



## PRESIDENT'S CORNER

**S**ometimes the frank opinion of an outsider is the most objective "mirror" an organization can have. The image may be good or bad. If it is both, it shows where to make improvements. What trend is evident in the following two cases?

- In a recent survey, AEEP's Treasurer, Brian Dempsey, asked engineering professors about similar organizations in their fields. Brian found that none of those interviewed could think of a single similar organization. Most people were surprised at the scope and activity of AEEP. They could hardly believe that an organization with only about 500 members, no staff, and a total annual budget of less than \$40,000 could perform so many services for its member and the profession.

- I just returned from an interdisciplinary workshop on bioremediation. One of its "sports" was bashing environmental engineers for being too narrow. The story would go like this: environmental engineers always want to remediate a hazardous-waste site by building an activated sludge plant.

The common denominator these two anecdotes point out is that our strength may be our weakness. In the first case, others see us as having a highly effective organization that accomplishes much in proportion to its small size and minimal budget. One can argue that we are cost efficient because we are small enough to avoid the pitfalls of paid staff, an expensive office, and bureaucracy. We have a high level of active participation by our members, and that participation surely is enhanced by being a close-knit group.

The second case illustrates the perception that environmental engineers are narrow—as a field and as an organization. In reality, AEEP's membership is dominated by those of us directly involved in water pollution activities. Although I know that the narrow thinking described at the bioremediation workshop is not indicative of AEEP members, I know that many people view us as a clique of professors whose only thoughts are of water and wastewater treatment. I also recognize that AEEP encompasses only a small fraction of what are considered the environmental professions. Is being a relatively small and select group more good or more bad for AEEP? While our small size limits the scope of what we can do, perhaps the camaraderie and cost-effectiveness are greater benefits.

Or, are we becoming such a small portion of the environmental professions that we soon will be relegated to a minor role as technicians assigned to carry out only prescribed and limited tasks?

I do not have the answers to these questions, but AEEP needs to grapple with them as it heads towards the 21st century. To stimulate the process, I provide some of my observations.

- AEEP must avoid the temptation to establish a central office with paid staff. Besides being costly, these items take on a life of their own; the office and staff end up being served by the organization, instead of facilitating the work of the organization.

- In order that it maintain its vigor in volunteer activities, AEEP needs to have financial means to support the direct costs of the activities. Unfortunately, the days when universities can underwrite the direct costs of volunteer activities are nearly past. When institutions are no longer able to pick up costs, the burden unfairly falls on the individual volunteers, unless the organization plans well and finds resources to support its volunteers. Resource development must be a high priority for AEEP.

- AEEP should actively recruit professors from under-represented sectors of the environmental fields. Well-known examples are atmospheric sciences, air-pollution control, and hydrogeology; but, these are only a few.

- AEEP must be willing to change in response to changing membership and changing times. Those of us in the current mainstream of AEEP must be willing to open our membership. While we are comfortable knowing the familiar faces, we have to recruit new members.

- AEEP must continually provide opportunities for new and old members to be involved in committees and other activities. Not only do we achieve results of immediate benefit to AEEP and its members, but we identify and develop the leaders of the not-too-distant future. We need to work hard to include more people in our activities.

AEEP is a great and unique organization. I have been proud to serve as its President for this year. The vitality of the organization is its greatest asset. With some careful attention, the vitality will be the engine for better and farther-reaching achievements in the years ahead. Make the plans today to ensure that you give the organization some of your attention and that you think about where you want it to go in the future! ■

Bruce E. Rittmann  
President

# AEEP NEWS AND ANNOUNCEMENTS

## AEEP Annual Luncheon and Meeting at WPCF Conference

When: Monday, October 7th, 12 noon  
Where: Royal York Hotel, Tudor Meeting Room, Toronto  
Program: Reports by AEEP Officers  
Cost: \$20

This is the traditional annual luncheon and meeting of the membership. Because the luncheon is a sit-down affair, reservations are required. Please register and pay for the luncheon in advance as it is time consuming to collect money at the door. **Send your reservation and \$20 check (payable to AEEP) to Bob Ballod using the form at the back of the Newsletter.**

## AEEP Meet and Greet Reception Jointly Sponsored by AEEP and Lewis Publishers

When: Monday, October 7th, 5 p.m. to 7 p.m.  
Where: Ontario Meeting Room, L'Hotel, Toronto

All AEEP members, but especially the new and younger members, are invited to the popular "meet and greet" reception at the Toronto WPCF Conference. Lewis Publishers, an AEEP sustaining member, will co-sponsor this event. The reception is in addition to the traditional luncheon and meeting which will be held earlier the same day.

