

STEPHEN G. ZEMBA, Ph.D., P.E.

EDUCATION:

1989. Ph.D. Mechanical Engineering. Massachusetts Institute of Technology, Cambridge, Massachusetts. Conducted original research on the modeling of time-averaged ozone concentrations in eastern North America, including the effects of transport, deposition and atmospheric chemistry that relate ozone production to concentrations of nitrogen oxides and hydrocarbon precursors.

1985. M.S. Mechanical Engineering. Massachusetts Institute of Technology, Cambridge, Massachusetts. Conducted original research on the modeling of the steady flow of dense (heavier than air) gases released in a turbulent boundary layer.

1983. B.S. with University Honors. Mechanical Engineering. Carnegie-Mellon University, Pittsburgh, Pennsylvania. Research projects included a review of the feasibility of nuclear waste disposal and the development of computer graphics simulations of potential fluid flow.

PROFESSIONAL REGISTRATION:

Professional Engineer, Commonwealth of Massachusetts (License no. 38559).

PROFESSIONAL EXPERIENCE:

1989–Present. Senior Engineer, Cambridge Environmental Inc., Cambridge, Massachusetts.

2000–Present. Lecturer, Massachusetts Institute of Technology.

1995–Present. Adjunct Professor, Tufts University.

1992–2001. Adjunct Professor, University of Massachusetts–Lowell.

1989. Visiting Investigator, Woods Hole Oceanographic Institute, Woods Hole, MA

1983–1989. Research Assistant, Massachusetts Institute of Technology, Cambridge, MA

Summer 1988. Guest Student, Woods Hole Oceanographic Institute, Woods Hole, MA

Summers. Engineering Internships, Elliott Company (steam turbine manufacturing) and
1982–1983 Westinghouse Electric Corporation (breeder reactor design).

PROFESSIONAL ASSOCIATIONS:

Tau Beta Pi
Air and Waste Management Association
American Geophysical Union

SELECTED PROJECT EXPERIENCE:

- Conducted several risk assessments of hazardous waste disposal sites in accordance with the Massachusetts Contingency Plan. The contamination at one site — a former jewelry manufacturing facility — included many heavy metals and several volatile organic compounds associated with solvent use. The assessment of a petroleum tank farm required consideration of the ecological consequences of potential discharges to an adjacent river. Another large site required a detailed exposure assessment involving eight age groups (infants through senior citizens) and seven hypothetical receptors (residents, workers, and visitors/trespassers).
- Coordinated and designed multi-pathway risk assessments of stack emissions from 1,500 ton per day waste-to-energy plants proposed for East Bridgewater, Massachusetts, and Green Island, New York. Provided technical support for the Town of North Kingstown in evaluating the proposed waste-to-energy facility at Quonset Point, Rhode Island.
- Performed fate-and-transport modeling to predict evaporation rates of volatile chemicals from spills and impoundments, with subsequent modeling to predict potential exposure point concentrations in ambient air, indoor air, and confined spaces.
- Designed the scope of the risk assessment of the City of Manchester Municipal Landfill, and performed fate and transport modeling of the volatilization of organic chemicals from surface waters, along with subsequent atmospheric dispersion.
- Evaluated the remedial investigations and feasibility studies of the Sullivan's Ledge site and the Middle Marsh operable unit and proposed alternative interpretation of the data collected during the field studies.
- Provided pro-bono consulting to the Massachusetts Department of Environmental Protection to develop a short-form risk assessment to facilitate hazardous waste site cleanup.
- Teach courses in Air Pollution taught at the Massachusetts Institute of Technology and Tufts University. Developed and taught a graduate-level course in Air Quality Modeling at the University of Massachusetts–Lowell.

- Conducted atmospheric dispersion analyses of toxic chemicals and dense gases in order to evaluate potential exposure to humans in support of toxic tort litigation.
- Evaluated the physical and environmental consequences of deep ocean disposal of carbon dioxide.
- Developed estimates of atmospheric deposition of nitrogen-containing compounds, mercury, and polycyclic aromatic hydrocarbons to the Massachusetts Bays.

OTHER PROFESSIONAL EXPERIENCE:

2000–Present. Teach *Air Pollution: Processes and Controls* at the Massachusetts Institute of Technology.

