

Keith P. Rickabaugh, CIH

Education

- » M.B.A., Business Administration, Robert Morris University, 2000
- » B.S., Materials Science and Engineering, Pennsylvania State University, 1991

Employment History

- » RJ Lee Group, Inc., Technical Director, Materials and Analytical Services, 2005-Present
- » RJ Lee Group, Inc., Manager, Technical Consulting/Special Projects, 2000-2005
- » RJ Lee Group, Inc., Manager, Materials and Particle Characterization Group, 1997-2000
- » RJ Lee Group, Inc., Regional Representative, 1994-1997
- » ENSPEC Environmental Safety Consultants, Inc., Director of Operations, 1993-1994
- » ENSPEC, LTD. Environmental Services, Project Manager, 1991-1992
- » Allied Signal Aerospace Corporation, Research Assistant, 1990

Summary

- » Board Certified in the Comprehensive Practice of Industrial Hygiene with a broad range of experience in occupational exposure recognition, evaluation, measurement and control
- » Provides technical oversight to a staff of highly trained technical professionals. Focus includes analytical method development and implementation of appropriate laboratory methodologies for a wide range of projects and clientele
- » Experienced in working with Federal, State, and local regulatory authorities regarding numerous environmental issues. Has developed air monitoring plans and management strategies to assess emissions related to renovation and demolition of industrial and commercial building structures in urban environments
- » Designed, implemented and performed evaluations of the effectiveness of hazardous drug closed system transfer devices used in oncology pharmacies for hazardous drug compounding
- » Conducted numerous studies of hazardous drug surface contamination for hospital pharmacies in support of USP 797 and draft USP 800 guidelines
- » Performs project oversight and quality assurance / data evaluation for large scale projects requiring adherence to critical timelines and coordination of numerous consultants and regulators
- » Project lead for studies of the potential exposure and toxicological significance of coatings and base materials in consumer products for pre-market testing and consumer product recalls
- » Designed the analytical and field sample protocols and managed the implementation of large-scale environmental assessment projects following the collapse of the World Trade Center Towers
- » Technical oversight of air monitoring programs during demolition of NYC buildings damaged as a result of the World Trade Center Collapse, designed overall programs in cooperation with US EPA and NY State regulators, developed field and laboratory protocols, daily review, interpretation and reporting of analytical results to regulatory agencies

- » Developed analytical procedures and instrumental methods to characterize nanoparticles for industrial manufacturers of various products, developed health and safety guidelines for nanoparticles
- » Instructor for ABIH approved professional development courses on industrial hygiene sampling and analysis methods and nanotechnology health and safety, served on expert panel for nanotechnology health and safety
- » Conducted worker simulation tests of various products to determine potential levels of exposure for chemicals and particulate of concern
- » Designed, implemented and managed programs to evaluate the magnitude, extent and source of particulate in military equipment and automotive systems
- » Performed research and life testing of critical components used by the military
- » Conducted studies to assess migration and source apportionment of soot and particulate using environmental forensics approaches
- » Researcher for EPA to develop method for speciation of mineral wool fibers using multiple microscopy techniques

Certifications and Training

- » Certified Industrial Hygienist, American Board of Industrial Hygiene, 2015 - current
- » American Red Cross CPR/AED Training, 2015
- » Introduction to Toxicology, L. Robinson, AIHA 2015
- » Elemental Industrial Hygiene Part II – Practical App. OEHS Math, J. Burton, AIHA 2015
- » Biological Monitoring – Practical Self Study, Lowry, Spies, Blum & Estill, AIHA 2015
- » Ethics for the OH&S Professional, T. Dunmire, 2015
- » Aerosol Sampling and Analytical Methods PDC, M. Harper, NIOSH 2015
- » Elemental Industrial Hygiene Part I, J. Burton, AIHA 2011
- » Haz. Waste Operations and Emerg. Response (OSHA Hazwoper), F. Quarato, July 2010
- » Occupational Noise Exposure, Quest Technologies, October 2009, ABIH# 09-433
- » Respiratory Protection, PSI, Inc., September 2006, ABIH# 06-2531
- » Radio Frequency (RF) Safety, AIHA Local Mtg., November 2005, ABIH# 05-2787
- » Intro. to Mold & Bacteria Evaluation, Building Ecology, Sampling and Equipment Applications, S. Blevins, October 2005, ABIH# 05-1138
- » EPA Asbestos Abatement Project Designer Training, CEOT, March 1993
- » Asbestos Air Sampling Technician Training – NY State, Edward O. Watts, Aug, 1992
- » EPA Supervisor Training – Interim Procedures and Practices for Asbestos Abatement, D. Weyel (University of Pittsburgh - Graduate School of Public Health, April 1992).