### **Deadline for January 1992 AEEP NEWSLETTER**

**Please submit articles for the January issue of the AEEP Newsletter to Chet A. Rock (Dept. of Civil Engineering, University of Maine, Orono, ME 04469 FAX: (207) 581-2202, Phone (207) 591-2170) by Dec. 1, 1991.**

The primary objective of the reception is to introduce the new and younger members of AEEP to the officers, directors and members and to encourage the new members to become active in Association committees. A secondary objective is to provide an atmosphere for members to socialize and renew old friendships. The officers and directors look forward to seeing many of you at this popular event.

## AEEP Workshop

"An Applied Approach to  
Epidemiology and Toxicology for Engineers"

Presented by: David M. Gute and N. Bruce Hanes, Tufts University

Time: Tuesday, October 8th, 2:00 p.m. to 4:00 p.m.

Place: Royal York Hotel  
100 Front Street West  
Confederation Rooms #4/5, Toronto

Registration Fee: Free to AEEP Members, \$25 for Non-AEEP Members

David Gute and Bruce Hanes have recently developed an Instructor's Resource Guide for an Applied Approach to Epidemiology and Toxicology for Engineers. This document was developed for the U.S. Public Health Service, National Institute for Occupational Safety and Health. The two hour workshop will present an overview of the Guide and will highlight the five main instructional units.

- \* Introduction to Epidemiology
- \* Analytical Epidemiology
- \* Introduction to Toxicology
- \* Wastewater Treatment Workers
- \* Hazardous Waste: Occupational/Environmental Health

Preregistered participants will receive a copy of the Instructors Guide. The Workshop is open to all AEEP members, but handout materials are limited and preregistration is required to ensure receipt of materials. **Please use the form at the back of the Newsletter to pre-register.**

# AN OPPORTUNITY FOR MEMBERSHIP IN THE AMERICAN ACADEMY OF ENVIRONMENTAL ENGINEERS

by Paul L. Bishop  
William Thomas Professor and Head  
Department of Civil and Environmental Engineering  
University of Cincinnati

AEEP is a sponsor of the American Academy of Environmental Engineers (AAEE), so you may be able to become a member of AAEE with virtually no pain or effort. But, why would any AEEP member want to join AAEE? What does AAEE do? How does one qualify to be an AAEE? What benefits does membership provide to you or to the profession?

The American Academy of Environmental Engineers was founded in 1955 for the principal purpose of serving the public by improving the practice, elevating the standards and advancing public recognition of environmental engineering. The Academy is a non-profit organization, composed of over 2,600 registered professional engineers who have been recommended by their peers and certified by a Board of Trustees as Diplomates. Those engineers granted certification have the requisite scientific knowledge, technical skills and judgement so that the public can rely on their advice and counsel in resolving complex problems involving environmental engineering. Certification as a Diplomate attests that a registered professional engineer has acquired qualifying experience and has demonstrated by education, examination and experience before an eminently qualified group of peers that he/she possesses the special and expert knowledge and judgement necessary to participate in solving today's challenging environmental engineering problems. Certification is a hallmark of professional distinction, testimony of achievement, and recognition of capabilities extended by those eminently qualified to sustain such judgement.

The primary objectives of the AAEE are: 1. To serve the public through the application of engineering principles to the management of the environment for the protection of human health and nature's ecosystems and the enhancement of the quality of life; 2. To establish criteria for the education of environmental engineers to solve current environmental problems and to prevent future problems; 3. To develop technical reports and position papers regarding complex environmental issues important to public health and welfare; 4. To identify and certify persons of special competence in environmental engineering for the public benefit; and, 5. To elevate standards and improve the practice of environmental engineering.

One of the major responsibilities of the AAEE is to

establish, in conjunction with ABET, the requirements for accreditation of environmental engineering programs ensuring that educational standards are responsive to the needs of the profession. Thus, the activities of the Academy should be of major interest to all environmental engineering educators. Currently, there are over 150 environmental engineering faculty, representing nearly 100 colleges and universities, who are Diplomates of AAEE.

The Association of Environmental Engineering Professors (AEEP) is a sponsoring organization of AAEE. As such, it may nominate qualified members for certification by AAEE without the usual requirement for passage of oral and written examinations. Candidates for sponsor nomination **must** meet the following AAEE criteria: 1. **BS in engineering** or a related field; 2. **Professional engineer's license**; 3. **Professionally engaged on a full-time basis**; and, 4. **Must have at least fifteen years of environmental engineering experience** in one or more of the specialty fields. Eleven of the fifteen years shall be in responsible charge, which work must include active participation with **responsibility primarily** in one or more fields of environmental engineering. Environmental engineering teaching meets this requirement.

Candidates' applications will be reviewed to see that all criteria are met and then presented to the AEEP Board for approval. The Board approved applications will be submitted with a letter of transmittal to AAEE for consideration by the Academy Admissions Committee and Board.

