



Published Quarterly by the Association of Environmental Engineering Professors

VOLUME 14, NO. 1

JANUARY, 1979

## PRESIDENT'S CORNER

Environmental engineering is a profession that is firmly based on protection of the public interest. In the previous century this protection focused primarily on prevention of the transport of communicable diseases and led, for example, to the widespread disinfection of water supplies with chlorine. In an earlier part of the present century, emphasis shifted to protecting environmental quality. For example, natural processes affecting the oxygen resources of streams were described quantitatively in a mathematical model by Streeter and Phelps in 1925. Biological wastewater treatment plants capable of removing biodegradable organic substances and protecting the oxygen resources of streams came into common although insufficient usage. Over the last three decades limnologists and other aquatic scientists have called the attention of environmental engineers to the problems of eutrophication in lakes. Cause-effect or loading-response models for lakes have been developed and new wastewater treatment processes for the removal of phosphorus and nitrogen have been developed and used. Alternative solutions such as land "treatment" and ocean "disposal" have been demonstrated to be effective in some situations. Educational programs which combine chemistry and biology with the mechanics and design that are essential to engineers have been developed to educate new environmental engineers to solve these past problems of human health and environmental quality.

There are at least two recent developments that need serious attention by environmental engineers, including in particular those of us who are in academic life. The first is primarily a scientific one. The effects of toxic substances on human health and the management of these materials in our environment require evaluation and solution. The second development transcends scientific considerations. The recent trend in government to establish regulations without attempts for serious analyses of costs and benefits is a far reaching problem for environmental engineers and for American society. These matters are examined briefly below.

The production of substances that are hazardous to human health has increased in the past few decades and it is reasonable to expect that this production will continue and perhaps increase in the future. It is the responsibility of

environmental engineers to provide means for managing these materials so that unacceptable risks do not arise. This will require a refocusing of environmental engineering education on the protection of human health, while at the same time maintaining our capabilities for preserving environmental quality. This problem requires studies of the relationships between exposure and human health effects, determination of the processes involved in the transport and fate of toxic substances in the air, water, and land environments, and the development of treatment systems to remove these substances from air and water sources. The education of environmental engineers to work in solving these problems will require instruction in toxicology and health effects.

The relationship among the regulatory standards promulgated, the benefits gained, and the costs incurred was stated powerfully, imaginatively, and succinctly in "The Animal Farm" authored by Harold Thomas over fifteen years ago. The recent trends in government to set regulatory standards without cost-benefit analysis disregards this reality, but cannot negate it. In an earlier time, many environmental regulations were established by government on the basis of evaluations of benefits and costs. The private sector, and in particular industry, was perceived as being insensitive to the benefits to society of pollution control. Academics frequently sided with government in the classroom and outside of it, and some friction developed between academia and the private sector. At present, many government regulations are set without reasonable consideration of costs. This has contributed to a split between government and academia. Many faculty members oppose the new government regulations in the classroom and in public forums.

The needs of society for management of environmental quality and protection of human health require capable, imaginative, and dedicated environmental engineers in the private sector, government, and academia. The responsibility for educating these engineers resides with the members of AEEP and other environmental scientists and engineers in universities. It is essential that present and future students be made sensitive to the benefits of pollution control that can be neglected by the private sector, and to the costs of pollution control that can escape evaluation by government. In this way the perspectives of

environmental factions may come to complement each other and the interests of society can be better protected.

AEEP is sponsoring two activities that can contribute to the resolution of these difficulties. First, a workshop is being held on the use of systems analysis in process design on the day preceding this year's Purdue Industrial Waste Conference in May, 1979. Second, a conference on Environmental Engineering Education is planned for 1980 at the University of Texas. Your interest and input are welcomed and needed.

Charles R. O'Melia

## HANES, GRADY AND ROHLICH RETIRE FROM BOARD

The December meeting marked the end of the term of service for three members of the AEEP Board. They are: N. Bruce Hanes, C. P. Leslie Grady, Jr., and Gerald A. Rohlich. All of these men have served the profession and AEEP well, but at this time a special thanks from the entire AEEP membership should go to Bruce Hanes (past president) and Les Grady (past secretary-treasurer) for their untiring efforts on behalf of the organization. Both these men have served admirably in positions that are important, time-consuming and often thankless.

