



Newsletter

Published Quarterly by the Association of Environmental Engineering Professors

VOLUME 16, NO. 1

FEBRUARY, 1981

PRESIDENT'S CORNER

For just a moment, I would like you to join me in thinking back over the last three years. A lot of good things have been accomplished by AEEP for our membership, our programs, and environmental engineering. Many of you were important parts of this work. But much credit has to go to three Board members who have now completed their three-year-terms—John Ferguson (Washington), Roger Minear (Tennessee), and Cliff Randall (VPI). All have been effective and hard-working. AEEP is in good shape due to their contributions, and they deserve our appreciation.

Now to the present, and the future. In addition to the *other* transition and change of administration which took place during January in Washington, DC, AEEP transitioned from the past year to the new one. Three new members of the Board of Directors were installed in Washington at the January Board meeting—Bruce Hanes (Tufts), Dick Speece (Drexel), and Bob Thomann (Manhattan). I look forward to working with them, as well as our new Vice President, Fran DiGiano (Massachusetts) and the new Secretary-Treasurer, Don Lauria (North Carolina).

Speaking of the new Reagan Administration, this is a time of much interest to the environmental engineering profession, especially the next few weeks and months as new key executives are appointed and campaign promises are translated, in varying degrees, to priorities and actions. There will be new initiatives, new environmental issues, new players, and new challenges, as well as some which continue to be recognized as important to the nation and the public.

Environmental engineering has grown both in numbers and in terms of service to the nation as the 1960s and the "Environmental Decade" of the 1970s came and passed. We have been heavily involved in working for the achievement of many noteworthy environmental quality goals in recent years. We must now work effectively to preserve the gains of the past. I believe this is going to present some real challenges to us, those of us in the academic community and our colleagues in practice. In order to do this, we will have to do an increasingly better and more sophisticated job of developing, promoting, and implementing more reliable, more innovative, more technically effective, and more cost-effective environmental control strategies and

systems. Perhaps the heightened interest on cost effectiveness occasioned by a tighter economy and a review of regulations will cause us to respond with even better designs and designers. In any case, we will be facing challenges and opportunities.

To deal with them successfully, and to represent our membership as we should and hope to, AEEP needs *you* to be involved in our work. Elsewhere in this issue, there is information on AEEP's committees. They do a lot of important work. Many of the activities that are of so much benefit to you and the profession are products of our committees, for example the new "Register of Graduate Programs," the annual Purdue workshop, the Toronto Environmental Engineering Education Conference, lab manuals, and many more. Let me hear from you as to which one(s) you can **help out on**. (See item on pg. 2.) In addition to committee service, I hope to see you at our membership meetings at Purdue this year, and then at the WPCF meeting in Detroit. Combining these with a luncheon as we did in Las Vegas back in September seems to have been a great success.

With your participation, we can have another good year for AEEP and environmental engineering education.

Ben Dysart

FERGUSON, MINEAR AND RANDALL RETIRE FROM AEEP BOARD

The January meeting of the AEEP Board of Directors marked the end of the term of service for three distinguished members. They are: John F. Ferguson, Roger A. Minear and Clifford W. Randall. We are convinced that the success of an organization such as AEEP is greatly influenced by the quality of those persons who volunteer to serve as its leaders. There can be no question but that the membership is in the debt of these men who have given so freely of their valuable time. A special measure of gratitude should go to Roger and Cliff who have each served as officers for two consecutive years.

The Editors

AEEP BOARD ELECTS NEW OFFICERS

At their January meeting in Arlington, Virginia, the AEEP Board of Directors elected new officers for 1981. They are:

- President: Dr. Benjamin C. Dysart, III
Department of Environmental
Systems Engineering
Clemson University
Clemson, South Carolina 29631
(803) 656-3276
- Vice President: Dr. Francis A. DiGiano
Department of Civil Engineering
University of Massachusetts
Amherst, Massachusetts 01002
(413) 545-0685
- Secretary-Treasurer: Dr. Donald T. Lauria
Department of Environmental
Engineering and Science
University of North Carolina
Chapel Hill, North Carolina 27514
(919) 929-1161

AEEP ELECTS NEW BOARD MEMBERS

Three new members of the AEEP Board of Directors have recently been elected by the membership. A brief biographical sketch of each is presented below.

