

**James R. Rocco**  
**Sage Risk Solutions LLC**

**Education**

B.S., Civil Engineering, New Jersey Institute of Technology, Newark, New Jersey, 1974

**Professional Experience**

**Sage Risk Solutions LLC**

*Principal, Aurora, Ohio (1999–present)*

Mr. Rocco has over thirty years of experience related to environmental risk management, risk-based decision processes for sustainable site corrective action and property redevelopment, and information management. His experience and expertise includes human health risk evaluation, community and stakeholder communication and interaction, and database and geographic information system (GIS) development and implementation. He has a broad range of experience in the management, communication, and resolution of environmental risks and management of information related to brownfield and other environmentally impacted properties and in the design, specification, and development of processes, software applications, and GIS applications to support decision making and the accessibility, presentation, and dissemination of information.

He worked for twenty-five years in private industry overseeing and managing the construction, maintenance, and environmental aspects of commercial and industrial properties. Through Sage Risk Solutions LLC he participates on a team of professionals with Risk Assessment Corporation (RAC), a company that specializes in innovative solutions to environmental, human health, and community issues resulting from chemicals and radionuclides in the environment and is a member of Vita Nuova LLC, a company that specializes in the redevelopment and revitalization of environmentally-impacted properties and neighborhoods.

Summaries of selected projects are included below:

- Completed risk-based evaluations and assessments for commercial and industrial facilities including former railroad maintenance yards, dry cleaners, retail gasoline facilities, manufacturing facilities, and petroleum storage and distribution facilities. The risk-based evaluations included the identification and management of environmental data and information, development of site conceptual exposure models, calculation of site-specific target levels, and conservative fate and transport analysis. The calculation of the site-specific target levels involved implementation of dose response and transport equations, default and site-specific input parameters. The evaluations also included recommendations to address complete exposure pathways including further data collection, remedial action objectives, and potential institutional and engineering controls.

- Participate as a member of the RAC team of professionals in addressing environmental, human health, and community issues resulting from chemicals and radionuclides in the environment. As a member of this team:
  - participated in the development of an open, transparent process involving community input to decision makers to reduce public health risks and ecological impacts from a large Department of Energy facility including:
    - the development of a facility-wide site conceptual exposure model for sources associated with the facility.
    - participation in community involvement activities related to corrective action for sources associated with the facility.
    - the development and oversight of community focus groups to learn about the types of information that the community believes should be considered when decisions about risk reduction are made for the facility.
    - the development a prototype decision support tool to help guide recommendations for risk reduction decisions by providing a mechanism to objectively rank sources of chemicals and radionuclides and focus actions on those sources identified as most important.
    - the development of the ranking and results display portion of a risk-based tool to evaluate sources of risk.
  - participated in the development and implementation of the RACER data management application and its implementation for several industrial clients including:
    - application design
    - spatial data development and implementation.
  - developed a prototype decision support tool for the RACER data management application to support emergency response decision making.
- Participate on a team of professionals as a member of Vita Nuova in the redevelopment and revitalization of environmentally-impacted properties and neighborhoods and the development of community and stakeholder guidance. As a member of this team:
  - evaluated potential risks and constraints associated with current property condition and proposed redevelopment options and provided recommendations for further data collection, remedial options, and activity and use controls consistent with the redevelopment plan;
  - developed and maintained temporal and spatial databases utilizing geographic information systems to support environmental and planning evaluations and constraint analysis for individual property and area revitalization;
  - recommended liability reduction mechanisms to address post development environmental and contractual issues;
  - contributed as an author in the development of USEPA community and stakeholder guidance. Completed documents including the USEPA Partnership for Sustainable Communities Urban Farm Business Plan Workbook and

Worksheets and the USEPA PREPARED workbook for Municipalities and Other Government Entities Addressing Revitalization of Contaminated Properties.