1995–Present. Teach *Air Pollution* at Tufts University.

1992–2001. Taught *Air Pollution Modeling* at University of Massachusetts–Lowell.

1993–1996. Project Sponsor of students in the Environmental Engineering Clinic, Massachusetts Institute of Technology Course 1.70.

1999. Ph.D. thesis committee member, George F. Fisher, Atmospheric Chemistry and Physics, University of Massachusetts–Lowell.

1993. Ph.D. thesis committee member, J.T. Underhill, Environmental Studies Program, University of Massachusetts–Lowell.

ORIGINAL REPORTS:

Zemba, S.G., Lester, R.R., von Stackelberg, K., and Yatsalo, B. (2010). DECERNS a risk management tool integrating a geographic information system (GIS), environmental models, and multi-criteria decision analysis (MCDA). A report submitted in partial fulfillment of the requirements for the Small Business Innovation Research (SBIR) Phase I contract W912HZ-10-C-002. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2009). Method 3 risk characterization, Taunton Tobacco, 15 Mechanics Lane, Taunton, Massachusetts, RTN # 4-15388. Cambridge Environmental Inc.

Ames, M.R., Zemba, S.G. and Lester, R.R. (2008). Method 3 risk characterization, Penske Truck Leasing Facility, 407 Mystic Avenue, Medford, Massachusetts, RTN 3-18081, 3-18163, 3-23427, 3-22908, and 3-25815. Cambridge Environmental Inc.

Lester, R.R., Hendrix, S.H. and Zemba, S.G. (2008). Method 3 risk characterization 114-116 Water Street, Beverly, Massachusetts, RTN 3-0027244. Cambridge Environmental Inc.

Crouch, E.A.C., Zemba, S.G. and Bullister, E.T. (2008). Source term model for fine particles off indoor surfaces. Cambridge Environmental Inc.

Adilman, D., Ames, M.R., Armstrong, S.R., Copley, L.G., Green, L.C., Hartzel, R., Holmén, B., Klens-Caprio, J., Lester, R.R., Roy, S.P., Swift, R., Tyler, M., Zeeb, P. and Zemba, S.G. (2008). An assessment of the environmental and public health impacts of Omya's operations in Florence, Vermont: Integrated report. Cambridge Environmental Inc. and Geosyntec Consultants, Inc.

Hendrix, S., Lester, R.R., and Zemba, S.G. (2008). Washington Mills Hennepin, Inc. endangered species evaluation. Cambridge Environmental Inc.

Zemba, S.G. and Ames, M.R. (2007). Evaluation of impacts to soils and vegetation due to emissions from the Detroit HOUP. Cambridge Environmental Inc. and Horizon Environmental Corporation.

Zemba, S.G. and Ames, M.R. (2007). Ecological screening evaluation for the Proposed Detroit Heavy Oil Upgrade Project. Cambridge Environmental Inc.

Crouch, E., Zemba, S.G. and Bullister, E. (2007). Source term model for fine particles off indoor surfaces. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2007). Method 3 human health risk characterization, Penske Truck Leasing Co., L.P., 1242 Shawmut Avenue, New Bedford, Massachusetts (RTN 4-19988). Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2007). Human health risk characterization, 250 Universal Drive North, North Haven, Connecticut. Cambridge Environmental Inc.

Ames, M.R., Zemba, S.G., Shifrin, A., Lester, R.R., and Green, L.C. (2007). Risk Assessment for the evaluation of multi-pathway and ecological impacts of emissions from the Harrisburg Materials Energy, Recycling and Recovery Facility, Harrisburg, Pennsylvania. Cambridge Environmental Inc.

Zemba, S.G., Adilman, D., Ames, M.R., Armstrong, S.R., Copley, L.G., Green, L.C., Klens-Caprio, J., Lester, R.R., Roy, S.P., Shifrin, A., and Zeeb, P. (2007). Final phase I report, Omya Verpol Facility - Florence, Vermont. Cambridge Environmental Inc. and Geosyntec Consultants, Inc.

