Readers—AIPG Requests Your Help in Production of Issues & Answers Booklet on Geologic Hazards

AIPG is presently involved in the production of *Geologic Hazards*, a booklet which is planned to become an addition to the “Issues and Answers” series in 1988. The ad hoc committee which laid the groundwork for this booklet in 1985 and 1986 has done commendable work. However, one shortcoming arises in the variety and quality of illustrations available to a small committee. The booklet will be indexed according to these sections: Introduction, Flooding, Slope Stability, Shrinking and Swelling Soils, Land Subsidence, Earthquakes, Volcanic Activity, Mass Wasting, Weathering, Erosion, Living with Geologic Hazards, and The Role of the Geologist. Because this is an AIPG booklet, all members should have an opportunity to make contributions. There is now real need for contributions of graphic illustrations. If you have in your collection a particularly interesting photograph or other illustration that you are willing to share, please forward that submittal to Edward Nuhfer, AIPG Editor, Geosciences Dept., University of Wisconsin at Platteville, 53818. 35 mm. slides are preferred as submittal material but prints or drawings will be accepted. Each illustration must be accompanied by a caption which explains what is viewed by the reader, gives the location of the feature and lists your name as the contributor. All originals submitted will be reviewed by the editor and eventually filed at AIPG Headquarters. The booklet will credit the submitter for his/her illustration unless anonymity is requested. Original submissions will be returned to you upon request.

Strip-mine Law Given Raves, Barbs on its 10th Birthday

Washington (AP)—The law intended to heal America’s strip-mining scars and prevent new ones turned 10 years old yesterday to mixed reviews: better mining and reclamation practices offset by enforcement problems, coal-field outlaws and environmental damage.

“I truly believe we have something to celebrate,” a House hearing marking the anniversary was told by Jed Christensen, director of the Office of Surface Mining Reclamation and Enforcement.

In an upbeat status report, he said that about $1 billion has been spent restoring some 66,000 acres of abandoned surface mines that existed in 1977 and that industry had reclaimed nearly 1.4 million acres of active mine lands.

“The surface mining law . . . is living up to its central promise of ensuring protection of the environment, reclamation of mined lands and efficient recovery of coal resources,” Christensen said.

But the 1977 law’s principal author, Rep. Morris Udall, D-Ariz., said that although progress has been made and much of the coal industry is complying with its terms, “the act has not accomplished what I or the people of the coal fields had hoped for.”

Udall cited the failure of some states to improve their regulatory programs, wildcat miners who ignore the law that requires land reclamation and environmental safeguards, and disruptions at OSMRE during the Reagan years.

A parade of witnesses from environmental groups gave Udall’s interior committee a litany of what they consider to be the downside of the law’s first decade:

- Thousands of acres strip mined before 1977 await restoration because there isn’t enough money—collected from a tonnage fee on coal—in the Abandoned Mine Land Fund.
- Some 6,000 surface-mine sites, or about 25% of those initiated since 1977, have been left unreclaimed, some of them poisoning drinking water with acid runoff.
- OSMRE has a backlog of about $200 million in uncollected penalties and fees required by the law. Christensen concedes that up to 85% of the money may have to be written off because many debtor companies are no longer in business. States too have backlogs of civil penalties.
- About half of OSMRE’s orders to mining companies to cease illegal practices were ignored.
- Until Congress and the Reagan administration recently agreed to close the loophole, the 1977 law’s exemption for plots of two acres or less was used by outlaw miners to dredge coal from adjoining larger sites without having to restore the land’s natural contours.

(Continued on next page)
Earth Sciences Seek Greater Representation, Funding through BES and NSF

Board of Earth Sciences. The fundamental mission of the Board on Earth Sciences of the Commission on Physical Sciences, Mathematics, and Resources is 1) to provide oversight of the solid-earth science activities within the National Research Council; 2) to provide a review of research and public activities in the solid-earth sciences; 3) to assess the health of the disciplines, and 4) to identify research opportunities.

This group is to take a leading role in helping to establish scientific policy bearing on larger earth science programs in and on behalf of the United States. A major charge of the board and its committees is to assess and recommend basic research and its applications to meet national and societal needs.

The committees of the board are the following: Committee on Seismology (COS), Committee on Geological Mapping (CGM), Committee Advisory to the U.S. Geological Survey (CAUSGS), Committee on Global and International Geology (CGIG), Committee on Geodesy (COG), Continental Scientific Drilling Committee (CSDC), Steering Committee for a Workshop on Physics and Chemistry of Earth Materials (PACEM), U.S. Geodynamics Committee (USGC), and six national committees (USNC) that adhere to affiliated bodies of the International Council of Scientific Unions (ICSU).

The USNCs arrange for appropriate U.S. participation in international congresses and conferences by conducting travel grant programs to enable our best scientists to attend. The committees also interact with the international organizations and the organizing committees to help select and conduct symposia and exhibits, as well as commissions and working groups.

The BES is planning a comprehensive study of the earth sciences to evaluate the outlook for the next decade. During the coming year, it plans to complete studies on seismic hazard analysis, paleontological collecting, global and inter-

GEOLOGISTS AND LAWYERS NEEDN'T APPLY

Patrick Mattimore, 37, has been a deputy district attorney in Alameda County, California, for three years. Tired of working with kids only after they’ve been charged with crimes, Mattimore wants to reach them earlier: He wants to become a teacher. With degrees from Dartmouth College and Hastings College of Law in San Francisco, he’s confident he would be as effective in the courtroom as he is in the courtroom. But he has never taken teacher-education courses—and that makes him ineligible to teach in most U.S. school districts. Says Mattimore, “I’m qualified to go to a college and teach. It’s absurd that I can’t teach high-school kids.”

Mattimore’s case puts in stark relief a key question facing education today: Should adults with first-class educations but no pedagogical training be able to teach in public schools?

Secretary of Education William Bennett is among the educators who want teaching opened up to more people of energy and intelligence. Within the teaching guild, however, there is entrenched resistance to the idea. To hire people without adequate training “makes a mockery out of the whole profession and is grossly unfair to the children,” insists National Education Association President Mary Hatwood Futrell.

A LOOMING TEACHER SHORTAGE

The debate is not an idle one. Studies show that the United States will need 1.3 million new teachers by 1992. That need, coupled with calls to overhaul traditional teacher education, has spurred a drive to find new talent. Interest from mid-career professionals is high: A March poll by the National Executive Service Corps found that one third of the adults at seven major corporations were interested in becoming teachers after retirement.

But the system, which licenses teachers based on the education courses they have taken, is stacked against them. Rules in most states forbid local school officials to hire scientists to teach science, for instance, unless they can show that no fully certified science teachers exist. Still, a veteran certified history instructor can often more easily get a job teaching science than a highly trained but uncertified geologist.

However, with the need for new teachers so clear especially in math and science—a number of districts, states and organizations are trying to work out compromises. Sixteen California school districts, for instance, have a special program for uncertified instructors. For two years, guided by mentors, they study pedagogy while teaching subjects for which no certified teachers are available. The American Federation of Teachers has started a similar pilot program in six cities. Adults with degrees in subjects with teacher shortages take reduced teaching loads for one year under supervision. The freshmen teachers must also complete summer workshops in pedagogy—and then they are qualified for certification.

(Continued on next page)
Chevron Corporation is working with universities in San Francisco, New Orleans and Houston to prepare employees for post layoffs or retirement careers in teaching. And Emily Feistritzer, director of the private National Center for Education Information, started a clearinghouse last spring to match people who wanted teaching jobs with districts needing staff.