Any active AEEP member in good standing who meets the above criteria is eligible for nomination. All applications should include letters of endorsement from **three AEEP members** who are familiar with the **candidate's** achievements. Consideration shall be given **to the record** of service to AEEP.

Note that any AEEP members meeting the criteria

and not selected by AEEP as a sponsor nominee may still apply directly to the Academy for certification via the oral examination method. In addition, any members that do not have the experience noted above but have eight or more years experience in this field can apply directly to the Academy, with acceptance conditional on a written and an oral examination. There are also new categories of affiliation for those with fewer than eight years of experience.

Dues and other fees are established and reviewed periodically by the Board of Trustees. Currently, the application fee is \$95 and the annual certification re-

newal fee for active Diplomates is \$110 per year. Qualified AEEP members wishing to be sponsored as a nominee of AEEP or desiring more information should apply directly to the AEEP-AAEE Trustee, Dr. Paul L. Bishop, Department of Civil and Environmental Engineering, ML #71, University of Cincinnati, Cincinnati, OH 45221.

This your opportunity to make a major contribution to your profession, and in particular to the ABET accreditation process and the quality of environmental engineering education. ■

## ***New AEEP Members***

Daniel K. Cha  
Dept. of Environmental Engr.  
Illinois Institute of Technology  
Chicago, IL 60616

Lisa Alvarez-Cohen  
Environmental Engineering  
659 Davis Hall  
University of California  
Berkeley, CA 94720

M. Katherine Banks  
Dept. of Civil Engineering  
Seaton Hall  
Manhattan, KS 66506

Michael D. Cailas  
Envir & Occ Hlth Sci (M/C 922)  
University of Illinois at Chicago  
Box 6998  
Chicago, IL 60680

Theodore G. Cleveland  
Dept of Civil & Envir Engg.  
University of Houston  
Houston, TX 77204-4791

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Campus Box 1106  
St. Louis, MO 63130

Joseph S. Deviny  
Envir. Engrg. KAP 224D  
Univ. of Southern California  
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Environmental Science & Engrg  
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3909 Halls Ferry Road  
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Dept. 3CE  
CAGE Department  
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Las Cruces, NM 88003

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Cambridge, MA 02139

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Urban University  
The University of Tokyo  
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Arlington Courthouse Plaza  
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Apt 1110  
Arlington, VA 22201

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Dept. of Civil & Environ Engg  
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714 Baldwin (ML 71)  
Cincinnati, OH 45221-0071

Albert J. Valocchi  
Dept. of Civil Engineering  
University of Illinois  
205 N. Mathews Avenue  
Urbana, IL 61801

Calvin H. Ward  
Environmental Sci & Engg.  
Rice University  
P.O. Box 1892  
Houston, TX 77251

Mark L. Weinstein  
Ecological Systems, Inc.  
7201 Wisconsin Avenue  
Suite 310

# GENERAL NEWS

## The 1991 Abel Wolman Doctoral Fellowship

The recipient of AWWA's 1991 Abel Wolman Doctoral Fellowship was **Robert Louis Segar, Jr.**, a doctoral student at the University of Texas. His research, under the direction of **Dr. Gerald E. Speltel, Jr.**, is focused on developing biological reactors for treatment of water containing chlorinated solvents. The Abel Wolman Doctoral Fellowship was established to honor the late Professor Abel Wolman by encouraging promising students from countries with AWWA sections to pursue advanced training and research in the field of water supply and treatment. Mr. Segar is the seventh student to receive the fellowship; the first four recipients, Drs. John Tobiason, William Ball, James Malley and Christopher Cox are now environmental engineering professors at the University of Massachusetts, Duke University, the University of New Hampshire, and the University of Tennessee, respectively. The fellowship provides up to \$15,000 per year in support for up to two years. Application forms for the 1991 Fellowship may be obtained from AWWA by calling (303) 794-7711.

## The Larson Aquatic Research Support (LARS) Scholarships

The LARS scholarships program was established in 1988 to honor the memory of Dr. Thurston E. (Lars) Larson, a water chemist and researcher who, in his 44-year career with the Illinois State Water Survey, made numerous scientific contributions in areas such as corrosion control, treatment and distribution of domestic and industrial water supplies, aquatic chemistry, analytical chemistry, and environmental chemistry. The scholarships, which provide \$5,000 in support for Ph.D. students and \$3,000 for MS students, are awarded based on the applicant's academic excellence and potential to provide leadership in one of the fields served by Dr. Larson. The recipients of the 1991 awards were **Ravindra M. Srivastava**, a Ph.D. candidate at the University of Illinois and **Angela L. Bandemehr**, an MS student at Michigan State University.

