

Résumé

Roger Caiazza
Environmental Energy Analyst

New York State Reliability Council [Extreme Weather Working Group](#) (12/2022 to present)

Member of the Extreme Weather Working Group that was formed for the purpose of addressing extreme weather reliability impacts. They are developing extreme weather operating plans and resource adequacy assessment requirements as well as extreme weather resource and transmission planning criteria.

[Pragmatic Environmentalist of New York Blog](#) (1/2017 to 2024)

This blog describes environmental issues from a pragmatic viewpoint. Pragmatic environmentalism is all about balancing the risks and benefits of both sides of issues. Unfortunately, public perception is too often driven by scary one-sided stories that must be rebutted by getting into details. The blog shows both sides of environmental issues and the tradeoffs necessary for rational environmental policy.

Environmental Energy Alliance of New York - Director (9/2010 – 12/2016)

Regulatory Analysis Monitor New York State environmental regulatory programs for impacts on New York electric generating units and transmission and distribution companies. Coordinate response to new and revised regulations. Work with NY ISO, NY Business Council and NY System Reliability Council to address environmental issues in New York.

Compliance Implementation Participant in the Eastern Regional Technical Advisory Committee process to coordinate emissions inventories needed for air quality modeling, and provide a technical- (not policy-) driven process for developing and improving emissions inventories.

NRG Energy – Environmental Manager (6/1999 – 8/2010)

Air Quality Monitoring. Responsible for air quality data processing for fossil generation compliance. Coordinated NRG CEMS program for all facilities including trading season allowance reconciliation. Prepared CEMS data management procedures, prepared and submitted revisions to monitoring plans and managed quality assurance plans at Upstate New York plants. Responsible for NRG's intranet real-time CEMS data system that provides corporate CEMS data. Responsible for annual emission inventory reports at Upstate New York plants.

Regulatory Analysis Prepared analysis of effects of NYS acid deposition reduction rule-making and submitted extensive comments. Participated in NYS RGGI stakeholder process. Analyzed effects of CAIR on NYS NOX allocation.

Air Quality Modeling. Managed air quality modeling analysis for permitting Berrians combustion turbine in NYC and Dunkirk SO2 NAAQS evaluation. Provided support to NYS RGGI modeling subgroup analysis of effects of CO2 initiatives. Managed ICF IPM modeling analysis of the impacts of Acid Deposition Reduction Initiative and Alpine Geophysics REMSAD modeling of acid deposition impacts.

Niagara Mohawk Power Corporation – Environmental Analyst (5/1981 – 6/1999)

Air Quality Monitoring. Responsible for air quality data processing for fossil generation compliance. Prepared CEM data management procedure, supported preparation and submittal of CEM monitoring plans, Quality Assurance Plans, and certification test results for NMPC fossil stations. Responsible for development of corporate CEM data base and access methodology. Developed existing real-time air quality and meteorological monitoring

computer system, and prepared departmental computer data bases for opacity, reports, and Doppler acoustic sounder data. Maintain NMPC emission inventory.

Air Quality Modeling. Responsible for air quality modeling analyses. Prepared air quality analysis for Oswego Steam Station Special Limitation. Managed modeling studies for Albany Coal Reconversion, Huntley FGD, and Albany Cumulative Impact Analysis. Supported procurement and implementation of Nine Mile Dose Assessment Model. Prepared miscellaneous analyses of ambient air quality data. Member of the UARG modeling committee.

Regulatory Analysis. Prepared analysis of effects of Clean Air Act Amendments of 1990 for Titles I, III, and IV, submitted National Allowance Data Base information, and prepared draft Title IV applications. Former member of NMPC Air Emissions Strategy Task Force, NMPC Fossil Options Study team, NMPC Clean Air Act Implementation Task Force subcommittees on modeling/monitoring, NO_x RACT, air toxics, and CEMs, and NYPP NO_x committee. Initiated conference and moderated a panel discussion at NO_x conference sponsored by Clean Air Week in January 1992 and was a member of a panel in a follow-up conference in March 1993. Also have supported air pollution permit applications for a number of projects including the Oswego Co-Firing Project. Member of New York Power Pool Air Quality Subcommittee.

Meteorology. Registered as a Certified Consulting Meteorologist by the American Meteorological Society. Support meteorological responsibility for Nine Mile Emergency Action Plan, storm restoration plan, and air pollution episode plan. Prepared original Meteorological Advisor manual for the Nine Mile Point emergency plan, developed a proposal for a weather center with comprehensive meteorological support and weather forecasting capabilities, and prepared air pollution episode plan for Power Control. Also provide internal consulting support for meteorological problems when requested.