N. Bruce Hanes is Professor and Head of the Department of Civil Engineering at Tufts University. He received his M.S. from the University of Wisconsin, his B.S. from North Dakota State University and his Ph.D. from the University of Wisconsin. He taught at the University of Wisconsin for two years, at Montana State University for two years, and has been on the faculty at Tufts University since 1961. He also worked as an engineer for the City of Milwaukee and the Montana State Board of Health. He has been very active in civic and professional organizations. For the Town of Winchester, Massachusetts, he has been the elected Park Commissioner and a member of the Board of Health. He is one of the founders of the New England Consortium on Environmental Protection, was the elected Chairman of the Board of Directors of that organization in 1973-74 and currently serves on the Board. He has served as a consultant to the United States Public Health Service, the Environmental Protection Agency, the National Science Foundation, and private industry. He is the past Secretary-Treasurer and President of AEEP. He is currently Chairman of the American Academy of Environmental Engineers Education Committee. His research interests center around development of biological indicators of water quality. He is professionally interested in shaping national policy with respect to the protection of the environment.

Richard E. Speece is Betz Chair Professor of Environmental Engineering at Drexel University. He obtained engineering degrees from Fenn College, Yale

University, and a Ph.D. from the Massachusetts Institute of Technology. He has taught at the University of Illinois-Urbana, at New Mexico State University, and at the University of Texas-Austin, before joining the Faculty at Drexel University. He has published numerous papers in environmental engineering publications and the excellent quality of his research is well recognized. He was a winner of the Harrison Prescott Eddy Medal from the Water Pollution Control Federation in 1966. He was given the Distinguished Faculty Award by AEEP in 1977, and he received an honorable mention for Best Paper Published in Transactions of the American Fishery Society in 1973. His recent work has been on U-tube aeration and in 1975, he chaired the organizational committee of the ASCE Symposium on Reaeration Research. In 1978, he served as the AEEP Distinguished Lecturer.

Robert V. Thomann is Professor of Civil Engineering and Director of the Environmental Engineering and Science Graduate Program at Manhattan College where he has been since 1966. He obtained his Bachelor's degree in Civil Engineering from Manhattan College in 1956, a Master's of Sanitary Engineering from New York University in 1960 and a Ph.D. in Oceanography from New York University in 1963. Dr. Thomann has had almost twenty-five years of experience in water pollution control, water quality analysis, and water quality monitoring. For the period of 1956 to 1966, Dr. Thomann was with the U.S. Public Health Service in the Division of Water Supply and Pollution Control. Also, he was Technical Director of the Delaware Estuary Comprehensive Study. He has authored more than forty papers and also several chapters in books as well as a book on *System Analysis and Water Quality Management* published by McGraw-Hill. Dr. Thomann has been active in several professional organizations.

AEEP COMMITTEES

Like most professional organizations AEEP depends heavily on its committees. If you are interested in serving on one or more of the following committees please contact President Dysart no later than March 31, 1981.

- Archives
- Arrangements
- Awards
- Education
- Enrollment Survey
- Legislative Analysis
- Membership
- Newsletter
- Publications
- Purdue Workshop
- Register of Graduate Programs
- Relations with ASEE
- Relations with ASCE
- Relations with USANC
- Research
- Visiting Lecturer

DISTINGUISHED LECTURER TOUR

Professor Werner Stumm, Director of the Swiss Federal Institute for Water Resources and Water Pollution Control, has been selected as the Association's Distinguished Lecturer for 1980-81. Professor Stumm is internationally renowned for his research on a variety of topics in aquatic chemistry, and he is particularly well known for his research on metal chemistry and his contribution to *Aquatic Chemistry*.

As in past years, participating universities can select from several lecture topics as follows:

- Lecture 1. Chemical Perturbations of Aquatic Ecosystems.
- Lecture 2. Global Chemical Cycles and Water Pollution.
- Lecture 3. Metal Pollutants in Lakes and Other Freshwaters: Their Effects, Controlling Factors, and Ultimate Fate.

Lectures will be presented according to the following schedule:

Date	Location	Lecture
March 30	University of Wisconsin at Milwaukee	1
March 31	Carnegie Mellon	2
April 2	The Johns Hopkins University	3
April 3	University of Delaware	2
April 8	University of North Carolina at Chapel Hill	2
April 9	Virginia Polytechnic Institute	1 or 2
April 10	Clemson University and University of South Carolina (Lecture to be held at Clemson)	3
April 13	Montana State	3
April 15	Oregon State	3
April 17	Stanford	2

AEEP MEMBER APPOINTED DEAN

J. Charles Jennett, 40, has been appointed dean of the College of Engineering at Clemson University.

A civil engineering professor and department chairman at Syracuse University, Jennett will assume the deanship at Clemson July 1, 1981.

He has been at Syracuse since 1975, when he joined the faculty as associate professor and department chairman. He was promoted to professor in 1978.

He taught at the University of Missouri-Rolla from 1969 until 1975 and before that was an instructor for a year at the University of New Mexico.

Another AEEP member, **L. G. Rich**, served as Dean of Engineering at Clemson from **1961 to 1972**.

