

Lesley Hay Wilson, Ph.D.
Sage Risk Solutions LLC

Education

Ph.D., Civil Engineering, the University of Texas at Austin, Austin, Texas, 2000
M.S., Civil Engineering, Environmental and Water Resources Engineering, the University of Texas at Austin, Austin, Texas, 1998
B.S., Chemical Engineering, Northwestern University, Evanston, Illinois, 1988
(Degree completed December 1987, awarded June 1988)

Professional Experience

Sage Risk Solutions LLC

Principal, Austin, Texas (1999–present)

Develop and implement environmental risk management projects and approaches for public, commercial, and industrial properties. Risk management activities have included human health risk evaluation and risk-based decision making for corrective action sites, and structured decision making processes. Summaries of selected projects are included below:

- Work collaboratively to provide peer-review and risk evaluation support for corrective action at a petroleum refinery and petroleum product bulk terminal facilities. The projects include analyzing environmental data, developing site conceptual exposure models, determining target levels for comparison to concentrations of chemicals of concern collected at the sites.
- Participated in work groups for the ASTM E50 Committee on Environmental Assessment. A principal author for the Risk-Based Corrective Action standard guide (ASTM E2081-00) and most recently provided risk-based corrective action process support and technical editing for the ASTM Standard Guide for Development of Conceptual Site Models and Remediation Strategies for Light Nonaqueous-Phase Liquids Released to the Subsurface (E2531-06).
- Participating as a member of a team of professionals developing an open, transparent process that involves community input as advice to decision makers to reduce public health risks and ecological impacts from a large Department of Energy facility. Collaborating with other team members:
 - Supported the development of a facility-wide site conceptual exposure model for sources of chemicals and radionuclides.
 - Developed and conducted community focus groups to learn about the types of information that the community believes should be considered when decisions about risk reduction are made.

- Developed a prototype decision support tool to provide stakeholders with a risk-informed basis for evaluating and making decisions about prioritizing sources for action and risk reduction alternatives for chemicals and radionuclides.
- Led the development of, and was a principal author for the American Petroleum Institute (API) Publication 4741, “Collecting and Interpreting Soil Gas Samples from the Vadose Zone” (2005).
- Participated as a contributing author to the Remediation Technologies Development Forum (RTDF) publication “A Decision-Making Framework for Cleanup of Sites Impacted with LNAPL” (2005).
- Participated in the development of an objective-based decision model to identify risks and liabilities associated with transferring the responsibility for corrective action for groups of retail service station sites. The decision model provided a mechanism to organize information about the sites, identify the possible outcomes from the different decisions, and define the decision criteria for site transfer.

BP Exploration and Oil, Inc.

Various Positions, Atlanta, Georgia and Austin, Texas (1988 - 1999)

Held environmental engineering positions of increasing responsibility and scope with BP in Atlanta; initially served as a corrective action project manager. Moved into a team leader role with responsibility for a team of corrective action project managers for petroleum products facilities, including service stations, truck stops and terminals. Responsibilities included compliance, budget and technical management of corrective action projects, supervision of the team, and regulatory advocacy for corrective action issues with government agencies. Participated as a member of the API Soil and Groundwater Technical Task Force. Participated in work groups for the ASTM E50 Committee on Environmental Assessment. Corrective action project consultation and senior review, with emphasis on risk assessments, was provided in Austin beginning in mid-1996. Served as the Work Group Chairman for the ERM Risk Evaluation Work Group and as a principal author of the BP Risk-Based Decision Process Guidance Document (1997), including staff and consultant training. (*Part-time project consultation from 1996 to 1999*).

Sohio Oil Company (predecessor to BP)

Cooperative Engineering Program, Various Locations (1985 - 1987)

Participated in environmental engineering and environmental affairs projects at headquarters offices and process engineering activities at the Lima, Ohio Refinery. Completed five quarters of co-op assignments while completing undergraduate degree.

Publications

Book and Journal Publications

Grogan H.A., J.W. Aanenson, P.D. McGavran, K.R. Meyer, S.S. Mohler, H. J. Mohler, J.R. Rocco, A.S. Rood, J.E. Till and L. Hay Wilson. 2006. "Applied Modeling of the Cerro Grande Fire at Los Alamos: An Independent Analysis of Exposure, Health Risk, and Communication with the Public." In *Applied Modeling and Computations in Nuclear Science*. ACS Symposium Series 945. Edited by T.M. Semkow, S. Pommé, S.M. Jerome, and D.J. Strome. American Chemical Society, Washington, D.C.

Hellweger, F.L., L. Hay Wilson, E.M. Naranjo and P.J. Anid. 2002. "Adding Human Health Risk Analysis Tools to Geographic Information Systems." Technical Note in *Transactions in GIS*. Vol 6, Issue 4. pp. 471-484. Blackwell Publishing. Malden, Massachusetts.

Rocco, J.R. and L. Hay Wilson. 1997. "The Risk-Based Corrective Action Process," Chapter 19 in Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property, First Edition, T. S. Davis and K. D. Margolis, editors, American Bar Association, Chicago, Illinois.