In his first "PRESIDENT'S CORNER" column Bruce noted that AEEP is alive, healthy and growing in large part because whenever a job needs to be done someone from the organization volunteers and does the work in a professional manner. Bruce Hanes and Les Grady are such people.

The Editors

## AEEP BOARD ELECTS NEW OFFICERS

At their December 16, 1978 meeting in Arlington, Virginia the AEEP Board of Directors elected new officers for 1979:

**President:** Dr. Charles R. O'Melia  
Department of Environmental Science  
and Engineering  
University of North Carolina  
Chapel Hill, North Carolina 27514  
(919) 966-1171

**Vice President:** Dr. Roger A. Minear  
Department of Civil Engineering  
University of Tennessee  
Knoxville, Tennessee 37916  
(615) 974-3320

**Secretary-Treasurer:** Dr. Clifford W. Randall  
Department of Civil Engineering  
Virginia Polytechnic Institute  
and State University  
Blacksburg, Virginia 24061  
(703) 951-6131

## AEEP ELECTS NEW BOARD MEMBERS

Three new AEEP Board members have recently been elected. They are Ben Dysart, Jim Patterson and Aarne Vesilind. Brief biographical sketches of each are presented below.

Benjamin C. Dysart III, Professor of Environmental Systems Engineering at Clemson University, has been active in AEEP since 1968, including service as newsletter editor for two years. He has been active in other professional societies and has chaired several national technical committees. Prior to serving as Scientific Advisor for Civil Works in the Office of the Secretary of the Army in 1975-76, Ben was Director of Clemson's Water Resources Engineering graduate program. His research and consulting interests are water quality modeling, non-point source pollutants, environmental effects of energy production, national water resources policy, and public involvement in natural resources decision-making. Ben now serves as Vice President of the National Wildlife Federation and worked for three years as a design engineer for Union Carbide Corporation before joining the Clemson Faculty.

James W. Patterson is Professor of Environmental Engineering, and Chairman of the Pritzker Department of Environmental Engineering of Illinois Institute of Technology. He has been a member of AEEP since 1971, and currently serves as Chairman of the AEEP Education Committee. He is also Chairman for the Joint AAEEP/AEE Fourth National Conference on Environmental Engineering Education (Spring, 1980). Jim serves on a number of national and international committees, and since 1976 has chaired the International Joint Commission RAB Committee on Engineering and Technological Aspects of Great Lakes Water Quality. His principal research and teaching interests are in abatement of industrial and combined water pollution.

P. Aarne Vesilind has been on the Faculty of Duke University, where he is an Associate Professor of Civil Engineering, since 1970. Prior to that, he served as a Research Fellow at the Norwegian Institute of Water Research and as a research and development engineer with the Bird Machine Company. During a years Sabbatical leave in 1977, he was a Fulbright Fellow with the University of Waikata in New Zealand where he helped initiate their program in environmental affairs. He has served AEEP in several capacities, including chairmanships of the Teaching Methodologies and Foreign Lecturer Committees. He is currently responsible for the annual enrollment survey. His research interests include wastewater sludge processing and disposal, solid waste management, and recovery of resources from solid waste. He has also authored two textbooks, one an introduction to Environmental Engineering and the other one on sludge treatment and disposal.

