



# NEWSLETTER

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# PRESIDENT'S CORNER

The primary function of AEEP is to strengthen and promote environmental engineering and science education and it has been active in doing so during the past year. New editions of the "Unit Operations Manual" and the "Register of Environmental Engineering Graduate Programs" were published,\* an enrollment survey was completed, and the Purdue Workshop, American Water Works Association Seminar, and the Distinguished Lecturer Program were again very successful. Our Newsletter continues to serve the important function of keeping the membership informed. The AEEP board especially thanks its members who were involved in these activities and undertakings, as well as its other members who work to make our organization successful.

Plans are underway for additional activities during the coming year. A major event will be the next education conference. Bob Baillod has been appointed chairman of the steering committee, and the conference could be held at Michigan Technological University in Houghton, Michigan as early as August 1985. One of the important educational issues facing our profession is how best can computers be used in the classroom, and it is likely that the conference will address this concern, possibly along with other issues. If you have ideas about what the conference should include, please pass them on to Bob. We also are investigating the possibility of introducing a function similar to the Purdue Workshop at the Water Pollution Control Federation annual conference. The Purdue Workshop has been very successful and will be continued, but many members cannot attend because of

the location. Because the WPCF conference site is changed each year, many more members should be able to attend and participate. The format will have to be modified because of constraints imposed by the WPCF conference schedule, however.

In keeping with the policy instituted by the Board of Trustees last January, we will be charging a fee for the Purdue Workshop, and the WPCF seminar if it is initiated. AEEP's cash reserves have been dwindling the past few years, and the Board felt that charging of a fee to insure that we "break even" on such activities was preferable to an increase in membership dues.

The shortage of EPA funds for long-term basic and applied research is serious and continues to merit the attention of all of us. Specific information was sent to you by Fran DiGiano, Chairman of our Legislative Liaison Committee, and more is presented in this Newsletter. The AEEP Board is planning to be more active in promoting the need for additional funding this coming year, but our organization could be much more effective if, in addition, each of your would communicate the need for funds to appropriate members of the Congress and the U.S. EPA.

\* These can be purchased from Prof. Des Lawler, Dept. of Civil Engr., Univ. of Texas, Austin, Texas 78712.

> Vern Snoeyink President

# AEEP NEWS AND ANNOUNCEMENTS

# **AEEP Computer Software Manual Update**

The committee is in the final review process of the contributions which it has received. However, many of the contributions that were promised have not been received. If you feel that you would like to contribute something but are unsure whether it is appropriate, please call John Crittenden (906) 487-2798 immediately. Every effort will be made to include appropriate contributions.

# Annual AEEP Workshops

The topics and organizers for the two annual AEEP workshops have been selected for this year. Dick Speece,

Professor in the Environmental Studies Institute at Drexel University will organize a one-day workshop on "Anaerobic Biotechnology" to be held on Monday, May 6, 1985. This workshop will occur at Purdue University and is the day before the start of the annual Purdue Industrial Waste Conference.

AEEP has also sponsored an evening seminar on a Monday evening of the AWWA Conference for the last several years. For 1985, this seminar will be led by Brian Dempsey, Assistant Professor in the Department of Civil Engineering at the University of Missouri, Rolla. The topic is "Chemical Aspects of Coagulation". The AWWA Conference is June 23-27, 1985 in Washington, D.C.

Further details on both workshops will be published in

the mext issue of the newsletter.

#### **AAEE Certification**

The Association of Environmental Engineering Professors is a sponsoring organization of the American Academy of Environmental Engineers (AAEE). Each sponsoring organization of the Academy may submit a list of not more than five (5) of its qualified members for consideration by the AAEE Board for certification.

The candidates 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.
- 4. Must have at least fifteen (15) years of environmental engineering experience in one or more of the specialty fields. Eleven (11) of the fifteen (15) years shall be in responsible charge, which work must include active participation with responsibility primarily in one or more fields of environmental engineering.

The candidate 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 from this society to AAEE for consideration by the Academy Review Committee and Board.

Any active AEEP member in good standing who meets the above criteria will be 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 may apply directly to the Academy for membership, and acceptance is conditional on an oral examination. In addition, any members that do not have the experience noted above but have 8 or more years experience in this field can apply directly to the Academy, and acceptance is conditional on a written and an oral examination. The Academy address is:

American Academy of Environmental Engineers P. O. Box 269 Annapolis, MD 21404

Qualified AEEP members wishing to be sponsored as a nominee of AEEP or desiring more information should apply directly to the AEEP-AAEE Trustee, N. Bruce Hanes, Department of Civil Engineering, Tufts University, Medford, MA 02155.

