van Nostrand Reinhold Co., Inc. Pp. 133-163

Chrostowski, P.C. 1993. Air toxics: Lead, mercury & other hazardous air pollutants. Lecture presented at the Environmental Issues in Utility Sitings. April 29, 1993. The Public Utilities Law Committee of the Florida Bar. Pp. 5.1 - 5.5.

Chrostowski, P.C. and Wheeler, J.A. 1992. A Comparison of Integrated Uptake Biokinetic Model to Traditional Risk Assessment Approaches for Environmental Lead. In K.B. Hodinott (ed.). Superfund Risk Assessment in Soil Contamination Studies, Philadelphia, Pennsylvania: ASTM. Pp. 151-166

Chrostowski, P.C. and Sager, S.L. 1991. Management of Ash from Municipal Solid Waste Combustion. In Travis and Hattemer-Frey, (eds.) Health Effects of Municipal Waste Incineration Boca Raton, Florida: CRC Press. Chapter 13

Chrostowski, P.C., Foster, S.A. and Dolan, D. 1991. Monte Carlo Analysis of the Reasonable Maximum Exposure (RME) Concept. Paper presented at Hazardous Materials Control/Superfund 91. Pp. 577-584.

Chrostowski, P.C. and Wheeler, J.A. 1991. Actual Compared to Predicted Chemical Exposures at Superfund Sites. Paper presented at Hazardous Materials Control/Superfund 91, December 3-5. Washington, D.C. Pp. 585-589.

Foster, S.A., Chrostowski, P.C. and Dolan, D. 1991. The Use of Log-Normal Kriging to Calculate Exposure Point Concentrations. Paper presented at Measuring, Understanding and Prediction Exposures in the 21st Century, November 18-21, Atlanta, Georgia.

Chrostowski, P.C. 1991. Risk Assessment Methodologies for Municipal Solid Waste Management. Paper presented at ASH IV, Arlington, Virginia.

Chrostowski, P.C. and Durda, J. 1991. Effects of air pollution on the desert tortoise: An ecological risk assessment. Paper presented at 12th Annual Meeting of the Society of Environmental Toxicology & Chemistry, November 3-7, Seattle, Washington.

Durda, J. and Chrostowski, P.C. 1991. Integration of ecological risk assessment and biological risk assessment and biological assessment in risk management: The Aberdeen experience. Paper presented at

PUBLICATIONS AND PRESENTATIONS (continued)

12th Annual Meeting of the Society of Environmental Toxicology & Chemistry, November 3-7, Seattle, Washington.

Chrostowski, P.C., Durda J. and Edelman, K.C. 1991. The use of natural processes for the control of chromium migration. *Remediation* 1:341-351.

Draper, D., Chrostowski, P.C., and Greenberg, A. 1991. Polycyclic aromatic hydrocarbon source apportionment study for an urban development site. Paper No. 91-82.7 presented at the AWMA Annual Meeting.

Chrostowski, P.C., Foster S.A. and Anderson E.L. 1991. Human health risks associated with asbestos abatement. *Risk Analysis* 11:465-481.

Chrostowski, P.C. and Pearsall, L.J. 1990. Risk assessment for remedial action selection at Superfund sites. *Air and Waste Management Assoc.*, Pittsburgh, Pennsylvania.

Chrostowski, P.C. 1990. Measurement techniques for evaluating environmental asbestos, and risks associated with asbestos abatement activities. Paper presented at the Society for Risk Analysis Forum on Risk of Indoor Asbestos Building Materials, May 7-8, Arlington, Virginia.

Anderson, E., Chrostowski, P.C. and Vreeland, J. 1990. Risk Assessment Issues Associated with Cleaning Up Inactive Hazardous Waste Sites. In Kunreuther, H. and Gouda, M.U.R. (eds.) Integrating Insurance and Risk Management for Hazardous Wastes. Boston: Kluner Academic Publishers.

Foster, S.A. and Chrostowski, P.C. 1990. Estimating risks for hazardous waste incinerator emissions. Paper presented at the Incineration Conference, San Diego, California.