FEW TAKERS

There is still considerable resistance to the idea. Feistritzer had to cut off applications after just five weeks. She had heard from 350 prospective teachers, but only two school districts had expressed any interest in taking them on. And only 100 of New Jersey’s 640 districts have accepted the state’s invitation to provide supervised internships to people without education courses—despite data showing that the outside candidates test higher on the National Teacher Examination than teachers from traditional backgrounds. By far the most common reason for the resistance, says Leo Klagholz, New Jersey’s director of teacher preparation and certification, is that “there’s too much work involved in supervising.”

In some districts, there is also considerable professional jealousy at play. One superintendent told Feistritzer that he didn’t want “any IBM executives” in his school. “They feel very threatened by these people,” she explains.

Still, many would argue that credentials don’t guarantee good teaching. And when it comes to first-class schooling, a smart, eager potential teacher—even without a traditional background—seems a terrible thing to waste.

(From U.S. News & World Report, July 27, 1987)

If Your Small Business Flops

It’s obviously best to be optimistic when starting a new business, but planning for the worst can mean a tax break that will ease the financial impact if your dreams don’t pan out. The provision allows shareholders in small corporations that falter or go belly up to write off their losses faster than usual, if certain rules are met.

Normally, if shares in a firm become worthless or you end up unloading them for a song, the loss can only be used to offset capital gains from other business or personal investments—or to shelter from tax a maximum of $3,000 a year of regular income such as wages or interest. Losses not written off one year can be carried over to the next, but even then it can take years to write off a major capital loss.

However, the rules are more liberal if newly issued shares are designated as “Section 1244” stock—named for a part of the tax code. The rule covers both stock sold when a company is born and shares sold later to raise more capital, provided they were properly qualified at the time they were issued. They remain qualified even if future offerings don’t. In any case, if the business fails or if you decide to bail out, you can claim losses on the 1244 stock to offset up to $50,000 of ordinary income in a year. The cap is $100,000 for spouses who file jointly, even if only one owns the stock. You can even use the loss to get a refund on a previous year’s tax bill. If you unload the shares gradually, the cap will apply separately to each year in which you make a sale. “Many attorneys and accountants fail to alert their clients to this provision,” says Julian Block, a tax consultant at Prentice Hall Information Services.

There are restrictions, of course. Section 1244 treatment can be used only for the first $1 million in stock sold by a firm. The company must also receive cash or property for the 1244 shares. That disqualifies any stock you may receive in payment for your services. The Internal Revenue Service requires that a company keep separate records on ownership of 1244 stock and meet various other bookkeeping rules.

The favorable treatment on losses can be claimed only by original buyers. You can’t, for example, pass the tax saving to family members by giving them stock. It’s a break for you alone.

(From U.S. News & World Report, June 20, 1987)

Future Generations of Mineral Resource Scientists

LYLE V. A. SENDLEIN—DIRECTOR
Institute for Mining and Minerals Research
University of Kentucky

When did you first become aware of the earth as a system? Probably not when you picked up that first rock to throw when you were a child. If you were lucky, you began to learn about the earth in grade school. Today, most young people are exposed to facts about the earth on TV and in some science courses which use parts of the earth as examples to explain physical, chemical, and biological phenomena. What they do not learn is how the earth behaves as a system; thus the interrelationships between the various earth materials and processes are not well understood. Such problems as pollution of ground water, increase in atmospheric carbon dioxide, or the placement of hazardous and radioactive waste on the earth are problems that the general population does not understand, yet they often react without thinking to stories about these and other topics relative to their safety and health.

Information made available by the education committees of geological and mining professional organizations and state agencies dealing with the state education programs indicates that students in programs in grades K through 12 have very limited exposure to earth science courses or units on earth science. What was more startling was the fact that there are very few teachers certified to teach earth science.

One might ask, why should anyone worry about earth science education in the public school system? Have you noticed how often we read about damage to the environment by industrial or municipal activities, and have you noticed how the debate and very often the solution to these problems are ineffective? We have scientists and engineers who know how to solve many of these problems, but too often the people who know how to solve the problems do not communicate very well with the people who represent and manage the government agencies responsible for the environmental management. A better informed population relative to earth processes could communicate better with the scientists and engineers who could solve the problems.
The trend in the public school systems of the nation, and in Kentucky, is to eliminate the earth science courses at the eighth grade and retain them at the high school level as electives. As I stated above, the courses are being reduced because there are very few certified teachers to both teach the courses and stimulate an interest in offering them. Another factor which hinders earth science course offerings is that teacher and student interest is in the biological sciences, and thus the trend is away from the physical sciences. A balance is needed, and in fact more knowledge about the interdisciplinary nature of earth systems that control our environment must be emphasized.

A number of years ago an earth science curriculum was developed which included a problem-solving approach to earth science. This program included subject matter from geology, astronomy, physics, chemistry, and oceanography in such a manner that illustrated the interdisciplinary nature of earth science. By its very nature it introduced the student to interdisciplinary solutions to natural system problems. The student learned that in order to study the earth, many disciplines were required. In today's world, many of the problems that must be faced and solved are interdisciplinary in nature.

A group of educators from Kentucky institutions has met to address this problem. The group is composed of representatives from the University of Louisville, the University of Kentucky, Morehead State University, Northern Kentucky University, Eastern Kentucky University, Western Kentucky University, Murray State University, the Kentucky Geological Survey, and the Kentucky State Department of Education. The group calls itself the Kentucky Earth Science Educators Alliance (KESEA). So far it has met twice and has mapped out a program to begin to address earth science education in Kentucky. The group realizes it is a long-term problem and will require a variety of activities to stimulate the increased education of the public to the importance of the earth sciences in daily life. It is long-term because the major emphasis will be placed on the youth of the Commonwealth.

The program is designed to simultaneously work toward increasing the number of qualified teachers in earth science and preserving earth science courses in the eighth grade and high school. The group hopes to stimulate interest in earth sciences by developing field trip ideas for teachers interested in taking their students into the field near their schools. Increased educational opportunities at the member schools will be developed to increase the number of qualified teachers in earth science. The group is exploring the development of regional centers utilizing existing personnel for teacher education and special courses to allow current teachers to increase their knowledge and become certified in earth sciences.

If you are interested in learning more about the KESEA and its goals and objectives you can contact me, the chairman of the KESEA, at (606) 257-8636, or write me at IMMR at the University of Kentucky.

(From IMMR Highlights, Volume 6, Number3.)

EDITOR'S NOTE: This article by a non-member indicates potential projects for sections. In our statement of purposes, the phrase that AIPG shall "communicate with the public", indicates a purpose that will be impossible to carry out unless we have an educated public.
Geoscience Faculty Salaries

1987 geoscience faculty salaries are shown by rank in the accompanying table, prepared by the American Geological Institute. For each rank, both the high and low salaries are provided. All salaries are base salaries for academic year appointments.