- Lester, R.R. and Zemba, S.G. (2006). Method 3 risk characterization, 34 Railroad Avenue, Peabody, Massachusetts. Cambridge Environmental Inc.
- Zemba, S.G., Bullister, E.T., Linkov, I., DiNardi, S., and Satterstrom, F.K. (2006). AF05-316 health and environmental simulation. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2005). Method 3 risk characterization in support of a beneficial use determination application for the use of waste soil as cover material at the Town of Bourne Integrated Solid Waste Management Facility. Cambridge Environmental Inc.
- Ames, M., Zemba, S.G. and Green, L.G. (2005). Results of an emission and air dispersion modeling study and public health evaluation of the Virginia Paving Company Facility, 5601 Courtney Avenue, Alexandria, Virginia. Cambridge Environmental Inc.
- Satterstrom, F.K. and Zemba, S.G. (2005). Health risk evaluation of proposed modification of the Four Hills Landfill. Cambridge Environmental Inc.
- Zemba, S.G. and Shifrin, A. (2005). Ecotoxicological benchmarks for the Exxon Mobil refinery consultation. Cambridge Environmental Inc.
- Satterstrom, F.K., Zemba, S.G., and Armstrong, S.R. (2005). Ecological risk assessment for the Indeck Elwood Energy Center. Cambridge Environmental Inc. and Epsilon Associates, Inc.
- Green, L.C., Crouch, E.A.C., Zemba, S.G., Ames, M.R., Satterstrom, K. and Linkov, I. (2004). MATES-II: a review and analysis for the staff of the Federal Highway Administration. Cambridge Environmental Inc.
- Ames, M.R. and Zemba, S.G. (2004). Facility impact assessment of the Proposed Cell 5 of the Taunton Sanitary Landfill. Cambridge Environmental Inc.
- Zemba, S.G., Ames, M.R., and Green, L.C. (2004). Risk assessment protocol for the evaluation of multi-pathway impacts of emissions from the Maine Energy Recovery Company Facility in Biddeford, Maine. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2004). Risk characterization for the East Bridgewater Municipal Landfill, East Bridgewater, Massachusetts. Cambridge Environmental Inc.
- Sahay, S.R., Zemba, S.G., and Lester, R.R. (2003). Methods 3 risk characterization Brandon Woods, 567 Dartmouth Street, South Dartmouth, Massachusetts, RTN 4-17545. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2003). Method 3 risk characterization Mill Creek Condominiums, 165 Cottage Street, Chelsea, Massachusetts, RTN 3-22997. Cambridge Environmental Inc.

Zemba, S.G. (2003). Risk characterization evaluation and update for the 51 Grove Street Site, Arlington, Massachusetts, RTN 3-4241. Cambridge Environmental Inc.

Zemba, S.G. (2003). Risk characterization of remedial emissions at the Zeneca Inc. Facility in Dighton, Massachusetts. Cambridge Environmental Inc.

Zemba, S.G. and Green, L.C. (2003). Assessment of potential risks to human health and welfare associated with landfill gas emissions from the Martone Sanitary Landfill, Barre, Massachusetts. Cambridge Environmental Inc.

Ames, M. and Zemba, S.G. (2003). Interim risk evaluation and cumulative impact assessment of the proposed phased landfill development of the Town of Bourne Integrated Solid Waste Management Facility. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2002). Method 3 risk characterization for Benjamin Moore Parcel "B", 51-53 Sumner Street, Milford, Massachusetts (RTN 2-13009). Cambridge Environmental Inc.

Alvarado, M.J., Zemba, S.G., and MacMillin S. (2002). Interim risk evaluation and cumulative impact assessment of the proposed expansion of the Fall River Sanitary Landfill. Cambridge Environmental Inc.

Crouch, E.A.C., Zemba, S.G., Ames, M.R., and Green, L.C. (2002). *Comments on Proposed Methodology for Particulate Matter Risk Analyses for Selected Urban Areas*, by Abt Associates, January 2002. Cambridge Environmental Inc.

Lester, R.R., Liaw, J., and Zemba, S.G. (2002). Risk characterization for the General Electric Aircraft Engines Site, Medford, Massachusetts, RTN 3-3290. Cambridge Environmental Inc.