- Developed and conducted workshops on redevelopment strategies for brownfield properties
- Serve as Program Advisor for Interstate Technology & Regulatory Council (ITRC) Risk Assessment team to support the development of a guidance document and training related to chemical risk assessment.
- Completed an evaluation of human health risk associated with surface water runoff from radionuclides and chemicals released by the Cerro Grande Fire that burned a large area associated with the Los Alamos National Laboratory.
- Developed a guidance document for risk-based corrective action for residential and commercial heating oil systems for a national heating oil association. The guidance included a three tier evaluation process and risk-based screening levels for addressing releases from a heating oil system.
- Developed an objective-based decision analysis model to identify risks and liabilities associated with transferring the responsibility for corrective action for retail service station sites. The model provided a mechanism to organize information about the sites, identify the possible outcomes from the different decisions, and defined the decision criteria for site transfer.
- Developed a relational database and software model decision and planning tool to evaluate the impacts of disinfectants used to neutralize biological agents in buildings by identifying the byproducts that are likely to form considering the quantity and type of disinfecting agent used. The model was developed in conjunction with research conducted by the University of Texas at Austin.
- Provide technical, regulatory and legislative support as a retained consultant to the Ohio Petroleum Marketers and Convenience Store Association (OPMCA) and the Petroleum Marketers Association of America (PMAA) for environmental compliance, regulatory, and legislative issues, equipment design and utilization, and environmental compliance and management related to petroleum storage, handling and distribution systems and facilities. Serve as the PMAA representative for the NFPA Technical Committee on Tank Storage and Piping Systems (NFPA 30) and Technical Committee on Automotive and Marine Service Stations (NFPA 30A). Serve as chairman of NFPA Technical Committee on Tank Leakage and Repair Safeguards (NFPA 326 and NFPA 329) representing regulators.
- Provided technical support to a Midwestern state's underground storage tank (UST) regulatory agency for the development and implementation of a risk-based corrective action program. Support included the identification, evaluation, and recommendation of dose response algorithms, fate and transport equations and default input parameters for

the calculation of risk-based screening levels and site-specific target levels; development of a draft guidance document to support the implementation of the risk-based program; and conducting training sessions for state personnel.

**BP Exploration and Oil, Inc.**

*Various Positions, Various Locations (1974 - 1999)*

Held various positions with increasing responsibility in engineering and management positions in construction, maintenance, engineering, health, safety, and environmental compliance and corrective action. Developed and managed the environmental compliance and corrective action programs for the retail marketing facilities. Managed a professional staff of engineers, geologists and technicians responsible for environmental compliance for retail marketing, product stewardship and industrial hygiene and corrective action at over 1700 retail, terminal, pipeline, and refinery facilities nationwide. Managed environmental regulatory development and legislative issues on the state and federal level related to corrective action and environmental compliance.

### **Professional Associations and Awards**

American Society of Civil Engineers (ASCE), 1974 to present  
American Society for Testing and Materials (ASTM), 1991 to present  
National Fire Protection Association (NFPA), 1992 to 1999, 2004 to present  
Chi Epsilon National Civil Engineering Honor Society, (1974 - Present)

### **Other Achievements and Activities**

- Member (appointed by the Ohio Governor) of the Ohio Petroleum UST Release Compensation Board since 1989. Chairman of the Board since 1997.
- Chairman of the NFPA Technical Committee on Tank Leakage and Repair Safeguards and a member of the NFPA 30 Technical Committee on Tank Storage and Piping Systems and NFPA 30A Technical Committee on Automotive and Marine Service Stations.
- Past chairman of the American Society for Testing and Materials (ASTM) Corrective Action Task Group that developed standards for remediation by natural attenuation and accelerated site characterization and principal author of the Guide for Corrective Action for Petroleum Releases (ASTM E1599-94) and the Guide for Risk-Based Corrective Action (“RBCA”) Applied at Petroleum Release Sites (ASTM E1739-95).
- Past chairman of the ASTM Risk-Based Corrective Action Training Task Group and a principal author of the ASTM modular training program for implementation of RBCA in state underground storage tank regulatory programs; the ASTM RBCA Workshop; and the ASTM RBCA Outreach program presented to USEPA Region RCRA and Superfund programs.
- Past co-chairman of the ASTM sustainable Redevelopment Task Group and a principal author of the Standard Guide for Process of Sustainable Brownfields Redevelopment (ASTM E1984-98).

## Publications

### Book and Journal Publications

John E. Till, Helen A. Grogan, H. Justin Mohler, **James R. Rocco**, Arthur S. Rood, S Shawn Mohler, *An Integrated Approach to Data Management, Risk Assessment, and Decision Making*, Health Physics: April 2012 - Volume 102 - Issue 4 - p 367–377

**J. R. Rocco**. *Sustainable Brownfields Redevelopment, Chapter 22 in Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property*, Third Edition, T. S. Davis and K. D. Margolis, editors, American Bar Association, Chicago, IL, 2010.

**J. R. Rocco**, L. Hay Wilson. *Risk-Based Decision Making for Brownfield Sites, Chapter 26 in Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property, Third Edition*, T. S. Davis and K. D. Margolis, editors, American Bar Association, Chicago, IL, 2010.