AAEE considers applications only once a year. Application deadlines are:

May 15 Received by AAEE

April 8 Reviewed by AEEP Board

April 1 AEEP nomlnee applications received by Trustee

## **GENERAL NEWS**

## **EPA Research Proposal**

The following is taken from "Long-Range Research: The Environmental Protection Agency and the Nation's Universities and Coffeges", a proposal to the Administrator of the Environmental Protection Agency prepared by the Committee on the Environment of the National Association of State Universities and Land Grant Colleges, Dr. Roy A. Young, Cornell University, Chairman:

#### **Executive Summary**

The United States Environmental Protection Agency (EPA) is not effectively using a major national resource for the control of pressing environmental problems such as acid rain, health risks from toxic chemicals, photochemical air pollution, and agricultural chemicals. This resource is the nation's colleges and universities, with their highly qualified, imaginative and productive researchers/teachers, together with their undergraduate and graduate students and post-doctoral fellows. Indeed, it was this sector of the research community which, during the 1950's, 1960's and early 1970's, generated most of the fundamental and environmentally relevant research which today forms the basis for the strategies now being employed by the U.S. Environmental Protection Agency to assess and control the major problems cited above.

The current minimal involvement of our colleges and universities in initiating and conducting long-term basic and applied research in such areas as health effects, risk assessments and the transport and transformation of chemicals in our ecosystem, has several serious implications. For example, if the present trend in EPA-funded extramural research continues for the next 2-5 years, it will effectively terminate on a national basis the long-range university research supported by this agency.

The National Association of State Universities and Land-Grant Colleges (NASULGC) is vitally concerned with this issue, i.e., the nature, extent and levels of funding of longrange research responsive to the Nation's environmental problems. In this context, the Environment Committee of NASULGC has analyzed the research efforts of the Environmental Protection Agency, with special emphasis on:

- Long-range and exploratory research funded through extramural grants, cooperative agreements, and Centers of Excellence.
- The critical role of the EPA in supporting a full range of fundamental and applied environmental research.
- The need for EPA to assume the mantle of leadership in all environmental research.

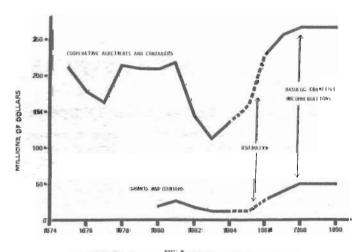


FIG A
ALLOCATION OF EPA'S EXTRAMURAL RESEARCHAND DEVELOPMENT
BUDGET WITH RECOMMENDED CHANGES

We document here the marked decrease in support for peer-reviewed, long-range research grants, extramural cooperative agreements and contracts, and Centers of Excellence (See Table A and Figure 1). This reduction amounted to more than 45% in real dollars between 1980 and 1983. The result is that the fundamental data base necessary for the development of scientifically correct and cost-effective control strategies is not being adequately expanded. Ironically, this

Table 1. Allocation of EPA's Office of Research and Development Budget 1975-1985 and NASULGC Committee on the Environment Recommendations 1986-1990 (millions of dollars)\*

Fiscal Year	Total R & D	Intramural	Extramural Contracts & Cooperative Agreements**	Extramural Grants and Centers	Grants and Centers as % of all Extramural
1975	279	58	211		
1976	248	71	177		
1977	239	76	163		
1978	296	31	215		
1979	306	96	210		
1980	335	105	210	20	. 8.7
1981	347	102	218	27	11.0
1982	269	105	146	19	11.6
1983	224	100	111	13	10.5
1984	245	100	137	1.3	8.7
1985***	278	106	159	13	7.5
1986****	380	110	230	26	10.1
1987***	415	112	257	40	13.4
1988****	430	114	256	50	15.8
1989****	430	114	266	50	15.8
1990***	430	114	256	50	15.8

<sup>\*</sup>Exclusive of an estimated \$12 million expended by other parts of EPA.
\*\*Expended primarily by EPA laboratories.

Addenda to the Book "Activated Sludge Process"

The book "Activated Sludge Process" by J.J. Ganczarczyk, published by Marcel Dekker, Inc. of New York in March 1983, has gained some popularity and comments have been received worldwide on its contents. Over two years have elapsed since the completion of the book manuscript and numerous relevant papers on the subject have appeared in the meantime. Therefore it is intended to prepare the ADDENDA to this book which would answer some comments and present selected new information. The ADDENDA would be distributed free of charge in a limited number of copies to some members of AEEP and other specialists in the field who are actively interested in the book and are perhaps using it in some courses and willing to comment on the presented material.

Those interested in receiving the ADDENDA please contact Professor J. Ganczarczyk, Department of Civil Engineering, University of Toronto, Ontario, M5S 1A4, Canada.

is occurring at the same time that EPA's responsibilities are growing and the need for sound science is urgent.