AEEP ACTIVITIES AT PURDUE

Workshop

AEEP will again sponsor a one-day workshop prior to the Purdue Industrial Waste Conference. This year's workshop will be held on Monday, May 11, 1981, and is entitled "Contaminant Transport in Groundwater." The workshop will be conducted by Professors John Cherry, Paul Roberts, and Albert Valocchi and will be held in Room 214 of the Stewart Center. Registration will begin at 8:30 a.m. and the workshop session will begin at 8:45 a.m. There is no fee for the workshop but all attendees, both members and students, are urged to pre-register by contacting:

Professor Paul V. Roberts
Civil Engineering Department
Stanford University
Stanford, California 94305
(415) 497-1073

General Business Meeting

Due to the stiff competition provided by the Morris Bryant seafood buffet, the AEEP General Business *will not* be held in its normal Tuesday night slot at the Purdue WC. This year, the meeting will be *held at noon*, Tuesday, May 12, in the Faculty Lounge on the second floor of the Memorial Student Union Building. The meeting will include a soup and salad buffet luncheon, at a cost of \$7.00 per person, and will feature Don Riddell, current President of AAEE, as the speaker. All members are urged to attend.

AEEP RESEARCH AWARDS

AEEP is very fortunate to be able to recognize outstanding research activity through the annual presentation of three separate research awards. Plans for the selection of this year's winners are underway but details were not available at press time. Announcements concerning the Engineering-Science Inc./AEEP Award for the best doctoral thesis *relevant to environmental engineering practice* and the NALCO/AEEP Award for the best doctoral thesis *dealing with industrial waste or combined municipal and industrial waste* will appear in the April Issue of the NEWSLETTER. However, those persons wishing to make application for the NALCO/AEEP Award for the best doctoral thesis *dealing with chemical research in the area of water and wastewater treatment* should contact John Novak as soon as possible.

Dr. John T. Novak
Department of Civil Engineering
University of Missouri
Columbia, Missouri 65201 (314) 474-6067

DEADLINE FOR APRIL NEWSLETTER

Items to be included in the next issue of the NEWSLETTER should be **received** by the editors no later than Tuesday, March 31, 1981. Items of general interest to the profession should be submitted to:

J. F. Judkins, Jr. and J. M. Morgan
Co-Editors, AEEP NEWSLETTER
Department of Civil Engineering
Auburn University, Alabama 36849

AEEP REGISTRY OF GRADUATE PROGRAMS IN ENVIRONMENTAL ENGINEERING

Assembly of the fourth edition of THE REGISTRY has been completed and the manuscripts have been sent to the publisher, Ann Arbor Science. This fourth edition of THE REGISTRY is the first to have been prepared through a commercial publisher. The three previous additions were prepared through AEEP (and its predecessor AAPSE) in joint sponsorship with the American Academy of Environmental Engineers. Previous editions also had external funding from governmental agencies which enabled AEEP to handle the complete assembly and printing of the document. Continuation of such support for the 4th edition was not in evidence. Yet the Board of Directors felt that THE REGISTRY was of sufficient importance to AEEP members and the professional fields associated with Environmental Engineering that an alternate means of producing this document should be developed. Ann Arbor Science and Ed Lewis were receptive to an arrangement that minimized the financial burden to AEEP while providing previously experienced benefits to the membership.

While promises of program submission were made, some 26 schools failed to follow up and provide these descriptions. When added to the 93 programs that are represented in the directory plus 2 or 3 programs that simply did not care to be represented, it is apparent that there are slightly more than 120 graduate programs in the United States and Canada. Thus 77% of the programs are represented in THE REGISTRY and these include the major programs.

Although short of the goal, the level of participation is greater than in any of the three previous registry volumes.

The arrangement with Ann Arbor Science provides a fee copy of THE REGISTRY to each AEEP member and one free copy to each program that participated.

Last fall, 88 of the program descriptions were examined to provide a current characterization of the faculty of environmental engineering graduate programs and contrast the data with that of other years. Table 1 presents a summary of these characteristics for the years 1965, 1969, 1974 and 1980. If these data are representative for each of the years, some observations are in order:

- (1) The average faculty per program peaked in the mid 1970's and is experiencing a decline. Over the years, the average number of faculty has held between 5 and 6 (or slightly above). If one were to examine the program size distributions for 1974 and 1980 it would be seen that a few large programs tend to show the distribution and that programs with 4 to 5 faculty are dominant.
- (2) The move to an extremely high percentage of faculty with earned doctorate degrees is evident over the 15 year interval. This may reflect major University attitudes as a whole as well as the Environmental Engineering profession.
- (3) There is an increase in percent of faculty holding professional engineering registration but this is not as dramatic as the increase in doctorate degree holders.

