



PRESIDENT'S CORNER

Research Directions in Environmental Engineering

Preparations are well underway for the AEEP conference on "Fundamental Research Directions in Environmental Engineering". The conference will be held in Washington, DC, during November 13-15, 1988, for one and one-half days including an evening banquet and a welcoming reception. The objectives of the conference are to provide a structure for the development of long term research needs in environmental engineering and to stimulate discussion of these ideas among researchers, users and sponsors. The primary focus of the conference will be on comprehensive approaches to managing and controlling environmental problems using a multidisciplinary and multimedia perspective. The conference will address approaches to achieve timely implementation of environmental engineering/science research in order to help guide environmental control policy and assist with technology development. Physical, chemical and biological aspects of environmental problems will be discussed.

The conference organizing committee is comprised of Richard G. Luthy, Chairman; Charles R. O'Melia, Co-Chairman; James J. Morgan, Co-Chairman, the Executive Committee of the AEEP; and Francis A. DiGiano, Chairman of the 1982 Conference. The program will consist of four technical sessions: Physical Processes, John Seinfeld, Chairman; Chemical Processes, Phil Singer, Chairman; Biological Processes, Les Grady, Chairman; and Multiphase Systems, Perry McCarty, Chairman.

A proposal for support of the conference was accepted by the National Science Foundation. The Environmental Protection Agency Office of Environmental Engineering and Technology Demonstration has indicated a desire to provide some funds for support of the conference and a proposal is being submitted to the EPA for this purpose. Additional information regarding arrangements for the confer-

ence will be forthcoming this summer. Please mark your calendars now and reserve November 13-15 in Washington, DC, for this important AEEP event.

Executive Committee Meeting and Discussions on Research Funding

The Annual Executive Committee Meeting of the AEEP was held in Washington, DC, on February 28 and 29. A day-long meeting was devoted to reviewing recent activities of the AEEP and taking care of various business matters. The AEEP officers and directors meet together only twice per year; thus the Executive Committee meeting deals with the activities of the AEEP in the interim. The Executive Committee is comprised of the President, Past President, Vice President, Secretary and Treasurer.

The second day of our meeting was devoted to meeting with the directors of the Environmental Protection Agency, Office of Environmental Engineering and Technology Demonstration, and Office of Exploratory Research. We also met with the council of the Subcommittee on Natural Resources, Agricultural Research and Environment, a congressional subcommittee which oversees, in part, EPA's environmental engineering R&D budget. Our purpose in meeting was to initiate a process whereby the AEEP may assist the EPA and Congress through the exchange of ideas on environmental engineering research. The AEEP can provide knowledgeable, constructive comments on matters ranging from new initiatives and directions to suggestions for management and execution of university research. Our agenda included: (i) the role of exploratory research, (ii) the advantages of individual investigator grants versus center grants, (iii) the peer-review process versus special appropriation, (iv) the need for both anticipatory research and short-term focused research, and (v) the identification of critical research directions. It was intended that these discussions would be the start of a process whereby our respective organizations may work together to attain

cost-effective research for the greatest environmental benefit.

The discussions were very encouraging and our comments were well-received. We emphasized the need for a more vigorous EPA environmental engineering research agenda, and we learned that the EPA intends to promote a greater role for investigator-initiated grants. We explained that this process achieves a dual benefit, one from the research itself and a second from the process of educating young practitioners. Peer-reviewed,

unsolicited proposal grant programs are the mainstay of university research and perhaps the most cost-efficient. On the whole, the greatest creativity and innovation is most likely to come from individual investigator grants. The political problem, of course, is that individual investigators are spread out all over the country and can't speak effectively with one voice. Perhaps this is an opportunity for the AEEP.

Richard G. Luthy
President

AEEP NEWS AND ANNOUNCEMENTS

AEEP Award Rules

At the October 5, 1987, Board of Directors Meeting in Philadelphia, Pennsylvania, changes were made in the rules for the two AEEP awards. The revised rules are given below.

Outstanding Paper

Nominators for the paper that has "withstood the test of time" should send to the Chair of the Awards Committee, Dr. James M. Symons, Department of Civil Engineering, University of Houston, Houston, Texas 77004, a letter, 2 pages maximum, giving the full reference and the reasons why this paper is considered a "landmark" and how it has influenced the practice of environmental engineering. Nominations cannot be made by the author or any of the co-authors of the paper. A call for nominations should be in the December issue of the *Newsletter*. Nominations are due April 1 of each calendar year.