Ames, M. and Zemba, S.G. (2002). Interim risk evaluation and cumulative impact assessment of the proposed vertical expansion of the Granby Sanitary Landfill. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2002). Method 3 risk characterization for the Watertown DPW, 124 Orchard Street, Watertown, Massachusetts, RTN-3-21576. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2002). Method 3 risk characterization for 265 Perham Street, West Roxbury, Massachusetts, RTN 3-21206. Cambridge Environmental Inc.

- Green, L.C., Alvarado, M.J., and Zemba, S.G. (2002). Assessment of potential risks to human health and welfare associated with the proposed expansion and development of the Crossroads Landfill in Norridgewock, Maine. Cambridge Environmental Inc.
- Potocki, B., Lester, R.R., and Zemba, S.G. (2002). Stage II environmental risk characterization Plainville Landfill, Plainville, Massachusetts. Cambridge Environmental Inc.
- Zemba, S.G., Ames, M.R., and Green, L.C. (2002). Particulate (composition) matter(s). Cambridge Environmental Inc.
- Alvarado, M.J., Ames, M.R., and Zemba, S.G. (2002). Risk evaluation of the proposed section 4 expansion of the Shrewsbury Ash Residue Landfill. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2002). Method 2 risk characterization for 501 Southhampton Street, South Boston, Massachusetts. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2002). Method 1 risk characterization for Dartmouth State Police, 262 State Road, Dartmouth, Massachusetts. Cambridge Environmental Inc.
- Zemba, S.G. (2002). Development of the dilution factor to support precompliance certification of the Lone Star Alternate Fuels Facility, Greencastle, Indiana. Cambridge Environmental Inc.
- Ames, M.R., Zemba, S.G., Yamartino, R.J., Valberg, P.A., and Green, L.C. (2002). Comments on "Using CALPUFF to Evaluate the Impacts of Power Plant Emissions in Illinois: Model Sensitivity and Implications." *Atmospheric Environment* 36:2263-2265.
- Alvarado, M.J., Ames, M.R., and Zemba, S.G. (2002). Risk evaluation of the proposed Final Development Phase (FDP) of the CMW Landfill. Cambridge Environmental Inc.
- Alvarado, M.J. and Zemba, S.G. (2001). Interim cumulative risk evaluation for the Raynham Regional Solid Waste Processing and Transfer Facility, Thrasher Street, Raynham, Massachusetts. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2001). Method 3 risk characterization for Lovejoy Place, Boston, Massachusetts, RTN 3-19636. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2001). Human health risk assessment for the Heritage Development Group Site, Bunker Hill Road, Watertown, Connecticut. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2001). Chattanooga air toxics study. Final risk assessment report. Cambridge Environmental Inc.

- Alvarado, M.J. and Zemba, S.G. (2001). Interim risk evaluation and cumulative impact assessment of the proposed Cell 4 expansion of the Taunton Sanitary Landfill. Cambridge Environmental Inc.
- Alvarado, M.J. and Zemba, S.G. (2001). Interim risk evaluation and cumulative impact assessment of the proposed expansion of the Fitchburg/Westminster Landfill. Cambridge Environmental Inc.
- Lester, R.R., Alvarado, M.J. and Zemba, S.G. (2001). Method 3 risk characterization for 35 Goodale Road, Roxbury, Massachusetts, RTN 3-18653. Cambridge Environmental Inc.
- Lester, R.R., Alvarado, M.J. and Zemba, S.G. (2001). Method 3 risk characterization for 55 Goodale Road, Roxbury, Massachusetts, RTN 3-18651. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2001). Method 3 Risk Characterization for the Former Hiron's Upholstery Site, Gardner, Massachusetts, RTN 2-00510 and RTN 2-12256. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2001). Chattanooga air toxics study. Risk assessment workplan and quality assurance project plan. Cambridge Environmental Inc.
- Alvarado, M.J., Zemba, S.G., and Green, L.C. (2001). Risk characterization for the New Cut Landfill and surrounding areas. Cambridge Environmental Inc.
- Alvarado, M.J., Lester, R.R., and Zemba, S.G. (2000). Method 3 risk characterization for 8 Industrial Park, Boston, Massachusetts. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (2000). Human health risk assessment for the Laboure Center, 275-299 West Broadway, South Boston, Massachusetts. Cambridge Environmental Inc.
- Rauw, B.J. and Zemba, S.G. (2000). Method 3 risk characterization for 64 Sidney Street, Cambridge, Massachusetts. Cambridge Environmental Inc.
- Valberg, P., Crouch, E., Green, L., and Zemba, S. (2000). Review of the health impacts projected in the Levy *et al.* Report: "*Estimated public health impacts of criteria pollutant air emissions from the Salem Harbor and Brayton Point power plants*". Cambridge Environmental Inc.
- Lester, R.R., Bartlett, K.L., and Zemba, S.G. (2000). Method 3 risk characterization for 758 Shawmut Avenue, Boston, Massachusetts. Cambridge Environmental Inc.
- Crouch, E.A.C. and Zemba, S.G. (2000). Comments to the Science Advisory Board Residual Risk Applications Subcommittee on "*A Case Study Residual Risk Assessment for EPA's*