- (4) In contrast with 1974, an increase in AEEP membership is indicated but clearly the organization represents only a modest fraction of educators in the field.
- (5) The percent of faculty that are AAEE Diplomates has returned to the 1965 level, showing an upward trend over the past 10 years (if the differences are in fact real).

The distribution of faculty by professorial rank for each year was determined on a percentage basis for full time faculty. These data are presented in figure 1. The most dramatic differences of all are demonstrated here. Clearly, the distribution of faculty rank has shifted strongly to the full professor level over the past ten years. A number of factors for this condition might be conjectured and more likely a combination of reasons is responsible. On the positive side, we are a profession of experienced and, presumably, mature, saged individuals. On the negative side, we would appear to be not attracting new blood into the process (or may simply be plugging this entry as we grow older and advance in academic rank in a plug flow sense).

Table 1. Environmental Engineering Graduate Program Faculty Characteristics

Characteristic	Year			
	1965	1969	1974	1980
Average Full Time Faculty/School	5.0	5.0	6.5	5.9
Percent of Faculty Holding a Doctorate Degree	76	n/a	87.4	97.5
Percent of Faculty Holding Professional Engineering Registration	43.0	42.7	50.1	52.3
Percent of Faculty that are AEEP Members	n/a	n/a	23.7	29.2
Percent of Faculty that are AAEE Diplomates	12	8.5	10.2	12.0

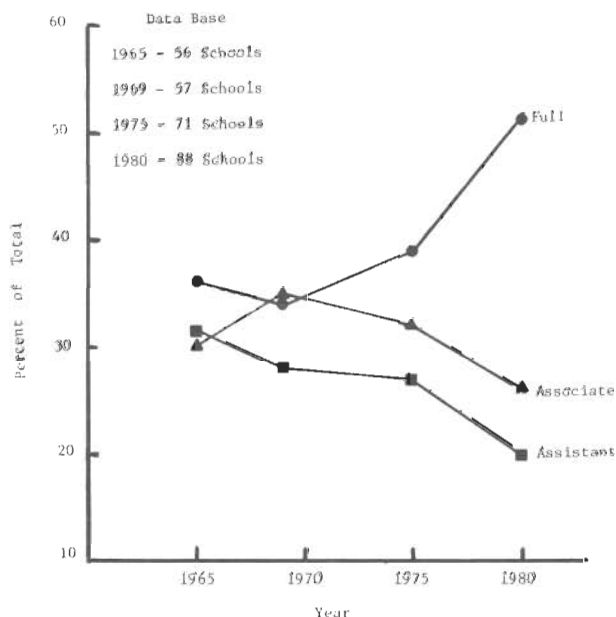


Figure 1. Faculty Distribution by Rank over the Past 15 Years

CALL FOR PAPERS

WPCF

Persons interested in presenting papers at the 54th Annual WPCF Conference, to be held in Detroit, Michigan, October 4-9, 1981, are requested to submit abstracts no later than April 1, 1981. Abstracts should be between 500 and 1000 words in length and double spaced on 8½" x 11" paper. Twelve (12) copies of the abstract and abstract submission form should be submitted to:

Dr. William J. Jewell, Chairman
Research Symposia Subcommittee
54th Annual Conference WPCF
202 Riley Robb Hall
Cornell University
Ithaca, NY 14853
(607) 256-4533

Abstract submission forms are included in The Newsletter.

AIChE

The AIChE National Meeting will be held in New Orleans, November 8-12, 1981, and will include two sessions on activated carbon treatment. One session will be devoted to the fundamentals of absorbing organic compounds onto activated carbon (both powdered and granular) including competitive absorption, absorptive-biological interactions, and regeneration. A second session will emphasize the application of both granular and powdered activated carbon for industrial wastewater treatment and will include laboratory, pilot-plant and full-scale studies. Persons interested in presenting papers should send a brief abstract to:

Dr. Francis A. DiGiano
Dept. of Civil Engineering
University of Massachusetts
Amherst, Mass. 01003

The deadline for receiving abstracts is February 28, 1981.