<table>
<thead>
<tr>
<th>RANK</th>
<th>RANGE</th>
<th>MEDIAN</th>
<th>MEAN</th>
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</thead>
<tbody>
<tr>
<td>PROFESSOR</td>
<td>HIGH: $33050 to $77500</td>
<td>$55668</td>
<td>$55334</td>
</tr>
<tr>
<td>N=501</td>
<td>LOW: $27073 to $65977</td>
<td>$39300</td>
<td>$40169</td>
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<tr>
<td>ASSOCIATE PROF.</td>
<td>HIGH: $25300 to $58440</td>
<td>$38690</td>
<td>$38697</td>
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<tr>
<td>N=250</td>
<td>LOW: $28862 to $42000</td>
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<td>$33013</td>
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<tr>
<td>ASSISTANT PROF.</td>
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<td>$30400</td>
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</tr>
<tr>
<td>N=217</td>
<td>LOW: $19165 to $35150</td>
<td>$27000</td>
<td>$27685</td>
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</tbody>
</table>

(From Manpower Comments, July-August 1987)

Energy-Related Doctorates

The number of doctoral scientists and engineers whose professional work was primarily energy-related increased 7% from 41,600 in 1981 to nearly 45,000 in 1985, according to a new report prepared for the U.S. Department of Energy. Major findings from the report, Doctoral Scientists and Engineers Working in Energy-Related Activities 1985 include the following:

- The number of energy-related Ph.D.’s working in the life sciences more than doubled from 1981 to 1985, while the number of earth, environmental and marine scientists; psychologists and social scientists; and engineers grew by 18%, 17% and 16%, respectively.
- Although only 11% of the total 398,400 employed doctoral scientists and engineers in 1985 were involved in energy-related work, significantly larger concentrations of engineers, physical scientists and earth scientists were found in energy-related activities. Energy-related employment accounted for 29% of Ph.D. engineers, 15% of physical scientists, and over 32% of earth, environmental and marine scientists.
- Between 1985 and 1991, job openings for energy-related Ph.D.’s are projected to decrease by approximately 13%-11.8% for scientists and 15.3% for engineers.


(From Manpower Comments, July-August 1987)

Energy Awareness Month

October has been designated as Energy Awareness Month. In this regard, the U.S. Department of Energy’s Division of Consumer Affairs encourages consumer activities which elevate our awareness of the importance of the valuable role energy plays in our daily activities and way of life.

The national theme of Energy Awareness month is “Energy Security: Our Future Depends on It.”

Supreme Court Voids Ninth Circuit Standard for Injunction Relief in Environmental Cases

In a highly significant ruling the United States Supreme Court overturned the Ninth Circuit Court of Appeals’ ban of oil leasing in federal waters off Alaska’s coast. In recent years the Ninth Circuit, governing all the western coastal states, consistently followed the policy of issuing injunctions at the outset of environmental lawsuits under the presumption that environmental statutes supersede all other interests that may be at stake. The Supreme Court’s decision strikes down that policy. A coalition of environmental interests brought suit against the Department of Interior to stop gas and oil lease sales. The coalition charged that the Department of Interior had failed to comply with environmental laws and a section of the Alaska National Interest Lands Conservation Act which requires steps to be taken to minimize adverse impacts of federal lands used for subsistence by Alaskan natives.

In awarding injunctive relief, the court said, federal courts must balance competing claims of injury and must consider the effect on each party of granting or withholding the relief requested.

(From Pacific Legal Foundation, July 1987)

Section Screening Boards—Can You Top This One?

The July 22, 1987, issue of The Chronicle of Higher Education noted that the resume of the chancellor of the Alabama’s two-year colleges listed the chancellor as a Vietnam veteran, although he did not actually serve in Vietnam, included a list of scholarly articles that were never published and listed a doctorate in education which he never received. The Alabama Board of Education’s response was summarized by one board member, “We as a board could not reach a consensus of whether the errors were intentional or unintentional.” The board decided not to fire the chancellor but unanimously agreed to request the chancellor “...correct any errors in his résumé and resubmit it.” Nothing teaches ethics like great role models!

Supreme Court Approves State Regulations of Federal Lands

California Coastal Commission v. Granite Rock Company. The United States Supreme Court handed down a decision, ruling that neither United States Forest Service regulations, nor federal land use statutes, nor the Coastal Zone Management Act preempts the California Coastal Commission’s imposition of a permit requirement on operation of an unpatented mining claim in a national forest. The court did rule that although the state could condition mining to protect the environment, it could not prohibit mining.

(From Pacific Legal Foundation, July 1987)
COMPONENTS OF AN INTEGRATED OIL, GAS, AND GEO SCIENCE R&D STRATEGY

While developing the components and priorities for the recommended strategic plan will require both analysis and expert judgment, the following are suggested components:

Reservoir discovery, especially of subtle traps and in frontier areas, requires sophisticated understanding of the deposition, diagenesis, and tectonics of whole basins and their principal subdivisions. Basin studies, including three-dimensional mapping, large-scale geological interpretation, and mathematical models integrating data from outcrops and other surface features, available wells, remote sensing (including biosphere-geosphere interactions), improved seismic measurement and interpretation, etc., should reduce the costs and risks of exploratory drilling and provide the framework for more detailed reservoir description.

Reservoir access is generally obtained by drilling wells. Despite the advanced state-of-the-art of drilling technology for conventional wells, improvements are required for future exploration of the very deep onshore and very deep water offshore formations. Downhole telemetry, in-situ "measurement-while-drilling," and attitude control of deviated and horizontal wells could improve the speed, efficiency, and effectiveness of drilling.

Reservoir description and geologic modeling are the highest priority research areas. Inadequate understanding and prediction of heterogeneities and flow paths within the reservoir account for more failures of projects than any other cause. Advanced measurement, interpretation, and geological and reservoir modeling must integrate data from several "scales of observation," ranging from basin level (above) to the sub-pore level, into a scale practical for engineering design. Improvements in measurement include enhanced coring, logging, interwell three-dimensional seismic, rock and fluid sampling, and advanced tracer testing techniques for reservoir description. Using existing data from thoroughly documented reservoirs and modern geological interpretation, "type" reservoirs may be defined to predict spatial distributions of remaining oil and gas based on deposition, tectonics, and field development history. Additional tracer studies and selective test drilling could provide the data to test and validate these approaches.

Extraction process design, prediction, and evaluation will be specific to the respective resources and their reservoir settings. Many (but not all) of the basic mechanisms for displacing and mobilizing oil in tertiary recovery are understood in the laboratory but not at the well or reservoir scale. While some further work in fluid-fluid and rock-fluid interactions is needed, understanding at the scale of well patterns or whole reservoirs (including their heterogeneities) can yield greatest benefits in production. Fracturing to enlarge the surface area of pressure sinks in low permeability oil and gas reservoirs and/or increasing injectivity and sweep of injected fluids still remains more art than science. Overcoming or capitalizing on the effects of permeability variation and gravity segregation to improve sweep in the reservoir remains a major challenge. Affecting all these issues is the inability to predict accurately through mathematical modeling the performance of alternative engineering designs. Accurate geological and engineering data bases and reservoir description models are prerequisite to development of simulation models tending to cost-effective production. Such models, testable only in actual applications, define alternative interpretations of project results by which critical uncertainties can be defined to establish new priorities for subsequent R&D.

Each of these phases of research and technology development will require the use of state-of-the-art techniques of computing, knowledge-based systems ("artificial intelligence"), direct measurement, and data reduction and interpretation. Development of a prioritized strategy for integrating these efforts toward maximizing production of U.S. resources is a major task requiring extensive, nationally representative data bases and "systems models." We regard integrated analysis and strategy development the first orders of business for the recommended Office of Geoscience Research in Fiscal Year 1987 and a continuing obligation to be satisfied through biennial updates of the analysis and strategy.

