WANTED - TPG ARTICLES
Instructions to Authors

The TPG accepts articles of modest length for publication. Submittals should be no more than approximately 1600 words, or six typed pages, double spaced. Longer articles may be divided into parts (e.g. part I and part II), but this is not encouraged. Articles may be technical or professional in nature. General topics are listed below. Articles containing news of importance to professional geologists will also be considered. Except for news articles, or articles containing dated materials, submittals should be sent to AIPG headquarters twelve weeks in advance of expected publication. Some technical topic issues are planned up to one year before printing, therefore early submittals will be preferred.

Manuscripts should have the following section:

Title
Author(s) with CPG number and address
Text
Tables if included
Figures with captions if included
Appendix(es) if included
Acknowledgements
References Cited

One original and two copies of each manuscript should be submitted. Whenever possible, text should also be submitted on diskette. Headquarters uses WordPerfect 7 for Windows '95, which is preferred, but Word, ASCII, RTF, or translatable files are acceptable. The program or format of the text should be clearly marked on the diskette. Articles can also be transmitted by e-mail.

Graphics should be clear, camera-ready, line drawings whenever possible. Photographs (color or black and white) are also encouraged. Whenever possible, drawings may be submitted on diskette in .pcx, .bmp, .tiff, .gif, or other standard formats.

TPG wants color photographs. Photographs alone may be submitted for the cover. They should have a geologic theme and an informational caption.

General Topics:

**Technical**
- Mining (January)
- Petroleum Geology (March)
- Hydrogeology (July)
- Environmental Geology (September)
- Geophysical/Engineering (November)

**Professional (any issue)**
- Government and the Geologist
- Ethics and Standards of Practice
- Public Perception of Geology and Geologists
- Definition, Certification, and Licensing
- Practicing Geology Internationally

Other suggestions: Forensic Geology, History of Practice in a given field, Book Reviews, and Geology and the Military, Unusual Applications of Geology.

Authors are encouraged to communicate with Headquarters via mail, fax, or Internet. Send your article and/or photographs, or communicate questions to:

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The Professional GEOLOGIST

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Stephen M. Testa

1998 AIGP WASHINGTON FLY-IN

PRESIDENT-ELECT'S REPORT

Thomas G. Fails

Proposed AIGP Policy on the Exercise of Professional Judgement in Geological Practice

Wine on the Rocks - A Field Trip

FRONT COVER - Stromatolites in the Hoyt Limestone (Upper Cambrian) near Saratoga Springs, New York. These stromatolites, up to one meter in diameter and 30 cm high, are best interpreted as a product of a shallow subtidal environment. Photograph by Larry D. Fellows, CPG-4447.

BACK COVER - A skyline of Baton Rouge with a rainbow by the Mississippi River.

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NEW MEMBERS, APPLICANTS, ETC.

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The American Institute of Professional Geologists is Accepting Applications for the Position of EXECUTIVE DIRECTOR

The American Institute of Professional Geologists (AIPG), a non-profit organization with over 5,000 members dedicated to the advancement of geology and the geologic profession, seeks a full-time Executive Director. At the time of appointment, the appointee must be Certified by AIPG as a Certified Professional Geologist, have ten years or more of technical and management experience at increasing levels of responsibility, and be aware of the key issues affecting the geological profession and AIPG. A team-oriented leader with strong communication and interpersonal skills is sought, with appreciation of policy issues impacting geologists at Federal and/or state levels, the ability to attract non-dues revenue, and enthusiasm for service as a geoscience representative.

The Executive Director will be responsible for Headquarters operations including publications and membership services. The Executive Director works under the direction of an elected Executive Committee to help formulate and undertake initiatives including such things as budgets, publications, membership and revenue enhancement. He or she shall maintain good relationships with appropriate professional and technical organizations.

The Executive Director must travel as needed. Salary is competitive with non-profit organizations of AIPG’s budget and size. The position will remain open until filled, preferably during spring 1999.

Applicants should submit a complete resume, the names and addresses of at least four references (three CPGs minimum) and a two-page essay explaining applicant’s interest in the position and what the applicant could bring to it. Applications should be received no later than 30 June 1998 by the:

Search Committee, AIPG
7828 Vance Drive, Suite 103
Arvada, CO 80003-2125

AIPG is an equal opportunity employer.
No Career Placement Agencies need respond.
WHY AIPG?

Why AIPG? For that matter, why be involved in any professional organization? These questions are surprisingly asked quite often. To take this a step further, with the proliferation of registration bills throughout the country, another frequently asked question is why certification? These questions are often posed and although the response to them has never been an issue with me throughout my professional career, it apparently rests heavily on the minds of many individuals.

Many of the reasons for "Why AIPG" are obvious. AIPG is the only organization that dedicates itself solely to the individual geologist and the profession of geology. An organization such as AIPG provides the regulatory community, the public and our colleagues a mechanism to recognize you as a qualified practitioner in your chosen profession. AIPG serves, along with other attributes of one's background and experience, as a means to evaluate professional accomplishment and for employment consideration. AIPG also allows you to stay abreast of regulatory and professional developments that affect us all, and the profession and business of geology at the state, federal and international levels.

Less obvious is AIPG's increasing role in bringing to students a professional awareness not provided elsewhere. There is little, if any, argument over the fact that geology departments overall dedicate minimal, if any, emphasis or time to the professional and business aspects of geology. It has always been difficult for me to understand how individuals can undergo the educational process and training for years, and after all that work is behind them, are then put on the streets in search for employment in their respective field of expertise with so little professional preparation - let alone the likelihood of having to find employment in a specialty not of their primary choice which is all too often the case. Such activities as student and career days, and brown-bag sessions at various geology departments across the country, go far in bringing to students the professional awareness needed in an ever-changing business environment.

Only AIPG looks after you regardless of your technical specialty, and continually tries to improve the public's perception of what you do and how your role as a geologist beneficially impacts the public. There are some technical-oriented geological organizations that do maintain some elements of professional practice, but their efforts are typically restricted to their respective technical specialty. One would think that this is an easy task and simple concept to comprehend since geology does in fact impact many facets of our lives, but one cannot simply preach to the choir. AIPG continually works to assure that the right message is being received by the public and regulatory community, and that the message is being presented in a concise and consistent manner.

AIPG serves as a resource for information that relates to the professional practice of geology. It is common during difficult financial times for individuals to be forced to restrict their professional membership to only those organizations that they perceive as being more beneficial to their career. I have been and continue to be a member of numerous geological organizations, and although not necessarily active in all that I belong to, every organization has proven itself to be of value, and has contributed at some point to my professional development and success over the years. Although there are numerous sources where one can get information of educational and technical value, in regards to the professional practice of geology, these choices become very limited.

In regards to why certification, there are many individuals that have relinquished their membership in AIPG or have questioned the value of their membership for the sole reason that the State in which they reside and earn a living maintains a registration program. They are thus of the opinion that no further assistance from other organizations or groups is necessary simply because they are allowed to work at their profession as long as they remain registered within the State. In addressing this point, it is impor-
tant to distinguish between the various State registration programs that currently exist and AIPG certification. State registration programs for geologists, engineering geologists, geophysicists, hydrogeologists or environmental assessors are established with the noble charge of protecting the public health, safety and welfare. However, all State programs face the risk of demise, and some have come very close to it over the past few years, reflecting financial constraints or the perceived notion that the public does not need protection. AIPG on the other hand, and professional certification which it provides, is established to protect the interests of the geologist and the geological profession, and serves as the ombudsman of the profession.

