



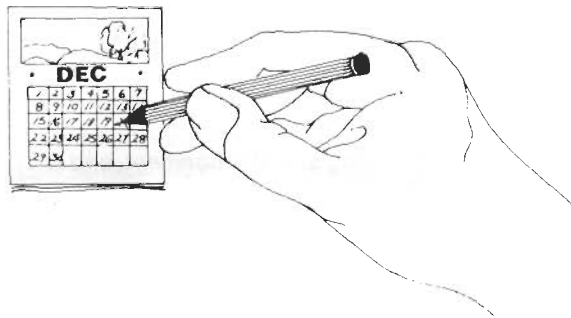
Newsletter

Published Quarterly by the Association of Environmental Engineering Professors.

VOLUME 9, NO. 4

OCTOBER 1974

MARK YOUR CALENDAR



**AEEP Workshop on Environmental
Impact and Linkages
December 19-20, 1974
Charleston, South Carolina**

WORKSHOP PROGRAM

Session I - Current and Emerging Problems in Air Pollution

Session Chairman:

Lyman Ripperton

Research Triangle Institute

P. O. Box 12106

Research Triangle Park, N.C. 27709

Session II - Linkages Between Air and Water Pollution Control

Session Co-Chairmen:

Joseph O. Ledbetter

Environmental Health Engineering; University of Texas
Austin, Texas 78712
and

Lawrence W. Canter

Dept. of Civil Engineering
University of Oklahoma
Norman, Oklahoma 73069

Session III - Linkages Between Ultimate Waste Disposal and Environmental Quality

Session Chairman:

James W. Patterson

Dept. of Environmental Engineering

Illinois Institute of Technology

3300 Federal Street

Chicago, Illinois 60616

Session IV - Teaching of Environmental Impact and Linkages

Session Chairman:

Russell F. Christman

Dept. of Environmental Sciences and Engineering

School of Public Health

University of North Carolina

Chapel Hill, North Carolina 27514

Session V - Linkages Between Land Use and Environmental Quality

Session Chairman:

Edward Edgerley

Ryckman, Edgerley, Tomlinson and Associates, Inc.

12161 Lackland Road

St. Louis, Missouri 63141

The programs for Sessions I, III and IV are fairly well completed as of now. Speakers are still being considered for Sessions II and V. Anyone interested in presenting papers for Sessions II or V should contact the appropriate session chairman.

AEEP DISTINGUISHED FOREIGN LECTURER

The AEEP Distinguished Foreign Lecturer Committee is pleased to announce that this year's lecturer is

KJELL BAALSRUD

Mr. Baalsrud has directed the research efforts of the Norwegian Institute for Water Research in Oslo since its inception nearly 15 years ago. It is now one of the largest national water research organizations and it has gained a world-wide reputation and stature for its productive and imaginative research.

1974-1975

Two of the projects which Mr. Baalsrud will be prepared to lecture on are:

1. *The problems and solutions to the pollution of the Oslo fjord.*
2. *Biological response in model rivers to various types of treated sewage.*

The first topic is of considerable interest due to the unique nature of the problem, especially the mysterious flushing of a deep fjord, and the related problems of eutrophication and public safety. The second topic will be the results of experiments with model rivers — long troughs in which the effect of a pollutant on the biota can be studied. This technique was pioneered by the Institute.

Mr. Baalsrud is available from 6 November to 1 December 1974. It is anticipated that he will be able to visit from 6 to 8 campuses during this time, and that the cost will be approximately \$300 per visit, which would last about 2 days. The host university would also be expected to cover meals & lodging, as well as a modest honorarium.

Please address all requests for the 1974-75 AEEP Distinguished Lecturer to
P. Arne Vesilind
Department of Civil Engineering
Duke University
Durham, N.C. 27706

The first AEEP survey of graduate enrollments in environmental engineering was made for the 1973-74 academic year by the training support Committee. The information collected was used in discussions with Congress and Federal Agencies of the urgent need for support of graduate study in environmental engineering. The results of the survey showed graduate enrollments declining at a rate of approximately 10% per year. A limited survey conducted during July showed that a sample of the program directors expected and even greater decline in graduate enrollments this Fall.

A survey for the 1974-75 academic year has been undertaken under the direction of Paul King of VPI. Since many programs are instituting or expanding part time graduate study in environmental engineering, this year's survey will attempt to obtain information on these students as well as full time students.

The initial questionnaires were sent out during September. Program Directors are urged to return the questionnaires promptly to avoid the hassle of follow-up letters and telephone calls. Any Program Director who has not received a questionnaire should contact Paul King.

