



Association of  
Environmental  
Engineering  
Professors

# Newsletter

VOLUME 32, NO. 2

Published three times yearly by AEEP

April 1997

## PRESIDENT'S LETTER

Dear Friends and Colleagues:

A lot of things have been happening since I last addressed you on this page. Accreditation seems to be drawing the most attention at this time because of pending changes under the "Engineering Criteria 2000" program. A workshop has been scheduled for the weekend of April 19-20, 1997, to discuss procedures for reviewing and assessing outcomes of accredited Environmental Engineering programs using the new criteria. While few schools (9 graduate; 17 undergraduate) have accredited environmental engineering-related programs at this time, the deliberations of this workshop potentially will affect the way many of us view environmental engineering education (see my comments below). The workshop is a joint effort between the Academy of Environmental Engineering and AEEP. AEEP members participating in the workshop are: Robin Autenrieth (Texas A&M Univ.), Paul Bishop (Univ. of Cincinnati), Nick Clesceri (Rensselaer Univ.), James Edzwald (Univ. of Mass.), Ed Schroeder (Univ. of California, Davis), Robert Baillo (Mich. Tech. Univ.), and myself. Anyone having concerns or questions about Engineering Criteria 2000 that should be expressed at the workshop should contact me or any of the workshop participants before about April 15.

We have initiated steps to prepare for the next AEEP/AEE education conference (tentatively scheduled for 2001). At this time we need three persons to volunteer to serve on the planning committee, with one of these persons serving as co-chair. The co-chair does not have to be associated with the university or location of the conference – and at this time, no site has been selected – but proposals for sites certainly will be considered. Anyone interested in serving on this committee should contact any of the AEEP board members. I hope to be able to round out our part of this committee by May 15, 1997.

The AEEP flyer "So You Want to Be an Environmental Engineer" seems to be a bestseller. Some 2,000 copies have been distributed since August 1996 and

another printing has been scheduled. Similarly, the new Register of Undergraduate Programs in Environmental Engineering should be available in the near future. Also, the new Register of Graduate Programs is available. Purchase of these documents demonstrates both an interest and a need that we are meeting through our organization. Contact Joanne Fetzner for information on availability and cost of all of these publications.

While it is risky for me to present personal opinions in this column, I have elected to do so here to spur some thinking and response on topics of concern to our profession. One of my concerns about environmental engineering education lies with traditional engineering programs – typically Civil or Chemical Engineering – that allow specialization in environmental engineering. In many cases the "specialization" has grown so thin that only one or two courses are offered on environmental engineering topics. Additionally, much of the basic science of importance to environmental engineering – specifically microbiology and organic chemistry – seems to have been pushed out of many undergraduate programs. My perceptions about this problem were reinforced by the reports of environmental engineering emphasis in undergraduate curricula contained in the new register of undergraduate programs which should be available shortly from AEEP. Thus, BS graduates having an interest in environmental engineering often are not prepared adequately for professional practice in this field. Much of this reduction in specialization at the undergraduate level is caused by ongoing trends to reduce credit hours in baccalaureate engineering programs – in some cases to 120 semester credit hours. Other schools have allowed substitution of environmental engineering courses for traditional career-track courses – for example, structural engineering, foundations, highway design, etc. within Civil Engineering programs. In my view, either practice represents a dilution of traditional degree programs that have supplied many of our practicing environmental

engineers. These deficiencies must be made up as part of graduate programs to which these graduates may be admitted or through self-study or on-the-job training. While I realize there is no easy answer to the dilemma, we should at least consider the impact of such academic actions on graduates of our programs and make sure that they and their prospective employers know the consequences. My concern goes further because many of the graduates of traditional academic programs having only an emphasis in environmental engineering will be unprepared for taking the new professional engineering exam in environmental engineering that now is offered in most states. I realize that most graduates of engineering

programs can learn through self-study and on-the-job training, but if environmental engineering is to become a viable, self-sustaining profession, our academic programs must reflect the needs and expectations of that profession.

Your comments on the above news and views are welcomed. Please do not hesitate to contact me if you have questions, opinions, or counter-opinions on the above topics. I would appreciate your response.

*Jim Young*

## AEEP NEWS AND ANNOUNCEMENTS

### Entries Sought for '97 Awards

Entries are sought for the 1997 Outstanding Doctoral Dissertation Awards. Two awards will be given, each consisting of a plaque and a cash prize of \$1,000 for the student, and a plaque and a cash prize of \$500 for the faculty advisor. Faculty advisors wishing to compete should send three copies of the dissertation to: Gary L. Amy, Civil, Environmental, and Architectural Engineering, University of Colorado, Boulder, CO 80309-0428. The theses should be accompanied by a simple letter of transmittal stating the student's current address and indicating when the dissertation was completed. The copies will not be returned, so xerographic copies inexpensively bound are recommended. The deadline for submissions is June 15, 1997 for dissertations completed during the 1996 calendar year. Faculty advisors are urged to limit themselves to a single entry (which will be considered for each of two awards); self nominations by students will not be accepted.