## AEEP MEMBERSHIP DATA

### Membership as of 1 Jan. 1978

Members	215
Affiliate Members	32
Emeritus Members	4
Total	251

### Activity during 1978

New members added	20
Resignations	8
Drops for non-payment of dues	8
Deaths	2
Transfer to Emeritus status	3
New affiliate members	3

### Membership as of 1 Jan. 1979

Members	214
Affiliate Members	35
Emeritus Members	7
Total	256

## WELCOME TO NEW AEEP MEMBERS

James E. Alleman  
Civil Engineering  
University of Maryland  
College Park, Maryland 20742

Alan W. Elzerman  
Environmental Systems Engineering  
Clemson University  
Clemson, South Carolina 29631

Donald B. McDonald  
106 Water Plant  
University of Iowa  
Iowa City, Iowa 52242

Hillel I. Shoval (affiliate member)  
Department of Environmental and Industrial  
Health  
School of Public Health  
University of Michigan  
Ann Arbor, Michigan 48104

## DEADLINE FOR APRIL NEWSLETTER

Persons wishing to have items of general interest to the profession included in the **April issue of the NEWSLETTER** should submit them no **later than April 6, 1979** to:

### AEEP NEWSLETTER

J. F. Judkins, Jr. and J. M. Morgan  
Co-Editors  
Department of Civil Engineering  
Auburn University  
Auburn, Alabama 36830  
(205) 826-4320

## AEEP ARCHIVES

Kurt Keeley, working under the direction of Dave Hendricks of the Archives Committee, is seeking to complete a collection of APSE and AEEP Newsletters. Anyone having any of the issues listed below is urged to help Kurt by sending them to:

Kurt Keeley  
American Water Works Association  
6666 W. Quincy Avenue  
Denver, Colorado 80235

Volume No.	Issue No.
1	1, 2, 4
2	2
5	4
6	A11
7	A11
8	1, 3
10	4
12	2

## AEEP WORKSHOP AT PURDUE

A one-day workshop on Optimal Process Design will be held at Purdue University Monday, May 7, 1979, **immediately preceding** the Purdue Industrial Waste Conference. **The workshop will be free for AEEP members. Topics to be covered include feasible and least-cost optimal design** using mathematical models and various optimization techniques and computer programs. The design of both water and waste treatment processes will be considered. For more information, contact Professor Donald T. Lauria, Department of **Environmental Sciences and Engineering**, University of North Carolina, Chapel Hill, North Carolina 27514. Telephone (919) 966-1023.

## AMERICAN ACADEMY OF ENVIRONMENTAL ENGINEERS

AEEP members have approximately six months in which they can seek certification without examination under the grandfather clause. To exercise this privilege applications should be submitted by July 1, 1979. **Experience** can be anticipated up until October 1, 1979. The basic requirements are a baccalaureate degree in engineering (or other approved major), registration in some state, and 15 years of acceptable experience (11 in responsible charge of work). A number of AEEP members have already taken advantage of the grandfather clause arrangement, but certainly there are many more who are eligible to do so. For more information write or call:

**Dr. P. W. Purdom, P.E.**  
Director, Environmental Studies Institute  
Drexel University  
Philadelphia, Pennsylvania 19104  
(215) 895-2265

# CALL FOR PAPERS

## IAWPR WORKSHOP AND INTERNATIONAL CONFERENCE

The United States of America National Committee (USANC) is the delegated representative of various sponsoring organizations and, through them, the United States scientific community engaged in water pollution research, to the International Association on Water Pollution Research (IAWPR). One of the objectives of IAWPR is to encourage the exchange of information between researchers throughout the world who are involved in scientific and engineering studies associated with water pollution assessment and control and to provide a means whereby this can be accomplished, e.g., through publications and international conferences and workshops.

An IAWPR Workshop, Separate and Combined Treatment of Domestic and Industrial Wastewaters, is scheduled for Vienna, Austria, September 3-7, 1979. Abstracts and registration are due April 15, 1979. For information or submission of papers write:

Prof. Dr.-Ing. Wilhelm v.d. Emde  
Institut für Wasserversorgung  
Abwasserreinigung und Gewässerschutz  
T U Wien, Karlsplatz 13  
A-1040 WIEN  
Austria

The 10th International Conference of the International Association on Water Pollution Research (IAWPR) will be held in Toronto, Canada June 23-27, 1980 and will cover a wide range of subjects ranging from natural aquatic ecosystems to wastewater treatment. Some specific topics are ecological problems of lakes and large impoundments; estuarine, coastal and marine pollution problems; and water and wastewater problems in arctic and subarctic regions. For information about the program and/or submission of papers (due 1 September 1979), write:

