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OREGON SECTION

NEWSLETTER

The Official Newsletter of the Oregon Section Association of Engineering Geologists

Feb, 2001

VOLUME 01, NUMBER 02

FEBRUARY MEETING:

Joint Meeting - ASCE, AEG, ASCE GEOTECH

Speaker: ***Robert M. Koerner***
Drexel University Philadelphia

Talk: ***“Stability Assessment of
Ten Large Landfill Failures”***

Date: **Tuesday, February 13, 2001**

Times: 5:00 PM Social hour
 6:00 PM Dinner
 7:00 PM Presentation

Where: Double Tree Hotel: Lloyd Center
 1000 NE Multnomah
 Portland, OR 97232

Menu: \$27 Chicken Picata

Reservations: Call in their reservation to the URS receptionist at 503-222-2700. Leave your name, company name, and indicate that you are with AEG.

ABOUT THE SPEAKER:

Speaker: Robert M. Koerner

For more information see:

http://www.drexel.edu/academics/coe/cae/faculty_koerner.htm

After 15-years of research in the nondestructive evaluation of geotechnical materials (soil, rock, liquid), the area of plastics in below ground construction appeared to be a unique opportunity. Beginning with a small nomograph in 1980, a number of research and development opportunities presented themselves. The area coalesced and emerged as a group of geo-plastic materials, which currently includes geotextiles, geomembranes, geogrids, geonets, geocomposites, geosynthetic clay liners, geofoam and geopipe. The book Designing with Geosynthetics, now in its fourth edition, treats all of these materials insofar as testing, design, analysis and performance is concerned. It (along with the attendant research and development) has firmly established the writer, his colleagues and Drexel University in this field as national and international leaders

ABOUT THE TALK:

Talk: *Stability Assessment of Ten Large Landfill Failures*

Abstract from Published Paper:

This paper presents and analyzes ten large solid waste landfills. Five are unlined or soil lined, and five are lined with one or more geosynthetic materials. The case histories are analyzed by a 3-D computer code adjusting variables (mainly interface shear strength) to arrive at a FS = 1.0. A triggering mechanism unique to each site, is then applied resulting in a FS < 1.0. The same variables and triggering mechanisms are then used in a 2-D computer code with FS-values further decreasing by different amounts. The ratio of 3-D to 2-D factors-of-safety is called a wedge factor.

Conclusions are as follows:

- (i) Interface shear strengths are the overriding considerations in varying FS-values. Accurate determination cannot be overemphasized.
- (ii) The triggering mechanisms were all liquid related, i.e. leachate buildup within the waste mass, wet clay beneath the geomembrane, or excessively wet foundation soil.
- (iii) The average wedge factor of all case histories without, then with, the triggering mechanisms is 1.24.

Message from the Chair (Feb. 2001)

We have had a number of well attended and interesting meetings this year, and Gary's presentation on the City of Salem's new landslide hazard ordinance and how it came to be was one of the best. The subject is somewhat controversial, in that a few geotechnical engineers have expressed concern about not being more involved in the ordinance development process. News to me was that the City searched the country and found upwards of a dozen similar ordinances to help them model theirs. Gary explained how the City took the examples and combined them with public input and their local experience to develop their own ordinance.

One thing that Gary reminded us about is the Department of Land Conservation and Development's "Oregon's Statewide Planning Goal 7" (adopted under Oregon Administrative Rules Chapter 660, Division 15). Goal 7, for Areas Subject to Natural Disasters and Hazards, can be reviewed at the following website:

http://darkwing.uoregon.edu/~pppm/landuse/GOALS/Goal_7.html

This planning goal has probably created an environment where local governments will be individually developing ordinances to protect life and property from natural hazards. Ordinances from different governments will likely vary in content, reflecting the variability in local hazards and the technical input provided to the people writing the ordinance by professionals living and practicing in the area.

GSA Cordilleran Section Meeting in Corvallis, May 2002

Oregon Section of AEG will be working with GSA on programs for the meeting. If anybody is interested in assisting our section involvement with the conference, please contact Scott Burns or me.

