



Association Of  
Environmental  
Engineering  
Professors

# NEWSLETTER

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## PRESIDENT'S CORNER

An important issue now faces the environmental engineering profession. The Exploratory Research Program of the Environmental Protection Agency continues to be of very low priority within the Agency and is not receiving the funds it needs to remain viable. Information sent to you by Francis DiGiano<sup>1</sup> in May of this year details a decrease in funding from 21.55 million dollars in FY 1980 to 8.77 million in FY 1984. A small increase to \$11.1 million is budgeted for FY 1985. Adjustment of these figures for inflation makes the decline much greater. Within the Program the funds allocated to Environmental Engineering/Pollution Control Processes decreased by nearly 60 percent from 1983 to 1984 so that only ten new projects could be funded in 1984, and the environmental biology, chemistry and physics subprograms are in a similar position. An approximate 25 percent increase in funds for the processes category is expected for FY 1985.

We need a viable Exploratory Research Program to keep environmental research programs within our universities healthy. The Exploratory Research Program, with a reasonable budget, encourages innovative research on environmental problems because it provides for funding of unsolicited proposals. Proposal review by a panel representing the profession is an important control on the focus and quality of research that is funded. The benefits of such a program are measured by the problem solutions which are developed, by fundamental data which are obtained and which can be used as a the basis for developing solutions, and, of course, by the members of the environmental engineering/science profession who receive their education because of such a program.

The decreasing emphasis on exploratory research nearly parallels the decreasing funding of EPA's Office of Research and Development (ORD). The funding of ORD has been highly unstable since it was created in 1973, and many statutory obligations for research and development (Safe Drinking Water Act, Superfund, Clean Water Act amendments, etc.) have been given to the Agency since 1976. ORD funding, in constant dollars, decreased 50 percent between 1978 and 1983, for example, and the proposed (April 1984) budget for 1985 is 15 percent below that for 1983.<sup>2</sup> Both stability of funding and sufficient funds to meet statutory obligations and to address existing problems are needed.

Fran's mailing gives you information needed to write to those in control of EPA budgets, and if you have not already done so, please write soon. Your opinions do make a difference if they are expressed to the right individuals. Also, if you have more information related to research funding and policy which you think would be useful to the AEEP membership, please send it to Fran or me.

<sup>1</sup> Contact Fran at Dept. of Environ. Sci. and Engr., University of North Carolina, Chapel Hill, NC 27514 if you did not receive this mailing.

<sup>2</sup> John Adams (Executive Director, National Resources Defense Council), *et al.*, Letter to Jake Garn, Chairman, Senate Appropriations Subcommittee, April 8, 1984.

Vern Snoeyink  
President

## AEEP NEWS AND ANNOUNCEMENTS

### Board of Directors Election

The Nominating Committee will propose a slate of six nominees to the Board of Directors at the October Board meeting. The membership is invited to send (or phone) the names of suggested nominees to James K. Edzwald, Chairman of the Nominating Committee by September 20.

James K. Edzwald  
Dept. of Civil Engineering  
University of Massachusetts  
Amherst, MA 01003  
(413) 545-0685

### Outstanding Publication Award Winners

Werner Stumm and Charles R. O'Melia are this year's winners of AEEP's Outstanding Publication Award. Werner and Charlie won the award for their paper "Stoichiometry of Coagulation" which appeared in the *Journal of the American Water Works Association* in 1968. The Outstanding Publication Award was established to recognize papers which have demonstrated significant educational contributions and research accomplishments, and which are at least five years old. Werner and Charlie will be recognized for the award at AEEP's Luncheon Meeting on October 1, at the Water Pollution Control Federation Conference in New Orleans.

## Distinguished Lecturer for 1985

Professor Heinrich Sontheimer has accepted our invitation to be the Distinguished Lecturer for 1985. Dr. Sontheimer is internationally recognized for his work on water chemistry and water treatment. He is on the Faculty for Water Chemistry at the University of Karlsruhe, FRG. He will be available for the lecture tour between March 10 and April 4. He has provided titles of three lectures for presentation at host institutions (only one lecture would be presented at any one institution):

### a. Evaluation of Effluents from Water Treatment Plants with Regard to Water Quality Problems

Improvement has been made in Rhine River quality as a result of wastewater treatment. Nonetheless, chemical pollution still remains a problem in water treatment. These problems will be discussed with respect to biodegradability and adsorbability.

### b. GAC Filters in Water Treatment

A method has been developed to assess biological oxidation and adsorption in GAC treatment of drinking water. The procedure entails study of a few surrogate compounds. The GAC process can be optimized by control of biological activity with ozone.

