



## Environmental Engineering Education Conference Draws Large Attendance

More than 125 members of AEEP and AAEE converged on Michigan Technological University in scenic Houghton, Michigan to participate in the fifth conference on environmental engineering education. The purpose of the conference was to explore curricular and other educational needs in the preparation of graduates for professional and research practice. Three specific themes were explored: 1) integration of computers into environmental engineering education and research, 2) the role of design and operation in environmental engineering education, and 3) integrated air, water and land approaches in environmental engineering education. The conference format featured the presentation of position papers and comments by members of the three task committees followed by small group and general discussions. The plenary session on the last morning of the conference identified specific resolutions related to the three topic areas upon which a consensus existed.

Consensus on most of the computer-related resolutions was relatively easily achieved. Many of those at the conference had already integrated software applications into one

or more courses, and their descriptions of these experiences were both stimulating and convincing of the many benefits of such software. There was strong feeling that students gain experience on microcomputers in particular, because of the many labor saving tools available on micros such as word processors, spreadsheets, data base managers, and etc. Most of the discussion centered on issues such as the concern that modeling not replace thinking, that students be as well versed in the limitations as in the powers of modeling, and concerns for how increased integration of computer applications into curricula might be achieved. Some participants expressed concern that software development is inhibited by the way faculty productivity is currently evaluated.

The summary discussions on design and operation in environmental engineering education primarily addressed three issues. There was general agreement that the teaching of design must include topics such as forensics, ethics, regulations, and risk assessment and risk management. In

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## AEEP NEWS AND ANNOUNCEMENTS

### Distinguished Lecturer for 1987

This year's AEEP Distinguished Lecturer will be Mr. Francois Fiessinger, Director of Research of the Societe Lyonnaise des Eaux, one of the largest water utilities in France and the world. Mr. Fiessinger directs a research laboratory of 50 professionals and has conducted extensive research on water clarification and disinfection over the past 12 years.

Mr. Fiessinger has agreed to prepare three lectures for the Distinguished Lecturer tour next spring:

- 1) Coagulation with Aluminum Chlorides  
This talk will summarize ten years of work carried out by Mr. Fiessinger and his colleagues on drinking water treatment applications. It will focus on the more basic research aspects and includes:
  - 1) identification of aluminum species
  - 2) structure of floc particles
  - 3) mechanisms of particle removal
  - 4) flocculation and floc properties, and
  - 5) practical implications and potential improvements.

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### AEEP Workshop at WPCF Conference to Address Gas Transfer

The annual AEEP workshop held in conjunction with the Water Pollution Control Federation's annual conference will be given by Professors Michael K. Stenstrom and Paul V. Roberts. The workshop will address "Gas Transfer in Water and Wastewater Treatment Systems."

In line with the philosophy of AEEP workshops held in recent years, the workshop is designed to make recent advances more accessible to environmental engineering educators and students so that there is a shorter time lag and lesser knowledge gap between research in a certain area and its use in the classroom. To facilitate this transfer of knowledge, lecture notes (outlines and copies of figures, tables, and relevant equations) will be given to each participant.

The workshop will be held on the Sunday before the WPCF Conference (October 5) from 1:30 to 4:30 pm. The site of the workshop will be Room 3400 Boelter Hall on the UCLA

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## Environ. Eng. Education Conference

addition, process dynamics and control must also be taught as part of design. Other discussions on design and operation issues depended in part on the definition of design (by ABET and otherwise) and no consensus was forthcoming.

The general resolution of the integrated air-land-water approaches in environmental engineering education discussion was that because of faculty size and curricular limitations, the responsibility of increased integration of multi-media awareness lies with individual faculty members. Faculty were urged to actively seek opportunities for professional development which would increase their awareness and understanding of integrated approaches. Another suggestion was the increased use of outside professionals to augment faculties' expertise in multimedia problems.

The success of the conference was due in large measure to the efforts of C. Robert Bailod, conference organizer, and the chairman and members of the task committees. The position papers focused the discussions and served as the basis for generating the conference recommendations. A report on the conference, including position papers, summaries of discussions and the conclusions and resolutions will be forwarded to AEEP members in the fall.