Secretary-Treasurer  
International Association on Water Pollution Research  
Chichester House  
278 High Holborn  
London WC1  
England

### IAWPR CONFERENCE ON POLLUTION OF THE MEDITERRANEAN

An International Conference on the Pollution of the Mediterranean will be held in Palma de Mallorca, Spain from September 24-27, 1979. The theme will be the ecological, chemical, physical and engineering aspects of pollution of the Mediterranean Sea and its tributaries, including biological and chemical monitoring modeling studies of particular areas of the sea and case studies of importance. A section of the Conference will be devoted to national and international measures to deal with the problem of pollution in the area. Original papers dealing with research and development in the above subjects are invited for the conference. The deadline for completed papers is May 14, 1979. Authors intending to submit papers should apply without delay for details on preparation and typing of papers to the Secretary-Treasurer at the address given above.

## MANAGEMENT AND CONTROL OF HEAVY METALS IN THE ENVIRONMENT

An international conference on "Management and Control of Heavy Metals in the Environment" will be held September 18-21, 1979 at Imperial College, London, United Kingdom. Themes to be emphasized include:

Industrial Waste Management  
Health Effects of Heavy Metals Exposure  
Metal Forms and Speciation  
Sources, Distribution and Pathways of Heavy Metals  
in the Environment  
Domestic Waste Treatment  
Sludge Treatment and Disposal  
Advances in and Critical Assessment  
of Analytical Techniques

Abstracts of no more than 500 words should be sent, no later than February 14, 1979, to:

CEP Consultants Ltd  
26 Albany Street  
Edinburgh EH1 3QH  
United Kingdom

### NALCO CHEMICAL AWARD FOR THE BEST DOCTORAL THESIS ON CHEMICAL RESEARCH IN THE AREA OF WATER AND WASTEWATER TREATMENT

An award, consisting of \$2,500 to be divided between the thesis author and his major professor (\$1,250 each) will be presented to the selected candidate at the Spring 1979 American Water Works Association Meeting.

This award is sponsored by Nalco Chemical Company under the auspices of the Association of Environmental Engineering Professors (AEEP) and is companion to a parallel award from Nalco on Industrial Waste Treatment awarded at the AEEP meeting at the Anaheim WPCF meeting.

Doctoral theses completed over the last two years (1/1/77 - 12/31/78) are eligible for submission for this, the first award year. The research work must be related to the chemical aspects of water and wastewater treatment and must be complete at the time of submission since a copy of the dissertation is required for judging.

Submission of theses for consideration by the review committee must be received on or before March 15, 1979. Winners will be notified by June 1, 1979. Send 2 copies of the dissertation to:

Dr. Francis A. DiGiano  
Department of Civil Engineering  
University of Massachusetts  
Amherst, Massachusetts 01002  
(413) 545-0685

Specific information pertaining to the Environmental Science Award and the Nalco Industrial Waste Treatment Award will appear in subsequent issues of the NEWS-LETTER.

## MEETINGS OF INTEREST

### WORKSHOP 79: NEW DEVELOPMENTS IN WASTEWATER TREATMENT

The Department of Civil Engineering, University of Toronto, organizes on March 7 and 8, 1979, the above workshop which will be composed of 4 half-day sessions. Each session will be chaired by a Moderator and will cover:

- Presentation of a basic paper;
- Presentation of a few invited contributions;
- Panel discussion by the contributors;
- Open-floor discussion; and
- Formulation of conclusions by the session moderator.

The basic papers will be printed and distributed to the Workshop participants on the registration date. The summary of the contributions, discussion, and conclusions will be prepared shortly after the Workshop and mailed to all the participants. Topics to be covered are:

- Deep Shaft Activated Sludge Process
- Improvements in Biological Floc Separation
- Oxygen Activated Sludge Process
- Fluidized-Bed Biological Reactors

Further information may be received from:

Professor J. Ganczarczyk  
Workshop Co-ordinator  
Department of Civil Engineering  
University of Toronto  
Toronto M5S 1A4  
Canada  
(416) 378-3141

### WATER REUSE SYMPOSIUM

A Water Reuse Symposium will be held March 25-30, 1979 in Washington, DC. Under the direction and sponsorship of the American Water Works Association Research Foundation, Office of Water Research and Technology (US Department of the Interior), US Environmental Protection Agency, and Water Pollution Control Federation, the week-long meeting will be devoted to the renovation and reuse of wastewaters from municipalities, industry, and agriculture.

