

The Engineering Geologist



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THOUGHTS FROM THE CHAIRMAN

The summer has moved swiftly by and I, like most of you, have been caught up in assessing the economy and its effects on our profession. Interest rates have just started to decrease, but the prediction for the future by the economic analysts is still very jumbled. Certainly many things are obvious. The bloom is off the entire energy field and the geologists employed in that field have been on the typical roller coaster ride. The engineering geology and geotechnical fields have also been in the doldrums with many firms reducing staff or shortening working hours and retrenching. This is due to the lack of capital for major projects and the reassessing of priorities. I remember in the past when there was an economic slow down, the Federal Government would move to stimulate the economy by financing major public works, i.e. Dams, hydro projects, navigation facilities. These programs along with providing short term employment, have been the basis of developing a true and lasting economy in many regions where they were built. However, the attention has shifted from funding of public works programs to programs that deal more directly with social and economic issues that are visual, such as poverty and unemployment with the majority of money going to the individual.

I believe we have come to an end of an era. This era was probably climaxed by the overwhelming requirements for information for the siting of nuclear facilities. Such information was made possible by both concern for public safety and availability of funds to resolve all questions concerning the sites.

Many engineering geologists expected that the great leap forward in environmental impact work would take place after the Super Fund legislation directed EPA to take emergency and remedial action to clean up hazardous waste sites across the country, giving the Agency 1.6 billion dollars to do the work. However, all parties agree, little progress has been made in the 2 years the legislation has been in existence. Professionals in industry working for the EPA to oversee the startup operation, blame the lack of progress on the extreme

complexity of the program, which precludes straight-forward technical remedies for the cleanup of the hazardous waste sites.

Certainly, in time the economy will recover, public and private engineering projects will generate work, and the Super Fund program shall commence and reach its full potential for work in that area by engineering geologists.

In the meantime with this hiatus, now would be the time to work on that paper you have put off for years; As Robert Leggett points out in his excellent paper published in the Journal of the Geotechnical Engineering Division, ASCE, Vol. 105, No. GT 3, titled, "Geology and Geotechnical Engineering", (1979), all useful information developed as a result of major projects should be available in some form so that the information is accessible to other professionals. Case histories that reveal unusual concepts, data, or experience should also be properly developed and published. I believe, we owe this much to the profession as a part of our being engineering geologists.

Harry F. Ferguson
N. Huntington, Pa.

E.B. BURWELL, JR., AWARD

Nominations for the E. B. Burwell, Jr., Memorial Award is given to the author or authors of a published paper of distinction which advances knowledge concerning principles or practice of engineering geology, or of related fields of applied soil or rock mechanics where the role of geology is emphasized. There is no restriction as to the publisher or publishing agency of such a paper. The author or authors of the selected paper need not be a member or members of the Engineering Geology Division or of The Geological Society of America, and need not be residents or citizens of the United States.

It should be emphasized that the paper must deal with engineering geology or a closely

related field and must have been published within 5 years of its selection. Division members who have encountered impressive papers dealing with engineering geology or a related field should nominate the paper for the award. This may be done by identifying the paper and including a brief statement concerning its significance. These nominations should be sent to the chairman of the Burwell Committee, Ellis L. Krinitzsky, Department of the Army, Waterways Experiment Station, Corps of Engineers, P.O. Box 631, Vicksburg, Mississippi 39180. Nominations for the Burwell Award, 1983, should be received by February 1, 1983 to allow the six member committee to read and evaluate the nominated papers. Listed below are the previous winners of the E. B. Burwell, Jr., Award.

1969, Lloyd B. Underwood, U.S. Army Corps of Engineers, for his Classification and Identification of Shales; Proc. Amer. Soc. Civil Engineers, vol. 93, SM6, 1967.

1970, Glenn R. Scott and David J. Varnes, U.S. Geological Survey, for their General and Engineering Geology, United States Air Force Academy; U.S. Geol. Prof. Paper 551, 1967.

1971, Edwin B. Eckel, U.S. Geological Survey, for his The Alaska Earthquake, March 27, 1964, Lessons and Conclusions; U.S. Geol. Survey Prof. Paper 546, 1970.

1972, Richard J. Proctor, Metropolitan Water District of Southern California, for his Mapping Geological Conditions in Tunnels; Bull. Assoc. Engineering Geologists, vol. 8, no. 1, 1970.