RECOMMENDED BUDGET FOR CONSOLIDATED OIL, GAS AND GEOSCIENCE TECHNOLOGY R&D PROGRAM

<table>
<thead>
<tr>
<th>Refocused Existing Programs</th>
<th>FY 86</th>
<th>FY 87</th>
<th>FY 88</th>
<th>FY 89</th>
<th>FY 90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhanced Oil Recovery (Includes tertiary recovery, targeted infill drilling &amp; tar sands)</td>
<td>11.1</td>
<td>11.2</td>
<td>9.3</td>
<td>17.0</td>
<td>27.0</td>
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<tr>
<td>Advanced Process Technology</td>
<td>5.5</td>
<td>3.8</td>
<td>2.0</td>
<td>6.0</td>
<td>10.0</td>
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<tr>
<td>Oil Shale</td>
<td>12.1</td>
<td>11.0</td>
<td>1.0</td>
<td>6.0</td>
<td>8.0</td>
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<tr>
<td>Unconventional Natural Gas</td>
<td>8.5</td>
<td>8.0</td>
<td>1.6</td>
<td>10.0</td>
<td>20.0</td>
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<tr>
<td>Subtotal</td>
<td>27.6</td>
<td>34.0</td>
<td>13.9</td>
<td>39.0</td>
<td>65.0</td>
</tr>
</tbody>
</table>

New Initiatives, Integrated with Above

| Strategic planning & analysis | -0- | -0- | -0- | 3.0 | 4.0 |
| Reservoir heterogeneity & subtle traps | -0.1 | -0.1 | -0.1 | 20.0 | 25.0 |
| Advanced oil & gas geoscience technology | -0.2 | -0.2 | -0.2 | 15.0 | 22.0 |
| Cooperative Ventures | 0.0 | 0.0 | 7.0 | 7.0 | 18.0 |
| Subtotal | 0.0 | 0.0 | 7.0 | 45.0 | 69.0 |

GRAND TOTAL: 37.6 44.0 20.9 84.0 134.0

1 Included in prior EOR budgets, increments to be merged into future EOR budgets.
2 Included in prior APT budgets, increments to be merged into future APT budgets.
ENDORSEMENTS

We, the undersigned organizations and individuals, endorse the findings and recommendations of the Energy Research Advisory Board regarding federal oil and gas discovery and recovery technology R&D and encourage adoption of the ERAB recommendations and the implementation steps advocated in the attached statement.

Organizations of Public Officials

- Interstate Oil Compact Commission, the organization of the governors of 29 oil and gas producing states and 6 associate member governors.
- Southwest Regional Energy Council, the organization of the legislatures of the oil and gas producing states.
- An ad hoc committee of the State Geologists from 30 states.
- Council of State Regulatory Officials, organization of oil and gas conservation agencies.
- Council of Energy Resource Tribes, the organization of 43 American Indian tribes with energy resources.
- Osage Indian Tribe of Oklahoma.

National Industry Organizations and Associations

- Gas Research Institute
- Independent Petroleum Association of America
- American Gas Association
- Interstate Natural Gas Association of America
- National Stripper Well Association
- Energy Consumers and Producers Association
- Association of Oil Well Servicing Contractors

Regional Industry Associations

- Texas Independent Producers and Royalty Owners Association
- Louisiana Association of Independent Producers and Royalty Owners
- Independent Petroleum Association of the Mountain States
- Independent Petroleum Association of New Mexico
- Kansas Independent Oil and Gas Association
- Permian Basin Petroleum Association
- Nebraska Oil and Gas Association
- Four Corners Gas Producers Association
- New Mexico Land Man Association
- International Association of Drilling Contractors of New Mexico

Professional and Academic Organizations

- American Association of Petroleum Geologists
- American Institute of Professional Geologists
- Roswell Geological Society
- An ad hoc committee of Professors of Geology and Petroleum Engineering from:
  - University of Alaska
  - University of California/Berkeley
  - Colorado School of Mines
  - University of Houston
  - University of Illinois/Chicago
  - University of Kansas
  - Louisiana State University
  - New Mexico Institute of Mining & Technology
  - University of Oklahoma
  - Pennsylvania State University
  - Leland Stanford Jr. University
  - University of Southern California
  - University of Southwestern Louisiana
  - University of Texas at Austin
  - Texas A&M University
  - University of West Virginia
  - University of Wyoming

Petroleum Experts in Private Life

An ad hoc committee of former directors of oil and gas research in the public and private sectors and leading petroleum experts. (Note: The persons listed below endorse these positions as individuals and not as representatives of their former affiliations. The names of the former employers are listed for identification purposes only and do not imply endorsement by these organizations):

- John Ball, Director of DOE Bartlesville Energy Technology Center
- R.J. Blackwell, Exxon
- Lincoln Elkins, Sohio
- Lloyd Elkins, Amoco
- Ted M. Geffen, Amoco
- Claude Hocott, Exxon
- L. Wally Holm, Unocal
- Harry Johnson, Deputy Assistant Administrator, ERDA
- Marvin L. Katz, ARCO
- T.W. Nelson, Mobil
- Fred Poettmann, Marathon
- Bailey Rascoe, Phillips
- Edward E. Runyon, Past President, Society of Petroleum Engineers (SPE); and Past President, American Institute of Mining, Metallurgical, and Petroleum Engineers, (AIME)
- R.V. Smith, Phillips
- Philip White, Amoco, and Assistant Administrator for Fossil Energy, ERDA

(June 17, 1987)
Congress is back. The August recess is over, and much is to be done. But look to Congress to waste time on Bork, Iran/Contra, and similar media issues, leaving individual agency appropriation bills to be compressed into a giant vetoproof omnibus appropriations bill with dangling pork some time after the fiscal year ends 9-30-87.

Problems in the House Appropriations Committee. Prior to the mid-1970s, it could be said that the committee and its subcommittees were fiscally relatively conservative, holding spending to less than the President's budget. Then new rules and other political changes helped transfer the appropriations process into one controlled less by fiscal tightwads and more by spending interests. For one thing, in shifting from anonymous to recorded floor votes, House members with little knowledge of the issue are increasingly waylaid by legions of lobbyists as they walk to the floor to vote. For another thing, members were given more power to choose subcommittee assignments, and chairmen have to stand election by the full Democratic caucus. This leads to subcommittees dominated by members seeking to protect or expand programs. Now, with cost-cutting mandated by the deficit, the subcommittee memberships are less suited by the task. Also, with inflation essentially curtailed, spending can no longer be financed with devalued dollars. This has led to gimmicks like shifting funds between accounts, delaying payments, or underfinancing entitlement programs like food stamps or commodity credit. The inevitable supplemental appropriation bills come along later, often with unrelated spending goodies attached like Christmas ornaments. (National Journal, 8-8-87, p. 2025)

Will 1989 be the end of energy complacency? Prudhoe Bay production, almost a fourth of U.S. production, has started to decline. The natural gas deliverability surplus may be headed for its last year. And what is to happen in the Persian Gulf? It takes time and capital to switch significantly into coal and nuclear energy, even given changed public and media attitudes.

The 53 miles of SSC tunneling. The magnitude of the Superconducting Supercollider (SSC) project has the big guns from 23 states competing for the $6 billion atom smashers with its 4,500 construction jobs, 2,500 permanent positions, and academic prestige. The Texas proposal delivered to DOE weighed 2,400 pounds. Ohio's 60 boxes measured 200 cubic feet. In support of the Arizona proposal, BLM proposes to withdraw about 79,000 acres of federal land near Phoenix from mining location for two years (52FR33297). Geologic maps are a significant part of the proposals, and the tunneling job should keep quite a few of our professionals busy. But let's not forget that Congress has not yet authorized the project, let alone appropriated any of the funds. There is fear that the project will cut into the funding of other scientific projects. The House did pass a bill with R&D funding, but not to initiate construction. Maybe as Congressman Udall has suggested, probably with tongue in cheek, the state that wins the SSC should also agree to accept the high-level radioactive waste repository.

Water Quality Act (WQA) of 1987. As the first comprehensive revision of the Clean Water Act in a decade, the WQA establishes many new requirements for EPA and the states, from information gathering, assessments, strategies, control requirements, grants, management plans, studies and reports. One of the major provisions of the WQA concerns nonpoint source pollutants, authorizing funds for states to assess their waters with respect to impairments of quality due to nonpoint sources and to identify the sources. Another major provision sets up a national estuary program, and still another provides for a comprehensive analysis of the quality of lakes nationally. EPA has available the first five draft guidance documents springing from the WQA, including one on nonpoint sources of pollution. Comments on these drafts are due 10-4-87. 52FR33643

Analysis for trace metals in water. EPA proposes to add the direct current plasma atomic emission spectrometric method (DCA) to the several other already approved analytical methods for determining compliance with effluent limitations (52FR33542). EPA also proposes some changes in three approved analytical methods (52FR33547). Comments on both changes are due 10-19-87.