With the theme of "Water Reuse - From Research to Application," pertinent case histories, new water recycling research and practical community applications will be covered. Plenary, concurrent sessions and poster presentation will emphasize innovative approaches, national, state, regional, and local reuse policy, health-effects studies, treatment R&D, monitoring, and control, criteria/standards development, institutional and legal problems. Technical tours through two important water recycling facilities will be available.

The program is directed to individuals from water/wastewater utilities, consulting firms, federal, state and private research organizations, regulatory agencies, research divisions of manufacturers and universities.

A preliminary program and registration form is available from:

Water Reuse Symposium  
AWWA Research Foundation  
6666 West Quincy Avenue  
Denver, CO 80235 USA  
Phone: (303) 794-7711, Ext. 251, 259, 267

## 1979 CIVIL ENGINEERING EDUCATION CONFERENCE

AEEP has agreed to act as a co-sponsoring society for the 1979 Civil Engineering Education Conference to be held in Madison, Wisconsin on April 19-21, 1979. The theme of the conference, which is being organized primarily by ASCE, is to be "Civil Engineering Education - Responding to the Challenges of Engineering Practice." Topics related to continuing education and civil engineering as a liberal education will be discussed as will topics concerning both graduate and undergraduate education. Strong participation by practicing engineers as well as educators, governmental representatives and engineering society representatives is expected. Requests for additional information should be directed to:

ASCE Conference on Civil Engineering Education  
The Wisconsin Center  
702 Langdon Street  
Madison, Wisconsin 53706

## ELEVENTH MID-ATLANTIC INDUSTRIAL WASTE CONFERENCE

The Eleventh Mid-Atlantic Industrial Waste Conference will be held July 16 and 17, 1979 at the Pennsylvania State University, University Park, Pennsylvania. Topics of particular emphasis will be:

- New Treatment Processes
- Heavy Metal Wastes
- Toxic Wastes
- Sludge Treatment and Disposal
- Effluent Discharge Guidelines
- Pretreatment and Recycle Systems
- General Economic Evaluation

For more information contact:

Dr. D. A. Long  
Department of Civil Engineering  
The Pennsylvania State University  
212 Sackett Building  
University Park, Pennsylvania 16802

## USANC REPORT AVAILABLE

A report prepared for the EPA by the USA National Committee for representation of the United States to the IAWPR on "Developments at Ninth International Conference on Water Pollution Research" is available from the National Technical Information Service as their number TB-288650-AS. The cost is \$8.00 in paper and \$3.00 on microfilm.

# ACADEMIC MARKET PLACE

## GEORGIA INSTITUTE OF TECHNOLOGY

The School of Civil Engineering is seeking applicants for tenure track positions in environmental microbiology and in air quality and pollution control within the Environmental Engineering program. These two positions will involve teaching at the undergraduate and graduate levels and leading the research thrusts in the respective areas. A doctorate in engineering or science is required; rank and salary are commensurate with qualifications. Send detailed résumé and names of three references to:

Dr. J. E. Fitzgerald, Director  
School of Civil Engineering  
Georgia Institute of Technology  
Atlanta, Georgia 30332

## UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE

The University of North Carolina at Charlotte, Department of Urban and Environmental Engineering, invites applications for a tenure track faculty position in the environmental/water resources engineering area. The position is at the Assistant Professor level and begins in August 1979. Responsibilities include undergraduate teaching in two or more of the following areas: water supply; waste-water collection and treatment; solid waste collection and disposal; hydrology; hydraulics; water pollution; air pollution. The successful candidate is also expected to develop graduate courses and seek funded research in the area of specialization.