A selection committee of three AEEP members will read and judge each dissertation on the basis of 100 points allocated as follows: scientific and technical merit of the research – 30 points; originality of research – 30 points; contribution to advancement of environmental engineering – 30 points; and, clarity of presentation – 10 points. The selections will be made by September 1, 1997 so that the recipients and their advisor can be invited to the AEEP luncheon at the WEF meeting. Our thanks to Engineering Science and CH2M-Hill for their generosity in sponsoring these awards and to members of the 1996 Doctoral Dissertation Review Panel: Michael Aitken (Chair), Gary Amy and Pratim Biswas.

#### REMINDER:

Deadline for  
submissions for the  
September 1997  
AEEP Newsletter  
is August 4, 1997

#### SEND SUBMISSIONS FOR THE SEPT. 1997 NEWSLETTER

TO:

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Department of Civil Engineering  
University of Idaho  
Moscow, ID 83844-1022  
(208) 885-2980  
Fax: (208) 885-6608  
ely@uidaho.edu

## American Society for Microbiology

The Board of Education and Training of the American Society for Microbiology offers a wide variety of resources for students, faculty, and scientists, a few of which are listed below. Please note the deadline and web site for information on each program. For a full listing, see web page <http://www.asmtusa.org/edusrc/edu1.htm> or for more information, fax your request, indicating the program you are interested in, to (202) 942-9329.

**Robert D. Watkins Minority Graduate Fellowship:** Encourages minority graduate students to conduct research in microbiological sciences for two years. Deadline: May 1.

<http://www.asmtusa.org/edusrc/edu2.htm>

**Burroughs Wellcome Visiting Professorship:** The professorships are intended to stimulate interest in the microbiological sciences and to enhance communication among scientists in Bacteriology, Biotechnology, Immunology, Microbiology, Molecular Biology, Mycology, Parasitology and Virology. Deadline: May 1.

<http://www.asmtusa.org/edusrc/edu3.htm>

**ASM/NIGMS Visiting Scientist Program:** This program gives minority institutions an opportunity to strengthen their research and teaching capabilities by drawing upon the experience and expertise of the outstanding scientists who are members of ASM.

<http://www.asmtusa.org/edusrc/edu3.htm>

**Volunteers Sought for Student Science Day:** Volunteer scientists are needed to host Secondary School students during a one-day program planned in conjunction with the '97 ASM General Meeting in Miami, Florida. If you are available to spend time speaking with a small group of students about career opportunities in the microbiological sciences and leading these students through the General Meeting Exhibits, please contact Maureen Shiflett at the Beckman Center, National Academy of Sciences, 100 Academy Dr., Irvine, CA 92612, fax (714) 721-2277, or e-mail at [mshiflet@nas.edu](mailto:mshiflet@nas.edu). Please provide: name, mailing address, e-mail address, and indicate your area of expertise (e.g., clinical, industrial, or environmental science). Volunteers for Student Science Day need to be available between 10 a.m. and 2 p.m. on May 7.

**Science Education Network:** This Network consists of a database of scientists who have identified themselves as willing to participate in outreach activities involving pre-college students and faculty. To request a scientist or to volunteer to become part of the Network, see our homepage at <http://www.asmtusa.org/edusrc/edu3.htm>

**Microbial Discovery Workshops:** ASM offers summer workshops which feature curricula using

microbes to stimulate interest in science. A team consisting of a pre-college educator and an ASM member scientist apply together. Dates are June 25-29 at Delta State University in Cleveland, Mississippi, and August 6-10 at Gwynedd-Mercy College, Gwynedd Valley, Pennsylvania. Registration, meals and lodging for both team members, and travel expenses for the teacher are provided by grants from the Waksman Foundation, Pfizer Foundation, Inc., and ASM. For more information, contact Ken Anderson at (213) 343-2037, e-mail: [histog17m@aol.com](mailto:histog17m@aol.com). Deadline: May 30.

<http://www.asmtusa.org/edusrc/edumdp.htm>.

**Undergraduate Microbiology Conference:** The fourth ASM Undergraduate Microbiology Conference *Defining Instructional Goals for the Microbiology Laboratory: Content, Skills, and Safety* will be May 2-4 in Fort Lauderdale, Florida. Conference information and registration form are available at <http://www.asmtusa.org/edusrc/edu4c.htm>

**Regional education conferences:** Conferences are scheduled on March 22 in Kansas City, on April 19 in Pittsburgh, and in Germantown, Maryland.