1973, Murray R. McComas and J.E. Hackett, Illinois Geological Survey for their Geology for Planning in McHenry County, Illinois; Illinois Geol. Survey Circular 438, 1969.

1974, Robert F. Leggett, National Research Council of Canada (ret.) for his book, Cities and Geology; McGraw-Hill, 1973.

1975, Erhard M. Winkler, University of Notre Dame, for his book Stone: Properties, Durability in Man's Environment; Springer-Verlag, 1973.

1976, David J. Varnes, U.S. Geological Survey, for The Logic of Geologic Maps with Reference to The Interpretation and Use for Engineering Purposes; U.S. Geol. Survey Prof. Paper 837, 1974.

1977, Richard E. Goodman, University of California, Berkeley, for his book Methods of Geological Engineering in Discontinuous Rocks; West Publishing Co., 1976. 1978, Nicholas R. Barton, Norwegian Geotechnical Institute, Oslo, for his paper The Shear Strength of Rock and Rock Joints; Int. Jour. Rock Mechanics and Mining Science, vol. 13, no. 9, 1976.

1979, Evert Hoek, Golder Associates, Vancouver, and John W. Bray, Imperial College of Science and Technology, London, for their

book, Rock Slope Engineering; Institution of Mining and Metallurgy, London, 1977.

1980, Kerry E. Sieh, California Institute of Technology, Pasadena, California, for his paper Prehistoric Large Earthquakes Produced by Slip on the San Andreas Fault at Palmett Creek, California; Jour. Geophys. Res., vol. 83, no. 138, 1978.

1981, Allen W. Hatheway, University of Missouri, Rolla, Mo. (formerly, Haley and Aldrich, Inc., Cambridge, Mass.) and Cole R. McClure, Jr., Bechtel Inc., San Francisco, Calif., for their role as editors of and contributors to Geology in the Siting of Nuclear Power Plants, Geol. Soc. Amer., Reviews in Eng. Geol., vol. IV, 1979.

THE 1982 BURWELL AWARD

At the Annual Meeting in New Orleans this year we will honor Douglas R. Piteau of W. Vancouver, BC and F. Lionel Peckover of Vaudruil, Quebec for their very excellent paper, "Landslides: Analysis and Control," Chapter 9, "Engineering of Rock Slopes," Special Report 176, Trans. Res. Board, National Academy of Sciences.

We hope to have at least one of the authors as recipient present at our meeting.

The Burwell Committee had other superior papers to make their choice from, we think they are all worthy of mention and should be part of your library. These papers are as follows:

Moran, S.R. And J.A. Cherry (1981). "The Hydrologic Response of Aquifers at Surface-Mine Sites in Western North Dakota," Canadian Geotechnical Journal, V 18, N 4, pp 543-565.

Sowers, G.E. And D.L. Royster (1978). "Landslides: Analysis and Control." Chapter 4. "Field Investigation," Special Report 176, Trans. Res. Board, National Academy of Sciences.

Fogg, E.G. And C.W. Kreidler (1981). "Ground-Water Hydrology Around Salt Domes in the East Texas Basin: A Practical Approach to the Contaminant Transport Problem," Bulletin, Association of Engineering Geologists, V XVIII, N 4, pp 387-412.

Quigley R.M. (1980). "Geology, Mineralogy, and Geochemistry of Canadian Soft Soils: A Geotechnical Perspective," Canadian Geotechnical Journal, V 17, N 2, pp 261-285.

GEOLOGY BENEATH CITIES

Good News, the long awaited volume edited by Robert F. Leggett is in its final stages of editing before publication. It will be published by the GSA as Volume V of the Reviews in Engineering Geology. This volume will be a major addition to the libraries of our urban engineering geologists.

WE NEED YOUR HELP

CONTRIBUTIONS to The Engineering Geologist are being solicited from our membership. We are looking for notes, information of interest for our readers, and summaries of papers as well as short case histories. These contributions should be limited to approximately 1500 words and one page in length.

DIVISION EVENTS, ANNUAL MEETING, NEW ORLEANS October

There will be a post-meeting field trip to the site of the Jefferson Island Event, 1-day, Friday, October 22, 1982. Whitney Autin, Lori Eversull and Peggy Autin, Louisiana Geological survey will lead the 40 participants, review surficial processes of mass movement associated with the catastrophic mine inundation with emphasis on analysis and interpretation of engineering properties of soil materials and their behavior during failure.

