



## Lyle R. Chinkin

Chief Scientist  
Chief Executive Officer



Mr. Chinkin joined Sonoma Technology, Inc. (STI) in 1992. He has over 40 years of professional experience in air quality, including five years of experience at the California Air Resources Board.

He is a nationally recognized expert in the preparation and assessment of emissions inventories of air pollutants and air quality analysis. He has worked on projects for federal, state, and local government agencies; universities; public and private research consortiums; and major corporations. Many of his projects involve the use of computerized air quality modeling simulations using Gaussian dispersion models as well as one-atmosphere, full-chemistry photochemical grid models. His areas of expertise include (1) full-service air quality assessments, covering all aspects from selecting appropriate emission estimation techniques to assessing the effects of applicable control-technology on emissions and air quality; (2) providing independent assessments of controlled and uncontrolled emissions in comparisons to established regulatory thresholds and air quality levels for use in determining compliance with permit conditions and health-based air quality standards; (3) conducting measurement studies to obtain real-world data and improve emission estimates; (4) providing expert testimony and presentations to public boards. He has been appointed to the National Research Council of the National Academy of Sciences Committee on the Effects of Changes in New Source Review Programs for Stationary Sources of Air Pollutants and to a panel to review "Improving Emission Inventories for Effective Air Quality Management Across North America, a NARSTO Assessment" (2005). Mr. Chinkin has authored a book chapter; published 7 peer-reviewed journal papers and over 200 scientific reports; and made over 100 presentations at conferences and public meetings.

Mr. Chinkin has worked on a variety of fire-related projects, including development of computerized tools to assess fire behavior for planning purposes as well as working on a project to investigate the origin of a specific wildfire. Mr. Chinkin served as a U.S. EPA-invited formal peer reviewer three times, including for the EPA particulate matter (PM) National Ambient Air Quality Standards Criteria Document, the 2006 draft "EPA Report on the Environment," and an EPA report on air quality impacts from a railyard operated in an urban environment. He also served as an expert panel member for the review of the Valdez Air Health Study, and as an expert witness for the U.S. Department of Justice and the Attorney General's Office of the State of North Carolina on environmental enforcement actions. Mr. Chinkin was the project manager and co-author of the EPA national guidance document on the preparation of emission inputs for photochemical air quality simulation models. In addition, his projects have included improving estimates of PM and ammonia emissions, determining air toxic emissions, and improving natural source emission estimation tools, including biogenic VOCs and smoke from wild and prescribed fires. He frequently directs studies that combine public- and private-sector participation, including an assessment and ground-truth study of industrial emissions in the Houston Ship Channel under the joint direction of the Texas Natural Resource Conservation Commission (now Texas Commission on Environmental Quality) and local industry. Mr. Chinkin has directed or participated in numerous studies of industrial source emissions throughout the United States, with many focused on the oil and gas industry, including emissions from exploration and production, pipeline operations, refineries, and marketing. Many of these studies have been conducted in oil and gas producing regions of the U.S., including in Texas for the TCEQ, EPA, and industry clients. Mr. Chinkin is frequently called upon by clients to explain complicated technical information to other professionals, advisory boards, and members of the public.

### Education

- BS, Atmospheric Science, *summa cum laude*, University of California at Davis
- MS, Atmospheric Science, University of California at Davis

### Memberships

- Air & Waste Management Association
- American Meteorological Society (1979-1984, 2012)
- California Registered Environmental Assessor (REA-00715) (1984-1989)
- International Association of Wildland Fire
- Served on three EPA peer-review panels and one NARSTO peer review panel
- Served on one National Academy of Sciences Committee

## Chronology of Education and Work Experience

- 2018-Present: Chief Executive Officer, Chief Scientist, Sonoma Technology, Inc., Petaluma, CA
- 2017-Present: Chief Scientist, President Emeritus, Sonoma Technology, Inc., Petaluma, CA
- 2006-2017: President, Sonoma Technology, Inc., Petaluma, CA
- 2005: Selected as peer reviewer for North American Research Strategy for Tropospheric Ozone (NARSTO) report, "Improving Emission Inventories for Effective Air Quality Management Across North America"
- 2004: Appointed to the National Research Council of the National Academy of Sciences Committee on the Effects of Changes in New Source Review Programs for Stationary Sources of Air Pollutants
- 2002-2006: Senior Vice President, Sonoma Technology, Inc., Petaluma, CA
- 2000-2021: Appointed to the Board of Directors, Sonoma Technology, Inc., Petaluma, CA
- 1999-2002: Vice President and General Manager, Sonoma Technology, Inc., Petaluma, CA
  - Managed emissions modeling group and meteorological programs group
  - Responsible for financial oversight of company operations including financial performance (e.g., cash flow, profit and loss, backlog, and overhead rates)
- 1998-2002: Vice President, Sonoma Technology, Inc., Petaluma, CA
  - Managed emissions modeling group and meteorological programs group
- 1992-1998: Manager of Emissions Modeling, Sonoma Technology, Inc., Petaluma, CA
  - Managed emissions inventory studies relating to air pollution worldwide
  - Managed air quality studies for government and private industry
  - Managed a multi-million dollar level-of-effort contract with the U.S. Environmental Protection Agency for air quality modeling assistance
- 1989-1992: Manager of Emissions Modeling Group, Systems Applications, Inc., San Rafael, CA
  - Managed emissions inventory studies relating to air pollution throughout the U.S. and Asia
  - Conducted air quality studies for government and private industry
- 1984-1989: Senior Atmospheric Scientist, Systems Applications, Inc., San Rafael, CA
  - Conducted emissions inventory studies relating to air pollution in various regions of the U.S.
  - Developed software to process emissions inventory data into model-ready inputs for comprehensive 3-dimensional photochemical models
- 1984: MS, Atmospheric Science, University of California, Davis
- 1982-1984: Assistant Meteorologist, Meteorology Section, California Air Resources Board
  - Conducted climatological studies relating to air pollution in California
  - Applied meteorological principles to engineering evaluations and statistical analyses
  - Developed guidelines for agricultural burning
- 1981-1982: Air Pollution Specialist, Analysis and Projects Section, California Air Resources Board
  - Prepared comprehensive technical reports requiring computer programming and statistical analyses
  - Produced the "California Air Quality Data Report"
- 1981: BS, Atmospheric Science, *summa cum laude*, University of California, Davis
- 1980: Instrument Technician, Air Quality Group, University of California, Davis
  - Maintained and calibrated particulate samplers in remote areas of the western United States
- 1980: Weather Reporter, KDVS Radio Station, Davis, CA
  - Prepared and presented weather broadcasts for California
- 1979-1981: Student Assistant, Meteorology Section, California Air Resources Board
  - Evaluated meteorological data

- Analyzed isobaric pressure charts and wind flow patterns
- 1978-1979: Assistant Weather Producer, KCRA-TV Channel 3, Sacramento, CA
  - Decoded weather data and prepared in-studio weather displays for broadcast

### **Professional Memberships**

- Air & Waste Management Association
- American Meteorological Society (1979-1984, 2012)
- California Registered Environmental Assessor (REA-00715) (1984–1989)
- International Association of Wildland Fire

### **Professional Development**

- 1982: Statistics for Decision Makers
- 1982: Air Pollution Enforcement Symposium, California Air Resources Board
- 2001: Understanding Finance and Accounting

### **Peer Reviewer**

- U.S. Environmental Protection Agency
- Journal of the Air and Waste Management Association
- International Journal of Environmental Studies
- North American Research Strategy for Tropospheric Ozone (NARSTO)