## The Holly A. Cornell Scholarship

The Holly A. Cornell Scholarship was established last year by AWWA and CH2M-Hill to honor Cornell. The \$5,000 scholarship will be awarded each year to the

most outstanding female or minority U.S. applicants pursuing an MS degree in Environmental Engineering. The recipient of the 1991 Scholarship was **Cynthia J. Paulson**, a graduate student at the University of Colorado, who is working under the direction of **Dr. Gary Amy**.

## Journal of Water Supply Research and Technology

Two years ago, the International Water Supply Association (IWSA) transformed its Journal *Aqua* into a peer-reviewed publication titled "Journal of Water Supply Research and Technology - *Aqua*" with the goal of making it a high quality international research journal for drinking water supply and treatment. The Scientific Editor is Professor Dr. Heinz Bernhardt of Germany, who is assisted by an international Editorial Board.

Journal is received by all members of IWSA and currently appears six times per year. For accepted manuscripts, the average time from receipt to publication is less than six months. The Journal is indexed by Chemical Abstracts and should soon be included in "Current Contents". Researchers whose work related to drinking water may submit manuscripts directly to: Prof. Dr. Heinz Bernhardt, Wahnbachtalsperrenverband, Postfach 1933, 533 Siegburg, GERMANY.

Questions concerning manuscripts requirements can be directed to one of the North American members of the Editorial Board: Dr. C.R. O'Melia, Dept. of Geography & Environmental Engg., Johns Hopkins University, Baltimore, MD 21218, Tel: (301) 338-7102, Fax: (301) 338-5508, or Mr. J.B. Gilbert, Director, East Bay Municipal Utility District, P.O. Box 24055, Oakland, CA 94623, Tel: (415) 287-0100, or Dr. P.M. Huck, Dept. of Civil Engineering, University of Alberta, Edmonton, Alberta, T6G 2G7 CANADA, Tel: (403) 492-4738, Fax: (403) 492-0249.

## Dow Outstanding Young Faculty Award

**Randel Dymond**, Department of Civil Engineering, University of Wisconsin, Platteville has received the Dow Outstanding Young Faculty Award for the North Midwest Section of the American Society for Engineering Education.

## Citizen Ambassador Program Seeks Delegation Leader for 1992

The Citizen Ambassador Program (CAP) is looking for an individual to serve as a leader for an environmental engineering delegation that will go to the Soviet Union and Eastern Europe during 1992. The leader will be instrumental in the selection of the delegation members and in defining areas of potential interest for discussion between members and the counterparts in the Soviet Union and Eastern Europe. Individual delegates will be responsible for their own expenses; however, the delegation leader's travel related and project development expenses will be covered by CAP.

AEEP members who are interested in serving as a delegation leader or wish to learn more about CAP should contact: Mr. John M. Luppert Director, Science & Technology Projects Citizen Ambassador Program, Dwight D. Eisenhower Building, Spokane, WA 99202, FAX-(509) 534-5245, TELE-(509) 534-5245.

## From the Executive of the President of the United States Council on Environmental Quality

On Thursday, April 18, President George Bush sent a message to Congress on environmental quality, along with the twenty-first annual report of the Council on Environmental Quality (CEQ). The President's message stated, in part: "...1990 was a landmark year in the nation's efforts to enhance environmental quality... Our work, however, is incomplete. Americans are sobered by the scope of the stewardship challenge and recognize that it requires ongoing vigilance and action... Several forces work in our favor... our national environmental strategy must be comprehensive, long-range, efficient, and adaptable to changing information about risks and benefits."

The package laid out the Bush Administration's National Strategy for Environmental Quality. The strategy rests on several principles already embodied in Administration initiatives and recently-enacted laws. Those principles are: harnessing the power of the marketplace, stewardship of natural resources, creative partnerships, cooperative international solutions, preventing pollution, and vigorous law enforcement.

The 408-page CEQ report, *Environmental Quality*, aims to inform and stimulate the national debate on environmental issues. The annual document is used widely as a reference by journalists, policymakers, foreign leaders, businesses, nonprofit groups, and educators. Each year's report contains information about trends in environmental quality, an assessment of public

and private programs, and recommendations for future policies.

This year's report includes special reports on "strategic" issues and ideas that range across many government agencies and many sectors of society:

Chapter 1, "Where We Stand", sets out a comprehensive six point national strategy for environmental quality in the 1990's, at home and abroad. It also recaps in almanac form the environmental accomplishments and initiatives of the federal government in the past two years.

Chapter 2, "Making the Environment Count", studies the intersection of economics and the environment, and considers ways the environment can be accounted for in economic and political decisionmaking: pollution prevention, marketable pollution allowances, taxes, better accounting practices, natural resource auction reforms, and greater technical assistance, education, research and development.

Chapter 3, "Technology for Pollution Prevention", explores the technical and managerial aspects of a promising trend in environmental policy—pollution prevention. The chapter suggests that significant progress is possible — especially in the energy and chemical sectors — using existing technology and a systematic management approach.

