

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

### EDUCATION:

- 1989. Ph.D., Mechanical Engineering. Massachusetts Institute of Technology.
- 1985. M.S., Mechanical Engineering. Massachusetts Institute of Technology.
- 1983. B.S. with University Honors, Mechanical Engineering. Carnegie-Mellon University.

### PROFESSIONAL EXPERIENCE:

- 1989–Present. Senior Engineer, Cambridge Environmental Inc.
- 1992–Present. Adjunct Professor, University of Massachusetts–Lowell.
- 1995–Present. Adjunct Professor, Tufts University.
- 1995–Present. Registered Professional Engineer, Commonwealth of Massachusetts.

### SELECTED PROJECT EXPERIENCE:

- Conducted numerous risk characterizations of hazardous waste disposal sites in accordance with the original and revised Massachusetts Contingency Plans.
- Developed risk assessments of contaminant releases to air, groundwater, and surface water associated with landfills in Massachusetts and New Hampshire.
- Developed fate-and-transport models to assess groundwater contaminant volatilization into open trenches and indoor air environments.
- Assessed health risk issues associated with emissions from proposed and existing asphalt plants, including critical evaluation of fugitive vapor emissions.
- Performed air dispersion analyses of air toxics releases using conventional gaussian plume models, dense gas dispersion models, and other methods.
- Performed multi-pathway risk assessments of stack emissions existing and proposed waste-to-energy plant in Akron, Ohio, East Bridgewater, Massachusetts and Green Island, New York, and a hazardous waste incinerator in Harriman, New York.
- Analyzed and assessed ecological risks for a PCB-contaminated marsh on behalf of potentially responsible parties, and assisted a citizens' group in providing input to EPA.
- Conducted original research in the fields of acid rain, ground-level ozone transport, ocean disposal of carbon dioxide, and dispersion of dense (heavier-than-air) gases
- Created user-friendly modeling tools for modeling time-dependent pollutant concentrations in indoor air.
- Teach graduate-level courses in *Air Quality Modeling* and *Air Pollution*.
- Researched atmospheric deposition of nitrogen-containing compounds, mercury, and polycyclic aromatic hydrocarbons to the Massachusetts Bays.

### PUBLICATIONS AND REPORTS:

A list of publications and reports will be provided upon request, and is also available at our web site ([www.cambridgeenvironmental.com](http://www.cambridgeenvironmental.com)).