Research & Development. Developed project scope, coordinated funding solicitation, and managed project start-up for 4 regional ozone monitoring and modeling analyses: Enhanced Photochemical Air Monitoring, Regional Oxidant Model (ROM) Analysis, Urban Airshed Model Version V Analysis, and Regional Emissions Inventory Validation. Monitoring project will develop alternative monitoring techniques for future monitoring programs. ROM model project will evaluate the regional model specified by EPA for the current round of SIP evaluations. The UAM-V analysis will apply a more advanced regional model on the same domain as ROM. The emissions inventory project will validate the regional emissions inventory and modify the future year electrical generation component. The modeling projects should be completed in 1993, the monitoring project is not scheduled for completion until 1995.

Technical Project Manager for ESEERCO Eastern Lake Ontario Meteorological Study (ELOMS), NYGAS and NMPC Thermodynamic Climate Model (TCM), and NMPC Lake Ontario Winter Storms (LOWS) R&D projects. ELOMS monitored mesoscale winds, developed models to generate wind fields, and prepared a protocol for implementation from 1985 through the present. TCM has refined and evaluated a long-range weather forecast model. LOWS monitored lake effect snow and ice storms in the winter of 1989-1990 using advanced instrumentation including radar. Also prepared Request for Proposal for ESEERCO Eastern Lake Ontario On-Shore Flow Field Study which monitored specific regimes identified in ELOMS. Member of ESEERCO Air Quality Subcommittee.

Teknekron Research, Inc. - Staff Analyst/Meteorologist

Waltham, MA

Air Quality Consulting, 12/1979 - 2/1981

Managed PSD application and SIP modification analyses. Responsible for application and modification of atmospheric dispersion models for regulatory analysis, evaluation of air quality regulations, and air pollution climatology analysis. Projects included development and application of model evaluation statistics, preparation of source-receptor relationship documents, PSD permit modeling, and monitor selection and analysis of long-range transport impacts.

Walden Division of Abcor, Inc. - Program Manager

Wilmington, MA

Environmental Consulting, 4/1978 - 11/1979

Managed several indirect source analysis projects, technical proposals, and the lead line source model development project. Responsible for the air quality section in a series of five environmental impact statements for generating station conversion from oil and natural gas to coal. Duties included dispersion modeling, air quality modeling program modification, analysis of air quality regulations, report and proposal writing, and project management.

Midwest Research Institute - Meteorologist

Kansas City, MO

Multidisciplinary Consulting, 9/1976 - 3/1978

Projects included modeling analysis, particularly for line and fugitive dust sources, literature research for the Hazardous and Trace Emission Systems (HATREMS), and monitoring site selection for toxic pollutant sampling. Duties included dispersion modeling, report writing, data reduction and analysis, and monitoring program development. Responsible for modeling projects, site surveys, and institute-wide meteorology and climatology consulting.

University of Alberta - Research Assistant

Edmonton, Alberta Canada

Graduate Research, 5/1975 - 8/1976

Sampled wet and dry deposition for twelve months, developed computer programs to process chemical analysis results, and wrote thesis on atmospheric nutrient loading. The wet deposition results were presented at a conference. A summary of the work was published in Water, Air and Soil Pollution.