February Meeting

I hope to see many of you at our joint meeting with ASCE. This is the annual meeting where we can rub elbows with our civil and geotechnical counterparts. The day and time have been changed to accompany the schedule of the speaker, Dr. Bob Koerner: he is participating in the geosynthetics conference at the same time and location. The topic of Dr. Koerner's presentation has also changed from a general discussion on geosynthetics to case histories of landfill stability failures.

Charlie Hammond
AEG Oregon Section Chair



AEG • AIPG • 2001
ASSOCIATION OF ENGINEERING GEOLOGISTS
INSTITUTE OF PROFESSIONAL GEOLOGISTS
Geology: Central to Society's Needs
JOINT ANNUAL MEETING - 44th AEG • 38th AIPG
St. Louis, Missouri -- Hyatt Regency Union Station Hotel
"Gateway to the West"
September 30-October 7, 2001



CALL FOR TECHNICAL PAPERS AND EXHIBITORS

Come and enjoy all that the St. Louis Area has to offer!
**AEG•AIPG•2001 features short courses, field trips, technical sessions, symposia,
and fun stuff!**
Find your way to St. Louis in 2001 !!

Abstract submittals due May 1, 2001

E-mail preferred: meetings@aeg.tamu.edu
Or submit your abstract on AEG's Web Page:
www.aegweb.org, Annual Meeting
Or mail with disk to:

AEG•AIPG•2001 c/o Julie Keaton
130 Yucca Drive
Sedona, AZ 86336-3222
(520) 204-1553
Fax: (520) 204-5597

Technical Program Topics

Engineering & Environmental Geophysical Case Histories
Environmental Practice in EPA Regions V & VII
Geologic Solutions to Transportation Concerns:
Highways & Waterways Groundwater Remediation
Karst Remediation
Midwest Geologic Hazards: Recognition & Risk Management
New Madrid Seismic Threat
Case Histories in Engineering Geology
Transportation Engineering Geology
Groundwater Investigations
Coastal and River Engineering Geology
Environmental Investigation & Clean-Up

(Abstract must not exceed 250 words and must include author's full name, company name, and company address below the title of the paper. We prefer that authors use Microsoft Word. Please include your daytime telephone number. See sample abstract submission form on AEG's Web Page: www.aegweb.org)

Committee Chairs

General Co-Chair (AEG): Larry Rosen, lcr@shanwil.com
General Chair (AIPG): John Howard, jthoward@theitgroup.com
Technical: Greg Hempen, hempen@mvs02.usace.army.mil
Professional Development: John Bognar, lbgstl@netscad.net
Symposia: Paul Santi, psanti@umr.edu
Short Courses: Karl Finke, nrfinkk@mail.dnr.state.mo.us
Teachers Workshop: Martha Kopper, mkopper@ene.com
Financial: C. Dale Elifrits, cdfritz@umr.edu
Hospitality/Guest Affairs: Kerry L. Nikolaisen, klnlbg@netscad.net
Student Coordination/Logistics: Jeff Cawfield, jdc@umr.edu
Field Trips: Duane Kreuger, dtk@geotechnology.com
Sponsors: James H. Williams, jhwms@marktwain.net
Exhibitors & Meetings Manager: Julie C. Keaton, meetings@aeg.tamu.edu

CONFERENCE ANNOUNCEMENT

“Geologic Hazards in Utah”

April 12 and 13, 2001

State Capital Auditorium

Salt Lake City, UT

Evaluating and Reducing Geologic Hazards in Utah: Practical Information for Geologists and Engineers. The conference targets practicing professional geologists and engineers and will highlight the latest techniques in geologic-hazard assessment and reduction. It is principally a technical conference, but land-use planners and regulators should also find it interesting and applicable to their roles in reviewing geologic-hazards reports and permitting development. Invited speakers will cover earthquake topics on Thursday, April 12, including ground shaking, liquefaction, surface faulting, and building code issues. On Friday, the emphasis will be on landslides, debris flows, rock falls, avalanches, and dams. Each day will conclude with a panel discussion of the invited experts to address questions from the audience regarding technical issues as well as issues of acceptable risk. Conference chairs are David Simon (Simon-Bymaster, Inc.) for AEG and John Wallace (IGES) for ASCE. The organizing committee includes Bill Loughlin (AEG, Kleinfelder), Steve Bartlett (ASCE, U of U), Gary Christenson (UGS, USSC), Darlene Batatian (UGA, Salt Lake County), and David Marble (ASCE, DWR).