Although one would think that the reasons presented are sufficient, there are, of course, other reasons one should consider in considering "Why AIPG?". Being a professional is more than simply earning a living for the services one provides. Being a professional is also a lifestyle. Assuming that we are all involved in this profession because we enjoy it, one would also assume that we care about how our profession is perceived by the public and regulatory community, and would want to do everything within our power to improve such perceptions. As with most organizations, what you receive from it is only as good as what you put into it. I can only hope that when this question of "Why AIPG" crosses your mind, that you give serious thought as to why you became a geologist in the first place, when has your professional work NOT had some impact on the world we all live and work in, and then what can you do to further promote the role and profession of geologists. It is my expressed opinion that AIPG membership provides a very good place to start!

1998 AIPG WASHINGTON FLY-IN

One of the means in which AIPG promotes our profession's interest to our appointed officials is via the annual Washington Fly-In. The AIPG Washington, D. C. Fly-In for 1998 is scheduled for May 6-9. We hope that as many Sections as possible be represented. The Fly-In will commence with an orientation session to be held at AGI headquarters on Sunday afternoon, May 6. Monday through Wednesday, May 7-9, will feature meetings with Senators, Congressmen, legislative aides and key individuals from various agencies and organizations. Each Section President will be asked to have its respective Section represented. Should you wish to attend, please contact your section president or AIPG headquarters. More information will be forthcoming in the TPG.

Report Describes Tsunami Hazard Mapping at Yaquina Bay

The Oregon Department of Geology and Mineral Industries (DOGAMI) has released a report that describes the development of tsunami hazard mapping techniques for application to the Yaquina Bay area in coastal Lincoln County. The study was conducted for the National Earthquake Hazard Reduction Program (NEHRP) and is principally aimed at providing information for emergency management planning. The report will be used by DOGAMI in the production and publication of tsunami hazard maps for this and other coastal areas.

The report is entitled, Cascadia Subduction Zone Tsunamis: Hazard Mapping at Yaquina Bay, Oregon. Final technical report to the National Earthquake Hazard Reduction Program, and has been released as DOGAMI Open-File Report 0-7-34. It was prepared by DOGAMI geologist George R. Priest in cooperation with scientists from the Oregon Graduate Institute of Science and Technology, the Geological Survey of Canada, the Pacific Marine Environmental Laboratory of the National Oceanic and Atmospheric Administration, and the Department of Geology at Portland State University.

The 26-page report is accompanied by 188 pages of appendices discussing and illustrating procedures and presenting data.

The report can be purchased for $10. Purchases can be made over the counter, by mail, FAX, or phone at the Nature of the Northwest Information Center, Suite 177, State Office Building, 800 NE Oregon Street #5, Portland, Oregon 97232-2109, phone (503) 872-2750, Fax (503) 731-4066; and the DOGAMI field offices: 1831 First Street, Baker City, OR 97814, phone (503) 523-3133, Fax(503) 523-9088; and 5375 Monument Drive, Grants Pass, OR 97526, phone (503) 476-2496, FAX (503) 474-3155. Orders may be charged to Visa or Mastercard. Orders under $50 require prepayment.
A Task Force for Continuing Professional Development Has Been Formed

When AIPG was organized in 1963, registration of geologists was required in only two states - Arizona (56) and Delaware (53) - and very few geologists were interested in registration. Most geologists of the time, except those in academic and governmental employment, worked for resource industry companies of various sizes. Only a few were employed in hydro- or engineering geology or as consultants. Environmental geology was largely in the future. The major petroleum and mining companies were ferociously opposed to the idea of state registration and perceived state limitations on geological employees who in a period of a few years might work in two, four, possibly ten or more states, not to mention several foreign countries. Residual antipathy to state registration continues today among most individual resource geologists and resource companies. However, resource geologists increasingly are willing to support state registration efforts that make optional or exempt their inclusion. During the 1950s and 1960s, however, responsible resource geologists increasingly recognized that widespread abuses of unsophisticated investors by less-than-scrupulous practitioners and promoters on the fringes of the resource industries could not be adequately controlled by SEC regulation alone. This led to the concept of peer certification of geologists as an additional means of protecting the public. The technical competence, integrity and ethics of experienced geologists in all geologic specialties could be established by stringent peer review processes. Those passing the peer review process successfully would then be Certified by an organization willing to stand legally behind the Certification of its members and to make their names, practice specialties and contact information available to the interested public by means of directories. AIPG was incorporated in 1963 as an organization for all types of peer-certified geologists. Certificates through 711 were awarded in 1964. AAPG followed a few years later with a similar Certification program for experienced petroleum geologists. SIPES, AIH and NGWA now also certify geologists in their specialty areas. Since the mid-1960s, the public, especially the investing public, has been able to check and compare the credentials and qualifications of Certified Geologists against those of other geologists and quasi-geologists offering services and/or investment opportunities to them. Certification continues to serve resource geologists well, but increasing turf battles between registered professional engineers and environmental, engineering and hydro geologists (hereinafter EHE geologists) are causing major problems, especially for geologists who lack state registration.

The world has changed dramatically since the mid-1960s, as has our profession. The number of geologists who deal directly with the public health, safety and welfare has increased considerably, as has the number of usually small firms that employ them. Many of these changes have occurred in response to increased concerns with environmental problems involving water, air and soil contamination, acceptable waste disposal methods and geologic hazards, among others. Many of these problems result from past neglect, contamination and inadequate reclamation or structural engineering errors but some simply reflect the impact of ever larger populations and their economic activities all over the country during the past three decades. No question, these problems must be dealt with effectively and efficiently and, like it or not, governments at the local, state and Federal levels now exert overall control, require compliance in environmental remediation work and increasingly with geologic hazards, and will continue to do so. And as the states long have been involved in the regulation and registration of practitioners from other professions, especially lawyers and engineers, who are also involved in environmental assessment and remediation work, it did not take long for many of the EHE geologists trying to compete with already-registered professionals to realize that they - the geologists - needed to be registered as well. The alternative was second-class technical citizenship, being able to work only under the control and seal of already registered but possibly less-qualified competitors. Certification requirements have not changed appreciably since the 1960s, so while AIPG Certification helps EHE geologists in some states, it is clearly inadequate in others.

State registration of EHE geologists thus has proliferated in recent years. Twenty-five states now register or certify geologists and efforts are being made to obtain registration in about ten more. Geologists practicing EHE specialties now represent the majority in AIPG and, probably among all practicing geologists in the US outside of university and government employment. Further, the average income of these geologists appears to be lower than that of employed resource geologists. The cost of Certification by AIPG for EHE geologists already required to be registered in several states may not be attractive or even financially manageable for many. As such, AIPG membership has plateaued, declined, or only risen slightly in many states requiring registration of EHE geologists for the purpose of protecting the public health, safety and welfare. Annual Certifications by AIPG in the 1987-1996 period averaged 304 per year. From a low of 135 in 1988, Certifications rose steadily to a high of 399 in 1993, and
declined again to an average of 311 for '94 through '96. (Page 18, 1997 Membership Directory). Based on our total membership (31 Dec.'97) of 5016 and 204 Certificates being awarded in 1997, the average annual net membership growth rate for the past ten years has been only 280.7 Certificates (or 5.6% of 5016).

AIPG dues were last increased in 1989, while the cost of doing business has continued to rise. Economies have been obtained, especially during the past year, that repeatedly have allowed the Executive Committee “to go on for another year without a dues increase.” (The 1998 Executive Committee hopes to keep dues at the current level). By 1995 finances were tight, as publications and advertising revenues declined substantially. Richard Fountain, President for 1995 and Bob Merrill, 1996 President and their Executive Committees decided to deal with the problems of stagnant membership numbers and financial difficulties by means of:

- increased efficiency and economies at Headquarters
- reduced Exec Comm expenditures
- a broadened membership, to obtain both additional revenues and a louder voice for advocacy purposes
- increased publication and advertising revenues, and
- strengthening of Certification to make it more meaningful than any state's registration.