Chapter 4, "Linking Ecosystems and Biodiversity", lays out the facts about declining U.S. biodiversity, and proposes national goals and policy tools for its conservation: regional ecosystem management, a national biological inventory, a national network of bioreserves, and attention to the global context (the U.S. is engaged in negotiations to develop an international accord on biodiversity).

Chapter 5, "The National Environmental Policy Act", outlines how the NEPA process can integrate efficiently the requirements of environmental and other laws. This chapter also presents abstracts on selected NEPA court cases in 1990, along with the latest data on NEPA trends.

Part II, "Environmental Data and Trends", presents 141 tables and figures with text that describes the state of the environment in the following categories: population, the economy, energy, air, water, land, agriculture, forestry, protected lands, cultural and living resources, wastes, and environmental hazards.

The CEQ report also includes and alphabetized almanac of federal environmental accomplishments in 1989-1990, many of which flowed from Administration initiatives.

Further inquiries about the President's message and/or the CEQ annual report may be made by calling (202) 395-5750.

## CALL FOR PAPERS

**ISWA '92** - The 6th International Solid Wastes Congress and Exhibition is to be held in Madrid, Spain June 14-19, 1992. Deadline for papers is September 31, 1991. For further information: JULIAN URIARTE JAUREGUIZAR, Chairman ISWA '92, IFEMA-TEM, Apdo., Correos 11011, 28080 Madrid, SPAIN.

**AWWA Universities Forum** - Abstracts are now being solicited for papers to be presented at the 21st Annual Universities Forum at the American Water Works Association Annual Conference to be held in Vancouver, British Columbia June 18-32, 1992. Student presenters/authors are being sought at all university levels. Papers must be based upon work completed by a student during the 1990-91 or 1991-92 academic year.

Papers should be related to public water supply including treatment, quality control, distribution systems, and resource development and management. Seven copies of an abstract, not to exceed five (5) total pages - no more than two (2) pages of text, not more than two (2) pages of figures and table, and a completed abstract information sheet (Available from AWWA) - should be submitted by November 15, 1991 (note earlier due date) to: Universities Forum, AWWA, 6666 W. Quincy Avenue, Denver, CO 80235.

**Call for Case Studies on Environmental Issues in Management:** MEB (The Management Institute for Environment and Business) is a non-profit organization dedicated to the development and dissemination of environmental management strategies for corporations and other organizations. A key part of their efforts is a research program, which support the development of case studies to address corporate environmental concerns and are intended for use in management education programs. The following are the criteria which MEB uses to identify projects that are suitable for support:  
Area of Research: The following are MEB's interest areas-Development of Corporate Environmental Management Systems, Ethics and the Environment, Accounting for Environmental Costs, Environmental Marketing, and Product Life Cycle Management. Cases Must describe the actions of real companies or organizations, and must illuminate thinking which is applicable to other companies developing environmental plans.  
Size of Support: MEB generally provides grants of \$1,000-\$5,000 for case studies, more for projects of special interest. For further information: The Management Institute for Environment and Business, 1401 Wilson Boulevard Arlington, VA 22209; Attn: Research Director, Tele: (703) 525-1133, Fax: (703) 247-8343.

## OTHER CONFERENCES AND EDUCATIONAL PROGRAMS

### Sampling & Evaluating Airborne Asbestos Dust (NIOSH 582)

September 23-27, 1991 - Salt Lake City, Utah  
Individuals with direct responsibility for sampling and evaluating asbestos dust.  
Tuition: \$600 (\$550 if scope provided)  
Course Director: Dan Crane, OSHA  
For further information: RMCOEH, CE Program Coordinator, University of Utah, Bldg. #512, Salt Lake City, Utah 84112, (801) 581-5710.

### Hazardous Materials for the Professional

September 23-27, 1991 - Salt Lake City, Utah  
Course participants will gain a basic knowledge of the key regulations covering the field of hazardous materials; be able to define hazardous materials, hazardous substances and hazardous wastes according to DOT, EPA, OSHA, and other authorities; be able to outline the basic hazards and classes of "hazardous materials"; be able to define basic toxicological terms and identify the four major routes of exposure; be able to explain the selection and use of various forms of respirator protection and chemical protective clothing; be able to describe work practices to lessen risk and safe use of engineering controls; be able to outline the need for and proper functions of decontamination; be able to identify the zones of control and basic site safety considerations.  
Tuition: \$550. Course Director: Wes Dewsnup, Hazardous Materials Institute. For further information: RMCOEH, CE Program Coordinator, University of Utah, Bldg. #512, Salt Lake City, Utah 84112, (801) 581-5710.

### International Symposium on Wastewater Reclamation and Reuse

September 24-26th, 1991 - Castell Platja d'Aro, Costa Brava, Gerona, Spain.