The position requires a Bachelor of Science in Civil Engineering and a Ph.D. in Engineering. Competence in both teaching and research is expected. Teaching and/or practical engineering experience is desirable.

The University of North Carolina at Charlotte is an Equal Opportunity/Affirmative Action Employer. Applications from females, members of minority groups and the handicapped are encouraged.

Interested applicants should send a detailed résumé, list of courses included in graduate program, and the names of four references to the address shown below. Applications must be received by March 1, 1979 in order to receive full consideration in the initial screening.

Dr. L. Ellis King, Chairman  
Department of Urban and Environmental Engineering  
University of North Carolina at Charlotte  
Charlotte, N. C. 28223

## NORTH DAKOTA STATE UNIVERSITY

The department of Civil Engineering has a faculty vacancy in the area of Sanitary Engineering. This is a tenure-tracked position and the rank will be Assistant Professor or Associate Professor.

The applicant should have professional experience and possess a Ph.D. degree with a major in Sanitary Engineering,

and a B.S. degree in Civil Engineering. Responsibilities will include teaching at both undergraduate and graduate levels, participation in research, and direct research of graduate students.

The Civil Engineering Department has eight full time faculty members and serves the academic and research needs of undergraduate and graduate students. The Civil Engineering faculty are active in teaching, research, extension, and consulting. The College of Engineering and Architecture has seven departments with a combined enrollment of about 1400 students.

North Dakota State University with an enrollment of about 7500 students in eight colleges is located in Fargo, North Dakota.

Qualified applicants should send a complete résumé, preferably including courses taken, courses taught, research experience, and professional experience, along with names and address of three references to:

Dr. James L. Jorgenson, Chairman  
Civil Engineering Department  
North Dakota State University  
Fargo, North Dakota 58105

## UNIVERSITY OF MARYLAND

The Department of Civil Engineering of the University of Maryland has two openings for tenure track Assistant Professorships in Environmental and Water Resources Engineering. The positions involve graduate and undergraduate teaching, supervision and counseling of graduate students and participation in sponsored research programs.

One position requires an individual with education and interests in problems of water and wastewater treatment. The department is especially interested in someone with a background in advanced wastewater treatment, land application, toxic chemical treatment and unit operations.

The second position requires an individual with education and interests in hydraulics, hydrology and/or water resource systems. The department is especially interested in someone with qualifications in one of the following areas: flood control, free surface flow, receiving water models, estuary hydrodynamics, hydrologic models, water resources planning.

The University of Maryland is in a suburban location that allows one to enjoy the professional and cultural opportunities of two major cities, Washington, D.C. and Baltimore. The Department of Civil Engineering has a faculty of 21 organized into four technical groups: Environmental and Water Resources; Geotechnical; Transportation and Urban Systems; and Structures. There are approximately 370 undergraduate and 110 graduate students in the Department. The annual budget from sponsored research is in the vicinity of \$700,000. Applicants should send résumé and references to:

Dr. Robert M. Ragan, Chairman  
Department of Civil Engineering  
University of Maryland  
College Park, Maryland 20742

The University of Maryland is an Equal Opportunities Employer.

## UNIVERSITY OF FLORIDA

The Department of Environmental Engineering Sciences, University of Florida, invites applications to fill a tenure track faculty position, preferably at the Assistant Professor level, in water supply and wastewater engineering. Applicant must have an earned doctorate in Environmental or Civil Engineering. Training in Chemical Engineering and professional experience are highly desirable. Duties include conducting an active research program and teaching undergraduate and graduate courses. Rank and salary are commensurate with qualifications. Interested persons should contact:

Dr. W. Emmett Bolch, Chairman  
Search Committee  
Department of Environmental  
Engineering Sciences  
University of Florida  
Gainesville, Florida 32611

## PUBLICATION OF THESIS TITLES

As a service of the AEEP Membership, the Board of Directors has decided to publish the titles of theses completed each academic year by June 30. Only those lists submitted by the membership will be included in the listing. The next directory will appear early next fall for the 1978-79 work.

