



Vapor Intrusion Pathway Updates & Refresher 1-Day Classroom Training

Hartman Environmental Geoscience, in conjunction with Argonne National Laboratory, will be providing a 1-day vapor intrusion course in Chicago at Argonne's Conference Center in May 2019. The course will be an update and refresher to those who attended the 2-day course given at Argonne in May 2015. The course will also be beneficial to environmental professionals who did not attend the 2-day course in 2015. The course will cover the latest regulatory updates (State & Federal), provide a review and updates on assessment and mitigation methods, and provide a refresher on key topics relating to the VI risk pathway. Representatives from EPA Region 5, IL-EPA and WI-DNR are planning on speaking on their latest policy. The course is highly interactive with numerous examples from real sites. A draft topic outline follows this page.

Course Date: Thursday May 30th, 2019

Location: Argonne National Laboratory Conference Center
9700 South Cass Avenue
Lemont, IL 60439

Pricing: Before May 1: \$275 if by check; \$295 if by credit card (VISA) or PayPal
May 1 or after: \$325 if by check; \$345 if by credit card (VISA) or PayPal

Instructors: Dr. Blayne Hartman, Suzie Nawikas, Laura Trozzolo, Rick Gillespie

Registration:

- By Check: Send e-mail to: blayne@hartmaneg.com or
Call Hartman Environmental Geoscience (858) 204-6170
- By Credit Card: Go to www.hartmaneg.com; Chicago 2019 VI Course Payment Page

Certificates of Course Attendance: Will be given for 7 hours of continuing education.

Want More Information? Contact Dr. Blayne Hartman at blayne@hartmaneg.com



TOPIC LIST/COURSE OUTLINE:

◆ REVIEW OF FEDERAL & STATE GUIDANCES

- EPA OSWER & EPA-OUST
- ITRC & ASTM
- EPA Region 5 Policy Updates - A Representative from Region 5 will speak
- Illinois EPA Policy Updates – A Representative from IL-EPA will speak
- Wisconsin EPA Policy Updates – A Representative from WI-DNR will speak
- The Latest on Short-Term TCE Exposure

◆ HOT TOPICS

- Attenuation Factors. Which to Use & When?
- EPA's Latest J-E Model (Aug 2017). Use? How?
- Sewers – A Concern? How to Sample
- Indicators of VI. Do They Exist?
- Sub-Slab Soil Gas: Useful to Predict Indoor Air Values?

◆ METHODS TO ASSESS VAPOR INTRUSION

- Groundwater Methods
- Indoor Air Methods: Canister & Passive
- Soil Gas Methods. Details & Updates
- Innovative Methods
 - Continuous Monitoring – High Resolution Data
 - Use of Radon to Determine Attenuation
 - Discrete Sampling to Find VOC Entry Points
 - Ventilation Rates
 - Depressurizing Buildings

◆ MITIGATION

- A Review of the Various Methods
 - Vapor Membranes/Liners
 - Passive and Active Vapor Venting Systems
 - Aerated Subfloors
 - Floor Coatings
- System Design Considerations
- Optimizing & Verifying System Performance
- Urgent Response Options