

October 24th, 2019 – Dinner Meeting

The Investigation of Two Recent Tailings Dam Failures

Presented By: Mark A. Styler, Ph.D. – A.G.E.S., Inc.

1.0 PDH available

This talk covers the post-failure site-investigation of two recent tailings dam failures: Fundão in Brazil in 2015 and Mt. Polley in Canada in 2014. These failures resulted in the release of large quantities of mine tailings slurry into the environment. The engineering root-cause of each failure had to be determined as quickly as possible to support the redesign of the earth dams to facilitate the cleanup operations. The site-investigations and how these results were interpreted to support or refute hypothesized failure mechanisms for each dam failure will be discussed.

Geological processes, soil mechanics, and site-investigation tools are the same in Brazil, in Canada, and in Pennsylvania. These similarities include subsurface conditions developed from glacial processes; drained and undrained soil strengths in the foundations of embankments; and standard penetration tests, soil sampling and lab testing. This talk highlights geotechnical engineering lessons that may be applicable to our region.



Dr. Mark Styler worked for ConeTec from 2010 to 2018 in a research and development role. At ConeTec, Dr. Styler was responsible for executing and reporting on internal research projects, reviewing external research projects run by partnering academics, and internal education of technical staff. In 2018 he began working at American Geotechnical and Environmental Services, Inc. He currently contributes to the geotechnical engineering analysis and design of roadway and other infrastructure projects in Pennsylvania. Dr. Styler received a Ph.D. from the University of British Columbia investigating the effect of ageing on non-linear shear-moduli reduction curves. He received his M.A.Sc. from the University of Florida where his thesis focused on the calibration of LRFD factors for deep foundations.

Where

Cefalo's
428 Washington Ave, Carnegie, PA 15106

Time

6:00 – 7:00 PM	Socializing and cash bar
7:00 – 8:00 PM	Buffet dinner
8:00 – 9:00 PM	Presentation

Reservations

	until Fri. 10/11	between Sat. 10/12 - Fri.10/18
Students	FREE	\$10
ASCE Members	\$30	\$35
Government Employees	\$30	\$35
Non-members	\$40	\$45

Register online at www.asce-pgh.org

Pay online or at the door (through the "invoice me" option.
Only cash or checks received at the door)

Questions? Email Maria Jaime (mjaime@agesinc.com)