### c. Corrosion of Steel Pipes

Complaints of red or rusty water result from diffusion of iron through a layer of corrosion products. A new cathodic mechanism is described which explains previously unresolved questions about the effect of protective layers and their importance for corrosion control.

Institutions which are interested in hosting Dr. Sontheimer should send a request by December 1 to: Professor Richard G. Luthy, Department of Civil Engineering, Carnegie-Mellon University, Pittsburgh, PA 15213. Dr. Sontheimer's schedule may accommodate visits to ten to twelve host institutions. Costs of the lecture tour are shared among the host institutions, and it is anticipated that each university would contribute approximately \$630 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.

## Distinguished Lecturer Committee

AEEP members who would like to serve on the Distinguished Lecturer Committee are invited to inform Richard G. Luthy at Carnegie-Mellon University (412-578-2949). A new committee will be formed this fall.

## AEEP Luncheon Meeting

The membership luncheon in conjunction with the annual Water Pollution Control Federation Conference is scheduled for Monday, October 1, 1984, at noon. The luncheon will be in the Hyatt Regency Hotel which is adjacent to the Louisiana Super Dome. A letter will be sent to all AEEP members in September supplying additional details.

## AEEP Register of Environmental Engineering Graduate Programs

Copies of the 1984 Edition of the Register are available at a cost of \$15.00 plus \$3.00 postage for AEEP members. The cost to non-members is \$30.00 plus \$3.00 postage. Please contact:

Dr. Desmond Lawler  
Environmental Health Engineering  
Department of Civil Engineering  
University of Texas  
Austin, Texas 78712

## AEEP Members Honored

Dr. J. Jeffrey Pierce of Duke University and Dr. Bruce E. Rittman of the University of Illinois, Urbana have received Presidential Young Investigator Awards from the White House Office of Science and Technology Policy. Jeff and Bruce are among 200 award recipients chosen from over 1,500 nominations.

Several AEEP members were among the recipients of awards recently announced by the American Society of Civil Engineers. Dr. Walter J. Weber, Jr. of the University of Michigan was selected to give the Simon W. Freese Environmental Engineering Lecture. Dr. James K. Edzwald of the University of Massachusetts was awarded a Walter L. Huber Civil Engineering Research Prize for his research on the control of disinfection byproducts formed by the interaction of humic material and chlorine.

## AEEP Newsletter Editor Change

Dr. Richard R. Noss is now serving as the sole editor of the AEEP Newsletter. Former AEEP Newsletter Co-Editor Dr. Neil M. Ram has resigned to take a position with a private consulting firm. AEEP thanks Dr. Ram for his energetic and dedicated service.

## Deadline for the December 1984 AEEP Newsletter

Anyone interested in submitting articles for the December 1984 issue of the AEEP Newsletter should do so no later than Oct. 1, 1984. Articles should be mailed directly to the editor.

## GENERAL NEWS

### AEEP 1983-84 Graduate Student Enrollment Survey

Dr. J. Jeffrey Pierce, Chairman of the AEEP Committee on Graduate Student Enrollment has submitted the following report:

The results of the 1983-84 Survey have been tabulated and point to several interesting conclusions. The data collected in the fall of 1983 and early spring of 1984 were obtained in a questionnaire mailed to 150 representatives in environmental engineering programs throughout the country. The process was identical to previous AEEP Enrollment Surveys. By early April, 1984, 60 enrollment questionnaires had been completed and returned to the Committee. Follow-up telephone interviews resulted in a total of 67 programs being included in this year's data pool.

The graduate programs surveyed in this study are all associated with academic engineering departments and include environmental sciences and environmental management students in engineering programs where options are open to students without undergraduate engineering degrees. This study thus enumerates those graduate students who are being trained in the technical and quantitative aspects of environmental studies, but does not include those students enrolled in environmental sciences programs offered by such academic departments as biology, life sciences, geology or forestry. The objective is to provide a relative measure of the number of technically trained students available for employment in consulting engineering firms, private industry and governmental agencies.

The results are organized here to stimulate discussion among AEEP members and others interested in graduate student enrollment in environmental engineering; note Exhibits 1 and 2. A major goal of this report is to present information in a manner consistent with previous AEEP Surveys and thus encourage useful analysis of enrollment trends.

