Scott G. Huling, Senior Environmental Engineer in EPA's National Risk Management Research Laboratory

Groundwater, Watershed, and Ecosystem Restoration Division
Mailing Address

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Areas of Expertise:

- Redox manipulation research focused on transformation mechanisms associated with catalyzed hydrogen peroxide and persulfate, permanganate oxidative treatment, and reductive treatment systems involving a wide array of environmental contaminants.
- Laboratory and field studies are used to investigate fundamental mechanisms, optimization of process parameters, and to test, evaluate, and gain insight in the effective and economic deployment of chemical oxidation technologies at field-scale.
- Site-specific technical support to EPA Regional and Program Office staff involving critical analyses of site specific technical issues.
- Different chemical oxidation technologies and related technical issues including chemical oxidation, subsurface fate and transport of contaminants, LNAPLs/DNAPLs, natural attenuation, site characterization, bioremediation, and bench- and pilot-scale treatability studies.

Select Publications:

Huling, J.R., **Huling, S.G.**, and Ludwig, R. 2017. Enhanced adsorption of arsenic through the oxidative treatment of reduced aquifer solids. Water Research. 123, 183-191.

Huling, S.G., R.R. Ross, K.M. Prestbo. 2017. In-situ chemical oxidation: oxidant volume design considerations. Ground Water Monit. Remed. 37(2) Spring, 78-86.

Huling, S., B. Pivetz, K. Jewell, and S. Ko. Pilot-Scale Demonstration of In-Situ Chemical Oxidation Involving Chlorinated Volatile Organic Compounds - Design and Deployment Guidelines (Parris Island, SC, U.S. Marine Corp Recruit Depot, Site 45 Pilot Study). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-16/383, 2017.

Kim, J.R., **Huling, S.G.** Kan, E. 2015. Adsorption and oxidative degradation of Bisphenol A on surface modified iron-amended activated carbon: effects of temperature on adsorption and Fenton oxidation, Chemical Engineering Journal, 262, 1260-1267.

Zhao, D., Liao, X., Yan, X., and **Huling, S.G.**, Chai, T., Tao, Huan. 2013. Effect of Mechanism of persulfate activated by different methods for PAHs removal in soil. Journal of Hazardous Materials. 254-255, 228-235.

Chiu, C., K. Hristovski, **S. Huling**, and P. Westerhoff. 2013 In-Situ Regeneration of Saturated Granular Activated Carbon by an Iron Oxide Nanocatalyst. Water Research. Elsevier Science Ltd, New York, NY, 47(4):1596-1603.

View more research publications by Scott Huling

Education:

- Ph.D., University of Arizona at Tucson; Chemical and Environmental Engineering, 1996
- M.S., University of Texas at Austin; Environmental Engineering, 1985
- B.S. University of Texas at San Antonio; Environmental Science, 1981

Professional Experience:

- Professional Engineer (registration number 15895) Oklahoma State Board of Registration.

Technical Support

Provide site specific technical support regarding contaminated sites (CERCLA, RCRA, UST) by providing state of the science critical analyses of site specific technical issues of broad national interest and high priority to EPA Regional and Program Office staff. Currently, the main focus of technical support involves chemical oxidation and redox manipulation technologies, and related technical issues. Historically, this also includes bio- and phytoremediation, natural attenuation, site characterization, LNAPLs and DNAPLs, and treatability studies. The objective is to provide scientific support to enable EPA Remedial Project Managers and Program Office Managers to make informed decision regarding highly technical issues.

Select Awards and Honors

- EPA Scientific and Technological Achievement Awards (STAA) Level II (1); Level III (4); Honorable Mention (5)
- EPA-ORD Bronze Medals, 2014, 1996
- National Notable Achievement Award, Superfund Advancing Innovations and Sustainability in Cleanup Practice, The Resolve Superfund Site Green Remediation Team, Region 1, 2012
- National Notable Achievement Award, Superfund Advancing Cleanup Practice Award, 2011
- Novel In-Situ Chemical Oxidation (ISCO) Preservative Validation Study Team, Region 7
- Editors Award, ASCE J. Environ. Engineering. Consistent Excellence in Peer Review and Outstanding Service to the Organization and Profession