The conference also marked the introduction of the *AEEP Computer Manual*. The *AEEP Computer Manual* consists of software for 44 programs (on four diskettes) written for IBM compatible microcomputers together with hardcopy documentation. John Crittenden, organizer and editor of the manual, explained that the manual is seen as a "work-in-progress" and hoped that others who have developed software appropriate for educational use would contact him to contribute it to the next version of the manual. Many of the software developers provided informal demonstrations of their programs during one of the afternoons of the conference. Copies of the manual (\$20 for AEEP members) are available from Desmond Lawler at the University of Texas at Austin.

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## WPCF Conference

campus. Since the campus is approximately 15 miles from the conference center, a charter bus will pick up attendees at the convention center and at the Bonaventure Hotel. The cost of the round trip is included in the registration fee. You must preregister to guarantee a seat on the bus however. For those traveling by car, parking will be available on the UCLA campus for a fee.

Registration for the workshop is \$25 for AEEP members, \$10 for students, and \$50 for non-AEEP members. The workshop is an AEEP sponsored event and is not one of the WPCF-sponsored pre-conference seminars; hence this notice and an announcement/registration form recently sent by direct mail to all AEEP members are the only ways you will know of this workshop. Please share this information with students and colleagues who are not AEEP members.

For further information and registration forms, contact:

Professor Michael K. Stenstrom  
Civil Engineering Department  
University of California at Los Angeles  
4532 Boelter Hall  
Los Angeles, CA 90024  
(213) 825-1408

Preregistration is appreciated.

## Distinguished Lecturer

### 2) New Developments in the Use of Ozone for Drinking Water Treatment

This lecture will be a presentation of applied work carried out at the Societe Lyonnaise des Eaux. It will include:

- 1) optimization of ozone production
  - 2) deep U-tube contactors vs. conventional chambers
  - 3) evaluation of ozone action (disinfection, organics, taste and odor, etc.)
  - 4) monitoring of ozone dosage
  - 5) combination of ozone and UV
  - 6) combination of ozone and activated carbon.
- The industrial applications and plant design implications will be discussed.

### 3) Membranes - Ultrafiltration and Microfiltration for Industrial Water Treatment

This will be a general presentation. In the light of the research program carried out at the Societe Lyonnaise des Eaux, the talk will discuss the potential advantages and problems in applying large scale membrane separation to water treatment. Mr. Fiessinger will speak primarily on drinking water treatment but will include some wastewater treatment considerations.

Mr. Fiessinger's lecture tour will be arranged sometime during the period February 15-March 31, 1987. Institutions which are interested in hosting Mr. Fiessinger should send a letter request by November 15, 1986 to:

Prof. Makram T. Suidan  
Room 3230 Newmark Civil Engineering Laboratory  
University of Illinois  
208 North Romine  
Urbana, IL 61801  
(217) 333-9017

The letter request should contain the following information:

1. Name of institution and contact person.
2. Whether the program will be co-hosted with another institution.
3. Preferred lecture topic and whether a video tape of the lecture could be made.
4. Preference or restrictions on date for a visit during February-March; please try to be as flexible as possible.
5. A brief statement describing how a visit by Mr. Fiessinger would fit into your institution's current academic activities.

Costs of the lecture tour are shared among the host institutions on a total lump sum, fixed cost basis. It is anticipated that each university would contribute approximately \$800 to cover cost of travel and living expenses, as well as to provide a modest honorarium. The Distinguished Lecturer Committee will review the requests and arrange an itinerary. It is anticipated that there will be more requests for visits than may be accommodated on one tour. In this case the Committee's decision will be guided by several criteria including: special consideration for those institutions which have not been visited by a Distinguished Lecturer within the last year or two, focus of research and teaching activities at the institutions, and the possibility of having two or more institutions co-host a visit.

## Exploratory Research Funding

In May, you all received "Protecting Our Environment: The Need for Exploratory Research", a document prepared by my committee. A few of you have written for more copies, which are available, and for the FACT SHEET, which the committee will soon finish. The FACT SHEET gives AEEP's best estimate of how much should be spent on exploratory research (the term "exploratory" is not restricted to EPA's program with that title). We could also use your suggestions as to how to arrive at our estimate.

