

Agenda

Presented by Michael Perlow Jr. P.E.

Geo-Environmental Hazard Overview

Overview of extreme weather, geologic hazards, and hazards resulting from man's activity
Review of the increasing frequency and severity of extreme weather in the US and world
Geologic hazard overview (sinkholes, subsidence, landslides, earthquakes, problem soils, etc.)
NATECH hazard assessment (natural hazards triggering technological man-made disasters)
Impact of man's activity (land development, stormwater, water resources, mining, logging)
Impacts on critical municipal, transportation, energy, and telecommunications infrastructure
Impacts of geo-environmental hazards on design of buildings, other structures, and utilities
New ASCE 7-16 Design Loads for Buildings and web-based hazard tool overview

Geo-Environmental Hazard Assessment

Limit state hazard assessment considering geohazards, extreme weather and man's impacts
Extreme weather hazard assessment to identify changes in loading and resistance to loading
Geologic hazard assessment using limit state methods to identify critical failure conditions
NATECH hazard assessment (natural hazards triggering technological man-made disasters)
Hazard assessment of man's activity including building, structure, and infrastructure failures
Integrated limit state hazard assessment of geohazards, extreme weather, and man's activity
Review of example geo-environmental hazard assessment case studies

Geo-Environmental Risk Management

Emergency response, mitigation, monitoring, and loss prevention risk management tools
Conventional geo-environmental hazard risk management state of practice
Review of limit state hazard assessment and geotechnical limit state design practices
Use of aerial mapping, lidar, remote sensing with limit state spreadsheet graphs, plots
Development of building, infrastructure, and natural environment deterioration models
Limit state risk assessment, failure analysis, mitigation, monitoring and mitigation examples

GEHARM Case Studies

Illustrative case studies using limit state hazard assessment and risk management tools
Flash flooding in prolonged drought, desert, and forest fire areas
Extreme rain, wind, lightning, hail, tornados, river-stream flooding
Tropical storms, hurricanes, typhoons, storm surge, coastal erosion, and flooding
Sinkhole collapse, land subsidence, swelling soils, fault movement, ground cracking
Landslides, mudslides, rockslides, avalanches, slope, and retaining wall failures
Earthquakes, volcanic eruptions, lahars, tsunamis, and landslide flooding
Infrastructure, building and structure failures, man-made disasters
Planetary hazard case studies and risk management approach

Geo-Environmental Hazard Risk Management
Coraopolis, PA - Thursday, January 18, 2018

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Learning Objectives

You'll be able to:

Get an overview of extreme weather hazards, geologic hazards and hazards resulting from man's activity.

Explore limit state hazard assessment of geohazards, extreme weather and man's impacts.

Discuss the development of building, infrastructure, and natural environment deterioration models.

Use aerial mapping, lidar, remote sensing with limit state spreadsheet graphs and plots to manage geo-environmental risks.

Evaluate the impacts on critical municipal, transportation, energy, and telecommunications infrastructure.

Review case studies of extreme weather, flash flooding, landslide, earthquake and infrastructure failure events.



Geo-Environmental Hazard Risk Management

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Examine the increasing frequency and severity of extreme weather in the U.S.

Understand geo-environmental hazard assessment

Explore new ASCE 7-16 design loads for buildings

Use integrated limit state hazard assessment of geohazards, extreme weather events and hazards from human

