



## An ITRC 2-Day Training Course

# 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. The U.S. EPA is working with the ITRC to endorse this national VI guidance as a framework for updates to its 2002 draft VI guidance.

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 dealing with this interdisciplinary and complex pathway*

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 Dates & Location:

**October 7- 8, 2008**

Red Lion Hotel – Convention Center  
Portland, Oregon

Hosted by  
**ITRC State Member**

*Oregon Department of  
Environmental Quality*



*45 regulators expected from Oregon  
plus many from other states*

### 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 corresponding to the appropriate training course, location, and date. 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).

**Cancellations:** If you must cancel and notify us on or before September 10, 2008, the registration fee will be fully refunded (Note: a \$75 processing fee may apply).

### Course Outline & Agenda

#### Tuesday, October 7

**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

#### Wednesday, October 8

**8:00 a.m.–5:00 p.m.**

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

*Many networking opportunities*

### Fees

The course fee is \$795 with early bird registration of \$595 until September 19, 2008. This fee includes a student manual, copies of the associated ITRC guidance documents, 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.

## Course Instructors

### 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

### Bill Morris

*Kansas Department of Health and Environment*  
Topeka, Kansas  
Technical co-Lead for ITRC's Vapor Intrusion Project and KDHE's Quality Assurance Officer and point of contact for vapor intrusion issues

### Blayne Hartman, Ph.D.

*H&P Mobile Geochemistry*  
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

### 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.

## 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 150 participants and may be limited by sector to ensure participant diversity.

## Training Location & Accommodations

### [Red Lion Hotel Portland Convention Center](#)

1021 NE Grand Avenue  
Portland, Oregon 97232

Reservations must be made by September 10, 2008 to guarantee the group rate of \$106 plus tax. Please call (800) 343-1822 and mention, "ITRC," to get the room rate. Participants are responsible for arranging and paying for their lodging. Overnight parking is \$10/day for hotel guests and day-time parking is free for commuter participants. More lodging information is available on the registration page at: [www.itrcweb.org/crt.asp](http://www.itrcweb.org/crt.asp).

## Transportation Information






The closest major airport is the Portland International Airport (PDX). From the airport there are several ground transportation options, including MAX rail, taxi, rental car, and shuttle. More information can be found 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.

## Future classes

ITRC plans to offer this classroom training course at various locations throughout the U.S. from 2009 - 2011. As classes are scheduled information will be available at [www.itrcweb.org/crt.asp](http://www.itrcweb.org/crt.asp).

<p><b>ITRC is hosted by</b></p>  <p><b>ECOS</b> Environmental Council of the States</p>	<p>For more information about ITRC and its available products and services go to <a href="http://www.itrcweb.org">www.itrcweb.org</a></p>	 <p><b>ITRC Federal Partners</b></p>  <p>U.S. Department of Energy</p>  <p>U.S. Department of Defense</p>  <p>U.S. Environmental Protection Agency</p>	<p>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.</p> <p>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).</p>
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