

THE ASCE PITTSBURGH SECTION GEO-INSTITUTE CHAPTER PRESENTS

Terzaghi Lecture - November 2017 Dinner Meeting

Protecting the Environment with Geosynthetics (53rd Karl Terzaghi Lecture)

Presented By: R. Kerry Rowe, Ph.D., D.Eng., DSc(hc), NAE, FRS, P.Eng.



Geosynthetics are now widely used to contain fluids and protect the environment. Applications include most modern landfills, lagoons for contaminated fluid and drinking water, dams, and mining applications such as heap leach pads and tailings storage facilities where loss of fluid to surface water or groundwater must be minimized. These systems often involve a single liner with welded panels of geomembrane liner, a geosynthetic clay liner, or a composite liner with a geomembrane over a clay liner. For large landfills or other higher-risk applications, a double liner system with a geocomposite or granular drain between two liners is used. Most frequently designs have used materials that meet a minimum set of commonly specified index parameters. This lecture draws together field observations, long-term experimental data, and theory to show how and why these systems have worked so well while highlighting the importance of design and construction considerations that, if overlooked, can cause problems. It then discusses the means of avoiding pitfalls. The increasing demands being placed on geosynthetic-based solutions by public/political sensitivity to impacts on the environment, more severe exposure conditions, and climate change will be discussed in the context of the expected increased role for geosynthetics in liner systems with long service-lives.

Dr. R. Kerry Rowe was educated and worked as a geotechnical engineer in Australia before immigrating to Canada in late 1978 to take up an academic position. He has published prolifically on, and has extensive research and consulting experience in, geotechnical, geosynthetics, waste management and geoenvironmental engineering including the design and/or peer review of hydrogeology and design of landfills.

Date: **THURSDAY,
NOVEMBER 30, 2017**

Place: ESWP
337 Fourth Avenue
Pittsburgh, PA 15222

Time: 6:00 PM Social Hour
7:00 PM Dinner
8:00 PM Presentation

Reservations received on or before 11/17/17:

\$30 ASCE Pittsburgh Section Members / Government Employee
\$40 Non-members
➤ *Free for Students*

Reservations received between 11/18/17 - 11/24/17

\$35 ASCE Pittsburgh Section Members / Government Employee
\$45 Non-members
➤ *\$10 for Students*

Please select the following entrée options when registering: Chicken Margherita, Veal Bracciale, Scrod Riviera, or Farfalle Pasta.

PLEASE RSVP by contacting Mr. Vishal Patel @ vpatel@agesinc.com or by registering online at <http://www.asce-pgh.org/> **Online registration is highly encouraged and payments can be made with credit card.** Only cash or checks will be accepted at the door.