Six conclusions are suggested from the total base of information collected last year:

- Full-time environmental sciences and engineering enrollments may be decreasing.
- The number of full-time students in water and wastewater is continuing at a low plateau. After decreasing for several years, this enrollment has changed little and an earlier downward trend may not be continuing.
- Part-time enrollment in water and wastewater engineering is continuing at the low level established last year. The 661 part-time students is far fewer than the previous low enrollment of 966 in 1981, but similar to the 681 enrolled in fall of 1982.
- New students are pursuing research areas in proportion to previous enrollment trends, and water and wastewater engineering dominates. Almost half all students enrolled in environmental engineering programs focus on water and wastewater engineering. Water resources and environmental sciences are areas receiving some students  $\approx 14\%$ , while other areas, including air and solid/hazardous waste are studied by only a small number of students,  $<5\%$ .
- The overriding majority of students in environmental sciences and engineering are U. S. Nationals. Last year 72% of all students held U. S. Citizenship. This year, the percentage is approximately 70%.

These conclusions are only suggestive and do not necessarily represent the views of the AEEP or its membership.

The 1984-85 Questionnaire will be mailed to AEEP members in November, 1984. Your timely response is necessary for the continued success of the Committee's efforts.

Exhibit 1. 1976-1983 GRADUATE STUDENT ENROLLMENT (Adjusted to 1976 baseline)

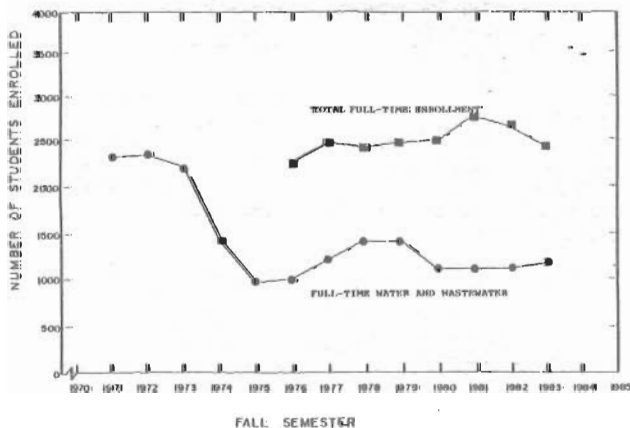
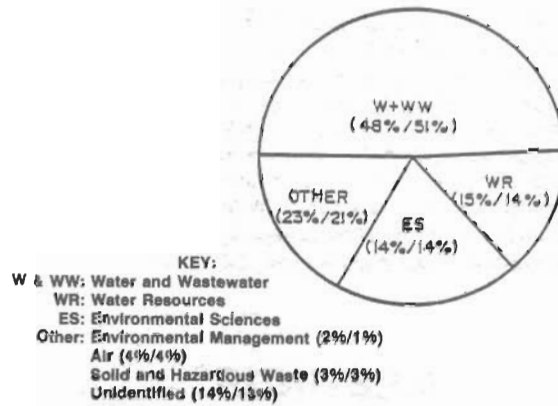


Exhibit 2. RESEARCH AREAS OF GRADUATE STUDENTS (All Students/New Students)



## New Journal

"*Hazardous Waste*", a new journal for technology, health, environmental and policy research in this emerging field began publication last spring.

"*Hazardous Waste*" is published independently by Mary Ann Liebert, Inc. Publishers, 157 East 86th Street, New York, NY 10028. It is published quarterly.

The first issue appeared March 15th with 10 papers, 6 presenting new research data. The subjects included conventional and developmental treatment technology, health impact, environmental impact, industrial hazardous waste practice, toxicological methodology, risk assessment and a report on a community project on hazardous waste.

All papers for the journal are refereed. Contributions are sought in a range of scientific disciplines so long as the central subject is related to hazardous waste. The editors emphasize a fast publication schedule and the time from receipt to publication of a paper, including peer review, is under three months.

## Subscription Offer

### *Environmental Technology Letters*

This rapid communication journal is now in its fifth year of publication but the Editors would like to expand the journal's availability to environmental engineering and science graduate students. To that end, library subscriptions sponsored by an AEEP member will be accepted at the individual member rate of £18.50/yr. (for 12 issues) rather than the regular library rate of £63.50/yr. The journal is designed to provide rapid publication (within 2 months of manuscript acceptance) of short technical manuscripts (less than 16 pages, single-spaced). Refereeing is done by a 25 member international Editorial Board, organized around regional Editors in France, Australia, U.S.A., W. Germany and Canada with Executive Editors in England. AEEP members of the Editorial Board include: M.J. Carrondo (Portugal), W.W. Eckenfelder (U.S.A.), S.E. Hrudey (Canada), J.W. Patterson (U.S.A.), R. Perry (U.K.), P.V. Roberts (U.S.A.), F.M. Saunders (U.S.A.), and N.C. Thanh (Thailand).

Subscription requests under this offer should include the name of the sponsoring AEEP member and should be mailed to:

*Science and Technology Letters*  
12 Clarence Road  
Kew, Surrey, TW9 3NL  
ENGLAND

Specimen copies of the journal may also be obtained from this address.