Evaluating ground water monitoring data from hazardous waste facilities. 40CFR Part 264, promulgated in 1982, has drawn considerable criticism, particularly as to the statistical procedures used to evaluate the presence of contamination. EPA now proposes changes, and also proposes to require that operators more completely characterize the hydrogeology at the facilities. Comments are due 10-23-87. 52FR31948-31956

Delaware River Basin Commission. At a public hearing 9-22-87 in Phillipsburg, NJ, eight of the 17 applications to the commission concern ground water withdrawal.

Underground Injection Control Program. EPA is proposing amendments to 40CFR Parts 124, 144, 146, and 148 concerning liquid hazardous wastes. Included are requirements for monitoring pressure and quality changes in the first aquifer overlaying the confining zone, and the use of geophysical techniques to determine the position of the waste front. Geologic suitability for the siting of Class I hazardous waste wells shall be determined by EPA based on “an analysis of the structural and stratigraphic geology, the hydrogeology, of the wellsite, including . . . detailed information regarding stratigraphy, structure and rock properties, aquifer hydrodynamics and mineral resources”. The confining zone is to be “literally continuous and free of transacting transmissive faults or fractures over an area sufficient to prevent the movement of fluids into a USDW” (underground source of drinking water). Comments seem to be badly needed, by 10-26-87. The preamble runs for 28 pages and the proposed rules for 10 pages. 52FR32446-32476

Cordell Bank National Marine Sanctuary. Commerce (NOAA) is proposing to designate a 101 square mile area surrounding the bank as a marine sanctuary. The bank is 50 miles WNW of San Francisco, California. The designation document does not mention oil and gas interest, but the preamble to the proposed regulations states that oil and gas “activities will not be subject to regulation at this time but may be regulated in the future if deemed necessary for resource protection”. Comments on the designation and the proposed management regulations are due 10-27-87. 52FR32563-32568

Probable hydrologic consequences of coal mining. Over the years since the Surface Mining Control and Reclamtion Act of 1977 was promulgated, the Office of Surface Mining Reclamation and Enforcement has twice been taken to court over its surface and underground regulations on this subject. Now OSMRE is trying again. Comments on the current proposal are due 11-6-87. 52FR32764-32767

National Strategic Materials and Minerals Program Advisory Committee open meeting. This committee will meet in Washington on 9-29-97. The agenda will include reports of task force activities and a briefing on mine waste regulatory issues. 52FR32967
Ocean dumping sites. EPA has proposed and described a site for dredged material off Virginia Beach, Virginia, with comments due 10-5-87. 52FR31636 Another proposed site, off Georgetown, South Carolina, is described at 52FR30139 and calls for comments by 9-14-87. A final decision has been made for a site off Morrohead City, North Carolina. 52FR30360

Communities losing their flood insurance subsidies. The Federal Emergency Management Agency (FEMA) has published at 52FR31765 a list of 98 communities suspended from the program for noncompliance with floodplain management requirements. Property owners there will be unable to purchase flood insurance at rates made reasonable through a federal subsidy.

Accrediting laboratories to identify asbestos in construction materials. If your polarizing microscope is in working order, you might want to be accredited as a laboratory to find, identify and quantify asbestos in bulk samples from schools, etc. EPA will send you four standard samples to test you, and will list you by rank based on your performance. The first deadline is 9-30-87, and the next one will be in April 1988, 52FR33470

Hydropower projects in Mono Lake Basin, California. The Federal Energy Regulatory Commission (FERC) is asking the public for information on the effects of the projects on fish and wildlife, vegetation, aesthetics, recreation and the economy. Comments are due 9-21-87. 52FR30219 Some help on any comments to FERC might be afforded by reference to a new 288-page report by the National Research Council "The Mono Basin Ecosystem: Effects of Changing Lake Level". The report avoids the current political debate over the quantity of water for Los Angeles from the basin.

Environmental study on Alaska placer activities. Under court order, BLM intends to prepare four cumulative EISs on several classic placer mining drainages, including Birch Creek, Beaver Creek, Fortymile, Tolovana River, Chatanika River, Goldstream Creek, and selected streams draining into Minto Flats. BLM now manages these areas as recreation areas, conservation areas, wild rivers, and scenic areas. Meetings are scheduled for several Alaskan localities during September and early October to identify issues and alternatives. Written comments are due 10-9-87. 52FR30961

Land use restraints. Joint USGS/US Bureau of Mines efforts to assess the cumulative effect of federal rules on access to minerals are underway, beginning in New Mexico. The bureau's Inventory of Land Use Restrictions Program is utilizing the USGS Federal Land Information System to develop special map products and statistical summaries.

Mineral reports on Nevada wilderness study areas. BLM requests any previously unknown information on WSAs in Nevada to supplement the information given in 15 mineral survey reports produced jointly by USGS and the U.S. Bureau of Mines. Comments are due 11-15-87. 52FR31453

Montana wilderness. HR2090 would designate 19 new wilderness areas (1,325,000 acres) and would make additions to eleven existing ones. It would also set aside 378,000 acres for wilderness study.

Canadian potash. The Import Administration of the Department of Commerce has made a preliminary determination that potassium chloride from Canada is being, or is likely to be, sold in the U.S. at less than fair value. A final determination is due before 11-3-87. If it is affirmative, a final determination would be made by the International Trade Commission as to whether these imports threaten material injury to the U.S. potash industry. 52FR32151. However, in retaliation, Saskatchewan has introduced legislation to restrict the production of Canadian potash. This could affect the U.S. corn belt potash supply as well as increase world potash prices.

Soviet bloc deep sea mining. The USSR, with many of its satellites, has applied to the United Nations Law of the Sea Convention for mining rights to a 300,000 square kilometer area of the Indian Ocean floor. Their experience with smelting the nodules indicates recoverable cobalt, copper, manganese and nickel.

Mineral contracts on Indian lands. Final regulations are effective 9-23-87 under the 1982 Indian Mineral Development Act. Part 211 of 30CFR covers contracts for prospecting and mining, and Part 225 covers oil and gas and geothermal contracts. The 1909 and 1938 Leasing Acts are still in effect and available, but the tribes have much more latitude to negotiate under the 1982 Act. 52FR31916-31945

Oil and gas product valuation regulations. The Minerals Management Service (MMS) has revised the proposed oil product valuation regulations published 1-15-87 at 52FR1858. A summary of comments received and the draft final regulations are at 52FR30826-30864. Because of the extensive comments already received, the intent is to publish final rules on 9-30-87. Likewise, MMS has published draft final gas product valuation regulations at 42FR30776-30823, and intends to publish final rules on 9-30-87.