AVAILABILITY OF PROCEEDINGS FOURTH CONFERENCE ON ENVIRONMENTAL ENGINEERING EDUCATION

The Proceedings of the Fourth Conference on Environmental Engineering Education, co-sponsored by AEEP and the American Academy of Environmental Engineers and held June 19-21, 1980, at the University of Toronto, are now available. Conference registrants should receive their copy of the Proceedings within a couple of weeks. Other individuals who wish to purchase a copy of the Proceedings should send a check for \$20 (\$10 if an AEEP member) to:

Environmental Engineering
Education Conference
c/o Pritzker Department of
Environmental Engineering
Illinois Institute of Technology
3200 South State
Alumni Building — Room 102
Chicago, Illinois 60616

MEETINGS OF INTEREST

SECOND INTERNATIONAL CONFERENCE ON URBAN STORM DRAINAGE

The Second International Conference of Urban Storm Drainage will be held at the University of Illinois at Urbana-Champaign June 14-19, 1981. Papers will cover storm-water quality and planning and management. During June 8-12, 1981, preconference short courses will be held on "Storm Sewer Design and Simulation Models" and "Urban Storm Hydrology." On-campus housing is available. Up to three post-conference study tours are being organized.

Contact Dr. Ben C. Yen, General Chairman, Second International Conference on Urban Storm Drainage, c/o Department of Civil Engineering, University of Illinois @ Urbana-Champaign, Urbana, IL 61801, (217) 333-4934. For information regarding registration procedures for the conference, call Mary Bussart at (217) 333-2882.

ENERGY CONSERVATION: RETROFIT OF MUNICIPAL WASTEWATER TREATMENT FACILITIES

Municipal wastewater and sludge—two subjects to spark high interest among all levels of city and county managers and budget directors, among energy engineers and pollution control industry, and ultimately among taxpayers—are now development areas for productive, innovative energy conservation technology. Conserving energy means saving money, besides saving unrenewable resources including water—a winning combination everyone would like to be in on to maintain life styles and make ends meet right through the 1980's.

The Department of Energy and the Argonne National Laboratory respond to this need to expand technology in order to decrease energy use by sponsoring the National Conference on Energy Conservation by Retrofit of Municipal Wastewater Treatment Facilities, June 23 to 25, 1981, at the Biltmore Hotel in Los Angeles. The program will emphasize new research and development in this important area for new technology. Experts in the field will chair the technical sessions, review the latest advances, and look at future developments and what these portend for municipal and county administrators. The sponsors hope to evoke interest among and bring together professionals involved with all phases of wastewater treatment, retrofit and pollution engineering, energy conservation and research, as well as from industry and local, State and Federal agencies.

For information please contact:

Ms. Barbara Broomfield
Energy and Environmental Systems Division
Building 12
Argonne National Laboratory
9700 South Cass Avenue
Argonne, IL 60439
312/972-7474

AEE

At the annual meeting of the Board of Trustees of the American Academy of Environmental Engineers held in Bethesda, Maryland on October 23 and 24, 1980, the Report of the Task Committee on Goals and Administration was reviewed. The fact that this Committee was in existence and its charges were discussed in previous issues of the AEEP NEWSLETTER. It was pointed out that the work of this Committee was very important to those members of AEEP who were also members of the Academy.

The Task Committee was chaired by Arthur Fox. Among its charges were to review the objectives of the Academy, review membership and certification, and review management and finance. The Committee's definition of its review for the future was a period of five years. Among its conclusions and recommendations were the following. The Academy of Environmental Engineers should be both a roster of the nation's environmental engineering expertise and an action organization. As an action organization it should (1) intensify its interest in position papers, governmental affairs, (2) sustain its interest in environmental engineering education, (3) continue its awards program. Further discussion clarified the fact that position papers could include technical reports.

To implement this recommendation it was recommended that the By-Laws be revised to include the notion of "public service" as an objective of the Academy. Such an amendment was adopted. As soon as copies of the Minutes are available, the new objectives will be circulated.

In order to encourage more persons to participate in the activities of the Academy, it was recommended that the persons representing sponsoring organizations be appointed to serve on the Board of Trustees for one three year term, with no reappointment after the three years. This was adopted with the stipulation that this provision would not apply to persons currently on the Board of Trustees who have served only one term.

There was also some discussion about expanding the Board of Trustees in order to have more persons on the Board elected by members of the Academy. The main objection to this proposal was that it would expand an already very large Board of Trustees to the point of being very unwieldy. Since the persons representing the sponsoring organizations also have to be members of the Academy, it was deemed that the expansion was not really warranted. Another way of approaching the same question would be to either reduce the number of people representing sponsoring organizations or to cut their vote in half. After much discussion it was decided that the input from sponsoring organizations and their support was of such value that their representation should not be cut and that their representatives should be entitled to the full vote.

The Committee also considered some items with respect to administration and finance. The dues of the Academy for 1981 were increased to \$40. It was also decided that sponsoring organizations would be asked to provide for the expenses of the representative attending the annual meeting to the extent that the sponsoring organization was able to do so.