Everyone in Washington that I talk to suggests the strength of AEEP is the geographic diversity of its membership. We are perhaps too small an organization to make an

impact in Washington among the highly paid lobbyist groups. **However, we can influence the political process at the state and congressional district level. Politicians will listen to their constituents. I ask you again to consider taking some action.** Below are the names of some important congressmen and senators to contact. If they are from your state, send them a copy of "Protecting Our Environment: The Need for Exploratory Research." If you don't speak up, no one else will do it for you.

Francis A. DiGiano, Chairman  
Legislative Analysis Committee

### Senate Committee on Environment and Public Works

Robert T. Stafford, VT, Chm.  
Alan K. Simpson, WY  
James Abdnor, SD  
Steven D. Symms, ID  
Gordon J. Humphrey, NH  
Pete V. Domenici, NM  
David Durenberger, MN  
Quentin N. Burdick, ND  
Gary Hart, CO  
Daniel Moynihan, NY  
George J. Mitchell, ME  
Max Baucus, MT  
Frank R. Lautenberg, NJ

### Senate HUD-Independent Agencies Appropriations Committee

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Lowell P. Weiker, Jr.  
Paul Laxalt  
Alfonse M. D'Amato  
James Abdnor  
Pete Domenici  
Patrick J. Leahy  
John C. Stennis  
William Proxmire  
J. Bennett Johnston  
Frank R. Lautenberg

### House Science and Technology Committee\*

Don Fuqua, FL, Chm.  
Robert Roe, NJ  
George Brown, CA  
James Scheuer, NY  
Marilyn Wirth, CO  
Doug Walgren, PA  
Dah Glickman, KS  
Robert Young, MO  
Harold Volkmer, MO  
Bill Nelson, FL  
Stan Lundine, NY  
Ralph Hall, TX  
Dave McCurdy, OK  
Manuel Lujan, NM  
Robert Walker, PA  
F. James Sensenbrenner, WI  
Claudine Scheider, RI  
Sherwood Boehlert, NY  
Tom Lewis, FL  
Don Ritter, PA  
Sid Morrison, WA  
Ron Packard, CA  
Jan Meyers, KS  
Robert Smith, NH  
Paul Henry, MI  
Harris Fawell, IL  
Norman Mineta, CA  
Tim Valentine, NC  
Harry Reid, NV  
Robert Torricelli, NY  
Terry Bruce, IL  
Frederick Boucher, VA  
Richard Stallings, ID  
Bart Gordon, TN  
James Traficant, OH  
Marilyn Lloyd, TN  
William Cobey, NC  
Joe Barton, TX  
D. French Slaughter, VA  
David Monson, UT

### House Sub-Committee on Health and Environment

Henry A. Waxman, Chm.  
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Doug Walgren  
Richard C. Shelby  
Ron Wyden  
Gerry Sikorski  
Timothy E. Wirth  
James J. Florio  
Thomas A. Luken  
Barbara A. Mikulski  
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William B. Richardson  
Jim Bates  
Edward R. Madigan  
William E. Dannemeyer  
Bob Whittaker  
Thomas J. Tauke  
Don Ritter  
Thomas J. Bliley, Jr.  
Howard C. Nielson  
Michael Bilirakis  
Fred J. Eckert

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Bob Traxler  
Louis Stokes  
Lindy Boggs  
Martin Olav Sabo  
William Hill Boner  
Bill Green  
Lawrence Coughlin  
Jerry Lewis

\*Considers NSF budget

## Annual Membership Meeting

The annual membership meeting/luncheon will be held at Noon, Monday, October 6, in Los Angeles in conjunction with the WPCF Conference. An announcement will be mailed giving the location and cost.

## Deadline for the December 1985 AEEP Newsletter

Anyone interested in submitting articles for the December 1985 issue of the AEEP Newsletter should do so no later than October 15, 1985. Articles should be mailed directly to the editor.