Time interval: July 1, 1978 to June 30, 1979

Classification of Titles;

Air Pollution

Agricultural Waste Management

Instrumental Methods of Analysis

Industrial Waste Treatment

Land Treatment

Non Point Pollution

Rivers, Estuaries, and Lakes

Solid Wastes

Water and Wastewater Treatment

Water Management

You may also use other classifications if there are a sufficient number of titles.

Format: "Title of Paper", Name of Author (Ph.D. or M.S.), X pp., Month, Year, Name of University (Name of Faculty Advisor).

Comments: Since the availability of documents varies, persons interested in a specific publication will be asked to contact the Faculty Advisor directly.

Deadline: Submit by August 31, 1979 to:

J. F. Judkins, Jr. and J. M. Morgan

Co-Editors

AEEP Newsletter

Department of Civil Engineering

Auburn University

Auburn, Alabama 36830

## NEW INSTITUTE ESTABLISHED

The INSTITUTE FOR RURAL SANITATION SERVICES, a membership organization, has been established to continue and expand the communications and research activities of National Demonstration Water Project (NDWP). NDWP is a national, federally-funded program dedicated to reform of the rural sanitation service delivery system.

The INSTITUTE has been chartered as a nonprofit organization in the District of Columbia. It will function as a field-based effort and its board of directors will be chosen from its nationwide membership. The INSTITUTE will conduct research and communications activities covering matters of policy and technology in the fields of rural water supply, waste disposal, and related areas such as health, housing, and economic development.

Four periodicals are published by the INSTITUTE. The bi-monthly *RURAL WATER NEWS* addresses issues of national importance across the spectrum of rural sanitation service concerns; *F.Y.I. \**, issued bi-weekly, provides details on federal legislation and agency regulations of interest to people in the field. *TAP-IN*, also a bi-weekly, reports events from the local level in all 50 states and Puerto Rico. Under a *P.S.* masthead, incidental materials such as copies of laws and regulations, congressional testimony, and article reprints are distributed on an as-needed basis.

In addition to the periodicals, members of the INSTITUTE receive individual information assistance, discounts on books published through the research program, and the opportunity to participate in the work of the INSTITUTE's Advisory Commission. The cost of membership is \$100 per year. Interested non-members may obtain *RURAL WATER NEWS* on a subscription basis for \$12 per year. Membership and subscriptions should be sent to the INSTITUTE at 1820 Jefferson Place, N.W., Washington, D.C. 20036 (202-296-8540).

## UNDERGRADUATE REGISTER AVAILABLE

Copies of the *Register of Undergraduate Environmental Engineering Programs* are now available at a cost of \$6.00 each postpaid. Order from:

Dr. D. B. Aulenbach

Department of Chemical and

Environmental Engineering

Rensselaer Polytechnic Institute

Troy, New York 12181

## AEEP PUBLICATIONS

The publications listed below are available from AEEP. Prepayment must accompany all orders; therefore please forward a check or money order made payable to AEEP to:

Dr. Michael J. Humenick  
 Department of Civil Engineering  
 AEEP Publications  
 ECJ 8.6  
 University of Texas-Austin  
 Austin, TX 78712

NOTE: The Order Form below must be completed and returned with your order. For orders of five or less volumes, include \$1.00 for postage; for orders for six or more volumes, include \$2.00.

Environmental Engineering Unit Operations and Unit Processes Manual	\$12.00
Water Chemistry Laboratory Manual	\$5.00
Aquatic Laboratory Manual	\$7.00
Register of Environmental Engineering Graduate Programs	\$3.00
Interdisciplinary Education Programmes for Environmental Engineers, Workshop	\$10.00
Trends and Professional Manpower Production Capabilities in USA Educational Institutions (limited supply)	\$3.00

### ORDER FORM

\*\*This material should be mailed to:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PUBLICATION(S):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\*\*Texas residents add 5% sales tax.