There were a number of discussions and proposals

regarding items associated with the attraction of more interest in becoming a diplomate and retaining membership in the Academy. The action provision mentioned above was one move in that direction. Other moves in that direction were not adopted but were considered for further deliberation during the next year. Among these were suggestions for the establishment of student chapters and the provision for some type of affiliation other than the present diplomate status. For example, a person who was a registered engineer and had advanced education in environmental engineering, might seek some kind of certification or affiliation prior to meeting the requirements for becoming a full diplomate.

The Board of Trustees voted to seek affiliation with the Association of Engineering Societies. It also voted to become a full participant in ABET. ABET is the successor to ECPD. This latter action was necessary in order to assume responsibility for the accreditation of free standing environmental engineering graduate and undergraduate programs. This was an item of considerable interest to the AEEP and was in accordance with its recommendations.

A decision was made to continue to provide for certification as a Diplomate by nomination of the sponsoring organizations. Each sponsoring organization will be asked to nominate persons of outstanding reputation for such certification. They will still have to be screened for registration and experience requirements. These nominations should be made early in the calendar year in order to be processed in time for action by the Board of Trustees at its next meeting in the fall of 1981.

The report on "Concepts for Developing Environmental Quality Standards" was approved. This report covers the very significant issues involved in risk-benefit analysis. It is considered to be particularly pertinent to present concerns. It tries to develop the proper balance between development and the need to protect the present and future environment. Its emphasis is on a conceptual process and standard setting. The Board not only approved the report, but decided to recommend a seminar be held on this subject sponsored by the Academy at a future date.

The report entitled "Growth and Analysis of the Role of the U.S. EPA in Development of Manpower for Water Pollution Control" was completed during the year and delivered to EPA. At the time of the Board Meeting EPA had not acted on acceptance of the report. This report deals with the history of manpower development in environmental engineering, future anticipated needs, and the role of federal agencies in manpower development.

P. W. Purdom

PROFESSIONAL CONTACTS DESIRED

Dan Rom would like to develop contacts with environmental engineering professionals in this country. Dr. Rom's principal interests are in the field of fixed-film biological treatment. He may be contacted as shown below:

Dr. Dan Rom
Sherman Environmental Engineering Research Center
Technion Isreal (Institute of Technology)
Technion City, Haifa
Israel 32000

ACADEMIC MARKET PLACE

SCHOOL: Rutgers
POSITION: Assistant Professor
QUALIFICATIONS: PhD
RESPONSIBILITIES: Research, graduate and undergraduate teaching

APPLICATION DEADLINE: May 1, 1981
CONTACT: Dr. P. F. Strom, Search Committee
Dept. of Environmental Science
Cook College
Rutgers University
New Brunswick, NJ 08903
(201) 932-9571

SCHOOL: University of North Carolina
POSITION: Assistant or Associate Professor
QUALIFICATIONS: PhD in Engineering, Planning and Design of Water Resource Systems
RESPONSIBILITIES: Graduate teaching and research
CONTACT: Dr. Donald Lauria
Dept. of Environmental Sciences & Engineering
School of Public Health
University of North Carolina
Chapel Hill, NC 27514
(919) 966-1023

SCHOOL: University of Missouri — Rolla
POSITION: Open
QUALIFICATIONS: PhD or equivalent experience, interest in water chemistry, water supply and waste treatment

RESPONSIBILITIES: Teaching and research
APPLICATION DEADLINE: March 15, 1981
CONTACT: Dr. Ju-Chang (Howard) Huang
Professor and Head
Environmental and Sanitary Engineering Area
Dept. of Civil Engineering
University of Missouri — Rolla
Rolla, Missouri 65401

SCHOOL: Virginia Polytechnic Institute
POSITION: Assistant, Associate or Full Professor
QUALIFICATIONS: PhD and demonstrated teaching and research ability

RESPONSIBILITIES: Teaching and research in water and wastewater engineering and/or solid waste
APPLICATION DEADLINE: As soon as possible. Position begins September 1981
CONTACT: Dr. Clifford W. Randall
Dept. of Civil Engineering
VPI & SU
Blacksburg, VA 24061

SCHOOL: SUNY/Buffalo
POSITION: Assistant Professor — Environmental Fluid Mechanics
QUALIFICATIONS: PhD

RESPONSIBILITIES: Undergraduate and graduate teaching, research
CONTACT: Dr. Antti Talvitie, Chairman
Dept. of Civil Engineering
State University of New York at Buffalo
Buffalo, NY 14214
(716) 831-2565

SCHOOL: University of North Carolina
POSITION: Assistant Professor
QUALIFICATIONS: PhD in Engineering, interest in water quality and water resources engineering
RESPONSIBILITIES: Graduate teaching and research
CONTACT: Professor J. C. Lamb, III
Dept. of Environmental Sciences and Engineering
University of North Carolina
Chapel Hill, NC 27514