Chrostowski, P.C. and Shipp, A. 1990. State of the art for PCB site risk assessments. Paper presented at the PCB Forum at Houston, Texas. Pp. 47-61.

Chrostowski, P.C. and Foster S.A. 1989. Recent advances in asbestos assessment at Superfund sites. Paper presented at the 10th Annual Hazardous Materials Control Research Institute Superfund 1989 Conference, November 28, Washington D.C.

Chrostowski, P.C. and Pearsall, L.J. 1989. Alternatives to the remedial investigation/feasibility study process. Paper presented at the 10th

PUBLICATIONS AND PRESENTATIONS (continued)

Annual Hazardous Materials Control Research Institute Superfund
1989 Conference, Washington D.C.

Anderson, E.L., Chrostowski, P.C., and Foster S.A. 1988. Calculating
the risks. Solid Waste and Power. June 1988

Chrostowski, P.C. and Sager S.L. 1988. Field and theoretical study of
the subsurface mobility of chromium waste. Paper presented at the
SETAC Annual Meeting.

Chrostowski, P.C., Foster, S.A., and Fogg, A. 1989. Assessing the risks
of incinerating of dioxin contaminated soil. Haz. Mat. Control J. 2: 17-
24

Anderson, E.L., Chrostowski; P.C., and Vreeland, J.L. 1988. Risk
assessment for use in groundwater management. Paper presented at
the CSCE-ASCE National Conference on Environmental Engineering.
Pp. 121-129.

Foster, S.A. and Chrostowski, P.C. 1987. Inhalation exposures to
volatile organic contaminants in the shower. Paper presented at the
80th Annual Air Pollution Control Association Meeting, June, New
York, New York. Paper #87-42.6.

Chrostowski, P.C. and Pearsall, L.J. 1986. Environmental behavior of
polynuclear aromatic hydrocarbons at hazardous waste sites. Paper
presented at the HMCRI 7th Annual Superfund Conference,
Washington, D.C.

Sager, S.L. and Chrostowski, P.C. 1987. ACLs: The Link Between
CERCLA and RCRA. Proc. National Conference on Hazardous Wastes
and Hazardous Materials, at Washington D.C.

Chrostowski, P.C. and Pearsall, L.J. 1986. Risk Assessment of
Chemical Mixtures at Hazardous Waste Sites. Paper presented at the
SETAC Annual Meeting at Alexandria, Virginia.

Norton, S.B. and Chrostowski, P.C. 1986. A Conceptual model for the
biouptake of xenobiotic chemicals by plants. Paper presented at the
SETAC Annual Meeting. Alexandria, Virginia.

Foster, S.A. and Chrostowski, P.C. 1986. Integrated household
exposure model for the use of tap water contaminated with volatile
organic chemicals. Paper presented at the 79th Annual Air Pollution
Control Association Meeting, Minneapolis, Minnesota. Paper #86.12.3.

PUBLICATIONS AND PRESENTATIONS (continued)

Chrostowski. P.C. and Pearsall. L.J.. and Shaw. C. 1985. Use of risk assessment in management decisions in inactive hazardous waste sites. *Environ. Manage.* 9:422-433.

Chrostowski. P.C. 1985. The environmental chemistry program at Vassar College. *J. Chem. Educ.* 60:137-138.

Chrostowski, P.C. 1985. Risk assessment of groundwater contamination at hazardous waste sites. Paper presented at the SETAC 9th National Meeting, St Louis, Missouri, November.

Chrostowski, P.C., Ferris, J.S., Rue, W.J. and Fava, J.A. 1985. Modeling the fate and transport of biocides in estuarine power plant cooling water discharges. Paper presented at the Coastal Zone ASCE, Baltimore, Maryland.

Chrostowski. P.C. 1985. Applications of risk assessment to soil contamination at hazardous waste sites. Paper presented at a meeting of the New York State Public Health Association, Bear Mountain, New York.

Bancroft, K.L., Chrostowski, P.C., Wright, R.L., and Suffet, I.H. 1984. Ozonation and oxidation competition value: Relationship to disinfection and microorganisms regrowth. *Water Res.* 4:473-478.