Science Advisory Board Review: Secondary Lead Smelter Source Category. Cambridge Environmental Inc.

Crouch, E., Armstrong, S., and Zemba, S. (2000). Comments on EPA's proposed standards for the use of disposal of sewage sludge. Cambridge Environmental Inc.

Lester, R.R. and Zemba, S.G. (2000). Method 3 risk characterization for the Property at 56 Woodrock Road, East Weymouth, Massachusetts, RTN 3-14967. Cambridge Environmental Inc.

Zemba, S.G., Lester, R.R., Alvarado, M.J., and Bartlett, K.L. (2000). Method 3 risk characterization update for the Midas Muffler Shops Site (RTN 3-1105), Boston, Massachusetts. Cambridge Environmental Inc.

Bartlett, K.L., Zemba, S.G., and Valberg, P.A. (1999). Human health risk assessment for BASF Corporation, 491 Columbia Avenue, Holland, Michigan. Cambridge Environmental Inc.

Zemba, S.G. (1999). Draft risk assessment workplan for the Lone Star Alternate Fuels Facility, Greencastle, Indiana. Cambridge Environmental Inc.

Bartlett, K.L., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1999). Health risk assessment for Davenport Commons Development, Boston, MA. Cambridge Environmental Inc.

Bartlett, K.L., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1999). Health risk assessment for Shawmut Estates, Boston, MA. Cambridge Environmental Inc.

Bartlett, K.L. and Zemba, S.G. (1999). Method 3 risk characterization for W.A. Wood Company, 108 Spring Street, Everett, Massachusetts. Cambridge Environmental Inc.

Zemba, S.G., Lester, R.R., Bartlett, K.L., and Potocki, B. (1999). Quantitative risk assessment for the Plainville Landfill, Plainville, Massachusetts. Cambridge Environmental Inc.

Bartlett, K.L., Lester, R.R., and Zemba, S.G. (1999). Method 3 risk characterization for City Development Corporation, 516 East Second Street, South Boston, Massachusetts. Cambridge Environmental Inc.

Bartlett, K.L. and Zemba, S.G. (1999). Method 3 risk characterization for the New Lewis School and Babe Ruth Playground, Bell Rock Street, Everett, Massachusetts. Cambridge Environmental Inc.

Bartlett, K.L., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1998). Health risk assessment for Phase III Orchard Park Development, Boston, MA. Cambridge Environmental Inc.