Regulating oil and gas drilling operations. BLM is proposing a new order, No. 2 for Federal and Indian lands, which would establish detailed requirements and minimum standards for well control, casing, cementing, mud, circulating systems, drill stem testing, special drilling operations, surface use, and abandonment. The order would also classify violations as minor or major. The order relies on existing standards currently followed by prudent operators. Comments by 10-13-87 are invited. 52FR30310-30320

Possible coal leasing in Utah. The Uintah Southwestern Utah Regional Coal Team (BLM/State) will meet 10-27-87 in Salt Lake City. Public comments are invited on the long-term coal market analysis, on data adequacy, and on the need for new leasing. 52FR32971

BLM/State of Arizona land exchange. BLM proposes to exchange 61,000 acres of scattered federal lands in Navajo County and 77,000 acres in Apache County for as yet unspecified state acreage in Coconino and Mohave counties, on an equal value basis. Comments on the federal acreage are due about 10-6-87. 52FR32063

Environmental Impact Statements (EISs):

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MINNESOTA—WISCONSIN

Revisions of Minnesota-Wisconsin Section Bylaws: Splitting the Section into Separate State Sections

During the past two years, there has been much discussion among officers and members of the Minnesota-Wisconsin Section on splitting the section into separate state sections. The impetus for such a decision at this point is the membership growth which makes separate sections viable, and the difficulties in conducting section activities with the membership concentrations separated by large distances (Minneapolis-St. Paul and Madison-Milwaukee). A consensus has been building within the section to support such a split. This issue was discussed at the 1986 annual meeting, and the members agreed that a proposal should be placed for a vote on the split at our next meeting. In regards to changes in the section bylaws to formalize the split, there are numerous references throughout the bylaws noting the Minnesota-Wisconsin Section. All of these references would simply be changed to create separate sets of bylaws for Minnesota and for Wisconsin.

A second issue that has been discussed extensively for many years is adjusting the terms of section officers to be more consistent with the national’s terms of office. The current section bylaws designate two-year terms for president, vice-president and secretary-treasurer (elected every even-numbered years), effective at the close of the annual meeting.

Changes of the section bylaws must be approved by two-thirds (2/3) of the eligible voters of the section at an annual, special, or regular meeting. Any amendment must be presented for discussion at least one month prior to the meeting at which the vote is taken. A quorum (at least 10% of the section membership) must be present at the meeting of the vote. Any amendment must also be ratified by the National Executive Committee of AIPG.

If the bylaw changes are adopted at the section annual meeting (October 1, 1987), the National Executive Committee will act on the changes at the National AIPG Meeting (October 14, 1987). If the changes are approved by the National Committee, elections of new officers for the Minnesota Section and the Wisconsin Section will occur in December 1987. The two sections will officially be separate sections effective January 1, 1988.

If you have any questions or wish to discuss these issues further, feel free to contact either of us at your convenience.

We believe that splitting the section at this point in time will serve the long-term interests and needs of our growing membership and provide more opportunities to be active within AIPG. We do appreciate your interest and concern and we look forward to seeing you at the Section Annual Meeting in Hudson, Wisconsin, on October 1, 1987.

Larry Johnson, president
Mike Netzer, vice president

NORTHEAST SECTION

News From ASCE Metropolitan Section

Dennis Gavaliere has sent in the following announcement for a soils and foundation seminar to be given in November:

FOUNDATION PROBLEMS IN THE NY METROPOLITAN AREA

The Soils and Foundation Group of the ASCE Metropolitan Section will present its biennial seminar on the evenings of November 3 and 4, 1987, at the United Engineering Center, 345 East 47th Street, New York City. The theme of the seminar is “Foundation Problems in the NY Metropolitan Area.” Seminar hours will be from 4:00 p.m. to 9:00 p.m. each evening with a break for dinner from 6:00 p.m. to 7:00 p.m. The seminar schedule is presented below:

TUESDAY, NOVEMBER 3
Varved Clays
Charles C. Ladd
Mass. Institute of Technology

Mini Piles in Organic Soil
Nassif Soliman
Parson Brinckerhoff

Dinner Break
Permanent Dewatering
John F. Donohue
Moretrench American Corp.

Foundations in Tension
Fred H. Kulhawy
Cornell University

WEDNESDAY, NOVEMBER 4
Foundation Problems at the
North River Project
Dov Kaminetzky
Feld, Kaminetzky & Cohen

Deep Foundations in NYC
Melvin I. Esrig
Woodward-Clyde Consultants

Dinner Bread
Underpinning
Mel Febsah
Urban Foundation Co., Inc.

Slurry Elements
George J. Tamaro
Mueser Rutledge
Consulting Engineers

For those who do not pre-register by mail, registration at the door will be held from 3:30 p.m. to 4:00 p.m. on Tuesday, November 3. Registration rates, which include dinners and a bound set of proceedings, are $90 for pre-registration, $120 for registration at the door, and $40 for full-time students. Pre-registration is strongly encouraged. For additional information on registration, call David Good at (212) 490-7110.
HONOR ROLL

Of those who have contributed to the Angelo Tagliacozzo Memorial Geological Scholarship through July 7, 1987.

Individuals
Richard H. Young
D. Theodore Clark
David H. Speidel
Nicholas Volkenburgh
Joseph A. Sinton
Richard Barbour
Lawrence & Maureen Gatto
Robert Blauvelt
Mr. & Mrs. Ross
Russell G. Slayback
Russell S. Wayland
Mary E. Davis
Mordecai & Susan Rosenfeld
Richard & Dawn Dana
Mark & Ellen Emerson
Bobby & Deborah Timmons
Fine & Mary Hsu
Robert & Elinor Berlin

FIRMS
Dunn Geoscience Corp.
Geraghty & Miller, Inc.
Leggette, Brashears & Graham, Inc.
CA Rich Consultants, Inc.
GeoEnvironmental Consultants
Roux Associates
Wehran Engineering
National AIPG

Your participation in support of this memorial to Angelo is encouraged. To contribute, send your check (payable to “Angelo Tagliacozzo Memorial Geological Scholarship”) to NE/AIPG, c/o Mr. Fred Troise, Geraghty & Miller, 125 East Bethpage Road, Plainview, NY 11803. For further information, call Mr. Troise at (516) 249-7600.

The 1987 fall meeting will be held at the American Museum of Natural History in New York City on Wednesday, October 14. The museum has been an excellent host in the past and this meeting should be outstanding.

In addition to the executive committee meeting and the mandatory business meeting, there will be a panel discussion and general debate on professional ethics and work quality.

A new exhibit called Dinosaurs, Past and Present will be opening at the museum and continuing its run at the Naturalmax Theater will be a film on the Grand Canyon, including a white-water rapids ride. The restaurant serves excellent food and drink.

The highlight of the meeting will be a tour of the museum building stones by Sidney Horenstein.

Look for a formal announcement in the mail and get your reservations in early.

OHIO

COGS AIPG Hold Joint Meeting in September

A joint COGS (Computer Oriented Geologic Society) and AIPG meeting was held September 15 at the Forest Park Inn.
The featured speaker was Larry Wickstrom of the ODNR-Geological Survey, speaking on “Computers and Computerization at ODNR”.

Future Meetings Planned

October’s meeting will be held at the AIPG national convention in Lexington, Kentucky. President Curt Coe will be attending and hopes to see many Ohio members in attendance. If you are planning to go to the national, give Curt a call and make arrangements to meet him there. It is a rare opportunity for us to attend an AIPG national convention in such close proximity of Ohio. Don’t miss this golden opportunity!

Plans are under way for the Annual Banquet this November. President Curt Coe has made arrangements with the Embassy Suites Hotel for a wonderful evening. Tentative plans are for the new national AIPG president, Mr. Sam Evans, to attend and address the group.

Nominations for Officers Sought

Nominations for next year’s officers are being sought for president, vice president and executive committee members.

New Newsletter Editor Needed for the Ohio Section

If you or someone you know is interested in being the newsletter editor of the AIPG-Ohio Section Quarterly newsletter, please contact Curt Coe or Stan Norris.

Ohio EPA Publishers Ground Water Bulletin

The Ohio Environmental Protection Agency has just published a full-color bulletin “Protecting Ohio’s Ground Water”. This beautifully illustrated bulletin outlines the plan for implementing Ohio’s new ground water strategy and explores ways citizens of Ohio can help.
To receive a copy, write to Ohio EPA, Office of Ground Water, 1800 Water Mark Drive, Columbus, Ohio.