The Committee Members will rank each paper from top (1) to bottom in numerical order. Any Committee Member who is an author or co-author on a nominated paper will refrain from voting on that paper. The paper with the lowest average score (based on the number of voters for each paper) will be selected. Ties will be re-balloted.

The Committee Chair will notify the selected author(s) and invite them to the AEEP lunch at the following WPCF Conference. The Committee Chair will prepare the award plaques.

Any author on a paper selected as "Outstanding" is ineligible in the competition for a period of three years.

Each year the papers ranked 2, 3, and 4 will automatically be considered in the next year's voting. A paper will be dropped from consideration if: (a) it finishes fifth or lower in any year, or (b) it has been in competition for three years without being selected.

After the WPCF Annual Conference each year the winning paper and the carry-over nominations will

be printed in the *Newsletter*. The winning paper for 1987 was:

Dick, R.I., and Ewing, B.B., "Evaluation of Activated Sludge Thickening Theories", *SED, ASCE*, **93**, SA-4, 9-29 (August, 1967). *Nominated 1986*.

The carryover nominations in alphabetical order were:

McKinney, R.E., "Mathematics of Complete-Mixing Activated Sludge", *SED, ASCE*, **88**, SA-3, 78-113 (May, 1962). *Nominated 1986*.

Keinath, M.D., Ryckman, M.D., Dana, C.H., and Hofer, D.A., "Activated Sludge — Unified Systems, Design, and Operation", *JEED, ASCE*, **103**, EE-5, 829-849 (October, 1977). *Nominated 1986*.

Sezgin, M., Jenkins, D., and Parker, D.S., "A Unified Theory of Filamentous Activated Sludge Bulking", *JWPCF*, **50**, 362-382 (February, 1978). *Nominated 1986*.

The Awards Committee is to consist of a voting Chair with a three year term and six members each with a rotating three year term. The Chair is to be appointed by the President of AEEP. The two new members are appointed each year by the Chair. Each term starts at the end of the Annual WPCF Conference. The current Committee is:

James M. Symons, Chair, term ends 1988
Gary L. Amy, term ends 1988
Stephen J. Randtke, term ends 1988
Pery L. McCarty, term ends 1989
Richard I. Dick, term ends 1989
Vacant, term ends 1990
Vacant, term ends 1990

Dissertation Award

Two awards will be made for the 87-88 academic year, one sponsored by Engineering Science, Inc., one by CH2M-Hill Consulting Engineers. Each award will consist of a cash prize of \$1000 for the student and \$500 for the faculty advisor.

Faculty advisors wishing to compete should send four copies of the thesis to Mr. Nicholas L. Presecan, Senior Vice-President, Engineering Science, Inc., 75 North Fair Oaks Avenue, P.O. Box 7107, Pasadena, CA 91109. He will send a copy to the judges, the two most recent winning faculty advisors and one to CH2M-Hill Consulting Engineers.

The deadline for submission is June 15, 1988. Faculty advisors are urged to submit only one entry for each competition.

The two most recent winners were:

1986 — William W. Clarkson, "Fermentation of Particulate Organic Matter to Methane in a Thermophilic Anaerobic Attached Film Expanded Bed Reactor", William J. Jewell, Cornell University, Faculty Advisor.

1987 — David A. Dzombak, "Toward a Uniform Model for the Sorption of Inorganic Ions on Hydrated Oxides", Francois M. M. Morell, Massachusetts Institute of Technology, Faculty Advisor.

Each thesis will be judged on the basis of 100 points allocated as follows:

Scientific and Technological Validity of Research — 25

Originality of Research — 25

Contribution to Advancement of Environmental Engineering and Science — 40

Clarity of Presentation (Organization) — 10

The selections will be made by September 1, 1988, so that each sponsor can contact the winning student and faculty advisor, invite them to the AEEP luncheon at the WPCF meeting and can prepare to make the presentation.

These rules will be published in the December and April issue of the *Newsletter* each year the awards are to be given.

AEEP Purdue Workshop on Solid Waste Management

May 9, 1988

The principal objective of this workshop is to present and discuss topics and material that can be used in the teaching of undergraduate and graduate courses on the management of municipal solid waste. With the exception of the hazardous materials found in municipal waste, the subject of hazardous waste disposal will not be considered in the workshop. The relationship between the properties of the waste, the techniques and hardware used for waste handling and processing, and the ultimate disposal (containment) of waste and other residual materials will be emphasized. Because of the significance of landfilling for the disposal of municipal wastes, special attention will be devoted to teaching techniques for important landfill processes including

the generation of landfill gases and leachate and the modeling of landfill gas movement and gas control systems. To the extent possible, the material on the landfill processes will be presented so that spreadsheet programs can be used for the purpose of analysis. Suggested course outlines and other reference materials suitable for class room use will be provided.