DISCUSSIONS WITH EPA OFFICIALS ON MANPOWER AND TRAINING NEEDS

On June 11, Wesley O. Pipes and Paul King, members of the Board of Directors of AEEP met with Alvin L. Alm, Assistant Administrator for Planning and Management, and Dr. George L. B. Pratt, Director of Education and Manpower Planning to discuss the shortage of adequately educated environmental engineers. On August 25, Joe Middlebrooks, President of AEEP, met with Kenneth Johnson, Acting Director of Municipal Permits and Operations Division, Office of Water Programs to discuss this same problem. There is a recognition that this problem is a serious one and several approaches to finding a solution are under consideration.

AEEP CONTINUES DIALOGUE WITH EPA

As part of a continuing dialogue with the U.S. Environmental Protection Agency, EPA representatives met with two AEEP Board members in Washington, D. C. on June 11, 1974. EPA participants were Mr. Alvin L. Alm, Assistant Administrator for Planning and Management, Dr. George L. B. Pratt, and Mr. William B. Parsons. AEEP was represented by Dr. Wesley O. Pipes, Vice President, and Dr. Paul H. King. The conference featured a discussion of various studies of environmental engineering manpower needs, present and projected enrollments in graduate programs in environmental engineering, and future financial support of such programs in the face of the announced phase-out of EPA training grants.

NEWS FROM EPA

EPA Lists Possible Changes in PL 92-500

The EPA Administrator Russel E. Train, speaking during oversight hearing held in July, 1974 by the House Committee on Public Works, pointed out that the agency will propose

GRADUATE ENROLLMENTS FOR 1974-75 EXPECTED TO DECLINE FURTHER

Due to the need for information for future planning a telephone survey of 32 of the graduate programs in environmental engineering was undertaken during July by Robert F. Ruhl of the U.S. Environmental Protection Agency and Wesley Pipes and Paul King, members of the Board of Directors of AEEP. Two of the Program Directors contacted expected higher enrollments for 1974-75 than for 1973-74, five expected the same enrollments, and twenty-five expected lower enrollments. The summary of the information collected compared with the enrollment figures for these thirty-three programs for the past three years is given in the table below. The largest declines are expected in the largest programs with the smaller programs having already suffered their large drops in enrollment.

Program Size	No. of Schools	Total Graduate Students in Environmental Engineering			
		1971-72	1972-73	1973-74	Fall 1974 (estimated)
1-10 students	4	62	53	33	29
11-20 students	5	124	106	80	64
21-30 students	11	290	278	277	225
31-40 students	6	228	229	222	176
More than 40 students	6	333	346	316	263
Totals		1,027	1,012	928	758
% Decline		1.5%	8.3%	18.3%	Overall 26.2%

INTERNATIONAL ASSOCIATION ON WATER
POLLUTION RESEARCH

REGISTER OF ENVIRONMENTAL ENGINEERING
GRADUATE PROGRAMS NOW AVAILABLE

4th UNIVERSITIES FORUM - AWWA ANNUAL CONFERENCE
MINNEAPOLIS, MINNESOTA, JUNE 8-13, 1975

CALL FOR PAPERS

Abstract evaluation will be made by a subcommittee of the AWWA Student Activities Committee in December and selected participants will be notified in early January. Papers will be chosen on the basis of relevancy to the field, technical content, clarity and logic. Abstracts dealing with experimental studies for which no data are yet available will be given low priority.

Some consideration will be given to regional distribution of representatives but quality and relevance of the proposed paper is the primary criterion.

Educational level of the student is *not a factor* in selection.

MEMBERS IN THE NEWS

John T. O'Connor Named Chairman of Civil Engineering

AEEP Board Member, John T. O'Connor, has been named new Chairman of the Department of Civil Engineering, University of Missouri-Columbia. He is to assume the duties of chairman in January, 1975.

In addition to currently serving on the AEEP Board, Professor O'Connor is one of the charter members of AEEP. He has served AEEP as Associate Editor of the first (AAPSE) Newsletter, organized the first (AAPSE) Seminar at Purdue, and edited the first laboratory manual to be prepared by AEEP.

Professor O'Connor joined the University of Illinois faculty as assistant professor in 1961. He was promoted to full professor in 1970.

Raymond C. Loher Joins EPA

Dr. Raymond C. Loher of Cornell University has joined EPA, on one year sabbatical, as program adviser to the Effluent Guidelines Division in Washington. Ray will be on the technical staff that assist personnel in developing industrial effluent guidelines.