The International Symposium will take place at the Congress Hall in Castell Platja d'Aro, Costa Brava, Gerona, Spain, from 24 to 26 September 1991. The coastal resort town of Castell Platja d'Aro is located 120 km north of the City of Barcelona, and 45 km south-east of the City of Gerona, the capital of Costa Brava.

The main objective of the International Symposium is to provide an appropriate forum for discussing the scientific and technological advances made in water reuse, especially through case studies on full-scale water reuse projects in agriculture, industry, forestry, and urban utilities. Water reuse for potable purposes may also be considered. For more information: Viajes BRAVATOURS, (Water Reuse Symposium), Avda. Costa Brava, 16, 17250 Castell Platja d'Aro, Gerona, SPAIN, Tele: 34 72 81 78 60, Telex: 57219, Fax: 34 72 81 65 30.

The Association of Environmental Engineering Professors (AEEP) published its first Computer Software Manual in 1986. That manual contained a wide range of microcomputer programs useful in water supply, wastewater treatment, receiving-water quality, and air pollution. The manual made great strides in introducing the potential value of computers in addressing and understanding Environmental Engineering problems. It has been widely used by professors and students in the field of Environmental Engineering and Science.

The tremendous advances in microcomputer hardware and software over the past five years since the first edition was published have made it possible for students in our field to address more complex problems in less time than ever before. These students, upon graduation, are being asked more and more to incorporate the use of computers in their professional activities. The use of computers in Environmental Engineering education has become a necessity rather than a luxury. Consequently, the AEEP Board of Directors felt a second edition of its Computer Software Manual was needed in order to update and upgrade this valuable educational tool. The responsibility of producing the second edition of the manual lies with the AEEP Computer Applications Committee. With the support of the entire AEEP membership, the Committee hopes to produce the second edition over the next 18-24 months.

The primary goal of the second edition, which is tentatively entitled "Computer Applications in Environmental Engineering Education," is to enhance education in Environmental Engineering and Science by facilitating the application of the computer as a problem-solving and pedagogical tool. While accomplishing this overall goal, we would like the second edition and its associated software to achieve the following specific objectives:

- it should provide an educational toolbox, not necessarily a stand-alone text, for use in advanced undergraduate and graduate classrooms;
- it should be as comprehensive as possible in its coverage of Environmental Engineering subject matter amenable to analysis by computer;
- it should strive to illustrate advantages and limitations of computer applications and models of environmental systems;
- it should demonstrate generic environmental system modeling and analysis approaches (e.g., calibration, sensitivity analysis, component analysis, error (uncertainty) analysis, waste load allocation, Monte Carlo analysis, etc.); and
- it should demonstrate how the computer can be used to obtain insights about "real-world" problems, with actual data that do not always conform to ideal theory (e.g., comparison with actual data of a model that assumes heavy metal transport in a river is conservative with a model that includes an absorption and settling processes).

Like the first edition, material for the second edition will be provided entirely by contributions from AEEP members. However, because of the relative explosion of software since the first edition and because of the desire to provide as even a coverage of the field as possible, the Committee envisions employing a careful screening and selection process for submitted software. In response to a preliminary questionnaire sent to you about a year ago by Bruce Rittmann, we received 27 offers of software for the second edition. This was a very good response, but we know there are more programs out there for consideration.

All software packages included in the book will undergo thorough *Beta* testing and revision prior to publication. We are even considering development of a standardized user-interface to be used with each package. Also, we are seriously considering use of an outside publisher for the book. This would mean a much broader user audience and the potential of compensation for contributors; but it most certainly means that we must produce a quality product, because it will have AEEP's name associated with it.

We would like to see each software unit in the book include the following sections:

- an introduction stating the purpose, capabilities, and limitations of the software;
- a brief presentation of the theory, fundamental equations and concepts demonstrated by the software, and references for further reading on the theory and parameter estimation;
- a section stating the input needs and output capabilities of the software. This section should contain a sample problem with specified input parameters (a copy of this sample input file could be included on the software disk), sample output, and discussion of the concepts demonstrated by the package;
- a documentation section, including program information, computer requirements for the software, and specific of using the program.

In order to best serve the membership with this project and to aid the Committee in its continued planning and implementation, we are asking **ALL** AEEP members, whether potential users or potential contributors, to respond to the attached questionnaire. Please take a few moments to fill it out as best you can and return it to the address at the bottom of the questionnaire.