SCHOOL: Johns Hopkins University
POSITION: Assistant Professor (Water Resources Engineer and/or Chemist)
QUALIFICATIONS: Earned PhD in Environmental Engineering with strong background in chemistry.
RESPONSIBILITIES: Teaching and research
CONTACT: Dr. Vincent P. Olivier
School of Hygiene and Public Health
615 N. Wolfe St. Room 6030
Baltimore, MD 21205

SCHOOL: University of Massachusetts
POSITION: 1) Assistant Professor — 2) Associate or Full Professor
QUALIFICATIONS: 1) Interest in aquatic chemistry and microbiology, 2) Physical and chemical treatment of water and wastewater
RESPONSIBILITIES: Teaching and research
CONTACT: Professor Clive L. Dym
Professor and Head
Civil Engineering Dept.
University of Massachusetts
Amherst, MA 01003

SCHOOL: Cornell University, Dept. of Environmental Engineering
POSITION: Assistant Professor
QUALIFICATIONS: PhD, Background in physical-chemical research in fate of trace constituents and/or treatment processes
RESPONSIBILITIES: Teaching and research
CONTACT: Dr. R. I. Dick
School of Civil and Environmental Engineering
Cornell University
Ithaca, NY 14853
(607) 256-3648

SCHOOL: University of Missouri — Columbia
POSITION: Assistant, Associate or Full Professor
RESPONSIBILITIES: Undergraduate and graduate teaching, research and extension
CONTACT: Dr. John T. O'Connor
Civil Engineering
University of Missouri — Columbia
Columbia, MO 65211

SCHOOL: Rice University
POSITION: Full Professor
QUALIFICATIONS: Earned PhD in Environmental, Civil or Chemical Engineering
RESPONSIBILITIES: Research, undergraduate and graduate teaching
CONTACT: Dr. C. H. Ward, Chairman
Dept. of Environmental Science and Engineering
Rice University
Houston, TX 77001

SCHOOL: Johns Hopkins University
POSITION: Assistant Professor
QUALIFICATIONS: Interest in soil moisture and groundwater, hydrology, modeling
RESPONSIBILITIES:
APPLICATION DEADLINE: Position to be filled by July 1; 1981
CONTACT: Dr. M. Gordon Wolman, Chairman
Dept. of Geography and Environmental Engineering
The Johns Hopkins University
Baltimore, MD 21218
(301) 338-7090

WELCOME TO NEW AEEP MEMBERS

Richard A. Appleman
Dept. of Environmental Engineering
Montana College of Mineral Science & Technology
Butte, MT 59701
(406) 496-4254

Robert C. Cluster
Environmental Work Force Project
Human Factors Research Lab.
Dept of Industrial Sciences
Colorado State University
Fort Collins, CO 80523

C. David Cooper
Dept. of Civil Engineering and
Environmental Science
University of Central Florida
Orlando, FL 32816
(305) 277-2388

Ronald Gehr
Dept of Civil Engineering
McGill University
817 Sherbrooke St. West
Montreal, Quebec H3A 2K6
Canada
(514) 392-5928

David W. Hubly
Dept. of Civil & Urban Engineering
University of Colorado at Denver
1100 14th Street
Denver, CO 80202
(303) 629-2724

Randolph M. Kabrick
Dept. of Agricultural Engineering
Riley-Robb Hall
Cornell University
Ithaca, NY 14853
(607) 256-2173

Richard B. Kapuscinski
Dept. of Civil Engineering
Votey Hall
University of Vermont
Burlington, VT 05405
(802) 656-3800

Albert Koenig
Postgrado De Ingenieria
APTO 98
Maracaibo
Benezuela

John J. McCreary
Dept. of Envir. Engr. Sci.
University of Florida
Gainesville, FL
(904) 392-0843

Robert W. Peters
School of Civil Engineering
Purdue University
West Lafayette, IN 47907
(317) 494-4126

R. Bruce Robinson
Dept of Civil Engineering
Perkins Hall
University of Tennessee
Knoxville, TN 37916
(615) 475-5393

INSTRUCTIONS FOR THE SUBMISSION OF ABSTRACTS

and

CRITERIA FOR THE SELECTION OF PAPERS

for the

54th ANNUAL CONFERENCE—WATER POLLUTION CONTROL FEDERATION

Detroit, Michigan

October 4-9, 1981

The Water Pollution Control Federation Program Committee, under the Chairmanship of Dr. Millard W. Hall, has the responsibility for assembling the more than 40 technical sessions at the Annual Conference. Among these technical sessions approximately one-third are devoted specifically to research. Because of the great amount of research work being reported and the desire to present research papers of unusual significance in areas of particular value to Federation members and the water pollution control field, the Program Committee conducts a comprehensive selection procedure. Selection is based on an evaluation of abstracts, which is done by the Research Symposia Subcommittee of the Program Committee, under the Chairmanship of Dr. William J. Jewell.