Memberships

- » American Industrial Hygiene Association, Full Member
 - Nanotechnology Working Group (NTWG)
 - Sampling Laboratory and Analysis Committee (SLAC)
- » American Chemical Society

Publications and Presentations

Rickabaugh, K., "Surface Sampling and Analysis for Acrylates", Presented to the AIHce Conference 2019, Minneapolis, WI, May 2019.

Rickabaugh, K., "Electron Microscopy and Nanoparticle Risk Assessment", Presented to the 33rd Annual Meeting of the Allegheny-Erie Society of Toxicology Region Chapter, Modernizing Toxicity Testing and Risk Assessment, Pittsburgh, PA, May 2019.

Rickabaugh, K., "Respirable Crystalline Silica Discussion", Sampling and Lab Analysis Instructor, Sponsored by the AIHA Pittsburgh Local Section, March 2018.

Rickabaugh, K., "Potable Water Safety: What an Industrial Hygienist Needs to Know", KML Regional Council of Carpenters, Pittsburgh, PA, AIHA Local Section Meeting, October 2017.

Rickabaugh, K.P., "Lead in Drinking Water Discussion," Featured Speaker at the AIHA Pittsburgh, PA, October 2017.

Rickabaugh, K.P., "Lead in Drinking Water Discussion," Featured Speaker at the Annual Membership Meeting of the Realtors Association of Metropolitan Pittsburgh, Embassy Suites Hotel, Coraopolis, PA, September 2016.

Rickabaugh, K.P., "Respirable Crystalline Silica Sampling and Analysis," Instructor at Silica Summit - OSHA, West Virginia University, Morgantown, WV, September 2016.

Rickabaugh, K., Meyer, M., Casuccio, G. and Bunker, K., "Investigation of Airborne Particulate Matter on the International Space Station (ISS) using a Thermophoretic Sampler (TPS)," Presented at the AIHce 2016 Conference, Baltimore, MD, May 2016.

Rickabaugh, K., "Energy Operations and Respirable Crystalline Silica," Pennsylvania Independent Oil and Gas Association Health and Safety Committee Meeting, Cranberry Township, PA, September 2015.

Hoover, M. and K. Rickabaugh, "Chapter 16 – Quality Assurance Considerations for Nanoparticles," AIHA Laboratory Quality Assurance Manual – 5th Edition, Teague, A. and Eide, M., AIHA 2015.

Rickabaugh, K., "Respirable Crystalline Silica Discussion," Mid-Atlantic Safety and Health Alliance, Cranberry Township, PA, April 2015.

Rickabaugh, K., "Evaluation of the Thermophoretic Personal Air Sampler (TPS) for Collection of Nanoparticles," SLAC Roundtable, American Industrial Hygiene Conference, June 2014.

Rickabaugh, K., M. Zock and M. Lynn, "Evaluation of Airborne Releases from Cutting Gypsum Drywall Using Various Cutting Methods in a Controlled Environment," Presented to American Industrial Hygiene Conference, June 2014.

Rickabaugh, K., G. Casuccio, K. Bunker and R. Ogle, "Multiple Magnification Analysis for Unbound Engineered Nanoparticles Using High-Resolution Electron Microscopy (HR-EM)," Presented to American Industrial Hygiene Conference, Indianapolis, IN, June 2012.

Ramachandran, G., M. Ostraat, D.E. Evans, M.M. Methner, P. O'Shaughnessy, J. D'Arcy, C. L. Geraci, E. Stevenson, A. Maynard and K.P. Rickabaugh, "A Strategy for Assessing Workplace Exposures to Nanomaterials," *Journal of Occupational and Environmental Hygiene*, Volume 8, Issue 11, pp. 673 – 685, November 2011.

