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**IGS North America Presents** 

## WEBINAR: Pond Liner System Design and Operation

Presented by Richard Thiel, P.E., *President, Thiel Engineering* 

**Tuesday, January 30, 2018** 1:00 – 2:30 pm EST (includes Q&A time)

#### REGISTER ONLINE! www.IGS-NA.org

**Registration Cost:** 

\$20.00\* – IGS-NA Members \$80.00 – Non-members

### Earn 1 PDH

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## WEBINAR: Pond Liner System Design and Operation

**Presented by Richard Thiel, P.E.** *President, Thiel Engineering* 

Though pond lining applications are common, the proper design and operation of pond lining systems requires great care. A large number of facilities in need of liquid containment are sensitive sites at which pond leakage could result in geotechnical failure of the embankments and subgrade, environmental damage, loss of valuable operational solutions or water, and disruption of operations. In this webinar, Richard Thiel, P.E., will share decades of insight into the proper design and operation of geosynthetic pond lining systems.

The engineering information in the session provides guidance and key considerations for those who work with potable water reservoirs, stormwater detention ponds, mining spoil containment sites, irrigation water storage, wastewater lagoons, food and industrial processing facility wastewater treatment ponds, hydrofracking containment ponds, pumped storage reservoirs, and more.

#### ATTENDEES WILL LEARN ABOUT:

- Geotechnical issues for pond design
- Liner Configuration and Leakage Management
- Liner Uplift Considerations
- Durability and Aging of Exposed Geomembrane
- Slope Deformation Due to Wave Action
- Pond Operations

Participants will earn 1 PDH at the conclusion of this webinar.

**WHO SHOULD ATTEND:** Owners and operators of liquid containment facilities; contractors involved in lined pond construction and maintenance; and civil engineers, hydraulic engineers, water engineers, stormwater engineers, wastewater engineers, agricultural engineers, gas and oil extraction engineers; and mining engineers that design containment facilities.

**PRESENTER BIO:** Richard Thiel, P.E., has more than 30 years of experience and specialization in containment design applications for geotechnical projects, waste containment, secondary containment of fuel, and leach mining applications. His work has involved extensive interaction with feasibility evaluations, design, permitting, design peer review, economic evaluations, failure analyses, and construction of waste facilities and surface impoundments. He is an expert in the design of liner systems with soils and geosynthetics, leachate management systems including pipelines and pump stations, geotechnical site reconnaissance and resource investigation programs, construction quality assurance (CQA), and assistance in developing state solid waste regulations.

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