This report makes recommendations to reverse this trend and to improve EPA's research as a basis for control strategies. It is intended to provide a constructive means of helping the Agency fully utilize that segment of the Nation's brainpower which can help forge sound, cost-effective environmental control strategies based on good science strategies that will protect the health and welfare of the American public and our environment. Thus the NASULGC Committee on the Environment recommends that in FY 1986 extramural research funding to qualified investigators be sharply increased, particularly in support of long-range exploratory research and Centers of Excellence (See Table A and Figure 1). Furthermore, we recommend that these additional funds be allocated in the context of the EPA's own published research goals so that they will support a viable and essential long-range research effort in both fundamental and applied environmental areas.

#### Recommendations

That the EPA Administrator:

- 1) Issue a policy clarifying his views on EPA's research program and affirming his determination to maintain an effective long-range research effort.
- 2) Through the Office of Science and Technology Policy move to assert EPA's leadership role in all Federal environmental research.
- 3) Beginning in Fiscal 1986 request substantial increases in EPA's budget for research and development. (See Table A and Figure 1.)
- 4) Evaluate the feasibility of re-instituting a program of research training support.

The complete report, including detailed recommendations, is available from Mr. Dale Standsbury, National Association of State Universities and Land Grant Colleges, 1 Dupont Circle, Washington, D.C. 20036

#### **AAEE News**

The summer 1984 issue of The Diplomate, the newsletter of the American Academy of Environmental Engineers (of which AEEP is a sponsoring organization) reports that the AAEE trustees will consider redefining the specialty areas in which AAEE certification is offered at their 1984 Annual Meeting. The redefined categories are: General Environmental Engineer, Air Pollution Control Certification, Industrial Hygiene Certification, Radiation Protection Certification, Solid Waste Management Certification, and Water Supply and Water Pollution Control Engineering. (The committee studying the certifications considered the desirability of establishing separate certifications for the water supply and water pollution control speciality areas but decided against it.) Further information may be obtained from the AAEE.

The AAEE is also considering whether a program of certifying environmental engineering technicians is desirable or needed.

<sup>\*\*\*</sup>Estimated.

<sup>\*\*\*\*</sup>Recommended.

## **MEETINGS**

## Call for Papers

A Symposium on the Coupling of Geochemical and Hydrological Models for Subsurface Solute Transport will be held as part of the AGU Spring Annual Meeting, Baltimore, Maryland, May 27-31, 1985. Papers are solicited in this general area and may include results of theoretical, numerical, and experimental studies. Abstracts should be submitted in AGU format by February 4, 1985 to Dr. Thomas L. Theis, Dept. of Civil and Environmental Engineering, Clarkson University, Potsdam, NY 13676 (phone (219) 239-6257 or (316) 268-7701).

The 1985 Utah Water Pollution Control Association Annual Conference will be held in Provo, Utah, on April 22-23. Please submit a one-page abstract to Dr. Stanley L. Klemetson, Department of Civil Engineering, Brigham Young University, Provo, Utah, 84602, by January 31, 1985.

## 20th Canadian Symposium on Water Pollution Research

The Canadian National Committee of the International Association on Water Pollution Research and Control (CNC/IAWPRC) is proud to announce the 20th annual water pollution research symposium will be held at the University of Toronto on Thursday 21st February 1985. This event is the oldest Canadian forum provided for researchers to discuss and exchange findings in the area of water pollution sciences and control. For further information, contact:

Professor P. H. Jones
Department of Civil Engineering
Institute for Environmental Studies
University of Toronto, Toronto, Ontario, M5S 1A4
Telephone: (416) 978-7078

## Anaerobic Treatment of Sewage: Seminar/Workshop

A special seminar/workshop focusing exclusively on anaerobic treatment of municipal wastewater will be held at the University of Massachusetts in Amherst June 27 and 28, 1985. This meeting, sponsored by the National Science Foundation, will immediately precede the annual National Environmental Engineering Conference of ASCE which is scheduled to begin July 1, 1985 in Boston.

