

# The South Carolina Association of Environmental Professionals invites you to attend!

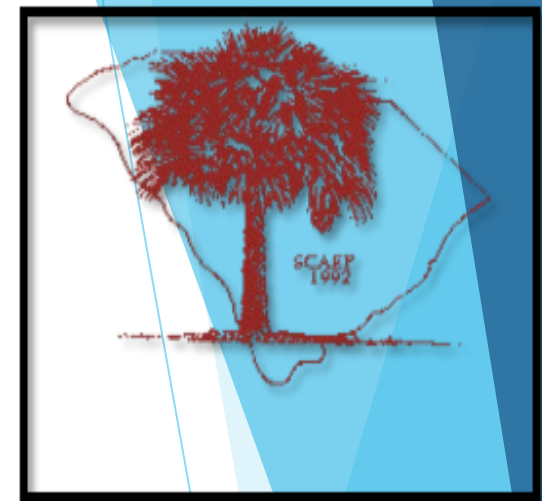
- Date:** Thursday, April 17, 2025
- Time:** 6:30 pm (social) 7:00 pm (meeting start time)
- Where:** SC Power Team Office – 1201 Main Street, Suite 1710,  
Columbia, SC 29201 or Zoom (link below)
- Cost:** No charge for paid members or first-time attendees
- Speaker:** Gary Birk, P.E., Tersus Environmental
- Topic:** *“In Situ Treatment of Long Carbon Tetrachloride and Other Chlorinated Solvent Plume Assessed with Groundwater Modeling, Tracers, Molecular Diagnostic Tools”*

This presentation addresses the remediation of groundwater plumes impacted by carbon tetrachloride, perchloroethylene, and their degradation products (e.g., chloroform, dichloromethane, trichloroethylene, cis-dichloroethene, and vinyl chloride). The project integrates *In Situ* Chemical Reduction (ISCR) with Reductive Bioremediation, utilizing a bioaugmentation culture containing key dechlorinating bacteria) and the enzymes that drive biotic reactions essential for the anaerobic reductive dechlorination of these contaminants. Additionally, Heat-Enhanced Catalyzed Reductive Bioremediation (HECRB) was evaluated to assess its role in optimizing the dechlorination process by maintaining optimal temperatures for microbial activity, enhancing dechlorination rates, and promoting Volatile Fatty Acid (VFA) production crucial for contaminant transformation.

**Gary Birk**, P.E. in NC, VA, and FL, is the Founder and Managing Director of Tersus Environmental. With a bachelor’s degree in chemical engineering from North Carolina State University, he has forty years of experience in the development and implementation of technologies for in situ remediation of contaminated soil and groundwater. Well-known for his contributions to soil and groundwater remediation, he has worked on projects in North America, South America, Europe, Asia, and Africa. In 2011, Gary commercialized EDS-ER™ the first and most widely used water-mixable vegetable oil based organic substrate to provide a lasting source of carbon and hydrogen for enhanced reductive dechlorination and other bioremediation processes. He also is an author of several Patents for Bioremediation of Soil and Groundwater.

**Zoom Link:** <https://us02web.zoom.us/meeting/register/3CM7r1b-Qp6Hn6cY6lePEg>

**Passcode:** 877406



## Our Sponsors:



## ❖ Who are we?

- SCAEP was founded in 1992 as a non-profit organization with the following objectives in mind:
- Promote harmony, cooperation, and mutual understanding among environmental consultants, regulatory agencies, educational professionals, business professionals, etc.
- Allow members of the various disciplines represented, both public and private, the opportunity to interact at a social level
- Encourage the transfer of technical information
- Provide a vehicle for continuing technical education
- Foster the highest standards of Professional Ethics within the environmental field
- Combat unfair practices within the environmental field

## ❖ Why Join or Sponsor SCAEP?

- PE/PG Credit Hours!
- Networking with professionals
- Food and drinks (some “fortified”) at each meeting
- A forum to present new research and interesting topics (PGs get 2 credit hours for presenting!)
- Two memberships when you sponsor SCAEP
- We always have fun and the whole group is pretty much AWESOME 😊
- Membership fees are only \$35/calendar year and \$15 for students

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