## AEEP FINANCIAL STATEMENT FOR 1978

Balance as of January 1, 1978	\$21,337.11
<b>Income</b>	
General Fund	8,556.50
Workshop Fund	250.00
NSF Fund	7,300.00
Publications Account	5,845.17
Savings Account	527.22
Total	<u>\$22,478.99</u>

<b>Expenses</b>	
General Fund	8,257.70
Workshop Fund	782.86
NSF Fund	10,286.46
Publications Account	3,580.95
Savings Account	0
Total	<u>\$22,907.97</u>

Balance as of January 1, 1979	\$20,908.03
-------------------------------	-------------

The following is a more detailed summary pertaining to the General Fund for 1978.

Balance as of January 1, 1978	\$ 2,950.44
-------------------------------	-------------

<b>Income</b>	
Dues	7,977.50
Publications	14.00
Workshops	505.00
Miscellaneous	60.00
Total	<u>\$ 8,556.50</u>

<b>Expenses</b>	
Office	827.77
Newsletter	878.69
Publications	166.33
Board Meetings	2,003.68
Workshops	2,825.57
Committees	384.12
Government Activities	598.62
Dues	500.00
Awards	54.48
Miscellaneous	18.44
Total	<u>\$ 8,257.70</u>

Interfund Transfers (Net from NSF Fund)	8.80
---	------

Balance as of January 1, 1979	\$ 3,258.04
-------------------------------	-------------

C. P. Leslie Grady, Jr.



**Application for Membership  
in the  
ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS**

NAME \_\_\_\_\_

OFFICIAL TITLE \_\_\_\_\_ DEPARTMENT \_\_\_\_\_

BUSINESS ADDRESS \_\_\_\_\_ TEL. \_\_\_\_\_

HOME ADDRESS \_\_\_\_\_ TEL. \_\_\_\_\_

Applying for: Membership Status  (indicate rank), Affiliate Status

**PLEASE ATTACH RESUME**

Dues are payable in the Association on a calendar year basis. The AEEP annual dues payment, prorated according to the date of application, is shown below:

**INITIAL DUES PAYMENT REQUIRED BASED  
ON RANK AND DATE OF APPLICATION**

RANK	1 Jan.	1 April	1 July	1 Oct.
	31 Mar.	30 June	30 Sept.	31 Dec.
Professors	\$50.00	\$37.50	\$25.00	\$12.50
Associate Professors	25.00	18.75	12.50	6.25
Assistant Professors	25.00	18.75	12.50	6.25
Affiliate Member	10.00	7.50	5.00	2.50

Please return this form, along with your dues to:

Dr. Clifford W. Randall  
Department of Civil Engineering  
Virginia Polytechnic Institute and State University  
Blacksburg, Virginia 24061  
(703) 951-6131

Enclosed are my AEEP dues in the amount of: \$\_\_\_\_\_.

\_\_\_\_\_  
Signature Date

## **OFFICERS**

### **PRESIDENT**

Charles R. O'Melia  
Department of Environmental  
Sciences and Engineering  
University of North Carolina  
Chapel Hill, North Carolina 27514  
(919) 966-1171

### **VICE PRESIDENT**

Roger A. Minear  
Department of Civil Engineering  
University of Tennessee  
Knoxville, Tennessee 37916  
(615) 974-3320

### **SECRETARY-TREASURER**

Clifford W. Randall  
Department of Civil Engineering  
Virginia Polytechnic Institute  
and State University  
Blacksburg, Virginia 24061  
(703) 951-6131

## **DIRECTORS**

Richard R. Dague  
University of Iowa

Benjamin C. Dysart, III  
Clemson University

John F. Ferguson  
University of Washington

Roger A. Minear  
University of Tennessee

John T. Novak  
University of Missouri - Columbia

Charles R. O'Melia  
University of North Carolina - Chapel Hill

James W. Patterson  
Illinois Institute of Technology

Clifford W. Randall  
Virginia Polytechnic Institute

P. Aarne Vesilind  
Duke University

---

**AEEP NEWSLETTER IS PUBLISHED QUARTERLY BY THE  
ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS**

---

### **AEEP NEWSLETTER**

J. F. Judkins, Jr. and J.M. Morgan  
Co-Editors  
Department of Civil Engineering  
Auburn University  
Auburn, AL 36830  
205-826-4320