Webpage. <http://www.users.qwest.net/~ssbartlett/geohazutah.htm>.

Program. A program summary is provided as follows:

Day 1. Earthquakes (April 12)

- Session 1. Ground shaking; Design criteria
- Session 2. Liquefaction assessment
- Session 3. Quaternary faults
- Session 4. Response spectra and building codes

Day 2. Landslides, Debris Flows, Rock Falls, Avalanches, And Dams

- Session 1. Landslides
- Session 2. Rock falls and case histories
- Session 3. Debris flows and Avalanches
- Session 4. Planner's perspectives

Registration. A registration form can be downloaded from the webpage. Registration fees are:

Full Symposium Registration (non-student) = \$135

One-Day Registration (non-student) = \$75 (must specify day)

Full Symposium Student Registration = \$35 (meals included)

All registrations include abstracts and complementary continental breakfast and lunch, plus break beverages. Full registration also includes complementary conference portfolio. All registrations must be prepaid. Confirmation will be limited to the first 125 paid registrants. **Register today!**

Corporate Sponsors. *The Organizing Committee is seeking corporate sponsors to help assure the success of the conference. For more information please contact Dave Simon at Dskimon@aol.com or 801-943-3100 or John Wallace at john@igesinc.com or 801-521-1800.*

Proceeds from the conference will benefit the AEG and ASCE scholarship funds

AEG CALENDAR

- Feb. 15 Joint Meeting ASCE, ASCE GEOTECH, AEG
Speaker Bob Koerner – Drexel University Philadelphia
“*Stability Assessment of Ten Large Landfill Failures*”
Location: Lloyd Center Double Tree Hotel
- Mar. 15 AEG Oregon Section Meeting
Speaker: Rex Upp AEG President
Cedar Hills McMenamins
- Apr. 18
Wednesday AEG Oregon Section Meeting
Speaker: Bob Watters, Jahns Lecture
“*Realism in Volcano Hazard zonation:
Does Geoengineering Help Provide
A More Accurate Assessment*”
Lucky Lab, Portland
- May 17 AEG Oregon Section Meeting
Speaker: Larry Pierson
TBA
Old Market Pub

Short News Items

Green Briefcases: Remember those green briefcase bags that we have left over from the Seattle annual meeting? Well, now is the time to pick one or more up for \$5.00 each. That’s less than you spend for lunch! People that already have one say “they were worth the old price of \$10.00 and I am going to buy another!” Get one before they are all gone!!

E-Mail "Newsletter:" Oregon Section AEG will not send a "Paper Copy" of the newsletter to those that the E-mail address reaches unless they request it. If you don’t get the newsletter E-mail and want it that way please send me your E-mail address and I will add you to the list. This will save the Oregon Section significant costs in postage etc. To get on the E-mail list contact: Dave Michael at **dmichael@odf.state.or.us**

AEG Homepage: check it out: [http:// www.aegweb.org](http://www.aegweb.org)

The Board of Geologist examiners: 707 13th. St. SE, Suite 275 Salem, OR, 97301
Phone (503) 566-2837, Fax (503) 362-6393 e-mail: osbge@open.org
contact *Susanna Knight*, Administrator for assistance with Board issues.

The Awards Committee: requests your help in announcing that nominations are now being accepted for 2001. The Awards Committee considers nominations for the following awards (for complete information, please consult the AEG Directory or website):

1. Douglas R. Piteau Outstanding Young Member Award – This award is presented to a Member or Associate Member who is age 35 or under, and has excelled in one or more of the following 3 areas: technical accomplishment, service to the Association, and service to the engineering geology profession.
2. Claire P. Holdredge Award - This award is presented for a publication by a Member(s) within the past 5 years that is judged to be an outstanding contribution to the engineering geology profession.
3. Floyd T. Johnson Service Award – This award is presented to a Member for outstanding active and faithful service to the Association over a minimum of 9 years. Board members are not eligible until 1 year after leaving office. Nominations must be validated via endorsement by 3 Members having different Section affiliations. This award is not necessarily conferred annually.