John Voytek, editor
President's Message

I would like to report on a few of the Ohio Section activities over the past nine months. It is hard to believe, but summer is almost over, as is my term as president of the Ohio Section of AIPG. It has been a very busy year for me as president.

John Voytek and I have been very busy trying to increase the awareness of the geologic profession with general public. Our primary initiatives have been:

- revival of the need for geologist registration in Ohio
- raising money for AIPG activities
- expansion and increased distribution of the Ohio Section Newsletter

As some of you are aware, the Ohio Section devoted a great deal of energy during the mid 1970's toward developing a registration bill for geologists. The bill was introduced in the Ohio Congress in 1975. At that time, the bill was unsuccessful and was eventually dropped.

With the increasing public awareness of the environmental pollution of the state's groundwater, geologists are playing an increasing role in protecting the health and welfare of the public and industrial community. As a result, there is a need for qualified geologic scientists to define problems and do the work that is needed.

Isn't it time that we, as professionals, get behind a registration bill, letting our local congressmen and representatives know that we support this initiative? Let your congressman and representative know that you support registration for geologists, that 12 states have similar legislation and that Ohio needs registration now!

If we as a group are ever going to be successful in reaching the public and future geologists, we need to raise money and support for efforts such as the Geologist Registration Bill.

John Voytek and I have initiated a program to do just that. It is up to you though, as members of the professional community, to help AIPG see this project through to the end.

First, we are accepting business card advertisements in our newsletter. With the advertising dollars we receive, the Ohio Section Newsletter can become a self-supporting program, leaving our dues money for other important projects.

We are getting the AIPG word out. Our newsletter reaches nearly every Ohio university, organizations, groups and governmental officials. All of Ohio needs to know that AIPG is alive and doing well.

Secondly, we have been in touch with Representative David Hartley and have given him our old geologist registration bill and our ideas for its revamping. His office, through the Ohio Legislative Services Commission, has just completed a draft of the new Geologist Registration Bill. If you would like a copy, please call or write to me. The bill is expected to be introduced early in the next legislative session.

It is up to you and me as members of this professional group to make our comments now. During the next 3 weeks, I will be accepting comments for revisions to the bill and will submit them to Representative Hartley. Please don't wait until the bill is introduced to make your comments. The legislative process allows the opportunity to change the DRAFT legislation now, without difficulty. If we wait until the bill is introduced, major changes will be difficult and time-consuming. Now is the chance to get your views heard and acted upon.

We are in need of several hard workers and volunteers to help keep this momentum going. John Voytek is resigning as the editor of this newsletter and as the vice president of the section. He will be moving to Ann Arbor in September to take a position with ERM, Inc. John's efforts and his volunteer time spent on developing the AIPG-Ohio Section Newsletter will be missed. We hope we can find a suitable replacement for him soon.

Wishing each of you a prosperous fall,

Curt Coe, president, CPGS 6240
Ohio Section AIPG

OWWA To Hold Annual Convention

The Ohio Water Well Association will hold its annual meeting on November 12-14, 1987, at the Holiday Inn Worthington. Over 50 booths displaying the latest in water well drilling, testing and completion equipment are expected, as well as educational seminars and workshops on a variety of water well topics.

For more information about this annual convention and show, contact the OWWA at 17 S. High Street, Suite 1200, Columbus, Ohio 43215. Phone 614/221-1900.

Rep. David Hartley to Introduce Ground Water Omnibus Bill

Representative David Hartley has released a draft of a comprehensive ground water bill that will change Ohio's laws and regulations pertaining to water well drilling, well log filing and ground water rights. Representative Hartley plans to introduce this bill early next year.

The legislative changes in the bill are called for in Ohio's ground water strategy and will require water well drillers to be licensed in Ohio. Other major provisions include redefining "well" to include all types of monitoring wells and other types of water wells in well log filing.

For a copy of this draft legislation, write or call Representative David Hartley in care of the Ohio State House, Columbus, Ohio.

The Ohio Section of AIPG has several packets of information on how to write to your state representative and state senator, complete with sample letters. If you are interested in these packets, please contact either Curt Coe or John Voytek.

Why should you be interested? Here are just a few examples:

- Both the Ohio House and Ohio Senate currently have Ohio's budget bills in front of them. The budgets of Resource Management and Resource Protection agencies will determine the future of Ohio's resources.
- The Ohio Senate passed an amended Senate Bill 100 on May 13, redefining waters of the state so as not to include ground water. If it passes the House, ground water will no longer be protected under the oil and gas regulations. This might also mean severe cutbacks in matching federal grants.
- The amended Senate Bill 100 also allows unregulated brine disposal for commercial and private oil and gas wells. The full impact of this bill is still being looked at.
- The Ohio House has before it a companion bill, HB 251, which would allow unregulated brine waste disposal from
Mississippian wells. ODNR estimates that 18,000 oil and gas wells would be allowed this “exemption.”

The house also has HB 423, which would not allow a hazardous waste storage site within 5000 feet of a “buried valley aquifer.” (Note that no definition of what a buried valley aquifer is was given in the bill, leaving it up to interpretation of lawyers.)

HB 1 deals with tort and insurance reform, limiting “deep pocket” liability to a reasonable share based on involvement. Right now, liability payments are assigned to those with the deepest pockets, even though they may not have been directly involved in the matter.

HB 235 and SB 102 establish fair rules governing product liability.

Whether you are for or against these legislative actions is not the issue. Getting involved is! Those of you who attended the 1986 Annual Banquet will remember the words of AIPG’s President Charles Mankin “Why are lawyers and politicians making rules governing our natural resources and the geosciences?” Your representative needs your expert input so he can make knowledgeable decisions.

In Memory of Fred H. Klaer, Jr. (CPGS 75)

Fred Klaer, a well respected, well-liked professional, recently passed away. It is hard to write about a man whom we have known and respected for many years. It is very hard to try to fit 72 years worth of work and ambition onto just a portion of this newsletter.

Fred was a pioneer, one of Ohio’s best. He was a charter member of WMAO (Water Management Association of Ohio), a charter member of the National Water Well Association, a life member of the American Water Works Association and, of course, a charter member and past president of AIPG—Ohio Section, as well as holding Emeritus status in AIPG.

Fred was the first resident hydrologist with the Ohio office of the USGS. He worked on many water supply problems, one just north of Cincinnati, documenting serious overpumping in the Mill Creek Valley. Through his efforts, a new supply of ground water was examined, tested and developed, to supply a critical war-time plant at Reading.

In 1943 Fred moved to Indianapolis, managing all federal ground water investigations in Indiana. In 1951 he returned to Ohio and began working with the Ramney Company, designing, constructing and managing large collector wells. Fred became an independent ground water consultant in 1962, promoting sound ground water management practices.

Fred Klaer was a professional. He authored many articles and papers, some of which represented landmark research and technical information about well field design, maintenance and management.

Fred Klaer will be missed here in Ohio.

TEXAS
OIL IMPORT TAX PROS & CONS

By Dr. James Smith
University of Houston

Dr. Smith agreed to speak to our section luncheon shortly after attending a conference at MIT, at which the Harvard paper advocating an oil import tariff had been presented to a group of energy economists. The following is Dr. Smith’s talk, which has been transcribed and edited by Stephanie Hrabar, only enough to make the spoken word flow more smoothly in the written format. Robert Rieser, CPGS 6760, luncheon chairman.