The Environmental Geology general session will be meeting Tuesday, October 19, 1982 in the A.M.

The Division luncheon is Tuesday, October 19 at noon.

The Engineering Geology general session will be held October 20 in the A.M.

Thursday, October 21 the EGD Symposium titled "Engineering Geologic Lessons Learned from History". This symposium will present a limited number of papers on some of the geologic processes that possess significance to engineering.

NATIONAL RESEARCH COUNCIL STUDY

OF

GEOLOGIC SITE INVESTIGATIONS FOR TUNNELS

The high costs of underground construction are of major concern to the federal agencies that build or provide funds for the building of a variety of projects of national importance. One significant way in which costs may be more accurately forecast and controlled is through better preconstruction geologic site investigations.

The Subcommittee on Geologic Site Investigation of the National Research Council's U.S. National Committee on Tunneling Technology, at the request of nine federal agencies, has initiated a detailed study of such investigations. The objective of the two-year study is to recommend ways of planning and conducting better and more cost-effective site investigations. The approach will be to conduct a detailed examination of completed projects where the results of preconstruction site

investigation can be related to the construction history and costs. Results of the study will be published and distributed in the form of a report including recommended improved procedures. Mr. Eugene B. Waggoner, who is the American Society of Civil Engineers representative on the U.S. National Committee on Tunneling Technology, is chairman of the study team.

ANNOUNCEMENTS

UNDERGROUND WORK-MAN-ENVIRONMENT

This international symposium, to be held in Warsaw, Poland May 16-20, 1983, is being sponsored by the Polish Federation of Engineering Associations, the Polish Committee for Geotechnica (Subcommittee for Underground Work), and the "Metroprojekt" Municipal and Special Building Design Office. Two topics have been selected for discussion: (1) determination of technology for underground works at the design, execution, and exploration stages from the environmental protection point of view as well as humanization of work; and (2) the role of underground works as a means of protecting and conserving the environment. The languages of the symposium will be English, French, and Polish. A technical exhibition and postsymposium tours are planned. Details on program, Announcement No. 3, which may be obtained on request from the Center for Progress in Technology "NOT," Secretariat for the Symposium "Underground Work-Man-Environment," Palace of Culture Science, 00-901, Warsaw, Poland. Deadline for registration at reduced fee schedule is March 31, 1983.

PROPOSALS WANTED - E. G. D. Sponsored Symposium - joint meeting North Central and South East Sections, Lexington, Kentucky

In April 1984, the first joint meeting of these sections of the GSA will be held at the University of Kentucky. John Thrailkill and William Ausich are program co-chairmen. They wish to include an EGD sponsored symposium and are looking for prospective conveners within the division. It is suggested that joint organization and sharing by representatives of the two sections would be appropriate for the meeting.

Since the facilities in Lexington are good, they expect a well attended meeting with many contributed papers, therefore, only a limited number of symposia can be accommodated. Your proposals should be one page indicating subject, organizers and sponsorship. The co-chairmen will make selections shortly after January 1, 1983. If you have any questions or wish to sponsor a symposium, contact either William I. Ausich, Department of Geological Sciences, Wright State University, Dayton, Ohio 45435, or John Thrailkill, Department of Geology, University of Kentucky, Lexington, Kentucky 40506.

INTERNATIONAL CONFERENCE ON CASE HISTORIES IN
GEOTECHNICAL ENGINEERING

MAY 6-11, 1984 St. Louis, Missouri

The International Conference on Case Histories in Geotechnical Engineering provides a forum for the geotechnical, civil and structural engineers and geologists to document case records of difficult jobs, including job performance and job failure. The exchange of information during the conference will advance state-of-the-art knowledge in several areas and will give definite directions to research work in the future.

The proceedings will become educational material for the profession.

Several special lectures by international experts have been planned.

SUBMISSION OF ABSTRACTS

Persons willing to submit papers to this conference are requested to send 3 copies of the abstract of about 500 words before March 31, 1983, to:

Shamsher Prakash (Conference Chairman)
Professor and Head, Dept. Of Civil Engineering
University of Roorkee
Roorkee (UP)
INDIA
Telex: 0597201

For further information contact:
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