- Lester, R.R. and Zemba, S.G. (1998). Method 3 risk characterization for the Massachusetts Highway Department Facility, East Main Street, Westfield, Massachusetts, RTN - 11028. Cambridge Environmental Inc.
- Bartlett, K.L., Potocki, B., Zappia, A.M., and Zemba, S.G. (1998). Method 3 risk characterization for the Raytheon Facility, Andover, Massachusetts. Cambridge Environmental Inc.
- Bartlett, K.L., Lester, R.R., and Zemba, S.G. (1998). Method 3 risk characterization for the Precise Engineering Site, East Bridgewater, Massachusetts. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (1998). Method 3 risk characterization for the Benjamin Moore & Company, Milford Facility, 49 Sumner Street, Milford, Massachusetts. Cambridge Environmental Inc.
- Zappia, A.M., Bartlett, K.L., Zemba, S.G., and Lester, R.R. (1998). Method 3 Risk Characterization for the City of Burlington Department of Public Works Garage Site, Meadow Road, Burlington, Massachusetts. Cambridge Environmental Inc.
- Bartlett, K.L. and Zemba, S.G. (1998). Method 3 Risk Characterization for the New Lafayette School Edith Street, Everett, Massachusetts. Cambridge Environmental Inc.
- Lester, R.R. and Zemba, S.G. (1998). Method 3 risk characterization for the former Natick Police Station, 2 Park Street, Natick, Massachusetts. Cambridge Environmental Inc.
- Zappia, A.M., Lester, R.R., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1997). Human health risk assessment for BASF Corporation, Third Street, Clifton, NJ. Cambridge Environmental Inc.
- Lester, R.R., Zappia, A.M., and Zemba, S.G. (1997). Method 3 risk characterization for the Romanow, Inc. Property, South Boston, Massachusetts. Cambridge Environmental Inc.
- Zemba, S.G., Lester, R.R., Bartlett, K.L., Lash, T.L., and Green, L.C. (1997). A health risk assessment for the Nepera Incinerator, Harriman, New York. Cambridge Environmental Inc.
- Bartlett, K.L., Armstrong, S.R., and Zemba, S.G. (1997). Air modeling and toxicity evaluation of emissions from Eastern Acoustic Works Painting Facility in Manchaug, MA. Cambridge Environmental Inc.
- Zemba, S.G., Green, L.C., Bartlett, K.L., Potocki, B., and Zappia, A.M. (1997). Revised scope-of-work for quantitative risk assessment for the Plainville Landfill, Plainville, Massachusetts. Cambridge Environmental Inc.

- Bartlett, K.L., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1997). Health risk assessment for phase I Orchard Park Development, Boston, MA. Cambridge Environmental Inc.
- Bartlett, K.L., Zemba, S.G., Crouch, E.A.C., and Green, L.C. (1997). Health risk assessment for phase II Orchard Park Development, Boston, MA. Cambridge Environmental Inc.
- Golomb, D., Ryan, D., Eby, N., Underhill, J., and Zemba, S. (1997). Atmospheric deposition of toxics onto Massachusetts Bay. I. Metals. *Atmospheric Environment* 31(9):1349-1359.
- Golomb, D., Ryan, D., Underhill, J., Wades, T., and Zemba, S. (1997). Atmospheric deposition of toxics onto Massachusetts Bay. II. Metals. *Atmospheric Environment* 31(9):1361-1368.
- Zappia, A.M., Lester, R.R., and Zemba, S.G. (1997). Method 3 risk characterization for the Polaroid Facility, Waltham, MA, DEP ETN: 3-0451. Cambridge Environmental Inc.
- Zemba, S.G., Green, L.C., Crouch, E.A.C., and Lester, R.R. (1996). Quantitative risk assessment of stack emissions from municipal waste combustors. *J. of Haz. Materials* 47:229-275.
- Lester, R.R. and Zemba, S.G. (1996). Screening level risk characterization for the Benjamin Moore & Company, Milford Facility, 49 Sumner Street, Milford, Massachusetts. Cambridge Environmental Inc.
- Zemba, S.G., Lester, R.R., Pojasek, R.B., Bubenick, D.V., Copley, L.G., and Gray, D.J. (1996). Review of the hot mix asphalt plant proposed for Uxbridge, Massachusetts. Cambridge Environmental Inc.
- Golomb, D., Ryan, D., Eby, N., Underhill, J., Wade, T., and Zemba, S.G. (1996). Atmospheric deposition of toxic metals, polynuclear aromatic hydrocarbons (PAH) and nitrogen onto Massachusetts Bays. Boston, MA:Massachusetts Bays Program. MBP096-01.
- Armstrong, S.R., Zemba, S.G., and Crouch, E.A.C. (1996). Acute health effects assessment for the Plainville Landfill. Cambridge Environmental Inc.
- Bartlett, K.L. and Zemba, S.G. (1996). Phase II risk characterization for Armstrong World Industries, Inc. site, Braintree, MA. Cambridge Environmental Inc.
- Bartlett, K.L., Lester, R.R., and Zemba, S.G. (1985). An MCP risk characterization for the Building Center 18 Railroad Avenue, Rockport, MA. Cambridge Environmental Inc.
- Crouch, E., Green, L., Zemba, S., and Lester, R. (1995). Comments to the Science Advisory Board on U.S. EPA's development of human health based and ecologically based exit

criteria for the hazardous waste identification project, review draft, March 3, 1995.
Cambridge Environmental Inc.