**J.R. Rocco**, Elisabeth A. Stetar, Lesley Hay Wilson. *Site Conceptual Models, Chapter 8 in Radiological Risk Assessment and Environmental Analysis*. John E. Till and Helen A. Grogan, editors. Oxford University Press Inc., 198 Madison Avenue, New York, New York. 2008

Helen A. Grogan, Jill W. Aanenson, Patricia D. McGavran, Kathleen R. Meyer, S. Shawn Mohler, H. Justin Mohler, **James R. Rocco**, and Lesley H. Wilson, and John E. Till. *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*, Oxford University Press, November 2006.

### Technical Reports

H. Justin Mohler, Helen A. Grogan, **James R. Rocco**, Ryan F. Kiefer, John E. Till. *RACER: Dynamic Use of Environmental Measurement Data for Decision Making and Communication*, Health Physics: February 2012 – Volume 102 Supplement 1 – p S13-21.

J.W. Aanenson, H.A. Grogan, B. Jacobs, G.G. Killough, K.R. Meyer, H.J. Mohler, S. Mohler, **J.R. Rocco**, A.S. Rood, E.A. Stetar, L.H. Wilson, and J.E. Till. *Ranking Tool Methodology. Risk Analysis, Communication, Evaluation, and Reduction at LANL*. RAC Report No. 35-RACER LANL-2008-FINAL. April 2009.

A.S. Rood, P.S. B. Jacobs, P. Shanahan, **J.R. Rocco**, L.H. Wilson, H.A. Grogan, J.E. Till, H.J. Mohler, and J.W. Aanenson. *Overview of Environmental Transport Models Contained in the Risk Analysis, Communication, Evaluation and Reduction (RACER) Software at Los Alamos National Laboratory*. In Proc. Waste Management for the Nuclear Renaissance, March 1-5, 2009, Phoenix, Arizona. Waste Management 2009. [www.wmsym.org](http://www.wmsym.org).

- Risk Assessment Corporation (RAC). Contributing Authors; J.W. Aanenson, H.A. Grogan, B. Jacobs, G.G. Killough, K.R. Meyer, H.J. Mohler, S. Mohler, **J.R. Rocco**, A.S. Rood, P. Shanahan, E.A. Stetar, L. Hay Wilson, J.E. Till. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Ranking Tool Methodology*. RAC Report No. 35-RACER LANL-2008-FINAL. Risk Assessment Corporation. Neeses, South Carolina. April 2009.
- 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. *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 2007.
- Stetar, E.A., L. Hay Wilson, **J.R. Rocco**, S.S. Mohler, and H.A. Grogan. *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 2007.
- Hay Wilson, L., P. C. Johnson, **J. R. Rocco** *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. 2005
- J.R. Rocco**, E.A Stetar, and L. Hay Wilson. *Risk Analysis, Communication, Evaluation, and Reduction at Los Alamos National Laboratory: Site Conceptual Exposure Model*. RAC Report No. 10-RACER LANL-2005-Final. <http://www.racteam.com/RACERatLANL.htm>. August 2005.
- 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. *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 2002.
- J.R. Rocco.**, K.R. Meyer, H.J. Mohler, J.W. Aanenson, L. Hay Wilson, A.S. Rood, P. D. McGavran, and J.E. Till. *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 2002.
- H.J. Mohler, K.R. Meyer, J.W. Aanenson, H.A. Grogan, **J.R. Rocco.**, and J.E. Till. *Analysis of Exposure and Risks to the Public from Radionuclides and Chemicals Released by the Cerro Grande Fire at Los Alamos, Task 3: Calculating and Communicating Risks: Observations and Recommendations*. RAC Report No. 5-NMED-2002-Final. June 2002
- H.J. Mohler, H.A. Grogan, K.R. Meyer, **J.R. Rocco.**, L. Hay Wilson, and J.E. Till. *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 2001

### **Conference Proceedings**

Rood, A.S., B. Jacobs, P. Shanahan, H. J. Mohler, J. W. Aannenson, **J. R. Rocco**, L. Hay Wilson, H.A. Grogan, J. E. Till, 2009. *Overview of Environmental Transport Models Contained in the Risk Analysis, Communication, Evaluation, and Reduction (RACER) Software Tools at Los Alamos National Laboratory.* Waste Management Conference Proceedings, March 1-5, 2009, Phoenix AZ.