PROFESSIONAL AFFILIATIONS

American Meteorological Society

Member 1974 - 2013

Certified Consulting Meteorologist, April 1982, retired December 2013

Air & Waste Management Association

Member 1976-2015

EDUCATION

Master of Science in Meteorology (1976), University of Alberta, Edmonton, Canada

Bachelor of Science in Meteorology (1974), S.U.C. at Oneonta, New York

Publications – Roger Caiazza

- Caiazza, R., 2013: "Air Quality Modeling Considerations of EPA Clean Air Markets Division Emissions Data". Paper Presented at Guideline on Air Quality Models: The Path Forward conference, March 19-21, 2013, Raleigh, NC.
- Caiazza, R., 2010: "Hg CEMS Data Verification". Paper presented at EPRI CEMS User Group Meeting, May 12-14, 2010, Cleveland, OH.
- Caiazza, R., 2006: "Analysis of New York City Peaking Turbine Emissions During High Energy Demand Days". Paper presented to Ozone Transport Commission High Energy Demand Day Committee, September 2006.
- Caiazza, R., 2005: "Factors Affecting the Viability of the Cap and Trade Approach". Paper presented at the Electric Utilities Environmental Conference, January 23, 2005, Tucson, AZ.
- Caiazza, R. and T. F. Coates, 1997: "CEMS Data Validation Analysis". Paper presented at Acid Rain and Electric Utilities II January 21-22, 1997, Scottsdale, AZ.
- Caiazza, R. and C. Bedford, 1994: "Issues related to selecting representative stability classifications in the shoreline environment". Paper presented at the Eighth Joint Conference on Applications of Air Pollution Meteorology with AWMA, January 23-28 1994, Nashville, TN.
- Caiazza, R., C. Bedford, and R. Woolley, 1992: "A unique atmospheric stability classification situation at a Lake Ontario shoreline site". Paper presented at American Meteorological Society's 10th Symp. on Turbulence and Diffusion, Sept. 29 - Oct. 2, 1992, Portland, OR.
- Caiazza, R., and R. A. Maraio, 1991: "Utility sponsorship of winter storm research: Lake Ontario Winter Storms". Paper presented at American Meteorological Society's First International Symposium on Winter Storms, Jan. 15-18, 1991, New Orleans, LA.
- Caiazza, R., T.A. Niziol, and C.D. Bedford, 1990: "Operational use of advanced remote sensors for lake-effect snow nowcasting". Paper presented at American Meteorological Society's 16th Conference on Severe Local Storms, Oct. 22-26, 1990, Kananskis Park, Alta., Canada.
- Caiazza, R., T.A. Galletta, and R. Mundschenk, 1989: "The land breeze in Southeastern Lake Ontario". Paper presented at the American Meteorological Society's Sixth Joint Conference on Applications of Air Pollution Meteorology with AWMA, Jan. 30-Feb 3, 1989, Anaheim, CA.

Caiazza, R., 1985: "The Meteorological Advisor in a Nuclear Generation Station Emergency Plan". Paper presented at the 78th Annual Meeting of the Air Pollution Control Association, June 16-21, 1985, Detroit, Michigan.

Caiazza, R., 1983: "Nuclear Generation Station Emergency Plans and the Meteorological Advisor". Paper presented at the Canadian Meteorological and Oceanographic Society Congress, June 1983, Banff, Alta.

Caiazza, R., M.T. Mills, D.A. Lynn, and R.F. Lee, 1981: "Background SO₂ Air Quality Estimates for Point Source Models". Paper presented at American Meteorological Society's 5th Symposium on Turbulence, Diffusion, and Air Pollution, March 9-13, 1981, Atlanta Georgia.

Caiazza, R. and M. T. Mills, 1980: "Evaluation of the Turner and Irwin Versions of the CRSTER Model". Paper presented at Spring Technical Meeting of the Midwest APCA Section, May 1980, Kansas City, Mo.

Caiazza, R. and J.L. Dicke, 1980: "PBLSQ, A Lead Line Source Model". Paper presented at National Transportation Research Board Meeting, January 1980, Washington, D.C.

Caiazza, R., K. D. Hage, and D.N. Gallup, 1978: "Wet and Dry Deposition of Nutrients in Central Alberta". Water, Air, and Soil Pollution, **9**, 309-314.

Caiazza, R. and K.D. Hage, 1977: "Nutrients in the Precipitation of Central Alberta, Canada". Paper presented at the 2nd Conference of Hydrometeorology, Oct 25-27, 1977, Toronto, Canada.

Other Papers:

Reinking, R.F., R. Caiazza, R.A. Kropfli, B.W. Orr, B.E. Martner, T.A. Niziol, G.P. Byrd, R.S. Penc, R.J. Zamora, J.B. Snider, R.J. Ballentine, A.J. Stamm, C.D. Bedford, P. Joe, and A.J. Koscielny, 1993: "The Lake Ontario Winter Storms (LOWS) Project", *Bull. Amer. Meteorol. Soc.*, **74**, 1828-1849.

Bedford, C.D. and R. Caiazza, 1993: "Interpretation of July 2-17, 1988 Meteorological Fields in the Northeast Ozone Transport Region". Paper presented at A&WMA Regional Photochemical Measurement & Modeling Studies, San Diego, CA, Nov. 8-12, 1993.