The first two have been accomplished, with accompanying financial benefits. Bylaw changes broadening membership and beginning a strengthening of Certification were adopted in 1997. To increase publication and advertising revenues is a multi-year process; you will hear more about advertising during this year. Additional means of strengthening Certification will be reviewed and considered by a newly-formed Task Force for Continuing Professional Development, Chaired by myself, during 1998 and perhaps 1999. This subject was briefly discussed in my June 1997 TPG article entitled “Next!”

Much of the Bylaw revision work took place during mid-1996. Being involved in the decision-making process, I felt it desirable to obtain CPG input on a number of questions, proposals and potential changes affecting membership and Certification. The Colorado Section newsletter printed a questionnaire in four consecutive 1996 issues. Ninety-six CPGs (21.3% of the Section’s 450 members) responded—a valid sample. The responses to all but one question (now moot) are reviewed below.

**Proposed Changes in Membership Classes**

One long question that described the new Member category (now adopted) concluded with:

**Question:** Do you approve or disapprove of this concept?

**Responses:** Approve 60.6%; Disapprove 31.0%; Neutral/No Opinion 8.4% (of 71 responses).

**Excluding the Neutral/No Opinion fraction, this translates to:** Approve 66%, Disapprove 34%. These percentages parallel some what the votes cast by CPGs on the proposed Bylaw changes: Approve 84%, Disapprove 16% (TPG, Feb.1997).

**Strengthening Certification**

The questions in this portion of the Colorado Section questionnaire are still relevant as, except for a change in the experience requirement, the Certification requirements are identical to those used before the recent Bylaw revisions. RESPONSES TO THE FOLLOWING OR SIMILAR QUESTIONS IN SIMILAR QUESTIONNAIRES WOULD BE OF GREAT INTEREST TO THE TASK FORCE. SECTIONS ARE ENCOURAGED TO PUBLISH SIMILAR NEWSLETTER QUESTIONNAIRES AND TO REPORT THE RESPONSES TO THE TASK FORCE THROUGH THE WRITER.

**Question:** Should Certification by AIPG indicate a higher level of individual competence, integrity and professional credibility than state registration of geologists?

**Response:** Yes 57 (59.4%), No 23 (24%), Neutral/No Opinion 15 (15.6%), No Response 1 (1%)

**Question:** Do you believe that the present Certification requirements are adequate to affirm the superiority of AIPG Certification over state registration?

**Response:** Yes 21 (21.9%), No 57 (59.4%), Neutral/No Opinion 17 (17.7%). No Response 0

**Question:** In general, should the present Certification requirements be toughened?

**Response:** Yes 52 (52.4%), No 30 (31.3%), Neutral/No Opinion 14 (14.5%), No Response 0

**Question:** Unlike many professional certifying organizations, AIPG has no requirement for periodic re-Certification or Certification maintenance, even though many CPGs no longer work in the geologic discipline for which they were Certified. Further, the most commonly received criticisms of AIPG Certification involve:

1) the lack of a periodic re-Certification requirement,
2) the lack of a continuing education requirement, and
3) the lack of an examination requirement.

Would a requirement for a periodic review of a CPG’s current professional status, in your mind, be:

Response: Desirable 62 (64.65%), Undesirable 25 (26%), Neutral/No Opinion 9 (9.4%), No Response 0

Question: Should some minimum amount of continuing education in the CPG’s geologic practice discipline or in associated areas (management courses, for instance) be made a requirement for Certification maintenance?

Response: Yes 56 (58.3%), No 32 (33.3%), Neutral/No Opinion 8 (8.3%), No Response 1 (1%)

Question: Many professions (law, medicine, engineering) require formal examinations as a licensing or registration requirement, usually shortly after graduation. Most states registering geologists require such an examination - a number use the ASBOG exam. In some states experienced geologists must take an exam as well, while they are “grandfathered” in others. AIPG Certification is criticized and downgraded in most states with an examination requirement.

Have you successfully passed a state examination for registration as a geologist?

Response: Yes 10 (10.4%), No 82 (85.4%), No Response 4 (4.2%) (Colorado is not a registration state, but has a definition law.)

Question: Have you taken the Graduate Record Examination in Geology?

Response: Yes 53 (55.2%), No 41 (42.7%), No Response 2 (2.1%)

Question: Or some other “equivalent” examination?

Response: Yes 12 (12.5%), No 55 (57.3%), No Response 29 (30.2%)
New Rules for Activities on the Outer Continental Shelf

Submitted by John J. Dragonetti, CPG-2779

The Department of the Interior’s Minerals Management Service (MMS) delivered a Christmas Eve present in the form of a revised rule affecting all those involved in the collection or processing of geological and geophysical (G&G) data from the Outer Continental Shelf (OCS). The rule pertains specifically to the exploration for oil, gas, and sulphur. Prospecting for other minerals on the OCS is governed by separate regulations administered by MMS.

Federal control of the submerged lands of the OCS initiated with the Outer Continental Shelf Lands Act of August 7, 1953. Prior to the creation of MMS, regulation of exploration activities on the OCS was the responsibility of the U.S. Geological Survey’s Conservation Division. While there have been several amendments to the original OCS Lands Act, perhaps the most significant influences have been the numerous subsequent laws affecting both industry and the federal government such as the Coastal Zone Management Act, the National Environmental Policy Act, the Regulatory Flexibility Act, the Paperwork Reduction Act, and a host of published regulations.

MMS has stated that access to G&G data and information is essential to ensure that the federal government secures fair market value for tracts leased for exploration for oil, gas and sulphur on the OCS. Securing fair market value for the public’s mineral resources has been a vexing problem for industry, the government and the general public for nearly two centuries. Congress first grappled with the problem of mineral sales from public lands in March 1807 when it authorized the leasing of lead mines. Over the years, governmental agencies have devised methods for mineral classification, resource evaluation, competitive leasing, rentals, and royalty rates to assure that the public receives proper compensation for its mineral estate. However, the revised rule is also an attempt to take advantage of industry expertise and technological advances, especially in areas of complex geology, to conduct necessary analyses and assessments for royalty relief and other purposes, and to assure safe use and environmental protection of the OCS.

MMS contends that it was being denied necessary information by third parties who had obtained and manipulated data collected by permittees, despite the agency’s right to acquire such information originally granted by Title 30 of the Code of Federal Regulations which became effective on June 11, 1976, and recently revised by MMS. There were also reported instances, and countless suspected cases, of unauthorized G&G explorations for commercial purposes by persons associated with academic institutions. In addition to the most pressing objectives for the new rule, MMS also wished to enumerate procedures for the protection of archeological resources and to standardize definitions. Preservation of significant archeological resources is controlled by the criteria cited in the National Register of Historic Places and consists of material remains of human life or activities 50 years old or older and of archeological interest. It should be noted that many in the archeological community object to the use of the term resource to describe human remains or cultural artifacts which are to be preserved and studied rather than consumed.

Industry concerns primarily centered around the confidentiality of very sensitive data and the risk of highly competitive and costly data being released in the public arena. They further asserted that the new rule would have an adverse effect on the oil and gas industry and geophysical service companies and theorized that existing licensing agreements might become invalid resulting in expensive and time-consuming renegotiation of thousands of such contracts, which would stall continued development of the OCS.