Prospective participants in any of the several areas of research in water pollution control are cordially invited to submit abstracts for evaluation by the Research Symposia Subcommittee. The basis of selection of Conference participants will be the excellence of the abstracts as judged by the subcommittee. The abstract should establish that the research is well developed, that the general theory or experimental procedure has been established, and that some data have been collected and subjected to preliminary analysis. It should be fully evident that the abstract describes the content of the paper to be presented. The research should relate clearly and significantly to water pollution. Papers of a truly fundamental scientific nature are very much desired, but the author should make evident the relationship of his work to a real problem area or situation in water quality and wastewater control.

Abstracts should be between 500 and 1,000 words in length on 8½" x 11" paper. Twelve (12) copies of the abstract AND abstract submission form should be submitted typed, double-spaced, to Dr. William J. Jewell, Chairman, Research Symposia Subcommittee, 54th Annual Conference—Water Pollution Control Federation, 202 Riley-Robb Hall, Cornell University, Ithaca, New York 14853, ABSOLUTELY NO LATER THAN APRIL 1, 1981, in order to be considered by the Program Committee. THE "ABSTRACT INFORMATION SHEET" SHOULD SERVE AS THE COVER PAGE OF EACH COPY OF THE ABSTRACT. Pertinent bibliographical material, graphs, sketches, and tables should be included at the end of the abstract narrative. THE TOTAL NUMBER OF PAGES, INCLUDING TABLES, SKETCHES, ETC., MUST NOT EXCEED SIX (6).

The address labels that you complete on the front side of this sheet will be used for notification of acceptance or rejection of the abstract by the subcommittee following its meeting in May, 1981, and for other matters concerning your abstract.

The following should serve as a guide in preparation of the abstract:

1. **Significance of Research:** The research should deal with new concepts or with new and novel applications of established concepts. It also may describe substantial improvements of existing theories or present significant new data in support and extension of these theories. Detailed descriptions of treatment works, extensive and conventional field surveys of polluted waters, and broad studies of ill-defined problem situations should be avoided unless pertinent to the central thesis of the paper. Previously published data should be introduced only in summary form and for either comparative or supportive purposes.

2. **Technical Content of Study:** The conditions under which the data were obtained should be presented along with the methodology utilized and a cursory discussion of analytical procedures. The data presentation and conclusions should follow directly from the research undertaken.

3. **Adequacy of Abstract Preparation:** Recognizing that the adequacy of an abstract is indicative of the probable quality of the final paper, authors are urged to prepare their abstracts with great care. Attention should be given to the prose style of the abstract, to its organization, and to the manner of data presentation. Objectives, scope, and general procedure should be included insofar as the limited length of the abstract permits. If at all possible, some indication of conclusions is desirable.

Proceedings of the Research Symposia will be published for sale and distribution at the Conference, and therefore authors selected for the program will be expected to have their papers completed by August 1. Instructions for submission of papers for the proceedings will be furnished shortly after the paper is selected. In addition to publication in the proceedings, the papers can be considered for publication in the Federation Journal, if submitted expressly for that purpose.

—RESEARCH SYMPOSIA—
ABSTRACT INFORMATION SHEET

for the
54th ANNUAL CONFERENCE—WATER POLLUTION CONTROL FEDERATION
Detroit, Michigan—October 4-9, 1981

Paper Title _____

Author(s), Title, Affiliation, and Address, including zip code (*Underline person presenting paper*) _____

Will this or similar work have been presented or published elsewhere by October 4, 1981? Yes No

If yes, where _____

Indicate date when this work was or will be completed _____

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Indicate other papers you have co-authored which have been or will be submitted to the Research Symposia this year _____

PLEASE NOTE: *Twelve (12) copies of the abstract, with a copy of the Abstract Submission Form serving as a cover page for each copy of the abstract, should be forwarded to Dr. William J. Jewell, Chairman, Research Symposia Subcommittee, 54th Annual Conference, 202 Riley-Robb Hall, Cornell University, Ithaca, New York 14853. Please complete the areas indicated below for address labels. Use the name and address of the person who should be notified of the receipt, disposition, and other information concerning this abstract. (NOTE: Failure to fill out completely and follow directions on reverse side will result in the delay and/or return of the abstract.)*

For Use By Research Symposia Subcommittee (5 = Outstanding; 1 = Poor):

<i>Criteria</i>	<i>Rating</i>	<i>Remarks</i>
1. Significance of Research	_____	_____
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