

AIPG OHIO SECTION 2017 VAPOR INTRUSION SHORT COURSE



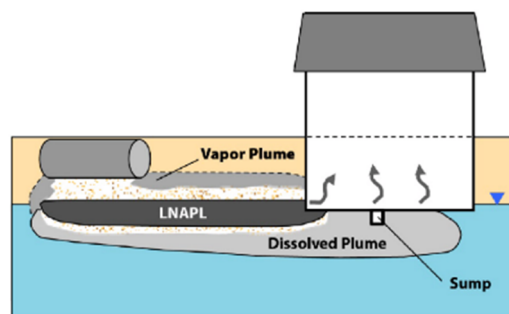
October 24 and 25, 2017

ODNR H.R. Collins Core Laboratory Conference Room, Delaware, Ohio

The AIPG Ohio Section is pleased to announce an upcoming Vapor Intrusion Short Course. Vapor intrusion (VI) is the migration of undesirable chemical components into indoor airspace. Vapor intrusion into buildings is one of the primary routes of human exposure to volatile organic compounds released to the subsurface. This short course will cover VI aspects including the physical processes governing subsurface vapor transport and entry into buildings, VI assessment, monitoring and mitigation strategies, VI risk analysis, legal aspects, case studies and field demonstrations.

TOPICS OF DISCUSSION

- History of Chlorinated Solvents & Soil-gas Sampling
- Regulatory Framework
- Vapor Sources
- Subsurface Sampling
- Predicting Vapor Intrusion To Indoor Air
- Measuring Indoor Air Samples
- Data Interpretation
- Exposure/Receptor Types
- Mitigation Approaches
- Post-Mitigation Sampling & Long-Term Monitoring
- Case Studies
- Community Involvement
- Legal Liability & Obligations



SPEAKERS

MORT SCHMIDT – COX-COLVIN & ASSOCIATES, INC.

Mr. Schmidt has 35 years of experience as a professional geologist in the United States and overseas and is experienced in a diverse range of geological settings, specializing in vapor intrusion pathway evaluations. Mort Schmidt received his B.S. and M.S. degrees in Geology from the Ohio State University. He served for nine years as an exploration geologist for Shell Oil in the Williston Basin, the Amazon Basin, Trinidad, Gabon, and the U.S. Gulf Coast. In the past twenty-six years, Mr. Schmidt served two years as a radon investigator for the Ohio EPA, and for twenty-four years as an environmental consultant. Mort is currently Practice Leader for vapor intrusion for Cox-Colvin, & Associates in Plain City, Ohio. As Cox-Colvin's Vapor Intrusion Practice Leader, Mr. Schmidt oversees and advises project personnel on the investigation of vapor intrusion and its potential effect on indoor air. He has made presentations and taught classes on vapor intrusion at conferences including the AWMA, the Ohio Brownfields Conference, the West Virginia Brownfields Conference, and the AIPG National Meeting. Mort has served or is serving on the American Association of Radon Scientists and Technologists (AARST) board to revise radon measurement standards in multifamily buildings, and on the American Society for Testing and Materials (ASTM) committee to develop the standard for Long-Term Monitoring (LTM) of vapor-mitigation systems. Prior to his work in geology, Mr. Schmidt served in the US Army repairing cryptographic (code) equipment.

CRAIG A. COX - COX-COLVIN & ASSOCIATES, INC.

Mr. Cox is a principal and co-founder of Cox-Colvin & Associates. Much of Mr. Cox's experience involves the direction of major environmental investigation and remediation projects conducted under CERCLA, RCRA, and state voluntary programs. Mr. Cox is instrumental in providing technical oversight to project teams, assisting in the development of investigation and remediation strategies, assessment and evaluation of hydrogeologic information, as well as the development and implementation of project management strategies.

Mr. Cox has successfully proposed, negotiated, and implemented hydrogeologic investigations and remedial actions at a variety of sites in US EPA Regions III, V and VII. His experience includes sites affected by VOCs, SVOCs, DNAPLs, LNAPLs, metals, and petroleum products. Throughout his career, Mr. Cox has consistently supplied clients with technically-sound, cost-effective solutions to their environmental needs.

In addition to work as a hydrogeologist, Mr. Cox has also developed a variety of software products for the environmental field including Data Inspector, an internet-based database application used to manage, retrieve, evaluate, and present all forms of environmental project-related data. He also designed and patented the Vapor Pin, as sub-slab soil gas sampling device used in vapor intrusion studies.

ED PFAU – HULL & ASSOCIATES, INC.

Ed Pfau is a Principal Scientist with Hull & Associates in Dublin, Ohio. He has 25 years of experience in environmental toxicology and environmental risk assessment. He prepares and reviews human health and ecological risk assessments for brownfields, hazardous waste management units,

Superfund sites, and other sites where hazardous substances or petroleum pose a potential or known environmental or regulatory concern. He conducts environmental fate and ecotoxicological evaluations as part of chemical safety assessments prepared to meet registration requirements for chemical manufacturers in the United States and Europe. Before joining Hull, Ed was a senior toxicologist and risk assessor for the Ohio EPA, where he was responsible for rules development, technical guidance and critical review and approval of risk assessments under the Ohio Voluntary Action Program (VAP) and other programs. Ed has both Master's and Bachelor's degrees in Biology. He has served on several committees, including the ASTM E50.04 Voluntary Cleanup Task Group and the generic standards and risk assessment committee under the Ohio EPA VAP Multi-Disciplinary Board. He is an active member of the Society of Environmental Toxicology and Chemistry and the Society for Risk Analysis.