The revised rule defines geological exploration as any investigation utilizing geological or geochemical techniques for the purpose of producing the subject materials, and expressly includes core and test drilling, well logging, and bottom sampling. Geophysical exploration is interpreted as those activities consisting of gravity, magnetic, seismic or other techniques used to detect mineral occurrences.

Those interested in conducting G&G research for minerals in the OCS must either obtain an MMS-approved permit or file a Notice. A Notice is a written statement of intent to conduct geological or geophysical scientific research related to oil, gas, and sulphur in the OCS other than that authorized by a permit. Although the Notice does not require the data or information acquired to be submitted to the MMS, the information from such scientific research must be published and made available to the general public. While all G&G exploration and certain scientific research requires a permit, G&G solely for scientific research can be performed under a Notice unless it involves the use of explosives, the drilling of a deep stratigraphic test, or developing data or information for proprietary use or sale; then a permit is required.

The revised rule in its final form became effective on January 23, 1998 and represents an 11-month evolu-
tion following intense debate engaging the Independent Petroleum Association of America, the Independent Association of Geophysical Contractors, Senator Kay Bailey Hutchinson (Republican-Texas), Senator John Breaux (Democrat-Louisiana), MMS, and other interested parties. Senator Breaux has been involved in OCS issues since 1973, when as a Representative, he introduced legislation which became Public Law 93-627 in January 1975. That law, known as the Deepwater Port Act of 1974, amended certain portions of the OCS Lands Act.

The storm of protest over the proposed new rule issued in February, 1997 caused MMS to extend the Federal Register comment period twice during 1997 and to conduct special meetings with concerned industry representatives. In addition, MMS has evaluated 22 sets of written comments and recommendations from industry associations, those holding G&G permits, and third party users of G&G data. The federal agency has declared its adoption of only those recommendations considered to be in the public's best interests.

After the revised rules take effect and operations are conducted under the modified regulations, MMS intends to schedule a meeting, most likely within the Gulf of Mexico region, to address any implementation problems.

The Government Affairs column is a bimonthly feature written by John Dragonetti who is Senior Advisor to the American Geological Institute’s Government Affairs Program.

Mississippi Professional Geologic Registration Law

Rick L. Ericksen, President, Mississippi State Board of Registered Professional Geologists

The Mississippi State Board of Registered Professional Geologists. From left to right are Les Aultman, Charles Swann, Rick Ericksen, John Green, and Darrel Schmitz, CPG-7318.

Effective on July 1, 1997, Mississippi Governor Kirk Fordice signed into law the “Geologic Practice Act of 1997” which created the Mississippi State Board of Registered Professional Geologists. The Governor has appointed the five (5) members of the Board who are, as above - John W. Green, Darrel W. Schmitz, W. Lester Aultman, Charles T. Swann, and myself, Rick L. Ericksen. The Board is in the administrative process of rule making and anticipates that applications for registration will be available in late October. A grandfathering period will begin with the first availability of application forms and continue through December, 1998. Under this provision, geologic registration will be available to those who qualify without the requirement of examination. Generally, to qualify under the grandfathering provision, one must have a B.S. in geology, four years of geologic experience, and have three references (whom all are geologists), submit information attesting to their knowledge of the applicant. Anyone who is practicing geology in Mississippi which may impact the public’s health, safety, or welfare must be registered. Non-resident geologists must contact the Board of Registration prior to working in Mississippi stating the approximate time frame during which they will be instate, the scope of their work, and who will be performing the geologic work.

All questions concerning the law or for application for registration should be directed to the following address or by telephoning (601) 961-5507.

Mississippi State Board of Registered Professional Geologists, P.O. Box 22742, Jackson, Mississippi 39225-2742

Currently the law in its entirety may be found at the following Internet address:

http://www.olemss.edu/depts/mmri

Applications and the required associated registration information became available in late October and can be found at this website. Those who have access to the Internet will simply be able to download and complete all of the registration forms, returning same to the Board for its consideration of their application.
(Monthly update prepared by David Applegate and Kasey Shewey)

Although calendars show that we are well into 1998, it is never too late to send out a monthly update for December of last year. The delay does afford us the opportunity to report on the successful launch of the Lunar Prospector mission, which will search for ice on the Moon. If found, it will probably have to be classified as a non-renewable resource. The mission has special significance for planetary geologists as it carries on board some of the late Eugene Shoemaker’s ashes, belatedly fulfilling his dream of going to the Moon.

This monthly update includes:
- Climate Change Accord Signed in Kyoto
- Senators Push for Science Funding
- President’s Next Budget to Freeze Science?
- AGU Forum on Geophysics and Public Policy at Fall Meeting
- Leadership Changes at USGS, National Research Council
- Tentative Schedule of Upcoming GAP Activities
- New Material on Web Site

Climate Change Accord Signed in Kyoto

In a frantic, last minute effort, delegates to the United Nations conference on global climate change in Kyoto, Japan finally reached agreement on targets and timetables for the reduction of greenhouse gas emissions. According to the treaty, the U.S. will reduce emissions of six greenhouse gases — carbon dioxide, methane, nitrous oxide, and three halocarbons — to 7 percent below what they were in 1990 by 2008-2012. In that time frame, the E.U. will cut emissions to 8 percent below 1990 levels and Japan will reduce emissions to 6 percent below 1990 levels. The U.S. succeeded in including emissions trading and joint implementation schemes in the agreement, but a major disappointment for the United States was a lack of provisions affecting developing countries. Those negotiations will be delayed until the next climate summit, occurring in November 1998 in Buenos Aires. President Clinton will likely delay presenting the treaty to the Senate to be ratified until after that conference, as many Senators have made it clear they will not support a treaty that excludes developing countries.

Senators Push for Science Funding

On December 4, Senators Phil Gramm (R-TX), Joseph Lieberman (D-CT), Pete Domenici (R-N.M.), and Jeff Bingaman (D-N.M.) wrote to President Clinton, urging him to use the FY 1999 budget “to establish a bipartisan national consensus on doubling non-defense federal R&D over the next ten years.” The letter echoed the sentiments of S. 1305, the National Research Investment Act, of which they were all cosponsors.

The bill seeks to double the federal investment in basic scientific, medical, and pre-competitive engineering research over a ten year period beginning in FY98.

President’s Next Budget to Freeze Science?

Although the President’s fiscal year 1999 budget will not be released until February, reports leaking from the White House suggest flat funding or at best small increases for most science-related agencies. The President has announced that he will introduce a balanced budget for fiscal year 1999, three years ahead of schedule, placing added pressure on discretionary spending. The New York Times has reported that the National Institutes of Health will remain the exception to the rule with big increases expected and even bigger increases likely from Congress. In an interview with the Times, President Clinton stated: “I do believe that in scientific terms, the last 50 years will be seen as an age of physics and an age of space exploration. I think the next 50 years will very likely be characterized predominantly as an age of biology and the exploration of the human organism.” The scientific societies that have called for a doubling of the federal investment in R&D in the coming decade are urging their membership to write the President and express support for such a plan.

