Tuesday, November 15, 2005

Guadalajara Hacienda Restaurant • 9799 Katy Freeway (south side of Katy Freeway between Bunker Hill and Gessner) Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$25 Preregistered members; \$30 non-members & walk-ups Make your reservations now on-line through the HGS website at www.hgs.org; or, by calling 713-463-9476 or by e-mail to Joan@hgs.org (include your name, meeting you are attending, phone number and membership ID#).

Environmental and Engineering Group Dinner Meeting

by Christopher C. Mathewson

Professor of Engineering Geology Department of Geology & Geophysics Texas A&M University, College Station, Texas

What Should I Study Before I Take the Geoscientist Licensure Examination?

The licensed practice of geology incorporates those aspects of geology that are applied to the protection of the health, safety

and well-being of the public and that include careers in environmental geology, hydrogeology and engineering geology. Anyone desiring to follow a career in "Public Geology" and to practice before the public should obtain a broad academic background in geology, including quantitative physical geology, aqueous and low-temperature geochemistry, hydrogeology and contaminate transport, geomorphology and landform processes and most importantly, a sound background in field geology and geophysics.

Licensure of professionals who practice before the public is mandatory in those states that require professional geoscientists/ geologists to hold a license as a "Professional Geologist" before they can hold themselves out to the public as professionals. The National Association of State Boards of Geology (ASBOG®), an organization of State Boards of Licensing for Professional Geologists in the United States, prepares and administers the national geologist licensure examinations. ASBOG offers two examinations, the Fundamentals of Geology and the Practice of Geology, that are designed to measure minimum competency of a graduate immediately after graduation (Fundamentals) and after five years of practice (Practice). The examinations are developed by the Council of Examiners, with guidance from professional psychometricians, who provide critical guidance to the Council. The examinations are based upon a nationwide task analysis, in which licensed professional geologists are asked:

- to assess the importance of a specific task to the protection of the public and
- to estimate the amount of time that they spend on the specific task.

The 2005 Task Analysis had a nationwide reliability coefficient of 0.998 between states. These results indicate that the practice of

geology before the public is uniform throughout the United States, thus validating the concept of one national examination.

The results of the Task Analysis are used to develop questions for the licensure examinations

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The results of the Task Analysis are used to develop questions for the licensure examinations and to define the knowledge base required for a candidate wishing to practice professional geology before the public. Tasks are subdivided into domains that are then assigned examination weights based upon the results from the task analysis. The best coursework guide for a student wishing to practice environmental or engineering geology or hydrogeology is to review the ASBOG® Task

Analysis and the associated recommended knowledge base related to each content domain. The results of the 2005 Task Analysis and Knowledge Base evaluation will be presented and discussed.

Biographical Sketch

CHRISTOPHER C. MATHEWSON is a Professor of Engineering Geology at Texas A&M University, College Station, Texas. Professor Mathewson received a BS degree in civil engineering from the Case Institute of Technology in Cleveland, Ohio, in 1963 and his MS and Doctoral degrees in geological engineering from the University of Arizona in 1965 and 1971. Dr. Mathewson served as a com-



missioned officer in the National Ocean Survey from 1965 to 1970, working on ocean charting and marine geophysical surveys in the Pacific and on coastal hazards in Hawaii. In addition he has carried out research on coastal and river processes, expansive soils, urban planning, surficial processes, groundwater resources and protection, natural hazard analyses and mitigation, archaeological site preservation and engineering geology of surface lignite mines. He has presented over 400 papers, published over 90 technical Environmental and Engineering Meeting *continued on page* 35 papers, edited four technical volumes and is the author of a textbook in engineering geology.

He is active in the profession, having served as President of the American Geological Institute, President of the Association of Engineering Geologists, Chairman of the Engineering Geology Division of the Geological Society of America, Chairman of the U.S. National Group of the International Association of Engineering Geology and the Environment, as well as many other society positions. He currently serves on the Council of

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Examiners of the National Association of State Boards of Geology, where he assists in the writing and review of the national Geologist Licensure Examination. He has received many awards, including the Faculty Distinguished Achievement Award in Teaching from Texas A&M University, the Claire P. Holdredge Award and the Floyd T. Johnston Service Award from the Association of Engineering Geologists and the Meritorious Service Award from the Engineering Geology Division of the Geological Society of America.

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