The deadline for nominations to be considered for awards in 2001 is March 30, 2001. Please send nominations to Bill Cole, AEG Awards Committee Manager, c/o Cotton, Shires and Associates, Inc., 330 Village Lane, Los Gatos, CA 95030 (or to bcole@cottonshires.com).

Legislative Concepts, House Bills and Geologists: If you read the Oregon Geologist Examiner, published by OSBGE, you might remember the Legislative Concepts (now House Bills) about removing “Professional” from the registered geologist title (House Bill 2197), complaint processing (House Bill 2106), and giving a geologist lien rights upon land or structures (House Bill 2107).

The committee reviewing HB 2197 has only heard from geologists that do not want to remove the word “professional”. If you think that it would be less confusing if the word “professional” was removed from statute (HB 2197), contact the committee chair: Rep. Jerry Krummel [Dist 27, Portions of Clackamas and Washington]. Mr Krummel’s phone number is (503) 986-1427 and email is krummel.rep@state.or.us

House Bill 2106 is well into the approval process.

Committee review of HB 2107 has not heard from anybody. Without citizen involvement, this bill will not be approved!!! If you think we should have lien rights, contact the committee chair: Rep. Tim Knopp [Dist 54, Portions of Deschutes and Klamath]. Mr. Knopp’s phone number is (503) 986-1454 and email is knopp.rep@state.or.us

If you have NEWS items that you would like to include, please contact or E-mail Dave Michael – newsletter editor at dmichael@odf.state.or.us

ASCE Congressional Fellow Report

January 2001 has been full of new beginnings. The 107th Congress started out with the swearing-in of the recently elected Congressman, including newcomers like Hillary Clinton and veterans like Senator Kennedy. Kennedy hosted a reception inviting constituents, campaign helpers, Kennedy family members, Congressional staffers, and many friends including some very prominent individuals (U.S. Supreme Court Justice Stephen Breyer and Health and Human Service Secretary Donna Shalala).

I had VIP tickets to President Bush's inauguration, which afforded me the opportunity to stand in the cold wet drizzle for hours in a dense crowd near the ceremony. Since I am too short to see above the sea of heads and umbrellas, the visual impact of this historic moment was less than impressive (however, I did hear the new President take his oath).

There is a scramble to reorganize the executive branch, including escorting out top officials and selecting new cabinet members and other appointees. I attended parts of the Senate confirmation hearings for Colin Powell for Secretary of State, John Ashcroft for Attorney General, and Gale Norton for Secretary of Interior. The tone of the hearings had a wide range: from a "lovefest" for General Powell, to jam packed (with environmentalists) for Ms. Norton, to boiling over for Mr. Ashcroft.

I continued my research on smart growth with an emphasis on economic and community development and education. I researched infrastructure issues pertaining to eliminating combined sewer overflows and started to develop an overview of the Big Dig, including organizing a tour of the Big Dig and Boston Harbor Clean Up projects. I had meetings and briefings involving: the World Trade Organization with Representatives Sander Levin (D-MI) and Amo Houghton (R-NY) discussing the impacts of the increasing WTO dispute settlement decisions on issues ranging from tax policy to environmental policy; the American Heritage River Initiative on whether the program can continue to help locals decide how to clean rivers and develop their riverfronts with the change of Administrations; and, the newly formed Congressional Natural Hazards Caucus lead by Senators John Edwards (D-NC) and Ted Stevens (R-AK). Our office reviewed the FY01 Omnibus package for Massachusetts appropriations and started to refocused on new transportation, environment and energy issues for the 107th Congress.