AGU Forum on Geophysics and Public Policy at Fall Meeting

At the AGU Fall Meeting in San Francisco, GAP staff participated in a forum organized by the AGU Committee on Public Policy that focused on the role of geoscientists in the public policy process both nationally and in California. In the California session, speakers related how geoscientific information is used by policymakers for decisions on issues such as coastal erosion, earthquake insurance and the siting of the new San Francisco Giants baseball stadium. In the national session, two staffers from the office of Rep. Sam Farr (D-CA) spoke on how to provide helpful input to individual Members of Congress. They stressed the importance of getting to know staff both in the Washington office and back in the district offices before a crisis hits. Many of the talks in the session emphasized the importance of scientists becoming active constituents. Presentations were also made by USGS Associate Director Bonnie McGregor, AGU President Sean Solomon, and NSF Assistant Director for Geosciences Bob Corell.
Leadership Changes at USGS, National Research Council

The U.S. Geological Survey has established a new position of Deputy Director, and Tom Casadevall has been named to fill it effective February 1. The Deputy Director will be responsible for oversight of USGS scientific and management activities, and for leading the Survey in the absence of the Director. Casadevall is currently serving as the Survey's Western Regional Director. A volcanologist and geochemist, he is a leading authority on volcanic hazards and aviation safety. With all indications that it may be some time before a permanent USGS Director is named, Casadevall will likely take over as Acting Director if and when current Acting Director Mark Schafer returns to his day job as Deputy Assistant Secretary for Water and Science.

In other geoscience policy news, Bob Hamilton will be the new executive director of the NRC Commission on Geosciences, Environment & Resources, replacing Steve Rattien who left to join the Rand Corporation earlier in the year. Hamilton has recently retired from the USGS where he served in numerous positions including Chief Geologist. While with the Survey, Hamilton played a leading role in US and international efforts to reduce losses from natural disasters.

Tentative Schedule of Upcoming GAP Activities

The next GAP Advisory Committee meeting will take place on February 27-28, 1998 at AGI headquarters in Alexandria, Virginia. That meeting would take place directly after the science community-wide Congressional Visits Day activities on February 25-26, which committee representatives and other interested geoscientists are urged to attend as well. Logistical information for committee representatives will be sent this week.

- February 27-28, GAP Advisory Committee Meeting, Alexandria VA

New Material on Web Site

The following updates and reports were added to the Government Affairs portion of AGI's web site <www.agi-web.org> since the last monthly update:

- Update on House Science Committee Study of Science Policy (12-24-97)
- Update on Regulatory Reform (12-23-97) NRC Report “The Global
- Positioning System for the Geosciences” (12-19-97)
- Report on Women in Math and Science (12-17-97)
- Update and Hearing Summary on the Comprehensive Test Ban Treaty (12-14-97)
- Update: Senate Eliminates Eisenhower Science Education Program (12-11-97)
- Report on “Kyoto and Beyond” Climate Change Policy Forum (12-11-97)
- Update on Legislation to Create Tsongas Energy and Environmental Science Fellowships (12-10-97)
- Update on Legislation to Repeal Goals 2000 and the National Skill
- Standards Act of 1994 (12-10-97)
- Update and Hearing Summary on Global Climate Change (12-11-97)
- Summary of UCAR Briefing “Extreme Weather and the Insurance Industry” (12/5/97)
- Update on Electricity Deregulation (12-4-97)
- Summary of NRC Report “Natural Climate Variability on Decade-to-Century Time Scales” (12-4-97)
- Summary of Forum on the Consequences of Global Change for the Nation (12-3-97)
- Update on Compliance with the Government Performance and Results Act (12-2-97)
- Update on Superfund Legislation (12-2-97)
- Update on Science Appropriations and Budget Process (12-1-97)
- Update on High-Level Nuclear Waste (12-1-97)
- Geotimes Political Scene (12/97): Where Are The Declining Science Budgets?

This monthly update goes out to members of the AGI Government Affairs Program (GAP) Advisory Committee as well as the leadership of AGI's member societies and other interested geoscientists as part of a continuing effort to improve communications between GAP and the geoscience community that it serves. Prior updates can be found on the AGI web site under “Government Affairs” <http://www.agiweb.org>. For additional information on specific policy issues, please visit the web site or contact us directly at <govt@agi-web.org> or (703) 379-2480.

White House Climate Change Web Site

The White House now has a web site on global climate change. This site includes electronic copies of speeches President Clinton has given on global climate change, information on the science of climate change and information about President Clinton’s proposal on climate change.

The site address is:
http://www.whitehouse.gov/initiatives/climate/main.html

The EPA climate change web site is:
http://www.epa.gov/globalwarming

FEBRUARY 1998 • The Professional Geologist 11
PROPOSED POLICY ON THE EXERCISE OF PROFESSIONAL JUDGEMENT IN GEOLOGICAL PRACTICE

Published for comment by the Members

The following policy was tentatively approved by the Executive Committee at its meeting January 17. It is being published here for the Members' information and comment prior to final consideration. Members are invited to address their comments, via Mail, Fax or e-mail to the Executive Committee, at AIPG Headquarters, 7828 Vance Drive, #103, Arvada, CO 80003 (Fax: 303-431-1332; e-mail: excom@aipg.com). Comments must be received prior to March 2, 1998, when the final revision and consideration are scheduled.

Proposed Policy

"The American Institute of Professional Geologists believes that professional geologists should be free to exercise professional judgement as to the approach and methods most appropriate to each particular site and situation. AIPG considers prescriptive professional practice standards in geologic practice as being contrary to the public interest in that their effect is to proscribe innovation and to discourage the recognition or consideration of circumstances which may be unique to a particular site or situation. Further, AIPG believes that prescribed standards may not always be appropriate or adequate for the site or situation, with the result that some unnecessary activities may be done, while necessary activities are left undone."

Background

During 1995, 1996 and 1997, the Executive Committees became increasingly concerned about the promulgation of prescriptive "standards" on various subjects, e.g., site assessments, water resources, etc. This concern is shared by a number of other organizations who have formed a coalition called the "Advocates for Professional Judgement in Geoprofessional Practice." AIPG is a member of this coalition. It has been recommended that the members of the coalition adopt policies on the subject of the free exercise of professional judgement for the information and guidance of their members. The proposed policy presented above is your Executive Committee's response to this recommendation.
Draft Policy on the Exercise of Professional Judgement

The draft of the proposed Policy on the Exercise of Professional Judgment appears on p. 12 of this issue of the TPG. The need for such a policy statement arises out of the increasing promulgation of prescribed standards which substitute checklists and mandated methodologies for professional judgement. The problem is not restricted to the environmental field. Recent frauds in the mining business have resulted in similar proposals and, in some cases, rules.

For example, the Alberta Securities Commission has a rule that fire assays will be the only accepted method for determining metal content. While fire assay is the most common method of determining metal content for precious metals, it is not the only acceptable method. Further, for placers, fire assay is a known inappropriate method due to (a) small sample size involved in the assay charge, (b) the nugget effect resulting from the high economic value of small amounts of gold, and (c) the fact that fire assay will recover and report gold which cannot be recovered in placer processing plants. Although the foregoing problems can be addressed in various ways, the basic rule is that fire assays yield misleading results for placers. Yet the Alberta rule does not allow for this.

Herbert C. Hoover, in his 1909 Principles of Mining (p. 21), observed,

No engineer can approach the prospective value of a mine with optimism, yet the mining industry would be non-existent to-day were it approached with pessimism. Any value assessed must be a matter of judgment, and this judgment based on geological evidence. Geology is not a mathematical science, and to attach a money equivalent to forecasts based on such evidence is the most difficult task set for the mining engineer. It is here that his view of geology must differ from that of his financially more irresponsible brother in science.

Although Hoover was addressing ore reserve estimates, his remarks apply to most geological issues. Specifically Hoover was condemning the use of mathematical rules of thumb for estimations of the potential for additional reserves. True, we do far more with mathematics today than we did 90 years ago, but which mathematical techniques to apply and how useful they are still requires professional judgement.