Woolley, R., R. Caiazza, and T.A. Galletta, 1992: " 'Tea Kettle' Effect Snow". Paper presented at the 49th Eastern Snow Conference, June 3-4, 1992, Oswego, NY.

- Penc, R.S., S.R. Williams, B.A. Albrecht, R. Caiazza, and R. Reinking, 1991: "Lake-effect storms east of Lake Ontario: some preliminary findings from the LOWS field project". Paper presented at American Meteorological Society's First International Symposium on Winter Storms, Jan. 15-18, 1991, New Orleans, LA.
- Martner, B.E., R.J. Zamora, P.I. Joe, and R. Caiazza, 1991: "Evolution of a freezing rain storm Part II: remote sensor observations". Paper presented at American Meteorological Society's First International Symposium on Winter Storms, Jan. 15-18, 1991, New Orleans, LA.
- Penc, R.S., S.R. Williams, B.A. Albrecht, and R. Caiazza, 1991: "Wind profiler and RASS measurements in the vicinity of lake-effect snow bands: some preliminary findings". Paper presented at American Meteorological Society's Seventh Symposium on Meteorological Observations and Instrumentation, Jan. 15-18, 1991, New Orleans, LA.
- Schulman, L.L., C.M. Haga and R. Caiazza, 1991: "A comparison of turbulence classification schemes in a lakeshore environment". Paper presented at the American Meteorological Society's Seventh Joint Conference on Applications of Air Pollution Meteorology with AWMA, Jan. 15-18, 1991, New Orleans, LA.
- Schulman, L.L., J.S. Scire, D.M. Strimaitis and R. Caiazza, 1991: "Mesoscale numerical modeling of the Eastern Lake Ontario Lake Breeze". Paper presented at the American Meteorological Society's Seventh Joint Conference on Applications of Air Pollution Meteorology with AWMA, Jan. 15-18, 1991, New Orleans, LA.
- Scire, J.S., L.L. Schulman, and R. Caiazza, 1991: "Mesoscale numerical modeling of the Eastern Lake Ontario Lake Breeze". Paper presented at the American Meteorological Society's Seventh Joint Conference on Applications of Air Pollution Meteorology with AWMA, Jan. 15-18, 1991, New Orleans, LA.
- Reinking, R.F., R.A. Kropfli, R. Caiazza, R., G. Byrd, R. Ballentine, A. Stamm, R. Penc, T.A. Niziol, and C.D. Bedford, 1990: "The Lake Ontario Winter Storms Project (LOWS)". Paper presented at American Meteorological Society's 16th Conference on Severe Local Storms, Oct. 22-26, 1990, Kananskis Park, Alta., Canada.
- Niziol, T.A., R.F. Reinking, R.A. Kropfli, G. Byrd, R. Ballentine, A. Stamm, R. Penc, R. Caiazza, and C.D. Bedford, 1990: "The Lake Ontario Winter Storms Project (LOWS)". Paper presented at the 47th Eastern Snow Conference, June 6-7, 1990, Bangor, Me.
- Reinking, R.F., R.A. Kropfli, B.E. Martner, and R. Caiazza, 1990: "Initial findings from the Lake Ontario Winter Storms (LOWS) experiment". Paper presented at American Meteorological Society's 4th Conference on Mesoscale Processes, June 25-29, 1990, Boulder, CO.

Lynn, D. A., M. T. Mills, and R. Caiazza, 1981: "Point Source Model Evaluation". Paper presented at American Meteorological Society's 5th Symposium on Turbulence, Diffusion, and Air Pollution, March 9-13, 1981, Atlanta Georgia.

Mills, M.T., R. Caiazza, D. Hergert, and L. Smith, 1980: "Air Quality Constraints for the Siting of Multiple Power Plants". Paper presented at the 73rd Annual Meeting of APCA, June 22-27, 1980, Montreal, Quebec.

Mills, M.T., E.Y. Tong, and R. Caiazza, 1980: Pollutant Source-Receptor Relationships in the Ohio River Valley. U.S. EPA Industrial Environmental Research Laboratory, Cincinnati, Ohio.

Mills, M.T., R. Caiazza, D.D. Hergert, and D.A. Lynn, 1980: Evaluation of Point Source Dispersion Models. U.S. EPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC.

Maxwell, C.M., R. Bohn, R. Caiazza, and C. Cowherd, Jr., 1977: Development of HATREMS Data Base and Emission Inventory Evaluation. U.S. EPA Contract No. 68-02-2390, Research Triangle Park, NC.