Harry G. Broadman and William W. Hogan, the authors of the Harvard paper “Oil Tariff Policy in an Uncertain Market” proposed the implementation of a $10 per barrel flat import fee, maybe with some exceptions for Canadian or Venezuelan imports. Deputy Energy Secretary William F. Martin attended the MIT, meeting at which the paper was presented. Martin commented that an import fee would be politically difficult to impose, but it is an issue that should be seriously looked into. Since that conference they (the government) have seriously looked at the issue. Their main conclusion was that it was going to be too difficult politically to implement.

It is still an important issue to the oil industry and to the country, however.

There are several different types of oil import fees. There is the flat across-the-board $10 fee. It is very simple to employ. If you are in favor of a fee, it may be the most attractive type of arrangement.

Whether it is $10, $5, or something else is another matter. Some people talk about a percentage levy, taking on 50% or 60% to the price of imported oil. This type of fee creates incentives for OPEC not to raise the base price of the oil, and it is an extra discouragement to consumption. In fact, it might even encourage OPEC to reduce prices to minimize the size of the levy. This is good for consumers during normal times, but it may not be so good during a disruption of supplies. If something happens in the Mideast and we lose access to some crude oil, world oil prices would escalate and our levy would increase also, aggravating the short-term problems and the short term dislocations. So it is not at all clear that a proportional tariff would be ideal in all circumstances. The last type of tariff that people talk about is probably the worst type from an economic point of view. It is a tariff designed to maintain a price floor. Pick a price, say $24 per barrel. If world oil prices are at $18, then you impose a levy of $6 to bring the price up to the floor price. That would be an effective way to establish a floor. The danger is that OPEC might decide to raise its price to $24 per barrel, while we lower the tariff dollar for dollar, OPEC figuring that it is better to collect the extra money itself rather than the U.S. government.

All of these tariffs would have to be applied to both crude oil and to products or the whole exercise would be futile. Otherwise, you would only change the mix of imports between crude and products without accomplishing anything with regard to the overall level of imported petroleum. We have imposed duties before on these types of products.

(Continued on next page)
M ost of the real debate centers around the justification for imposing any type of import fee. You might expect an economist to say that an import fee would be a bad idea. Let the consumer have access to low-priced goods and services. In most cases, that is how economists would respond to an import tariff. You hear plenty of that now with regard to other sectors of the economy: electronics, textiles and steel. There does seem to be strong justification, however, for an oil, import tariff. The reason isn't to protect the industry. The reason is to protect the country from security disruptions and from all the additional costs that arise when we import oil—costs that consumers don't recognize as they fill up their tanks with gasoline that has been refined from imported oil. If consumers really faced the additional costs that were incurred when the U.S. imported oil, they would probably choose to use the indigenous resources even though they were more expensive.

There are several components of these added costs that economists have delineated and tried to measure. The thrust of the Harvard study was to measure the following components of the premium costs of importing oil:

(1) If we use more imported oil, we drive the world price up. That is the OPEC game. The more market power they have (the more consumers they have), the easier it is for them to mark up the price. When that happens, not only the person buying the extra oil has to pay the higher price, everyone has to pay the higher price. So it is a cost that gets multiplied and spread out among everyone who is using petroleum.

(2) The price of oil and the expenditure on oil is such a large fraction of the total U.S. economy, embodied and carried through so many stages of production for so many products, that there is an inflation problem. When oil prices rise substantially, there are macroeconomic feedbacks. Triggered by inflation, the Federal Reserve Board may decide to do various things. It could raise interest rates so as to lower inflation. Raising interest rates may cause the GNP to stall, our growth may suffer, there may be rising unemployment.

We are not guessing about these things. We saw it happen in the 70's as the U.S. macro-economic policymakers attempted to contain the damage and to keep the U.S. economy on somewhat of a balanced course in the face of rising prices.

(3) There is a serious balance of trade deficit in the United States. Oil is one of our biggest imported products. Therefore, as we increase imports, we further deteriorate the terms of trade, causing all Americans to suffer. It is not only the purchasers of oil that are affected, but also the other products that flow from the purchase of petroleum.

The bottom line of all these components in the Harvard study adds up to $10 or $11 "hidden" cost associated with importing and using each barrel of oil. The purpose of the tariff would be to confront American consumers with the fact, and let them choose to use foreign oil or domestic oil.

This article will be continued in the next section newsletter.
APPLICATIONS RECEIVED
AUGUST 1987

Applicants for certification must meet AIPG’s standards as set forth in its Constitution on education, experience and competence and personal integrity, and for associate status, the same except for experience. If any member has any factual information as to any applicant’s qualifications in regard to these standards, whether that information might be positive or negative, please mail that information to Headquarters within thirty (30) days. This information will be circulated only so far as necessary to process and make decisions on the applications.


NEW MEMBERS
AUGUST 1987


NEW ASSOCIATES
AUGUST 1987

BRENNAN III, Vaugh J., A375, Lambertville, NJ

Books of Interest to Professionals

The Government-University-Industry Research Roundtable of the National Academy of Sciences has issued a 51-page document titled “Nurturing Scientific and Engineering Talent—A Discussion Paper”. The paper concludes that the nation faces a potentially serious problem in quality and quantity of technical personnel unless the rates at which young people earn degrees in science and engineering are increased. Every educational and developmental stage is a potential point of intervention. A systems approach to nurturing science and engineering talent that draws on demonstrably effective intervention techniques is needed.

It concludes also that there is wide range of demonstrably effective programs for nurturing science and engineering talent. This base of activity can and should serve as a platform for replication and adaption of intervention programs and, most importantly, as a starting point for the institutionalization of effective techniques throughout the educational system. All sectors of society need to be involved.

Copies are available from The National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418 (Phone: 202-334-3486).

Proceedings of the Fourth Biennial Symposium on Surface Mining and Reclamation on the Great Plains, the proceedings from 1987 meeting of the American Society for Surface Mining and Reclamation (fifty one papers, 429 pages, soft cover), are available at a cost of $25.00 from ASSMR, 21 Grandview Drive, Princeton, West Virginia 24740 (Phone: 304-425-8332).
Members in the News

John Eliot Allen, CPGS 925, retired from head of the Geology Department of Portland State University (PSU), is senior author of *Cataclysms on the Columbia*, the account of the investigations of J. Harlan Bretz, who documented the great Ice Age floods that occurred through the channeled scablands of eastern Washington. Co-authors are Marjorie Burns of the PSU English department and Samuel C. Sargent, chief geologist during the building of the Dalles dam.

John V. Brock, CPGS 3942, vice president of oil & gas, has been elected to the board of directors of Hallador, Inc., a Sacramento-based exploration company. Brock, who joined Hallador in 1986, was most recently president of Maverex Corporation in Denver.

Keros Cartwright, CPGS 2643, will be one of three distinguished lecturers in the National Water Well Association 1987 Seminar Series. Cartwright will speak on "Hydrogeology of Fine-Grained Sediments," October 19-20 in Orlando, Florida, at the Orlando Marriott.

Mark I. Slusarksi, CPGS 7113, is now project geologist with Advanced Sciences, Inc., of Oak Ridge, Tennessee, 107-F Jefferson Avenue, Oak Ridge, Tennessee 37830. He will provide technical support in geology for project management involved with the Oak Ridge National Laboratory programs.

IN MEMORIAM . . .

Word was received from Elizabeth Hardy that James M. Forgetson, CPGS 901, of Shreveport, Louisiana, passed away on May 18, 1987.


The purpose of AIPG is to strengthen the geological sciences as a profession with all reasonable actions, to establish professional qualifications, to certify those qualifications to the public, and to evaluate continuously the ethical conduct of its members. Further, the institute establishes ethical standards to protect the public and geological sciences from nonprofessional practices, monitors governmental and other activities affecting the geological sciences, and communicates with the public.