Speakers

George Tchobanoglous — Professor of Civil Engineering, University of California at Davis, CA.

Larry Theisen — Vice President and Program Director — Solid Waste and Resource Recovery, Brown and Caldwell Consulting Engineers, Walnut Creek, CA.

Other Speakers — To Be Announced.

AEEP/AWWA Workshop

4:30 to 6:15 pm, Sunday, June 20th

The title of this year's AEEP/AWWA program will be "Making Decisions in an Uncertain Regulatory Environment". Carol Tate, of Montgomery Engineers, will moderate the session and will address the topic from an engineering consultant's point-of-view. Michelle Frey, from the AWWA Governmental Affairs office, and Michael McGuire, with the Metropolitan Water District of Southern California, will address the subject from their respective professional viewpoints.

Please note the new time. Our traditional Monday night slot will be pre-empted by the AWWA Fun Night at Sea World. The location of the seminar will be published in the April edition of the Journal AWWA.

AEEP/WPCF Workshop

1:00 to 5:00 pm, Sunday, October 2nd

Charles Eckert from the University of Illinois and Carl Lira from Michigan State University will present "Reactions and Extractions Using Supercritical Fluids". Prof. Eckert has published a feature article on this subject in *Environ. Sci. Technol.* 20(4):319 (1986). This is an emerging technology for the treatment of hazardous, industrial and perhaps conventional wastes. Plan to arrive early in Dallas in order to participate in this workshop.

Planning for Next Education Conference

The AEEP Board invites proposals from universities and other organizations interested in hosting and co-sponsoring the Sixth Conference on Environmental Engineering Education. Traditionally, these conferences have been held during the summer at

five to seven year intervals at a university site. The Fifth Conference was held at Michigan Tech in July of 1986. This would make the summer of 1991 a good target for the Sixth Conference. The host institution should be selected two years in advance so that detailed planning for the Conference can proceed smoothly.

Informal proposals should be submitted to Dick Luthy, President, AEEP. Additional information relative to previous conferences can be obtained from Bob Baillod, Chairman AEEP Planning Committee, for the 1990's Education Conference (906-487-2530).

2nd Edition of Computer Software Manual

A second edition of the AEEP Computer Software Manual is planned. The first edition of this manual has become a valuable resource for demonstration and utility programs in environmental engineering courses. The success of the manual will depend largely on voluntary contributions. Programs on all aspects of environmental engineering are welcomed.

We are looking for micro-computer programs or developed spreadsheet templates to include in this second edition of the manual. Please contact J. B. Neethling for information.

J. B. Neethling
4532 D Boelter Hall
Civil Engineering Department
University of California
Los Angeles, CA 90024-1593
☎ (213) 825-1774

Member Address Changes

Lawrence K. Wang
Director, Lenox Institute for Research
1 Dawn Drive
Latham, NY 12110-5305

M. Yavuz Corapcioglu
Department of Civil Engineering
Washington State University
Pullman, WA 99164-3001
☎ (509) 335-4678

Dr. Paul L. Bishop
William Thoms Professor and Head
Department of Civil and Environmental Eng.
ML 71
University of Cincinnati
Cincinnati, OH 45221-0071

Deadline for the September 1988 Newsletter

Please mail articles for the September issue of the AEEP Newsletter to the editor, G. D. Boardman, by July 15, 1988.

GENERAL NEWS

ASCE's Outstanding Civil Engineering Achievement Award (OCEA) Program

The American Society of Civil Engineers' (ASCE) annual Outstanding Civil Engineering Achievement Awards (OCEAs) are designated when "an engineering project demonstrates the greatest contribution to civil engineering progress and mankind". The projects are judged on the following criteria:

1. contribution to the well-being of people and communities,
2. resourcefulness in planning and in the solution of design problems,
3. pioneering in use of materials and methods,
4. innovation in construction,
5. impact on physical environment, unusual aspects and esthetic values,
6. possible adverse effects as well as the beneficial effects of the project.

The award is made annually for a project's achievement — not to an individual — to recognize the work and contributions of the many engineers who have worked on the project. Consisting of a plaque for permanent display, the award is presented to the owner of the project at a local ceremony.