CARRIE RASIK – OHIO EPA

Carrie Rasik received a B.S. in Natural Resources and a M.S. in Environmental Sciences from The Ohio State University. She first worked for the Ohio EPA as an intern for the Right to Know and Toxic Release Inventory programs in 2005 and 2006, and then for the Site assessment and Brownfield Restoration program in 2007. In 2008 she began a full time position with Ohio EPA's Division of Emergency and Remedial Response as a risk assessor. Carrie will give a presentation of Ohio EPA's guidance document on recommendations regarding response action levels and timeframes for trichloroethylene at vapor intrusion sites in Ohio (finalized August of 2016) and examples illustrating its implementation.

MONICA WILLIAMSON – HULL & ASSOCIATES, INC.

Monica is a Senior Scientist with Hull & Associates in Dublin, Ohio. She has 15 years of experience in site assessment, remediation and environmental risk assessment. Monica has prepared human health and ecological risk assessments for the U.S. EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, a.k.a. Superfund) and Resource Conservation and Recovery Act (RCRA) Corrective Action programs in Regions I, III, IV and V; the Ohio EPA Voluntary Action Program (VAP) and state-lead RCRA programs; and other regulatory programs. Additionally, Monica has provided technical oversight on the evaluation of chemical bioaccessibility and bioavailability, and chemical fate and transport, including the leaching behavior of contaminants, vapor intrusion evaluations, and attenuation of chemicals in groundwater in support of assessment and remediation. She serves as Hull's Quality Assurance Officer (QAO) and is responsible for designing and implementing the Quality Management Plan, including development of Data Quality Objectives (DQOs) to support risk assessment. Monica holds a Master of Science in Soil Science, emphasis in Environmental Chemistry, and a Bachelor of Science in Natural Resources from The Ohio State University.

SCOTT DORAN - KEGLER, BROWN, HILL & RITTER

Scott joined Kegler Brown in 2013 and has more than 25 years of experience assisting individuals, small businesses and industry clients in managing federal, state and local environmental, facility siting and natural resource utilization issues. This experience provides a strong foundation for offering effective short-term and long-term strategic advice and perspective.

ENVIRONMENTAL LAW

Scott has assisted clients with the resolution of federal and state environmental enforcement actions, governmental and private-party cost recovery actions, toxic tort claims and citizen suits. He has facilitated state and federal permitting associated with industrial, commercial and residential site development, oil and gas production and transmission, and natural resource mitigation banking. Scott is active in a number of industry associations and regularly contributes to industry-wide efforts to achieve cost-effective and predictable state and federal rulemaking.

PRACTICE AREAS

- Energy + Environment
- Government Affairs
- Litigation
- Real Estate

TONY MCDONALD A-Z SOLUTIONS, INC. VP OF OPERATIONS

Tony is a founding member of A-Z Solutions, Inc. He has over 20 years of leadership experience in the design and installation of radon and vapor intrusion mitigation systems, totaling approximately 10,000 combined commercial and residential properties. As Vice President of Operations and Senior Project Manager, Tony personally inspects all sub-slab depressurization system installations to ensure every component meets rigorous quality and safety standards. Tony is a graduate of Mount Union University in Alliance, Ohio and currently sits on the American Association of Radon Scientist and Technologist (AARST) national board of directors.

COST

- AIPG Members: \$250 for registration before September 8, 2017, \$300 for September 9, 2017 or later.
- Non-Members: \$300 before September 8, \$350 for September 9 or later.

For additional information and registration please go to:

<https://www.aipg-ohio.org/payment.php>

APPROXIMATE COURSE SCHEDULE

Date	Start Time	End Time	Topic
10/24/17	7:30 AM	8:15 AM	Registration/Breakfast
	8:15 AM	8:30 AM	Orientation
	8:30 AM	9:00 AM	History of Solvent Use (C. Cox)
	9:00 AM	10:00 AM	Conceptual Site Model (M. Schmidt)
	10:00 AM	10:15 AM	Break
	10:15 AM	10:45 AM	Regulatory Framework (S. Doran)
	10:45 AM	11:30 AM	Soil Assessment (Petroleum Hydrocarbons) (M. Schmidt)
	11:30 AM	11:45 AM	Questions and Answers
	11:45 AM	12:45 PM	Lunch
	12:45 PM	1:15 PM	Groundwater Assessment (VISL) (M. Schmidt)
	1:15 PM	2:30 PM	Soil-Gas Collection and Monitoring (M. Schmidt)
	2:30 PM	2:45 PM	Break
	2:45 PM	3:45 PM	Soil-Gas Collection and Monitoring (Continued) (M. Schmidt)
	3:45 PM	4:00 PM	Questions and Answers
	4:00 PM	4:45 PM	Demo/Vendor Presentations (EnviroCore, IE, Vapor Pin)
	10/25/17	7:30 AM	8:00 AM
8:00 AM		8:45 AM	Soil-Gas Interpretation (VISL and RALs) (M. Schmidt)
8:45 AM		9:30 AM	TCE Real Time Monitoring (M. Williamson)
9:30 AM		10:00 AM	Response Action Levels (RALs) Ohio EPA (C. Rasik)
10:00 AM		10:15 AM	Break
10:15 AM		11:00 AM	Indoor Air Collection & Measurement (M. Schmidt)
11:00 AM		11:30 AM	TCE Risk Decision Matrix (E. Pfau)
11:30 AM		11:45 AM	Questions and Answers
11:45 AM		12:45 PM	Lunch
12:45 PM		1:15 PM	Laboratory Methods (ALS)
1:15 PM		2:30 PM	Indoor & Ambient Air Interpretation (M. Schmidt)
2:30 PM		2:45 PM	Break
2:45 PM		4:00 PM	Vapor Mitigation & Long Term Monitoring (M. Schmidt)
4:00 PM		4:30 PM	Subslab Depressurization Systems (A-Z)
4:30 PM	4:45 PM	Barrier Systems (EMS)	

This conference was developed by:



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