Chrostowski, P.C., Hinchee, R.E., Ferris J.S. and Goodfellow, W. 1984. Thermal effects on bioaccumulation: A thermodynamic approach. Paper presented at the Society for Environmental Toxicology and Chemistry National Meeting, Arlington, Virginia .

Chrostowski. P.C. and Suffet, I.H. 1984. Application of non-specific organic analyses to oxidation processes. Paper presented at the American Water Works Association Annual Conference, Dallas, Texas.

Chrostowski, P.C., Suffet, I.H. and Neukrug, H. 1984. Comparison of the effects of ozonation and combined chlorination/ozonation on organic compounds in drinking water treatment. Paper presented at the 5th Conference on Water Chlorination, Williamsburg, Virginia.

Fava, J.A., Rue, W.R., Chrostowski, P.C. and Ferris, J.S. 1984. Management considerations **in** the use of chlorine and chlorination alternatives. paper presented at the 5th Conference on Water Chlorination, Williamsburg, Virginia.

Chrostowski, P.C., Dietrich, A.M., and Suffet. I.H. 1983. Ozone and oxygen induced oxidative coupling of aqueous phenolics. *Water Res.* 17:1427- 1633.

PUBLICATIONS AND PRESENTATIONS (continued)

Chrostowski, P.C. 1983. Detection and elimination of an organic interference in the indigo method of aqueous ozone. *Anal. Lett.* 16:1177- 1186.

Chrostowski, P.C., Chrobak R.S., Dietrich, A.M. and Suffet, I.H. 1983. A comparison of granular activated carbon and a carbonaceous resin for removal of halogenated organics from groundwater. In McGuire, M. and Suffet, I.H. (eds). Treatment of Water by Granular Activated Carbon. American Chemical Society Advance in Chemistry Series No. 202. Washington, D.C. : **American Chemical Society**.

Neukrug, H., et.al. 1983. Removing organics from Philadelphia drinking water by combined ozonation and adsorption. Prepared for the Office of Research and Development, U.S. Environmental Protection Agency. EPA 600/S2-83-048.

Chrostowski, P.C. 1983. A physical approach to undergraduate Environmental Chemistry. Paper presented at the American Chemical Society's 13th Northeast Regional Meeting, Hartford, Connecticut.

Chrostowski, P.C. Pearsall, L.J. and Callahan, T.G. 1983. Application of molecular dynamics to volatilization studies. Paper presented at the International Symposium on Gas Transfer at Water Surfaces at Cornell University, Ithaca, New York.

Chrostowski, P.C. and Pearsall, L.J.. Thomas, H. and Shaw, C. 1983. The role of environmental chemistry in risk assessment at inactive landfill sites. Paper presented at the American Chemical Society National Meeting at Washington, D.C.

Chrostowski, P.C.. Dietrich, A.M., and Suffet, I.H. 1982. Laboratory testing of ozonation systems as a prelude to pilot plant operations. *J. Am. Water Works Assoc.* 74:38-44.

Chrostowski, P.C.. Dietrich, A.M., Suffet, I.H. and Yohe, J. 1982. The role of mass transfer in pollutant removal by air stripping. Paper presented at the ASCE National Environmental Engineering Conference.

Chrostowski, P.C. and Pearsall, L.J. 1982. Environmental fate of pesticides used in gypsy moth suppression: Data acquisition and modeling. Paper presented at the American Chemical Society's 12th Northeast Regional Meeting , Burlington, Vermont.

PUBLICATIONS AND PRESENTATIONS (continued)

Chrostowski, P.C., Wright, R.L. and Suffet, I.H. 1982. Water quality factors affecting ozone demand. Paper presented at the Conference on Progress in Chemical Disinfection: New Concepts and Materials at State University of New York, Binghamton, New York.

Crawford, J.A., Hassett, J.P., Chrostowski, P.C. and Suffet, I.H. 1981. Evaluation of fractionation techniques for aquatic humic materials. Paper presented at the American Chemical Society's 15th Middle Atlantic Regional Meeting Washington D.C.

Chrostowski, P.C. and Suffet, I.H. 1981. Ozonation of aquatic humics. Paper presented at the American Chemical Society National Meeting, New York, New York.