<http://www.asmtusa.org/edusrc/edu37.htm>

**ASM Faculty Fellowship Program:** This Fellowship provides an opportunity for faculty to improve scientific and research capabilities in ways that will enhance and update the undergraduate microbiology courses and laboratories they teach. The program is open to faculty from under-represented groups, or those that teach at institutions with enrollments predominantly from under-served groups. Up to \$4,000 in funding is available to support the activity outlined by the applicant, which will generally involve a sustained summer experience in a formal course or relationship with a host scientist at another institution or facility.

<http://www.asmtusa.org/edusrc/edu23f.htm>

**ASM Travel Grants:** ASM offers travel grants of \$400 to: 1) pre-college teachers making presentations at the ASM General Meeting, an ASM Branch Meeting, or the National Association of Biology Teachers Convention. The purpose of the grant is to increase the number of biology teachers using microbial-based science activities in their curriculum. Deadline: June 1 (NABT).

<http://www.asmtusa.org/edusrc/edu23j.htm>

2) undergraduate faculty who are early career instructors and will be presenting an education talk or poster at the ASM General Meeting or the Undergraduate Microbiology Conference.

<http://www.asmtusa.org/edusrc/edu23i.htm>

# EMPLOYMENT OPPORTUNITIES

## Tulane University

The Department of Civil and Environmental Engineering at Tulane University is inviting applications for a faculty position in environmental engineering starting in Fall, 1997. This invitation is for a tenure-track position at the Assistant Professor level. Current research in the department includes projects on bioremediation, water quality, recycling of industrial wastes, trenchless pipeline rehabilitation and wastewater treatment. The department currently offers B.S., masters and doctoral degree programs in civil and environmental engineering and has 34 graduate students. Tulane has two federally funded research centers: the Center for Bioenvironmental Research and the National Institute for Global Environmental Changes. Located in the lower Mississippi River Valley, Tulane environmental researchers have the challenge to solve our regional environmental problems. The position will be filled by a candidate specializing in a major area of environmental engineering. Candidates must possess a Bachelors degree in Engineering and an earned doctorate in Civil or Environmental Engineering for this new position. Applicants should send their resume, statement of teaching and research interests, transcripts and names, addresses and phone numbers of at least five references to: Chair, Environmental Search Committee, Department of Civil and Environmental Engineering, Tulane University, New Orleans, LA 70118. Applications will be accepted until the position is filled. *Tulane University is an equal opportunity/affirmative action employer.*

## Rensselaer Polytechnic Institute

The Department of Environmental and Energy Engineering at Rensselaer Polytechnic Institute invites applications for a tenure-track position in Environmental Engineering with a starting date within the time frame of July-August, 1997. The position has been approved at the Assistant Professor level with salary commensurate with qualifications and experience. An earned Ph.D. in Environmental Engineering or a closely related field, and the ability to be professionally licensed are required. As the first program to offer both an ABET accredited B.S. in Environmental Engineering and a Ph.D. in Environmental Engineering, Rensselaer maintains a commitment to excellence in teaching and research. In particular, we seek an individual with expertise in contaminant fate and transport modeling, and a demonstrated understanding of the chemical and biological mechanisms responsible for pollutant immobilization, facilitated transport and/or transformation. Candidates must show evidence of

research accomplishment, ability to attract substantial external support, and plans for a productive research program together with a sustained commitment to undergraduate and graduate teaching.

Applicants should send a resume, the names of four references, and a statement of research and teaching interests and capabilities to:

Professor Don Steiner, Chairman  
Environmental and Energy Engineering  
Rensselaer Polytechnic Institute  
110 8th Street  
Troy, NY 12180-3590

Applications will be accepted until the position is filled. *Rensselaer Polytechnic Institute, an equal opportunity-affirmative action employer, particularly encourages applications from women and minority candidates.*

## University of Washington

The Department of Civil Engineering at the University of Washington invites applications for a tenure-track position in its Environmental Engineering and Science Program effective Autumn Quarter, 1997. The position to be filled focuses on quantifying the effects of human activities on natural aquatic systems including lakes, wetlands, estuaries, and streams. The candidate will be expected to contribute significantly to the Department's undergraduate and graduate teaching mission. The Program expects the new faculty hire to carry out research and teaching activities related to biological processes in natural aquatic systems, especially the responses of organisms to changing land use and the discharge of water and contaminants to those systems. This should include field applications and the design and implementation of restoration and protection strategies. The appointment is expected to be at the level of Assistant Professor, and a Ph.D. is required.