Learn geo-environmental risk management strategies

Discuss geo-environmental hazard assessment case studies

Continuing Education Credits

Professional Engineers

6.5 PDHs

Floodplain Managers

6.5 ASFPM CECs

Architects

6.5 HSW Contact Hours

6.5 AIA HSW Learning Units



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Faculty

Michael Perlow Jr. P.E.
Mr. Perlow is a retired civil and geotechnical engineer with more than 40 years of experience in foundation and marine geotechnical engineering with special technical expertise in geo-environmental hazard assessments, failure investigations, sinkhole stabilization, foundation and utility infrastructure repair. Mr. Perlow is a registered professional engineer and a graduate of Lehigh University with BSCE and MSCE degrees. He is also the author of some 30 technical publications and has presented at numerous conferences, seminars and meetings. Mr. Perlow retired from full-time consulting in April 2015 and continues to work part-time in retirement. He remains the owner of EKMLLC - Engineering Knowledge Management LLC and is completing work on an Elsevier book on geo-environmental hazard risk management. In addition, Mr. Perlow is also completing publications on a two-year applied research project focusing on drilled foundation limit state design. He also provides continuing education seminars and webinars. He is developing a unique drilled foundation knowledge management system (DFKMS) that will accumulate user knowledge, experience and foundation design-performance data through the use of simple estimating spreadsheets. User collective knowledge and experience is archived in the DFKMS which will result in constant improvement of the estimating spreadsheet predictions and validation. A similar knowledge-based geo-environmental hazard risk management system (GEHRMS) application is also under final development by Mr. Perlow in 2016. Mr. Perlow has been a speaker for HalfMoon Education since early 2016.

Seminar Information

Pittsburgh Airport Marriott 777 Aten Road Coraopolis, PA 15108 (412) 788-8800	Registration 8:00 - 8:30 am Morning Session 8:30 - 11:45 am	Lunch (On your own) 11:45 am - 12:45 pm Afternoon Session 12:45 - 4:30 pm
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Tuition
\$279 for individual registration
\$259 for three or more simultaneous registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.
Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and a job description, go online to www.halfmoonseminars.org.

How to Register
• Visit us online at www.halfmoonseminars.org
• Mail-in or fax the attached form to 715-835-6066
• Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Additional Learning

- Webinar Series**
Flood-Resistant Buildings
• **Floodplain Development under NFIP Standards**
Wed., Nov. 29, 2017, 11:00 AM - 12:00 PM CST
• **Building Design under NFIP Standards**
Wed., Nov. 29, 2017, 12:30 - 2:00 PM CST
• **Designing and Constructing Flood-Resistant Buildings**
Fri., Nov. 30, 2017, 11:00 AM - 12:00 PM CST
• **Designing and Constructing Foundations and Above-Grade Flood Resistance**
Fri., Nov. 30, 2017, 12:30 - 2:30 PM CST
- Construction Cost Estimating**
• **Introduction to Cost Estimating**
Thurs., Dec. 7, 2017, 11:00 AM - 12:30 PM CST
• **Cost Components - A Closer Look at the Estimates**
Thurs., Dec. 7, 2017, 1:00 - 3:00 PM CST
• **Cost Estimate Organization**
Fri., Dec. 8, 2017, 11:00 AM - 1:00 PM CST
• **Cost Estimating Topics**
Fri., Dec. 8, 2017, 1:30 AM - 3:00 PM CST
- Retaining Walls and Slope Stabilization**
• **Retaining Wall Basics**
Thurs., Dec. 14, 2017, 11:00 AM - 12:00 PM CST
• **Geosynthetics and Retaining Walls**
Thurs., Dec. 14, 2017, 12:30 - 2:30 PM CST
• **Slope Stability and Geosynthetics**
Fri., Dec. 15, 2017, 11:00 AM - 12:30 PM CST
• **Slope and Retaining Wall Failures, Fixes and Prevention**
Fri., Dec. 15, 2017, 1:00 - 2:30 PM CST

Solar Photovoltaic Project Design and Development
• **Solar Photovoltaic Project Design and Development, Part I**
Thurs., Nov. 30, 2017, 11:00 AM - 3:15 PM CST
• **Solar Photovoltaic Project Design and Development, Part II**
Fri., Dec. 1, 2017, 11:00 AM - 2:15 PM CST

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects in most states, including Pennsylvania. Courses and course providers are not subject to pre-approval in Pennsylvania.

HalfMoon Education is deemed an approved architect continuing education sponsor for architects in New York. HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

This seminar is approved by the American Institute of Architects for 6.5 HSW Learning Units (Provider No J885). Only full attendance can be reported to the AIA/CES.

The Association of State Floodplain Managers has approved this seminar for 6.5 CECs for certified floodplain managers.

Attendance will be monitored and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can't Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

Geo-Environmental Hazard Risk Management

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How to Register		Registrant Information Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____ Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____ Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred. () I need special accommodations. Please contact me.
Online: www.halfmoonseminars.org		
Phone: 715-835-5900		
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Complete the entire form. Attach duplicates if necessary.		

Tuition () I will be attending the live seminar. Single Registrant - \$279.00 . Three or more registrants from the same company registering at the same time - \$259.00 each. () I am not attending. Please send me the CD manual package for \$289.00 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CVV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____