To better evaluate the Interior Secretary designate's viewpoints, I researched the hot environmental topics including on the Arctic National Wildlife Refuge (ANWR). ANWR has about 5.7 billion barrels of oil that is technically recoverable; however, current law requires Congress to enact a law to permit drilling. Past studies that range from recommending drilling to protecting the wilderness reveal politically motivated "facts." The current energy situation (e.g., no clear national energy policy, recent brownouts in California and high costs of gasoline and heating oil nationwide) combined with the new Bush Administration have forced this issue wide open.

To learn more about science education issues, I met with the Executive Branch from the Office of Science and Technology Policy and the Council on Environmental Quality. I attended several AAAS functions, including talks on global warming and higher education for the sciences and engineering and a seminar on the hot issues facing the 107th Congress with the American Geological Institute and American Geophysical Union. To fulfill my social responsibilities as a AAAS fellow, I organized a Chinese New Year dinner banquet for over 50 fellows.

Respectfully submitted,

Yumei Wang, P.E.
2000-2001 Fellow

Cordilleran Section, Geological Society of America Corvallis, Oregon, May 13-15, 2002 GEOLOGY IN THE PUBLIC EYE

Call for Field Trips and Session Topics

The 98th Annual Meeting of the Cordilleran Section, Geological Society of America will be held at Oregon State University, with the Department of Geosciences as host. The site will be the new CH2M Hill Alumni Center on campus.

The meeting will be held jointly with the Northwest Energy Association, the Oregon and Washington chapters of the Association of Engineering Geologists, the Cordilleran Section of the Paleontological Society, and the National Association of Geoscience Teachers.

Field trips will precede and follow the meeting, with a comprehensive field trip guide published by the Oregon Department of Geology and Mineral Industries.

FIELD TRIPS PROPOSED AS OF NOVEMBER 2000

1. Lahars, landslide dams, and flood effects, Deschutes River, Oregon: 3-day raft trip, postmeeting (Jim O'Connor, Gordon Grant)
2. Geomorphology and hydrology of the H.J. Andrews Forest watershed. 1 day (Fred Swanson, Julia Jones)
3. Paleodune age, origin, and archaeology, central Oregon coast. 2 days, overnight in Florence (Curt Peterson, Chuck Rosenfeld, Courteny Cloyd)
4. Petrology and tectonics at a propagating rift in the Oregon Cascade Range: 2-day premeeting, overnight in Redmond (Rick Conrey, Ed Taylor)
5. Bimodal volcanism and tectonism of the High Lava Plains, Oregon. 3-day postmeeting (Brennan Jordan, Martin Streck, Anita Grunder)
6. Active faults of eastern Oregon: 2 days. (Ray Weldon)
7. Landslides at Kelso, Washington, and Portland, Oregon (AEG): 1 day. (Scott Burns)
8. Stratigraphy and tectonics of the Oregon Coast Range (NWEA-AAPG). 2 days (Ray Wells, Alan Niem)
9. Josephine and Coast Range ophiolites, California-Oregon. 2 days. (Greg Harper)
10. Southwest Washington beaches and spits. 1 day. (G. Gelfenbaum)
11. Hydrogeology of Deschutes Basin, an arc-related young sedimentary basin (Dave Sherrod)

SPECIAL SESSIONS AND SYMPOSIA AS OF NOVEMBER 2000

1. Presenting geology to the public in national and state parks (Bob Lillie, Carolyn Driedger)
2. The evolving Pacific Northwest landscape: Geomorphic and ecologic controls, constraints, and conundrums in the Quaternary (Gordon Grant, Steven Lancaster, Shannon Hayes)
3. 30 years of hydrogeomorphic and landscape evolution monitoring at the H.J. Andrews Research Station, western Cascades, Oregon. (Fred Swanson, Julia Jones)
4. Topographic development of the terrestrial Cascadia forearc (Andrew Meigs, Steven Lancaster)
5. Public policy, floods, aquifers, and river dynamics in the Willamette Basin, Oregon (Peter Wampler, Jim O'Connor)