*Please notice that question 6 asks about your intention to submit a software package to this effort. This question constitutes a second chance for those of you who did not respond to the first questionnaire sent by Bruce Rittmann last summer. Remember, answering this question in the affirmative in no way obligates you to submit something; the Committee will merely use this information for planning purposes. Following our analysis of this questionnaire along with the previous questionnaire, those of you interested in possibly contributing will receive a formal Request for Submission, with detailed guidelines for your submission.*



# QUESTIONNAIRE

for  
AEEP Membership  
Concerning Publication of

## COMPUTER APPLICATIONS IN ENVIRONMENTAL ENGINEERING EDUCATION

Association of Environmental Engineering Professors

### **Computer System**

1. Describe the computer system that your students use for classes:

Make/Model \_\_\_\_\_

Operating System/Version \_\_\_\_\_

Processor \_\_\_\_\_

Video Card Graphics CGA EGA VGA Other \_\_\_\_\_

Monitor Color Monochrome \_\_\_\_\_

Co-Processor/Math Chip \_\_\_\_\_

RAM (Memory) \_\_\_\_\_

Floppy disk drives 3.5 \_\_\_\_\_ 5.25 \_\_\_\_\_

Hard disk drive Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, size MB \_\_\_\_\_

2. Repeat information for alternate system:

Make/Model \_\_\_\_\_

Operating System/Version \_\_\_\_\_

Processor \_\_\_\_\_

Video Card Graphics CGA EGA VGA Other \_\_\_\_\_

Monitor Color Monochrome \_\_\_\_\_

Co-Processor/Math Chip \_\_\_\_\_

RAM (Memory) \_\_\_\_\_

Floppy disk drives 3.5 \_\_\_\_\_ 5.25 \_\_\_\_\_

Hard disk drive Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, size MB \_\_\_\_\_

### **Computer Software**

3. List Name and Version # of all general purpose software (e.g., spreadsheets, DBMS, graphics, etc.) that you have your students use in your advanced undergraduate/graduate classes.
4. List Name, Description and Source (if known) of all specific software that you have your students use in your advanced undergraduate/graduate classes.

## Book Content

5. What specific technical areas (e.g., aquatic equilibrium chemistry, surface water toxic chemical model, hydraulics, aerobic biological treatment processes, etc.) would you especially like to have included in the second edition of the AEEP Manual?
6. Describe software that you would consider submitting for inclusion in the second edition of AEEP Software Manual?

Name:

Brief Description: (problem addressed, program flow, etc.)

System Requirements:

Authors:

Contact Name, Address, Phone, Fax:

Return to:

Joseph V. DePinto  
Great Lakes Program  
State University of New York at Buffalo  
207 Jarvis Hall  
Buffalo, NY 14260  
(716) 636-2088; FAX (716) 636-3667  
EMAIL: [depinto@superior.eng.buffalo.edu](mailto:depinto@superior.eng.buffalo.edu)

# EMPLOYMENT OPPORTUNITIES

## University of Florida

The Department of Environmental Engineering Sciences, University of Florida is seeking applicants for two tenure-track positions at the Assistant/Associate levels. Applicants should have a strong background in environmental engineering, with research interests in surface and/or groundwater hydrology, water resources modeling or pollutant transport. Other environmental engineering areas of specialization may also be considered, including hazardous waste management, air pollution control, and water and wastewater treatment and chemistry.

Applicants must have an earned Ph.D. degree in Environmental, Chemical or Civil Engineering. The successful applicant will be expected to teach undergraduate and graduate level courses and develop an extramurally funded research program. Registration as a professional engineer, or the ability to become registered, is required.

Send curriculum vitae, transcripts, and the name, address and telephone number of at least three references to: Dr. Ben Koopman, Chairman of the Search Committee, Department of Environmental Engineering Sciences, 217 A.P. Black Hall, University of Florida, Gainesville, Florida 32611. Applications should be postmarked no later than January 10, 1992 to be considered. Anticipated starting date is August 3, 1992.

The University of Florida is an Equal Opportunity/Affirmative Action Employer.

## University of Pittsburgh

Nominations and applications are invited for the position of professor and Chairman, Department of Civil Engineering, at the University of Pittsburgh. Candidates should possess a broad vision of the future directions for civil engineering and have the leadership and managerial skills to promote and implement that vision. The successful candidate must have a demonstrated commitment towards achieving excellence in both teaching and research. An earned doctorate is required.

The Department of Civil Engineering has 14 tenure stream and 12 research and/or adjunct faculty members spanning the areas of environmental engineering, geotechnical engineering, structural mechanics and engineering, transportation and urban systems, and water resources. The B.S., M.S. and Ph.D. degrees in Civil Engineering are offered; students may also pursue

of Masters of Public Works and the M.S. in Mining Engineering. The Department has an enrollment of approximately 150 undergraduate (sophomore through senior level) and 130 graduate students.