Rocco, J.R., and L. Hay Wilson. 2001. "Risk-Based Decision Making for Corrective Action", Chapter 22 in Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property, Second Edition, T. S. Davis and K. D. Margolis, editors, American Bar Association, Chicago, Illinois.

Technical Reports

Hay Wilson, L., P.C. Johnson, and J.R. Rocco. 2006. "Collecting and Interpreting Soil Gas Samples from the Vadose Zone A Practical Strategy for Assessing the Subsurface Vapor-to-Indoor Air Migration Pathway at Petroleum Hydrocarbon Sites," Publication Number 4741, American Petroleum Institute, Washington D.C.

Hay Wilson, L., J.R. Rocco, S.S. Mohler, E.A. Stetar, H.A. Grogan, H.J. Mohler, J. Wilson, B. Jacobs, and P. Voilleque. 2007. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Decision Support Tool Methodology Report*. RAC Report No. 18-RACER LANL-2007-FINAL. Prepared by *Risk Assessment Corporation*, Neeses, South Carolina for Colorado State University. July 20.

Mohler, H.J., H.A. Grogan, K.R. Meyer, J.R. Rocco., L. Hay Wilson, and J.E. Till. 2001. *Analysis of Exposure and Risks to the Public from Radionuclides and Chemicals Released by the Cerro Grande Fire at Los Alamos, Task 0.2: Evaluation of Data Compilation Process*. RAC Report No. 4-NMED-2001-Final. June.

Mohler, S.S., J.W. Aanenson, H.A. Grogan, L. Hay Wilson, P.D. McGavran, K.R. Meyer., H.J. Mohler, J.R. Rocco, and A.S. Rood. 2002. *Analysis of Exposure and Risks to the Public from Radionuclides and Chemicals Released by the Cerro Grande Fire at Los Alamos. Summary*

Report. RAC Report No. 5-NMED-2002-FINAL. Prepared by Risk Assessment Corporation, Neeses, South Carolina for New Mexico Environment Department, Santa Fe. June 12.

Rocco, J.R., K.R. Meyer, H.J. Mohler, J.W. Aanenson, L. Hay Wilson, A.S. Rood, P. D. McGavran, and J.E. Till. 2002. *Analysis of Exposure and Risks to the Public from Radionuclides and Chemicals Released by the Cerro Grande Fire at Los Alamos, Task 2.7: Estimated Risks from Releases to Surface Water.* RAC Report No. 4-NMED-2002-Final. June.

Rocco, J.R., E.A. Stetar, and L. Hay Wilson. 2005. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Site Conceptual Model Report.* RAC Report No. 10-RACER LANL-2005-FINAL. Prepared by *Risk Assessment Corporation*, Neeses, South Carolina for Colorado State University. August 15.

Stetar, E.A., L. Hay Wilson, J.R. Rocco, S.S. Mohler, and H.A. Grogan. 2007. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Focus Group Data Evaluation Report.* RAC Report No. 19-RACER LANL-2007-FINAL. Prepared by *Risk Assessment Corporation*, Neeses, South Carolina for Colorado State University. July 20.

Conference Proceedings

Hay Wilson, L. and J. R. Rocco. 1998. "Development of a Site Corrective Action Cost Comparison Model Based on the ASTM RBCA Guide and Decision Theory," American Society of Civil Engineers Geo Congress 1998, Risk-Based Decision Workshop, Boston, Massachusetts.

Hay Wilson, L. L. N. Koerner, A. P. Romanek, J. R. Rocco, and R. B. Gilbert. 1999. "Critical Success Factors for Implementing Risk-Based Decision Making at a Large Refinery Site," *Contaminated Sites Remediation Conference: Challenges Posed by Urban & Industrial Sites Proceedings*, March 23-25, 1999, Fremantle Western Australia.

Hay Wilson, L., A. P. Romanek, D. R. Maidment, and J. R. Rocco. 1999. "Using a Geographic Information Systems Application to Implement Risk Based Decisions in Corrective Action," *USEPA Environmental Problem Solving with Geographic Information Systems (GIS): A National Conference*, Proceedings EPA/625/R-00/010.

Koerner, L. N., L. Hay Wilson, A. P. Romanek, J. R. Rocco, S. L. Sharp, and R. B. Gilbert. 1998. "Maximizing the Value of Information in Risk-Based Decision-Making: Challenges and Solutions," American Nuclear Society Conference, April 3-5, 1998, Pasco, Washington.

McGowan, K. C., and L. Hay Wilson. 1993. "Storm Water Pollution Prevention Plan and Storm Water Monitoring Program for an Individual NPDES Permit in Tennessee," Georgia Water & Pollution Control Association 1993 Industrial Pollution Control Conference, February 23, 1993, Atlanta, Georgia.

Phillips, G., J.R. Rocco, and L. Hay Wilson. 1998. "Integration of Risk Management and Project Management for Efficient RCRA Corrective Action," American Society of Civil Engineers Geo Congress 1998, Risk-Based Decision Workshop, Boston, Massachusetts.

Rocco, J. R. and L. Hay Wilson. 1998. "The Evolution of Risk-Based Corrective Action," American Society of Civil Engineers Geo Congress 1998, Risk-Based Decision Workshop, Boston, Massachusetts.