I believe the U.S. Securities & Exchange Commission is correct in its instructions regarding the estimation of oil and gas reserves, which state:

Estimations of recoverable oil or gas are, in the final analysis, expressions of judgement predicated upon knowledge and experience. An estimation of recoverable oil or gas, however, purports to be more than an arbitrary determination—it seeks to attach value as a consequence of method. No specific method of estimating recoverable oil or gas is required, but the method used must be an orthodox method, in accordance with orthodox definition of terms, and the one best adapted to the making of reliable estimations of recoverable oil or gas for the property in question. (SEC, Schedules A and C.)

I believe the statement is generally applicable to all types of reserve estimation.

Standards have their time and place. Standards for how various forms of assaying should be done or verified are useful. Standards for the characteristics of products, for example talc for baby powder or paper-grade limestones, are useful. Checklists are useful for helping ensure that some common aspect is not overlooked. For laymen, such as lawyers and accountants, standards and checklists are attractive because one can go down the list and determine—they believe—whether an appropriate job has been done. The problem occurs where standards and checklists are substituted for thinking. It may be that a particular set of assessment procedures are appropriate for evaluation of 9 out of 10 sites of a particular variety. Thinking is required to determine (a) that the procedures are indeed appropriate for the 9 sites and to identify the 10th site for which an alternative is needed. A policy on the place of and need for the exercise of professional judgement is therefore required.

The next question is whether the draft policy statement on p. 12 adequately addresses all important points. I believe that the phrase “particular site and situation” should be modified to “particular project, site, and situation” to explicitly include more than environmental site evaluations. I also would modify the end of the second sentence to the following (changes in italics): “...the recognition or consideration of the geologic factors and circumstances which make each particular project, site, and situation unique.”

Please read the draft policy and comment as appropriate. Comment on my suggestions as well. Comments on the thoughts expressed in this column are welcomed as always.
Geologic Exams, etc.
(columns 24 (Nov. '97) and 26 (Jan. '98)

Robert Whittemore, CPG-7095, contributed the following thoughts regarding use of the GRE as an exam of geologic knowledge; "I, too, like the idea of using the GRE as a test of fundamentals. Arkansas likes it, too; in fact, it is their entire test for registration. There are several advantages to using the GRE. For one, I didn't have to drive 600 miles to take the test in Little Rock; I was able to take the test at a local university. Furthermore, I could prepare for the test by using the practice test booklet, which gives you at least one entire sample examination with which to gauge your chances of passing before forking out 50 bucks. The ASBOG booklet only gives you 20 sample questions.

"A possible disadvantage: According to the GRE information and registration bulletin, ETS will only report GRE scores directly to accredited institutions of higher learning. Any other use of the scores may be considered inappropriate. This means that the state agencies would have to accept a copy of an applicant's GRE score from the applicant. Arkansas requires that it be notarized as a true and accurate copy. Arkansas only requires a score of 550 for registration, which is about the 33 percentile. I don't think that score would filter out many geobasket weavers.

"A comment on examinations in general: the question: the periodical arises to the validity of any test, be it GRE, ASBOG, or ad hoc. [As Robert Tepel commented] in Column 24: 'Because the exam is broadly representative, some candidates will perceive that the topic content of the exam does not mesh with their own range of knowledge and experience. However, a license to practice geology is a license to practice all of geology and it is therefore logical for the exam to do what it does: cover all of geology in a way that is representative of practice around the country as reported by real geologists.' Nevertheless, geology is a broad and diverse field. With only 110 (ASBOG) or 195 (GRE) questions to test your knowledge or competency, an exam will always have a time-limit bias or a question-selection bias. There is a partial remedy, however. The advanced part of the test could be divided into, for example, 8 topical subsections, the applicant only being required to complete 6 of these, omitting those that are out of his/her field of experience. The fundamentals part of the test would still cover minimum competency in all other fields."

Engineering License = Geologic License?

Robert Whittemore, CPG-7095, notes that "In two states that I know of, engineers are allowed to practice geology over their PE stamp. What does this mean? Engineers are smart enough to solve geology matters without formal training? I don't think so. It means they have a better lobby at the state capital. I'd like to see that can of worms opened in your column some time."

I responded to Whittemore's initial comment noting that a number of AIPG members I know are registered engineers—and I'm sure there are many others—and noting that there are a number of schools offering degrees in geological engineering. Thus there is a subset of registered engineers who are qualified geologists.

Whittemore responded that he also knows geological engineers but points out, "there is nothing (that I know of) to keep an electrical or chemical engineer from doing the same thing. Our company applied for a mining permit on a tract of land we have owned for 30 years. It is close enough to an urban area that a citizen's protest group sprang up. Judging from their letters and circulars, they had been seriously misinformed. Most (if not all) of them were unaware that we had been actively mining on a tract 7,000 feet away since 1968. An engineer, who was probably contributing her time to the cause, wrote an objection to the permit. Some of her allegations, especially those involving the geology of the area, were erroneous to the point of being irresponsible. The copy sent to me wasn't sealed [with her PE seal], which was one smart thing she did. But yet, in the state of Tennessee, she can legally stamp geological site characterizations."

Whittemore's example demonstrates that there are people who go outside their area of expertise while still wearing the cloak of professional respectability. I'm reminded of William Thompson (Lord Kelvin) who declared that the earth could not be very old based on his measurements of heat flow. Thompson was saved from some embarrassment due the discovery of radioactivity because a clause in his paper noted that the future discovery of an unknown heat source would invalidate his conclusions.

The ethical issue is knowing your professional limits. The AIPG Code of Ethics states, "Rule 3.3.1 A Member shall perform professional services or issue professional advice which is only within the scope of the education and experience of the Member and the Member's professional associates, consultants, or employees, and shall advise the employer or client if any professional advice is outside of the Member's personal expertise." If an engineer is practicing outside his or her field of expertise, that should constitute a similar ethical violation. Has anyone been involved in a case where this type of unethical behavior was involved? What was the result? Does the state engineers' board in your state bring actions in such cases? How can you find out?

Professional Ethics and Client Behavior

Douglas B. Silver's presentation to the Nevada Section last fall, as reported in the Nevada Section newsletter and reprinted in the January TPG contained some interesting observations on the differences between a consultant's ethics and the perceived behavior of one's clients. Summarizing from the Nevada Section newsletter: "...a great deal of the evening discussion centered on ethical issues related to the role of the
geologist as technical adviser, and the reliability of the financial reporting practices of the mining industry.

“Earl Abbott, [1997 Nevada] Section President, opened the session by ruminating on the proper, ethical role of the geologist when he knows or suspects that a project is a sham, fraud or otherwise of dubious value, and keeps quiet about it, either to protect his own or colleagues’ employment, or to protect the ‘speculative’ or ‘investment’ value of the project. Doug Silver was later to expand on this theme by remarking several times that geologists needed to learn to draw a distinction between the technical, as opposed to the investment, merits of a project; by ‘investment merits,’ Silver was pointing out that the interest of the investor or speculator (a profitable rise in share price) is not necessarily congruent with the interest of the technician (successful delineation of economic reserves). From an ‘investment’ standpoint, nearly all purchasers of Bre-X stock who rode part or all of the price rise made money; the losers were those left holding the stock upon its collapse.” ...

“Silver next tackled the issue of technical vs. ‘investment’ issues for geologists by pointing out that exploration geologists, especially in the U.S., often fall into the trap of thinking that any company involved in exploration will naturally want to advance to development and production of reserves. In fact, Silver’s analysis of the industry shows that there are:

- 2,400 North American mineral companies, of which
- 1,930 are exploring for gold;
- 1,600 have gold as their primary focus;
- 1,100 are gold exploration companies with no resources.