The University of Pittsburgh, entering its third century, has established a strong tradition of education, research and service and is a member of the select American Association of Universities. Its Department of Civil Engineering is one of the oldest such programs in the U.S., offering degrees since 1868. This position will be filled by April 30, 1992. Nominations or applications, including resume and names, addresses and telephone numbers of references should be sent by November 1, 1991 to: Larry J. Shuman, Associate Dean for Academic Affairs, University of Pittsburgh, 323 Benedum Hall, Pittsburgh, PA 15261, (412) 624-9815.

The University of Pittsburgh is an affirmative action and equal opportunity employer.

## Rice University

Applications are invited for a tenure-track position in Environmental Engineering, beginning August, 1992. This position is at the level of Assistant Professor and emphasizes Biochemical Process Engineering applied to water, wastewater, and hazardous waste treatment as well as natural systems such as ground and surface waters. The successful candidate must have outstanding research capabilities as well as a strong interest in teaching at the graduate and undergraduate levels, establishing an active experimental research program, and directing graduate student research. A Ph.D. or equivalent degree in environmental engineering or an allied field is required. Excellent communication skills in both spoken and written English are necessary. University teaching and/or research experience is desirable. Salary is competitive and negotiable. This is a continuation of the faculty search initiated in Fall 1990. Applications will be accepted until a suitable individual is identified for the position.

Interested candidates should submit a resume and the names, addresses and telephone numbers of at least three references to: Professor C.H. Ward, Chair, Dept. of Environmental Science and Engineering, George R. Brown School of Engineering, Rice University, P.O. Box 1892, Houston, TX 77251. Review of applications will begin January 15, 1992. Applications will be accepted until the position is filled. EOE AA m/f v/h.

# Reservation Form

## AEEP Annual Luncheon and Membership Meeting

Monday, October 7, 1991 at noon  
Tudor Meeting Room, Royal York Hotel, Toronto

Please reserve a place for me at the AEEP luncheon and meeting in Toronto. My check payable to AEEP in the amount of \$20 U.S. is enclosed.

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_

Do you require that a receipt be mailed to you? \_\_\_\_\_yes \_\_\_\_\_no

Send the completed registration form and check to:

C. Robert Baillod  
Environmental Engineering Center  
Michigan Technological University  
Houghton, Michigan 49931  
Tele: (906) 487-2530  
Fax: (906) 487-2943



## Preregistration Form

### AEEP Workshop at the Toronto WPCF Conference

**“An Applied Approach to Epidemiology and Toxicology for Engineers”**

Time: Tuesday, October 8th, 1991, 2:00 p.m. to 4:00 p.m.  
Place: Royal York Hotel, 100 Front Street West, Confederation Rooms #4/5  
Presenters: David M. Gute and N. Bruce Hanes, Tufts University

Please reserve materials for me at the AEEP Toronto Workshop:

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Do you require that a receipt be mailed to you? \_\_\_\_\_yes \_\_\_\_\_no

AEEP Member, no charge - Non-AEEP Member, check for \$25 payable to AEEP enclosed.

Send the completed registration form and check (for non-members) to:

N. Bruce Hanes  
Civil Engineering Department  
Tufts University  
Medford, MA 02155  
Tele: (617) 381-3211  
FAX: (617) 381-3819

# APPLICATION FOR MEMBERSHIP

in the  
Association of Environmental Engineering Professors

Name \_\_\_\_\_  
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 Business Address \_\_\_\_\_ Tel. \_\_\_\_\_  
 \_\_\_\_\_  
 Home Address \_\_\_\_\_ Tel. \_\_\_\_\_  
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Applying for: Membership Status  Rank: \_\_\_\_\_ Affiliate Status

### PLEASE ATTACH RESUME

Dues are payable to the association on a calendar year basis. The AEEP annual dues payment, prorated according to the date of application, is shown below.

#### INITIAL DUES PAYMENT REQUIRED BASED ON RANK AND DATE OF APPLICATION.

RANK	1 Jan. 31 Mar.	1 Apr. 30 June	1 July 30 Sept.	1 Oct. 31 Dec.
<b>Professor</b>	<b>\$50.00</b>	<b>\$37.50</b>	<b>\$25.00</b>	<b>\$12.50</b>
<b>Associate Professor</b>	<b>25.00</b>	<b>18.75</b>	<b>12.50</b>	<b>6.25</b>
<b>Assistant Professor</b>	<b>25.00</b>	<b>18.75</b>	<b>12.50</b>	<b>6.25</b>
<b>Affiliate Member</b>	<b>20.00</b>	<b>15.00</b>	<b>10.00</b>	<b>5.00</b>

Please return this form along with your dues to:

Gene F. Parkin  
 Department of Civil & Environmental Engineering  
 University of Iowa  
 Iowa City, IA 52242

Enclosed are my AEEP dues in the amount of \$ \_\_\_\_\_

\_\_\_\_\_  
 Signature Date

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Association of Environmental Engineering Professors

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Chet A. Rock  
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