The Environmental Engineering and Science Program is strongly interdisciplinary. The successful candidate would have the opportunity to interact with other faculty in the Program with interests in water and air quality, hydrology, environmental fluid mechanics, and water resources systems analysis, and with faculty across the campus. The successful candidate will be expected to demonstrate high quality classroom teaching at the undergraduate and graduate levels, to develop a strong research program, and to supervise Masters and Doctoral students. Additional information describing the Department of Civil Engineering at the University of Washington is available at the web site <http://www.ce.washington.edu>. Applications will be considered beginning March 15, 1997 and will be accepted until the position is filled. Applicants should

send a cover letter, a detailed resume, and the names, addresses, and phone numbers of at least three references to Professor H. David Stensel, Search Committee Chair, University of Washington, Department of Civil Engineering, Box 352700, Seattle, WA 98195-2700. *The University of Washington is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

## Bucknell University

**ENVIRONMENTAL ENGINEERING.** The Department of Civil Engineering at Bucknell University solicits applications for a faculty position in the area of environmental engineering beginning with the Fall semester, 1997. This position is currently authorized for the 1997-98 academic year; a contract extension for 1998-1999 is possible. The successful applicant will be expected to teach environmental courses for both engineering and non-engineering students and environmental-related Civil Engineering undergraduate courses. The candidate's interests may be in any area of environmental engineering. Applicants should have an earned doctorate in civil engineering and an undergraduate civil engineering degree from an ABET-accredited institution. Professional registration, industrial experience, and previous teaching and research experience are desirable. Applicants should send **curriculum vitae**, statement of teaching and research interests, and names, addresses, and telephone numbers of references to Professor Jai B. Kim, Chairman, Department of Civil Engineering, Bucknell University, Lewisburg, PA 17837. *Bucknell University encourages applications from women and members of minority groups (EEO/AA).*

## University of Arizona

Chemical and Environmental Engineering at the University of Arizona is seeking applicants for a tenure-track faculty position at the assistant or associate professor level, effective the Fall 1997 semester. A Ph.D. in chemical engineering, environmental engineering, or related field is required. Applicants with research and teaching interests relevant to core and interdisciplinary problems in chemical and environmental engineering are particularly encouraged to apply. The department offers the B.S. in Chemical Engineering and the M.S. and Ph.D. in both Chemical Engineering and Environmental Engineering. Annual research expenditures exceed \$2 million, and the department is home to the new NSF/SRC Environmentally Benign Semiconductor Manufacturing Engineering Research Center, with a \$10 million research budget over the next five years. The review of applications will begin March 1 and will continue until the position is filled. Applications should be sent to the:

Faculty Search Committee

Department of Chemical and Environmental Engineering  
University of Arizona  
Tucson, AZ 85721

*The UA is an EEO/AA employer. Women and under-represented minorities are encouraged to apply.*

## Rutgers - The State University of New Jersey

The Department of Environmental Sciences, Rutgers - The State University of New Jersey, invites applications for two positions in the areas of environmental chemistry and hydrology. The appointment level for each position is open although only one senior appointment will be made.

**Environmental Chemistry:** The Department seeks an individual who works at the interface between chemistry and biology with emphasis on organic chemicals in aquatic and/or terrestrial ecosystems (especially bioaccumulation, food web transfer and dynamics, bioavailability). The ideal candidate has an earned Ph.D. and experience in the fields of environmental chemistry or biology, ecotoxicology or related disciplines.

**Environmental Hydrology:** The Department seeks an engineer/scientist who works in the fundamental and applied aspects of surface, groundwater hydrology and/or physical treatment processes. The ideal candidate has an earned Ph.D. in environmental engineering/sciences or related disciplines.

These appointments carry the responsibility to teach at both the undergraduate and graduate level and develop a well-funded and nationally-known research program. The appointees will have a strong record of teaching and research, and the senior appointee will be expected to have an exceptional record of research and mentoring. Applications should include a statement of research and teaching interests, a detailed CV, and names, addresses (including electronic), and telephone numbers of five references to:

Prof. Roni Avissar, Chair of Search Committee  
Department of Environmental Sciences, Cook College  
Rutgers University  
PO Box 231

New Brunswick, NJ 08903

Review of applications will begin March 1, 1997 and continue until the positions are filled. *Rutgers University is an Equal Employment Opportunity/Affirmative Action Employer.*

## Drexel University

The Department of Civil & Architectural Engineering (C&AE) of Drexel University seeks nominations and applications for a tenure-track faculty position at the Assistant/Associate Professor level to begin in September 1997. The area of expertise desired is

