

Eric S. Hall, Research Physical Scientist, in EPA's National Exposure Research Laboratory

Systems Exposure Division

[Mailing Address](#)

hall.eric@epa.gov

Areas of Expertise: Eric Hall has expertise in Exposure Science (Model evaluation/development, validate human activity data for exposure models); Air Pollution Monitoring (Statistical analysis of concentration data, method development/field analysis of monitors/monitor data in support of National Ambient Air Quality Standards [NAAQS] under Clean Air Act [CAA]); Mercury (Hg) Air Pollution Analysis (UV Differential Optical Absorption Spectroscopy [DOAS] analysis); Environmental Justice (Air Pollution and Birth Outcomes; Cumulative Impact Assessment [jointly analyzing/scoring environmental and socio-demographic parameters]); Environmental Public Health Tracking (developed Hierarchical Bayesian Model tool generating combined model/monitor/satellite aerosol optical depth [AOD] concentration estimates for ozone and PM_{2.5}); Ultraviolet Radiation (measurement data analysis of ozone layer thickness and UV impact on ecosystem and human health); and Sustainability (built Multi-Sector Sustainability Browser [MSSB]: summarize land use, transportation, buildings and infrastructure, and materials management sustainability research).

Select Publications:

White, B. M., Hall, E. S., 2015, "Perceptions of environmental health risks among residents in the 'Toxic Doughnut': opportunities for risk screening and community mobilization", BMC Public Health 2015, 15:1230, DOI: 10.1186/s12889-015-2563-y, URL: <http://www.biomedcentral.com/1471-2458/15/1230>, PDF of article: <http://www.biomedcentral.com/content/pdf/s12889-015-2563-y.pdf>

Sadd, J. L., Hall, E. S., Pastor, M., Morello-Frosch, R.A., Lowe-Liang, D., Hayes, J., Swanson, C., 2015, "Ground-Truthing Validation to Assess the Effect of Facility Locational Error on Cumulative Impacts Screening Tools," Geography Journal, Volume 2015, Article ID 324683, September 2015, 8 pages, DOI: <http://dx.doi.org/10.1155/2015/324683>

Hall, E. S., Kaushik, S. M., Vanderpool, R. W., Duvall, R. M., Beaver, M. R., Long, R. W., Solomon, P. A., 2014, "Integrating Sensor Monitoring Technology into the Current Air Pollution Regulatory Support Paradigm: Practical Considerations", American Journal of Environmental Engineering, Volume 4, Number 6, November 2014, pp 147 – 154

White, B. M., Hall, E. S., Johnson, C., 2014, "Environmental Health Literacy in Support of Social Action: An Environmental Justice Perspective", Journal of Environmental Health, Volume 77, Number 1, July/August 2014, pp 24 - 29

Hall, E.S., Beaver M.R., Long, R.W., Vanderpool, R.W., 2012, EPA's Reference and Equivalent Methods Research Program: Supporting NAAQS Implementation through Research, Development, and Analysis, Environmental Manager Magazine, Air & Waste Management Association, pp 8-12.

Thoma, E.D., Secrest, C., Hall, E.S., Jones, D.L., Shores, R.C., Modrak, M., Hashmonay, R., Norwood, P., 2009, Measurement of Total Site Mercury Emissions from a Chlor-Alkali Plant Using Ultraviolet Differential Optical Absorption Spectroscopy and Cell Room Roof Vent Monitoring, Atmospheric Environment, 43(3), 753-757.

View more research publications by [Eric Hall](#).

Education:

- M.C.E., (Master of Civil Engineering), North Carolina State University, 2011
- M.A., Business, Webster University, 1992; Thesis: The Cybernetic System: A Conceptual Model For Analyzing Business Operations
- B.A., Mathematics, Syracuse University, 1983
- B.S., Aerospace Engineering, Syracuse University, 1983

Professional Experience:

- Research Physical Scientist, USEPA, ORD, NERL HEASD, 2003-present
- Supervisory Physical Scientist, USEPA, ORD, NERL HEASD, 2002-2003
- Adjunct Instructor, Wake Technical Community College, 2009-2010
- Manager, Software Engineering, OptXCon, 2001
- Member of Scientific Staff, NORTEL Networks, 2000-2001
- Adjunct Instructor (Computer Programming and Networking), ECPI, 1999-2002
- Principal Member of Technical Staff, GTE/General Dynamics, 1997-2000
- Systems Engineer, TRW, 1995-1997
- Systems Engineer, Infotec Development Inc, 1994-1995
- Air Force Officer, United States Air Force, 1983-1994