



Vapor Intrusion Pathway: A Practical Guideline



Course Overview

Over the past ten years, vapor intrusion (VI) has become a significant environmental issue for regulators, industry leaders, and concerned residents alike. Vapor intrusion is characterized as the migration of volatile chemicals from the subsurface into overlying structures. The simplicity of this definition belies the magnitude of resources being expended to address this complex exposure pathway. This training is based on ITRC's national VI pathway guidance which was developed through the combined efforts of more than 100 professionals, including state and federal regulators, consultants, technology vendors, industry, and community stakeholders.

Led by internationally recognized experts, this 2-day ITRC classroom training will enable you to:

- ▶ *Learn the latest strategies to conduct site screening and investigations*
- ▶ *Determine what tools are appropriate to collect quality data and evaluate the results*
- ▶ *Apply multiple lines of evidence to ensure quality decision-making*
- ▶ *Build solutions for VI issues through understanding of mitigation options*
- ▶ *Network with environmental professionals*
- ▶ *Update on revised NJ DEP VI guidance*

Interactive learning with hands-on exhibits, classroom exercises, and frequent Q&A sessions will reinforce these course objectives and contribute to a practical understanding of this difficult pathway.

ITRC's Vapor Intrusion Guidance:

- ▶ *Vapor Intrusion Pathway: A Practical Guideline (VI-1, January 2007)*

No cost download at:

<http://www.itrcweb.org/VaporIntrusion>

Class Date & Location:

April 18-19, 2011 in Princeton, NJ

hosted by ITRC
state member:

New Jersey
Department of
Environmental
Protection
(NJ DEP).



Course Outline & Agenda

Day 1

7:00 a.m.–8:00 a.m.

- ▶ Participant check in

8:00 a.m.–5:00 p.m.

- ▶ Vapor Intrusion (VI) Pathway
- ▶ Investigative Framework
- ▶ Workplan Design
- ▶ Conceptual Site Model
- ▶ Investigative Tools & Exhibits

Day 2

8:00 a.m.–5:00 p.m.

- ▶ Data Evaluation
- ▶ Background Sources
- ▶ Multiple Lines of Evidence
- ▶ Mitigation
- ▶ Application Exercises

Registration Instructions

To register, go to "Classroom Training" at www.itrcweb.org/crt.asp and select the "Registration" link. Follow the instructions to register and provide payment (if required). If you have questions after viewing the online registration information, please contact the **ITRC Training Program at (402) 201-2419** or training@itrcweb.org.

Who should attend?

Regulatory staff involved in remediation programs, members of the regulated community with remediation projects or problems, remediation consultants, public stakeholders, and others interested in gaining a better understanding of the vapor intrusion pathway should attend this training class. Space is available for 200 participants and may be limited by sector to ensure participant diversity.

Course Instructors (instructors vary by class)

John Boyer *New Jersey Department of Environmental Protection, Trenton, New Jersey.*
Technical co-Lead for ITRC's Vapor Intrusion Project and Principal in developing vapor intrusion policy for NJDEP

Robin Mongeon, P.E. *New Hampshire Dept. of Environmental Services, Concord, New Hampshire.*
Technical co-Lead for ITRC's Vapor Intrusion Project and developed vapor intrusion guidance for NHDES

Bill Morris *EnviroGroup, Ltd, Lawrence, Kansas.*
Former co-Lead for ITRC's Vapor Intrusion Project with 20 years in environmental field, including 8 years as the vapor intrusion expert for the State of Kansas

Blayne Hartman, Ph.D. *Hartman Environmental Geoscience, Carlsbad, California.* Author/editor for vapor intrusion and soil gas guidance for U.S. EPA, CA-EPA, ITRC, DOD, API, ASTM, and more than 25 separate state documents

Robert Ettinger *GeoSyntec Consultants, Santa Barbara, California.* Author of the most commonly used vapor intrusion model and has conducted vapor intrusion site investigation and modeling assessments at sites across the country.

Todd McAlary, P.E., P.G. *GeoSyntec Consultants, Ontario, Canada.* Technical Director of one of the world's largest studies of subsurface vapor intrusion and member of the EPA OSWER Expert Panel since 2000.

David Folkes, P.E. *EnviroGroup, Ltd, Centennial, Colorado.* Project Manager of one of the largest vapor intrusion sites in the country since 1998 and has worked on over 30 other vapor intrusion projects across the U.S.

Anita Broughton *Haley & Aldrich, Inc., San Diego, California.* Vice President who has conducted multi-media risk assessments, indoor air quality assessments, and subsurface vapor intrusion evaluations since 1986.

Registration Fee

The course fee is \$795 (with early bird fee of \$595 until March 17). This fee includes a student manual and networking opportunities with refreshments.

Note: For U.S. local, state, and federal government, students, community stakeholders, and tribal representatives, ITRC will offer a limited number of scholarships. More information is available on the registration webpage: www.itrcweb.org/crt.asp.

Cancellations: If you must cancel and notify us on or before March 17, the registration fee will be refunded (Note: a \$100 processing fee will apply).

Continuing Education Information

A certificate of participation will be provided to interested participants indicating 16 professional development hours. Please check with your organization or appropriate licensing board for their requirements and if they will accept this ITRC training course. More information is on the registration page.

Training Locations / Accommodations

Hyatt Regency Princeton
102 Carnegie Center
Princeton, New Jersey 08540

Until March 17, a limited number of rooms are available at the group rate of \$126, plus tax. Participants are responsible for arranging and paying for their lodging. More lodging information and a link to register for the hotel are available on the registration page. Please visit www.itrcweb.org/crt.asp to learn more.

ADA (Americans with Disabilities Act) Information

If you require special accommodation to fully participate in this seminar, please contact the ITRC Training Program at (402) 201-2419 or training@itrcweb.org at least four weeks prior to the course start date.

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Environmental Council
of the States



ITRC Industry
Affiliates Program

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Established in 1995, the Interstate Technology and Regulatory Council (ITRC) is a state-led coalition working together with federal partners, industry, academia, and stakeholders to achieve regulatory acceptance of innovative environmental technologies and approaches.

ITRC operates as a committee of the Environmental Research Institute of the States (ERIS), a Section 501(c)(3) public charity that supports the Environmental Council of the States (ECOS) through its educational and research activities aimed at improving the environment in the United States and providing a forum for state environmental policy makers. Including membership from all 50 states, ITRC is funded primarily by the U.S. Department of Energy, the U.S. Department of Defense, the U.S. Environmental Protection Agency as well as through the ITRC Industry Affiliates Program (IAP).