Rickabaugh, K.P., G.S. Casuccio and R. Ogle, "IH Field Practices for Nano-RECON, Anticipation, Recognition, Evaluation, Control and Confirmation, Putting Approaches to Safe Nanotechnology into Practice, A Professional Development Course offered by TVS-AIHA and NIOSH and sponsored by RJ Lee Group, Knoxville, TN, October 2011.

Rickabaugh, K.P., G.S. Casuccio, K.L. Bunker and R. Ogle, "Evaluation of the Potential Release of Unbound Engineered Nanoparticles using High-Resolution Electron Microscopy," Presented to American Industrial Hygiene Conference, May 2011 and to Fifth International Symposium on Nanotechnology, Occupational and Environmental Health, August 2011.

Zock, M.D., S. Soefje and K. Rickabaugh, "Evaluation of Surface Contamination with Cyclophosphamide Following Simulated Hazardous Drug Preparation Activities Using Two Closed-system Products," *Journal of Oncology Pharmacy Practice*, Vol. 17: 55-60, March 2011.

Casuccio, G.S., R. Ogle, L. Wahl, R. Pauer, K. Rickabaugh and K. Bunker, "Worker and Environmental Assessment of Potential Unbound Engineered Nanoparticle Releases, Phase III Final Report: Validation of Preliminary Control Band Assignments," Office of Science, U.S. Department of Energy, September 2010.

Rickabaugh, K.P. and M. Zock, "The Next Generation Lab," *AIHA Synergist* (Feature Article), August, 2010.

Rickabaugh, K., R. J. Hall and M.S. Sanchez, "An Evaluation of Fly Ash in Sediment by Microscopy," Poster Presentation, TVA Fly Ash Symposium, 2010.

Rickabaugh, K., "PO 115 Professional Judgment and Exposure Modeling Strategies: A Test Chamber Method to Measure Respirable Dust for Developing Dust Emission Generation Rates," presented at the American Industrial Hygiene Conference, Toronto, Canada, June 2009.

Rickabaugh, K., "Nanotechnology – Environmental Health and Safety Considerations" *AIHA Synergist* (Feature Article), Volume 20, No. 4, April 2009.

Rickabaugh, K., "Nanotechnology – Recognition, Evaluation, and Control of Potential Health Hazards," presented at West Virginia University AIHA Student Section Seminar, Morgantown, WV, April 2009.

Casuccio, G., K. Rickabaugh, K. Bunker and R. Ogle, "Nanoparticles and Environmental Health & Safety Considerations," presented as a Technical Web Seminar sponsored by RJ Lee Group, April and May, 2009.

Kominsky, J., T. Smith and K. Rickabaugh, "Optical and Electron Microscopy – Forensic Tools to Determine the Extent of Soot Migration in Buildings: A Case Study," presented at the American Industrial Hygiene Conference, Minneapolis, MN, June 2008.

Rickabaugh, K., "Laboratory Workplace Safety Practices and Sampling and Analysis Considerations," presented at the TMS Nano Conference, Pittsburgh, PA, November 2007.

Rickabaugh, K., "Nanoparticle Characterization," Presented at AIHA Chapter Meeting, Pittsburgh, PA, October 2006.

Rickabaugh, K., S.P. Cohen, S. Brown and T. Woods, "Industrial Hygiene Seminar: Overview of Instrumental Analytical Methods," presented at AIHA Chapter Meeting, Pittsburgh, PA, January 2006.

Badger, S.R., C. Bunker, R.J. Lee, M.S. Matyjaszczyk, K.P. Rickabaugh and A.F. Vicinie, "Contamination and Recontamination of Buildings Around Ground Zero," Presented at Pittcon, Orlando, Florida, 2005.

Rickabaugh, K., "Case Studies on Corrosion," Presented to the National Association of Corrosion Engineers, Pittsburgh, PA, November 2004.

Badger, S.R., K.P. Rickabaugh, M.S. Potter, B.E. Sheetz, R.J. Lee and H.R. Bhattacharjee, "World Trade Center Particulate Contamination Signature - Based on Dust Composition and Morphology," Proceedings, Microscopy & Microanalysis, August 2004.

Lee, R.J., S.R. Badger, K.P. Rickabaugh and C.C. Bunker, "Mercury Contamination at Ground Zero," Presented at the Air Quality Symposium, Washington, DC, September 2003.