“Only about 150 companies actually have significant gold production. This necessarily means that a great number of geologists are, like it or not, involved with creating and selling a ‘story’ to attract exploration capital, or to enhance the value of company stock. Silver asked the audience to recognize that promotion of properties and stock was a legitimate activity in the investment arena, and that a geologists are misguided in applying technical standards to evaluate the ‘risk’ of a mining investment.”

I reviewed many initial public offerings by natural resources companies while at the SEC. There are several mining company offerings I particularly remember which succeeded in leveraging the capital raised in the initial offering into sufficiently attractive exploration results to attract multimillion dollar follow-up exploration programs by major mining companies. Nevertheless reserves were never delineated and these small mining companies ultimately folded. It always struck me that those who invested in these companies received what was promised; exploration which would hopefully result in attracting more exploration money, and hopefully a paying mine. The fact that the ultimate hope was not achieved in no way detracts from the effort expended. The initial investors had a chance to make money by selling at a profit during the companies’ lives, and even if they held on to the end, their money was leveraged several times. Sure, some people also lost money. But is this immoral or unethical?

Noted above, Nevada Section President Earl Abbott’s initial point involved the issue of the ethical geologist’s responsibility to bring attention to a suspected fraud or scam. A similar situation arises when an on-going pollution problem such as ground water contamination is suspected. Is there an ethical obligation to do something? What specifically should one do? What evidence do you need to support your conclusions? What liabilities do you face by acting? What liabilities exist for not acting? Comments welcomed.

Short-term Employment and Training Costs

Consider the following two situations. First, a recently graduated geologist accepted a position with a firm and was immediately enrolled in a $1,000, one-week regulatory certification course. The following week, this new-hire resigned, justifying the resignation by saying that a personality clash was perceived with his supervisor. This individual left not only having received $1,000 worth of training but wages for the week the training took. And second, a geologist had already decided to leave his current employment a month hence, but had not yet given notice of the planned resignation. During this period, the geologist was sent to a similar $1,000, one-week regulatory certification up-date course. The geologist took the course prior to announcing his resignation. What is your view of the ethical issues presented?

In the first case, were the employment and training accepted as a means of obtaining a needed certification not only for free but while being paid? Or was the stated perceived conflict with the supervisor real? In the second case, should the geologist have declined to take the up-date course? Would that have essentially announced the intention to resign? Is a legitimate belief that a resignation letter giving two weeks (or longer) notice will result in immediate termination a valid ethical consideration? Regardless of your answers to the preceding questions, should the geologists have offered to reimburse the employer for the training, perhaps on some sort of payment plan? How would such an offer affect the situation?

I am aware of a situation in which a geologist who had been a consultant for some years accepted a position with a government regulatory agency. In just a couple of weeks, this geologist resigned because he simply was unwilling to work within the regulatory framework required by the job. Both the geologist and his supervisor agreed that the resignation was best for both parties. Nevertheless, is there an ethical or professional practice question regarding whether the geologist, who had been employed by a government agency early in his career, should have known that he would not be happy working for a government agency?

And as a concluding example for this introduction to the discussion, I offer the observation of a geologist who left the employ of one the scientific government agencies (the USBM) and went to work for one of the regulatory agencies (also federal). He noted that the approach to doing things was very different in the two agencies. Does this example affect your answer to the foregoing questions?
EXECUTIVE DIRECTOR’S COLUMN

LEGISLATIVE SESSIONS

John T. Howard, Chmn., AIPG State Affairs Committee, and W. V. Knight, Exec. Dir.

With a few exceptions, State Legislatures are in the early days of their 1998 sessions. By this time, your “Reg and Leg” committees have organized and begun to monitor their Legislatures and inform the Section’s Members on what is happening in this session, either for them or to them. Nearly every legislative session addresses some issue that has implications for geologists’ employment opportunities. Identifying and monitoring these bills, then presenting testimony on them can be a daunting task. This is especially so when one considers that the number of bills introduced in the 1997 legislative sessions ranged from as few as approximately 600 (Wyoming) to more than 14,000 (New York). Some ways need to be found to streamline this task.

One suggestion is to identify the various legislative committees that normally handle the issues affecting geologists, then examine the bills that are assigned to those committees. Each legislature and each of its houses is unique in its committee structure, but there are many similarities. For example, committees that geologists should be monitoring typically include Natural Resources, Environmental Affairs, Science and Technology, Health, Energy, Commerce, Labor, Economic Development, etc. After you have identified a bill to monitor, follow it throughout its legislative progress. Sometimes, amendments are added which completely change the character of a bill. Bills which seem to have died in a committee may be revived, either in that committee or in another one. So, keep a weather eye during the entire legislative session.

Another suggestion is for constituents to ask their legislators what bills they are introducing or cosponsoring in this session and the gist of each. Each Section Member should be involved in this, dividing the legislative rosters among them to avoid duplication and spread the work load.

Every state has public sources of legislative information. Usually rosters of Membership, Committees, Officers and Employees are available free for a small charge from the Clerk of that particular legislative house. Every legislature has a “Bill Room”, or similarly titled source for copies of bills, bill status information, etc. Some states make bill summaries available to the public, either free or for a nominal charge. Most have web sites or e-mail services to provide current information on legislation. If you are unable to locate these sources for your states, AIPG subscribes to the State Legislative Sourcebook. Information from this for specific states can be provided to your Section from AIPG Headquarters on request.

When searching the legislative web sites for your state, use key words, but do not limit your search to geology. Look for related subjects, e.g., engineering, licensing, environment, water, mining, petroleum, etc.

If your Section has not been politically active, it is recommended that you spend this legislative session getting acquainted with your legislature, its organization and its operation, going through the processes described above. (You may even be able to affect some legislation in this session.) Then, get organized for the next session. Many of the legislatures provide for pre-filing of bills for a period before the session convenes. If yours does, you will need to get organized even earlier.

Your Section should also examine existing legislation and regulations. Some examples of bills from past legislative sessions or which may appear in current sessions in various states address such matters of geologic interest as

1. What reports are required for proposed land developments or new residences or commercial buildings and who prepares them? Do they include geologic reports? Do they include specific geologic topics, e.g., water supply and water drainage, geologic hazards, soil conditions for foundations and sewage disposal?
2. What reports are required regarding the suitability of sites for public construction projects, e.g., schools, highways, etc.?
3. What, if any, zoning limitations are there on the extraction of commercial resources, e.g., sand and gravel, stone, coal, oil and gas, metals, etc.?
4. Is geologic information required to be disclosed to prospective purchasers of real estate? Who must gather and report such information?
5. Are geologists defined, certified or licensed in the state?
6. Are geologists written into or out of legislation or regulations governing other related professions, e.g., engineering, architecture, soil science, environmental science?
7. Can geologists perform “brown fields” and other surveys without supervision by other professions?
8. Can geologists do “UST” work without supervision by other professions?

A final word of advice: While mass mailings of duplicate letters from a large group of people is effective, a personal note and/or phone call from a constituent to a specific legislator is far more so. Therefore, use both, but especially the personal touch.

Good luck!
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FEBRUARY 1998 • The Professional Geologist 17
THOMAS M. JOHNSON, CPG-6439, has been elected Chair of the Board of Directors of the National Ground Water Association (NGWA), Association of Ground Water Scientists and Engineers (AGWSE) representing over 13,000 members. NGWA/AGWSE publishes the scientific journals Ground Water, and Ground Water Monitoring and Remediation; conducts national and international education programs and conferences; and has a professional certification program for groundwater professionals. Mr. Johnson is Vice President, Principal Hydrogeologist and Corporate Director of Technical Services for the environmental consulting firm of Levine Frick Recon, Inc., based in Emeryville, California. Prior to joining Levine Frick in 1986, he was Head of the Ground Water Section at the Illinois State Geological Survey, where he worked for 11 years. He obtained his B.A. in geology from Augsburg College, Rock Island, Illinois, M.S. degrees in geology and water resources management from the University of Wisconsin-Madison.