Bartlett, K.L., Lash, T.L., Lester, R.R., and Zemba, S.G. (1995). An MCP risk characterization for John J. Nissen Baking Company #93028-3, 571 Dalton Avenue, Pittsfield, MA.
Cambridge Environmental Inc.

Crouch, E., Green, L., Lester, R., and Zemba, S. (1995). Clean-up levels for the Norwood PCBs Superfund Site - a risk-based approach. Cambridge Environmental Inc.

Zemba, S.G., Lester, R.R., and Lash, T.L. (1995). A risk assessment of the Manchester Landfill Manchester, NH. Cambridge Environmental Inc.

Crouch, E., Green, L., Zemba, S., Armstrong, S., and Gaffey, K. (1995). Some further comments on *Development of human health based exit criteria for the hazardous waste identification project phase III analysis*. Cambridge Environmental Inc.

Zemba, S.G., Perkins, K.K., Armstrong, S.R., Crouch, E.A.C., Lester, R.R., and Green, L.C. (1994). A health risk assessment for the Capital District Integrated Solid Waste Management Facility. Cambridge Environmental Inc.

Zemba, S.G., Perkins, K.K., Lash, T.L., and Green, L.C. (1994). A preliminary health risk assessment for the NEPERA Incinerator, Harriman, NY. Cambridge Environmental Inc.

Crouch, E.A.C., Green, L.C., Zemba, S.G., Luis, S.J., Perkins, K.K., and Lash, T. L. (1994). Probabilistic risk assessment of combustor stack emissions. Cambridge Environmental Inc.

Crouch, E., Green, L., Zemba, S., Armstrong, S., Perkins, K., and Burmaster, D. (1994). Some initial comments on *Development of human health based exit criteria for the hazardous waste identification project phase III analysis*. Cambridge Environmental Inc.

Green, L.C., Armstrong, S.R., Crouch, E.A.C., Lash, T.L., Luis, S.J., Perkins, K.K., and Zemba, S.G. (1993). Protocol for a multi-pathway risk assessment for the WTI Facility in East Liverpool, OH. Cambridge Environmental Inc.

Green, L.C., Crouch, E.A.C., Zemba, S.G., Perkins, K.K., and Armstrong, S.R. (1993). Comments on *Estimating exposure to dioxin-like compounds: review draft*. Cambridge Environmental Inc.

Crouch, E.A.C., Green, L.C., Zemba, S.G., Luis, S.J., Perkins, K.K., and Lash, T. (1994). Comments on *Addendum to the methodology for assessing health risks associated with indirect exposure to combustor emissions*, prepared for the Coalition for Responsible Waste Incineration. Cambridge Environmental Inc.

- Armstrong, S.R. and Zemba, S.G. (1994). Risk characterization for the Raytheon Facility, 190 Willow St. — UST area, Waltham, MA. Cambridge Environmental Inc.
- Zemba, S.G., Golomb, D.S., Ryan, D.K., Eby, G.N., Underhill, J.T., and Wade, T.L. (1993). Annual deposition of pollutants to the Massachusetts Bays. *Eos, April 20 supplement*:79.
- Zemba, S.G. and Luis, S.J. (1993). A user-friendly approach for modeling air dispersion of chemicals in industrial facilities. Cambridge Environmental Inc.
- Zemba, S.G., Armstrong, S.R., and Perkins, K.K. (1993). Risk characterization for the Raytheon Facility, Quincy, MA. Cambridge Environmental Inc.
- Parsons, A.H., Perkins, K.K., and Zemba, S.G. (1993). An ecological risk assessment of subsurface soil contamination at the GTE Operations Support Inc. Facility in Parsonsfield, ME. Cambridge Environmental Inc.
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- Crouch, E.A.C., Zemba, S.G., Pilkington, M., Jaffe, D., and Green, L.C. (1992). Comments on *Hazardous Waste Management System: identification and list of hazardous waste; proposed rule 57 FR 21450*. Cambridge Environmental Inc.
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