



# 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*
- ▶ *Learn about new USEPA VI developments*

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:

**March 22-23, 2010  
in Norfolk, Virginia**

Hosted by ITRC State Member:



## 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

*Also includes information about new USEPA VI developments*

## Registration Instructions

To register, go to "Classroom Training" at [www.itrcweb.org/crt.asp](http://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](mailto:training@itrcweb.org).

## 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.

## 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 on registration page.

## Registration Fee

The course fee is \$795 (with early bird fee of \$595 until February 22, 2010). 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](http://www.itrcweb.org/crt.asp).

**Cancellations:** If you must cancel and notify us on or before March 1, the registration fee will be fully refunded (Note: a \$75 processing fee may apply).

## 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.

## Training Locations / Accommodations

Crowne Plaza - Norfolk Downtown  
700 Monticello Avenue  
Norfolk, VA 23510  
Phone: 757-627-5555

Reservations must be made by February 20, 2010 to guarantee the group rate of \$95 plus tax. Please call 757-627-5555 and mention, "Environmental Council of States," to get the room rate and waiver of parking fee. Participants are responsible for arranging and paying for their lodging. Parking fee is \$15/day for commuter participants and hotel guests not reserving with the room block. More lodging information is available on the registration page at: [www.itrcweb.org/crt.asp](http://www.itrcweb.org/crt.asp).

## 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](mailto:training@itrcweb.org) at least four weeks prior to the course start date.

**ITRC is hosted by**



**ECOS**  
Environmental Council of the States

For more information about ITRC and its available products and services go to [www.itrcweb.org](http://www.itrcweb.org)



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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).