JOHN KAUFMAN, CPG-7409, of Aurora, Colorado was appointed by Governor Roy Romer as a new member to the Colorado Geological Survey. JOHN CURTIS, CPG-4717, of Golden was reappointed. Other committee members include SUSAN M. LANDON, CPG-4591. The 12-member committee provides advice concerning the current and future geologic needs of the state and suggests means of addressing those needs to the directors of the Colorado Department of Natural Resources and the Colorado Geological Survey.

ANTHONY J. RANA, CPG-9577, of Vincent Uhl Associates, Inc. recently returned to the United States after completing a 2-year water supply exploration and development project in Northwest Botswana. The project was executed by the Joint Venture of Vincent Uhl Associates, Inc. of Washington Crossing, Pennsylvania and Water Resources Consultants (Pty) Ltd. of Botswana. These two firms coordinated a 30 person team with expertise in vegetation analysis, geomorphology, geophysics, structural geology, hydrogeology, GIS systems, remote sensing, groundwater modeling, artificial recharge, natural recharge assessment, surface hydrology, computer applications, mapping, hydrogeochemistry and stable/radioactive isotopes.

The project involved assessing groundwater development potential over a 5,000 sq. mi. study area in the Kalahari Desert and the distal end of the Okavango Delta which comprises one of the largest inland deltas in the world.

The project achieved its objective to identify sufficient resources to supply the Town of Maun and vicinity until the year 2030.

LARRY D. WOODFORK, CPG-2370, designated Distinguished West Virginian and Kentucky Colonel. West Virginia Governor Cecil H. Underwood designated Larry D. Woodfork, State Geologist of West Virginia and Director of its Geological and Economic Survey, to be a Distinguished West Virginian at the Survey's recent Centennial Celebration marking the 100th anniversary of the establishment of the agency. The Distinguished West Virginian award is the highest honor bestowed by the state on its citizens. It is awarded in recognition of the recipient's outstanding achievement and meritorious service in their profession and to the state.

Subsequently, Kentucky Governor Paul E. Patton also commissioned Woodfork as a Kentucky Colonel, the highest honor awarded by the Commonwealth of Kentucky. Commissions as Kentucky Colonel are awarded by the Governor of Kentucky to recipients in recognition of their contributions to the community, state and nation and for special achievements of all kinds. The heritage of Kentucky Colonels dates back to the War of 1812 when the first Governor of Kentucky, Isaac Shelby, issued the first commission of Kentucky Colonel. Later Governors commissioned colonels to act as their protective guard; they wore uniforms and were present at most official functions. The current Honorable order of Kentucky Colonels was founded in 1932 and the colonels act as ambassadors of good will and fellowship for Kentucky around the world.

Woodfork is a native of Vincennes, Indiana and the son of Eva Lee Woodfork and the late Basil R. Woodfork. He graduated from Lincoln High School (1957), Vincennes University (1959), and holds undergraduate and graduate degrees in geology from Indiana University.

Woodfork is a member of numerous professional and scientific organizations and has served as national president of several. He has received many awards for professional accomplishments, leadership and service to those organizations.
WINE ON THE ROCKS
A FIELD TRIP

Join the AIPG, Nevada Section, on a spring 1998 field trip through California's Napa Valley; a trip which will focus on mine reclamation, mining geology, hydrology, geothermal power generation and the best wine sampling this side of France.

Highlights
A tour of the Homestake McLaughlin Mine reclamation, a standing petrified forest, mercury mines and the Geysers, California’s major geothermal project, a tour of the limestone caves at the Beringer Winery in St. Helena and as many other wineries as scheduling permits.

When: April 24, 25, 26, 1998
Where: We stay at White Sulphur Springs Spa & Resort, St. Helena, the nights of the 24th and 25th. The Spa is one of the original resorts in the Napa Valley, established in 1921, and offers many amenities including mud baths and massages. Some wine tasting may be done on site. The field trip will originate in Reno and leave Reno at 8:00 a.m., but those who wish to come from San Francisco may do so by driving to St. Helena for a noon luncheon with the Reno participants prior the afternoon portion of the trip on the 24th. Field trip leaders include USGS employees and other in the industry. Presentations of the following days activities will be made by field trip leaders at the nightly banquets.

Cost: $395 Double Occupancy, some upgraded accommodations available. All meals included. Limited to 44 participants. Closing date April 10, 1998.

Details: Kelvin Buchanan, (702) 786-4515, fax (702) 786-4324, e-mail: summitcrk@aol.com

REGISTRATION FORM
Make checks payable to AIPG, Nevada Section. Mail to Earl Abbott, 3841 Amador Way, Reno, NV 89502

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Mar. 9-11. 1998 Society for Mining, Metallurgy, and Exploration, Inc. Annual Meeting & Exhibit, "The Changing World of Mining - Our Role", Orlando, FL. Contact: Meetings Dept., SME, P.O. Box 825002, Littleton, CO 80162-5002, Ph.: (800) 763-3132, e-mail: smne@alt.com, http://www.smne.org


Mar. 12-13. 14th Mining and Geothermal Institute, Reno, NV. Contact: The American Association of Professional Landmen, 4100 Fossil Creek Blvd., Fort Worth, TX 76137, Ph.: (817) 847-7700.


May 14-18. Linking Spatial and Temporal Scales in Paleoecology and Ecology, Annapolis, MD. Contact: Lois L. Elms, Western Experience Penrose Conference Coordinators for the GSA, 4881 Evening Sun Lane, Colorado Springs, CO 80917, Ph.: (719) 597-9201, e-mail: jilms@aol.com.

May 17-22. American Society for Surface Mining and Reclamation, Mining—Gateway to the Future!, St. Louis, MO. Contact: Dianne Throgmorton, Coal Research Center, Southern IL Univ., Carbondale, IL 62901-4623, Ph.: (618) 536-5521, e-mail: dianmet@siu.edu.


Jun. 2-5. The Environmental Sampling Field Course, Columbus, OH. Contact: The Nielsen Environmental Field School, Inc., 4686 State Rte. 605 S., Galena, OH 43021, Ph.: (614) 965-5026, fax: (614) 965-5027.

Jul. 4-11. Processes of Crustal Differentiation: Crust Mantle Interactions, Melting and Granite Migration through the Crust, Verbania, Italy. Contact: Lois L. Elms, Western Experience Penrose Conference Coordinators for the GSA, 4881 Evening Sun Lane, Colorado Springs, CO 80917, Ph.: (719) 597-9201, e-mail: jilms@aol.com.


Nov. 5-7. AAAS Conference in South Dakota to establish network of researchers in Great Plains states, Sioux Falls, SD. Contact: Ellen Cooper, Ph.: (202) 326-6431.

Nov. 12-17. AAAS Epic of Evolution Conference, Chicago, IL. Contact: Dave Amber, Ph.: (202) 326-6434.

Nov. 21-23. AAAS Conference on Guidelines for Anonymous Interplay on the Internet, Irvine, CA. Contact: Dave Amber, Ph.: (202) 326-6334 or http://www.aasaa.org/appp/anon

Send notices of meetings of general interest, in format above, to Editor, TPG, 7828 Vance Drive, #103, Arvada, CO 80003, e-mail: wjd@aping.com.

AIPG ANNUAL MEETINGS

October 3-8, 1998
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