Members of the ASCE Board of Direction nominate projects for the award, which are judged by a jury composed of editors of leading engineering magazines and knowledgeable representatives of public media, eminent civil engineers, and/or eminent members of the design profession. The editor of *Civil Engineering* magazine serves as chairman of the jury.

A recommendation by the jury is made to the Board which grants the OCEA award.

In addition to the winning project, the jury may select additional outstanding accomplishments for recognition by an "Award of Merit".

The OCEA program was established in 1960.

Among the projects nominated for 1988 were:

- Akron Composting Facility, Akron, OH

- Cove Road Slope Restoration, Dana Point, CA
- Danziger Vertical Lift Bridge, New Orleans, LA
- Franconia Notch Project, NH
- Great Salt Lake West Desert Pumping Project, UT
- I-285/I-85 Tom Moreland Interchange, Atlanta, GA
- Lakeshore Drive Reconstruction Project, Chicago, IL
- Los Angeles Aqueduct Filtration Plant, Los Angeles, CA
- Renton Treatment Plant Effluent Transfer System Outfall Project, Seattle, WA
- Southwest Corridor Project, Boston, MA
- Stage I Light Rail Transit Project of the Port Authority of Allegheny County, PA
- Sunshine Skyway Bridge Tampa, FL
- United Airlines Concourse B at Stapleton International Airport, Denver, CO

Student Memberships in IAWPRC

The International Association on Water Pollution Research and Control (IAWPRC) has a graduate student membership classification that costs only \$25 per year. Since this enables them to receive subscriptions to both *Water Research* and *Water Quality International*, many may wish to avail themselves of this inexpensive opportunity to begin building their personal professional library. It is requested that environmental engineering faculty make this known to their graduate student body, and encourage them to join IAWPRC. An appropriate number of application blanks can be obtained by contacting Prof. T. M. Keinath either by mail (Department of Environmental Systems Engineering; Clemson University; Clemson, SC 29634-0919), BITNET electronic mail (KEINATH@CLEMSON), or telephone (803/656-5572).

Annual American Institute of Chemical Engineers (AIChE) Environmental Division Student Award

Call for Papers

- 1st Place — \$300.00
- 2nd Place — \$200.00
- 3rd Place — \$100.00

With certificates and awards presented at the Summer National AIChE Meeting to be held in Denver, Colorado, on August 21-24, 1988.

Contest entry rules:

1. First paper (i.e., unpublished work)
2. Research or investigation related to an environmental topic
3. Full-time undergraduate student in an accredited program

4. Student must be a member of the student chapter of AIChE

Submit manuscript with cover letter by May 14, 1988, to the Second Vice-Chairman of the Environmental Division:

Dr. Robert W. Peters, Ph.D., P.E.
 Environmental Systems Engineer
 Energy and Environmental Systems Division
 Building No. 362
 Argonne National Laboratory
 9700 South Cass Avenue
 Argonne, IL 60439-4815
 ☎ (312) 972-7773

New IIE Guides Offer Information on Opportunities to Study Abroad

IIE's *Vacation Study Abroad 1988, Academic Year Abroad 1988/89* and *Study in the United Kingdom and Ireland 1988/89* provide up-to-date information on opportunities available worldwide to U.S. students, educators and adults who want to combine travel and learning overseas. The books are published by the Institute of International Education (IIE).

The IIE guides identify topics for international study that range from wildlife in Kenya to urban planning in Japan, and include hundreds of fields of study. Many study-abroad programs now have a career development focus, including opportunities in multinational business, international law, health care administration, education and child development, and arts training that ranges from cinematography to master classes in music.

China and Japan are areas of growing interest for study abroad, although some 75 percent of all programs described in the IIE guides are located in Europe. The United Kingdom is the most popular destination for international study by Americans, and is the focus of IIE's newest guide, *Study in the United Kingdom and Ireland*.

Vacation Study Abroad 1988 (\$19.95), *Academic Year Abroad 1988/89* (\$19.95), and *Study in the United Kingdom and Ireland 1988/89* (\$14.95) are available prepaid by check or money order from the Publications Service, Institute of International Education, 809 United Nations Plaza, New York, NY 10017.

America's Water Dilemma to be Focus of New ASCE Newsletter

Where our nation's water is, who controls it, and who wants it will be examined in *Water Rights*, an American Society of Civil Engineers (ASCE) monthly newsletter which premiered in January.

Water Rights will address:

- the steps Michigan is taking to keep outsiders from diverting water from the Great Lakes;