It will feature an international panel of experts presenting papers on all aspects of anaerobic sewage treatment. The format will include consideration of research and development needs and opportunities for discussion by participants and attendees. For further information, please contact:

Michael S. Switzenbaum
Department of Civil Engineering
University of Massachusetts, Amherst, MA 01003
Telephone: 413-545-0685

## Scale-up of Water and Wastewater Treatment Processes

The Second International Symposium on the Scale-up of Water and Wastewater Treatment Processes will be held June 4-6, 1985 in Heidelberg, Germany. Topics include hydraulic models, mixing, physical models, physical-chemical processes, mass transfer, liquid-solid separation, biological processes and technologies related to sludge dewatering and disposal. For further information contact:

Dr. N. W. Schmidtke Norbert W. Schmidtke and Assoc. Ltd. 159 Frederick Street Kitchener, Ontario, Canada N2H 2M6 Telephone: (519) 774-5931

# **FACULTY POSITIONS AVAILABLE**

## **University of Massachusetts**

The Environmental Engineering Program of the Department of Civil Engineering at the University of Masachusetts/ Amherst invites applications for a tenure track position in Environmental Engineering for January 1985. Research interests should be in chemical or biological processes in water and wastewater treatment systems and in natural waters. The position is at the Assistant Professor level, and responsibilities include graduate and undergraduate teaching and contribution to an active graduate research program. The Program is ABET accredited at the graduate level and consists of seven permanent faculty and 35 full-time MS and PhD students. The annual research budget for the Program is approximately \$350,000. Interested candidates should send a resume and list of references to:

James W. Male Professor and Coordinator Environmental Engineering Program Department of Civil Engineering University of Massachusetts Amherst, MA 01003

The University is an affirmative action equal opportunity employer.

## Lehigh University

Environmental Engineering: The Department of Civil Engineering, Lehigh University, invites applications for a tenure-track position in the area of environmental engineering. Applicants at the assistant professor level are preferred but higher levels will be considered. Responsibilities include teaching undergraduate and graduate courses and developing sponsored research. An earned doctorate in civil or environmental engineering is required. A background in toxic and hazardous waste management is preferred. Candidates with specialties in environmental chemistry, industrial wastes or dispersion and migration of pollutants in the environment will also be considered. A strong interdisciplinary program in environmental studies is conducted through the Center for Marine and Environmental Studies at Lehigh. The candidate is expected to participate in this program. Applications, including the names of three references, should be sent to the Environmental Search Committee, Department of Civil Engineering, Fritz Engineering Laboratory, Lehigh University, Bethlehem, PA 18015. Closing date for applications is March 15, 1985. Women and minorities are especially encouraged to apply. Lehigh is an equal opportunity/affirmative action employer.

## University of Pittsburgh

The Department of Civil Engineering, University of Pittsburgh, invites applications and nominations for the Edward R. Weidlein endowed chair professorship in environmental engineering. The chair was established to enable the School of Engineering to deal with problems of the overall human environment as it can be affected and controlled by engineering programs. Responsibilities will include assistance in development and expansion of significant research programs, undergraduate and graduate teaching programs, and the providing of a leadership role for the University in attaining a national image. Environmental research activities at the University of Pittsburgh are underway within the Civil Engineering Department, School of Engineering, and within the Graduate School of Public Health, Graduate School of Public and International Affairs, and within the Public Works Program.

Nominations, applications, and inquiries should be sent to:

Dr. Ronald D. Neufeld Professor of Civil Engineering Environmental Engineering Coordinator University of Pittsburgh Pittsburgh, PA 15261

OF

Dr. Joel I. Abrams
Department Chairman
University of Pittsburgh
Department of Civil Engineering
Pittsburgh, PA 15261

## University of Houston

The Department of Civil Engineering, University of Houston has a tenure-track Assistant Professor position in Environmental Engineering available January 1985 for someone with interests in biological processes and organic contaminant control. Responsibilities include research and undergraduate and graduate teaching. Ph.D. required. Salary will be commensurate with qualifications. Excellent facilities and organic and inorganic analytic equipment. Write Dr. James M. Symonds, Director, Environmental Engineering Program, Department of Civil Engineering, University of Houston-University Park, Houston, Texas 77004. Include resume. The University of Houston is an equal opportunity employer.

#### UCLA

The University of California, Los Angeles, Environmental Science and Engineering Program, now 12 years old, is an interdisciplinary program in the School of Public Health. We are seeking to fill two tenure-track positions to conduct graduate level interdisciplinary environmental teaching and research. Emphasis is currently given to problem-solving. The priority areas for recruitment are: (i) environmental engineer, (ii) applied environmental biological scientist, (iii) environmental social scientist, and (iv) environmental geochemist. Applicants should have interest in interdisciplinary studies. A doctoral degree is required. The appointments are expected to be at the junior level but will be made commensurate with experience. Closing date for application is 1 November 1984. The University of California is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority groups. Interested applicants should submit curriculum vitae and the names of three references to: Dr. John R. Froines. Chair, Search Committee, School of Public Health, University of California, Los Angeles, California 90024.

# WELCOME TO NEW AEEP MEMBERS

Dr. Nancy E. Kinner Civil Engineering Department University of New Hampshire Kingsbury Hall Durham, New Hampshire 03824

Dr. Peter O. Nelson Civil Engineering Oregon State University Corvallis, OR 97331 (503) 754-2751

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