Chrostowski, P.C., Dietrich, A.M. and Suffet, I.H. 1981. Difference in physical-chemical properties of aquatic humics on treatment with ozone. Paper presented at the Symposium on Terrestrial and Aquatic Humic Materials at University of North Carolina, Chapel Hill, North Carolina

Dietrich, A.M., Chrostowski, P.C., Brunner, T.M. and Suffet, I.H. 1981. Physical-chemical mechanisms of aqueous ozonation. Paper presented at the American Society of Civil Engineers National Environmental Engineering Conference, Atlanta, Georgia.

Chrostowski, P.C., Dietrich, A.M., Suffet, I.H. and Cairo, P.R. 1980. An experimental program for optimization of the application of ozone in drinking water treatment. Paper presented at the American Chemical Society's 14th Middle Atlantic Regional Meeting, King of Prussia, Pennsylvania.

Chrostowski, P.C., Dietrich, A.M. and Suffet, I.H. 1980. Bench scale testing of an ozone system prior to pilot plant operations. Paper presented at the American Water Works Association Conference, Atlanta, Georgia. Pp. 683ff.

EXPERT TESTIMONY

Testimony before State of Florida, Division of Administrative Hearings. Hendry County, Board of County Commissioners v. Bio-Med Services, Inc. and Florida DER. Case 91-276. On behalf of petitioners. 1992-present.

Testimony before State of Florida, Division of Administrative Hearings. Application for power plant certification of Lee County Solid Waste

EXPERT TESTIMONY (continued)

Recovery Facility. Case No. 90-3942 EPP on behalf of applicant. 1991-present.

Deposition and expert report on behalf of plaintiffs in Daigle v. Shell. 1989-present. Case involves exposure to chemicals during site remediation.

Testimony before the Pennsylvania Environmental Hearing Board on behalf of York County Solid Waste Management Authority in defense of an appeal of a Waste-to-Energy Plant Air Quality Permit. 1989.

Expert declarations to U.S. District Court, District of Columbia on behalf of City of Las Vegas et al. v. Manuel Lujan et al. Defendants and Environmental Defense Fund et al. Intervenors in the matter of Endangerment Species Status of the Desert Tortoise. -1989.

Deposition, expert report and trial testimony on behalf of Iacon in Iacon, Inc. v. Reichold Chemicals, Inc., U.S. District Court, Southern District of Texas as regarding management of pesticide wastes. 1989.

Depositions and written testimony on behalf of the United States in the Superfund Case at the Sharon Steel, UT, site concerning environmental fate, chemistry and human exposure to lead, arsenic and cadmium from mill tailings. 1988-1990.

Depositions on behalf of the State of Florida in a case against the Great Lakes Chemical Company relating to groundwater contamination and human exposure to ethylene dibromide. 1988.

Testimony before the Ohio Hazardous Waste Facility Board (Administrative Law Judge) on behalf of Envirosafe of Ohio, Inc. in matters related to human health, safety and welfare of an expansion to an existing RCRA Part B Permit. 1988.

Written and oral testimony (3 occasions) before the Vermont Environmental Board on behalf of Vicon Recovery Systems and Wheelabrator Environmental Systems concerning human health and environmental impacts of ash management practices associated with resource recovery plants. 1988.

Depositions and Testimony on behalf of the citizens of Times Beach, Missouri, before St. Louis Circuit Court in areas related to process chemistry of the manufacture of 2,4,5-trichlorophenoxyacetic acid and hexachlorophene and the environmental fate of tetrachlorodibenzodioxin. 1987- 1989.

EXPERT TESTIMONY (continued)

Testimony before the Vermont Public Utilities Commission on behalf of Vicon Recovery Systems concerning dioxin emissions from resource recovery facilities, their environmental behavior and human health and environmental effects. 1987.

Testimony before the York County, PA, Civil Court on behalf of the York County Solid Waste Management Authority as an expert witness concerning the human health impacts of groundwater contamination associated with the Hopewell Township Landfill, 1985

Deposition and expert report on behalf of plaintiffs in 607 14th Street Associated et al. v. Greycoat Hanover F Street Ltd. Partnership et al. involving fuel oil contamination.