6. Forearc basin development, microplate rotation, and tectonics of the Tertiary Cascadia margin (Ray Wells)
7. Hazards and risks from Cascade volcanoes Britt Hill, Ed Taylor
8. Uplift, erosion, and topography of a steady-state orogenic belt: The Olympic Mountains of Washington (Mark Brandon, Frank Pazzaglia, Sean Willett, Dave Montgomery)
9. New active fault database for the Pacific Northwest (Pat McCrory)
10. Unraveling the Tertiary stratigraphy and structure of the Pacific Northwest: Implications to hydrocarbon occurrence and underground gas storage (NWEA/AAPG theme session) (Jack Meyer, George Sharp, Bob Deacon)
11. Engineering geology case histories: State of the art and state of practice in the Northwest (AEG theme session) (Scott Burns)
12. Coastal processes: Landslides, dunes, wave erosion, and active faults and folds (Curt Peterson, Scott Burns, George Priest)
13. Active tectonics at Cascadia: Geodesy (Herb Dragert, Chris Goldfinger)
14. Active tectonics at Cascadia: Continental shelf and slope and accretionary prism (Chris Goldfinger, Bob Yeats, Bob Embley)
15. Active tectonics at Cascadia: Deformation across the plate margin onshore (Ray Weldon, Gene Humphreys, Mark Hemphill-Haley)
16. Third decadal symposium on the geology of Washington (papers to be published by the Washington Division of Geology and Earth Resources; Eric Cheney, Ray Lasmanis)
17. Symposium on the geology of Oregon in honor of George Walker (Martin Streck)
18. Geographic information science (Dawn Wright)
19. Physical volcanology, petrology, and geochemistry of the volcanic Cascades (Kathy Cashman)
20. Workshop and field trip on hydrothermal gold deposits. (John Dilles, Cy Field)
21. Tertiary biostratigraphy of the Pacific Northwest (Paleontology Society theme session and field trip; Liz Nesbitt)
22. Jurassic ophiolites of southern Oregon and northern California (Greg Harper)

SHORT COURSES

1. 3D seismic: Jack Meyer, Bob Lillie, Seismic Micro Technology: Detailed cross sections, smart contouring, and more
2. Geographic Information Science: Introduction to ArcView; GIS applications in natural resources. Michael Wing
3. Parks and plates workshop and short course. Bob Lillie

Proposals for additional field trips should be sent to Dr. George Moore at OSU, mooreg@geo.orst.edu
Proposals for technical sessions should be sent to Dr. Andrew Meigs at meigsa@geo.orst.edu
Corvallis in mid-May is delightful, with rhododendrons and azaleas in bloom, good weather for field trips, a new meeting facility, reasonably priced accommodations, and fantastic geology!!

AEG "Oregon Section" - OFFICERS

Area codes are 503 unless noted:

Position	Name	Telephone Daytime	HomeFAX	
Chair	<i>Charlie Hammond</i>	452-1100	274-1437	452-1528
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	wkrager@kleinfelder.com			
Past Chair	<i>Dave Michael</i>	359-7448	357-0238	359-9514
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Programs	<i>David James</i>	684-3460	252-3940	
	e-mail: djames@carlsonstesting.com			

MEMBERSHIP

For application forms for Membership in AEG (Member, Associate, Affiliate, or Student), call Tim Blackwood the membership chair at (503) 684-3460 (w). He will also have copies at the monthly meetings. Membership is on a calendar year basis. If you are an AEG member, headquarters will also collect our Oregon Section dues of \$10, which just covers our newsletter costs. If you would like to subscribe to the local newsletter (comes out 9 times a year) without being an AEG member, fill out the form below and mail to Dave Michael. Note: the following form is only for people and organizations that wish to subscribe to the Oregon AEG Newsletter without being members of AEG.

APPLICATION FOR OREGON SECTION, AEG "NEWSLETTER MAILINGLIST ONLY":

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Mail form and \$10 to Dave Michael c/o ODF NWOA, 801 Gales Creek Rd. Forest Grove OR 97116

***ANNOUNCEMENT OF OUR NEXT MEETING
JOINT MEETING
ASCE, AEG, ASCE GETOECH***

***FEB. 13, 2001
AEG***

*Dave Michael, Editor
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