Martin P. Wanielista Joins AEEP Board and Is The New Secretary-Treasurer

Dr. Martin P. Wanielista of Florida Technological University has been appointed by the Board of Directors as a board member as well as Secretary-Treasurer to fill the vacancy created by the resignation of Dr. Billy H. Kornegay of Georgia Tech. All correspondence to Dr. Wanielista must be forwarded at the following address:

Environmental Systems Engineering Institute
Florida Technological University
Post Office Box 25000
Orlando, Florida 32816

Pipes to Drexel

Wesley O. Pipes, Vice-President of AEEP, has been appointed the Drew L. Betz Professor of Ecology at Drexel University effective January 1, 1975. He will be a member of the Department of Biological Sciences and have the responsibility for developing a graduate program in ecology. The position is a companion professorship to the Drew L. Betz Professor of Environmental Engineering who is Richard E. Speece. The two professorships were made possible by an endowment from Drew L. Betz, founder of Betz Laboratories and Betz Environmental Engineers.

The new appointment brings to a close Pipes' sixteen years as a faculty member in the Civil Engineering Department at Northwestern University. Pipes is well-known for his research on biological wastewater treatment, particularly the filamentous

bacteria and fungi associated with activated sludge bulking, and on receiving water biology. For the past six years he has been a consultant to Commonwealth Edison Co., Chicago, on the effects of cooling water usage on aquatic ecosystems. He has also served as a consultant to the Metropolitan Sanitary District of Greater Chicago, Abbott Laboratories, Bauer Engineering, Inc., and several other agencies and firms.

Pipes was elected to the Board of Directors of AEEP in 1970. He was an organizer of and a member of the steering committee for the Third National Conference on Environmental Engineering Education held at Drexel University in August, 1973. He was reelected for a second, consecutive three-year term on the Board of Directors in 1973 and elected Vice-President for 1974. He is well-known to the AEEP membership for the survey of graduate enrollments in environmental engineering, his testimony on training support before Congressional Committees, and his handling of contacts with federal agencies for AEEP during the last year.

Billy H. Kornegay Joins Westvaco

Dr. Billy H. Kornegay of Georgia Tech has resigned his post from the University effective September, 1974 to join Westvaco in Covington, Virginia. At the time of his resignation, Billy was serving on the AEEP Board of Directors and also as the Secretary-Treasurer.

TWO NEW FACULTY AT VIRGINIA TECH

The faculty at Virginia Polytechnic Institute has been strengthened by the addition of two new members. Dr. Joseph H. Sherrard, formerly of Oklahoma State University, has been named Associate Professor of Sanitary Engineering. Dr. Sherrard's primary interest is in the area of biological wastewater treatment. Dr. J. Martin Hughes, previously a faculty member at Texas A&M University, is also a new Associate Professor of Sanitary Engineering. Dr. Hughes will be working in the field of air pollution control.

LAND DISPOSAL PROJECT WINS TOP AWARD

The Land Reclamation Program of Fulton County, Illinois, a \$45 million project that converts organic waste products into liquid fertilizer for the enrichment of strip-mined land, has been selected as the Outstanding Civil Engineering Achievement of 1974 by the American Society of Civil Engineers.

Since 1971, the Metropolitan Sanitary District of Greater Chicago, owner and developer of the project, has barged 600 tons (544 metric tons) of its sludge each day down the Illinois River to Fulton County, 200 miles (322 km) from Chicago. From there it is pumped 11 miles (18 km) underground to giant reservoirs, where high-powered sprinklers spray the sludge over a portion of 11,000 acres (4,455 ha) the district has purchased. Depending on the rainfall and the crop involved, the fields are soaked five times a year, and each acre absorbs about 20 dry tons (18.1 metric tons) of sludge. So far, more than \$410,000 has been returned to the district from the sale of corn and other crops.

POSITIONS AVAILABLE**Utah State University**

Utah Water Research Laboratory, Utah State University is seeking a research environmental engineer to design and conduct research on environmental engineering problems in the Intermountain area. Ph.D. and research experience in Waste Treatment are required. Expertise in the application of operations research techniques and systems engineering to complex water quality problems is also desirable. Send resume and three letters of reference to Jay M. Bagley, Director Utah Water Research Laboratory UMC 82, Utah State University, Logan, Utah, 84322. Equal Employment Opportunity (M/F) Employer.

University of Toledo

The Department of Civil Engineering, The University of Toledo, has an opening for a position of Assistant Professor in the area of Environmental Engineering. Responsibilities include both undergraduate and graduate instructions as well as the direction of research. A Ph.D. in Civil Engineering is required and professional registration is desirable. Contact Dr. D. C. Colony, Associate Professor and Chairman, Department of Civil Engineering, The University of Toledo, 2801 W. Bancroft Street, Toledo, Ohio, 43006. Equal Opportunity (M/F) Employer.

Clemson University

The Department of Environmental Systems Engineering has two openings in the area of air and water chemistry, with emphasis on environmental engineering applications, and **biological waste treatment**. Responsibilities include both teaching and research. Ph.D. required. Salary and rank commensurate with experience. Send curriculum vitae and publication list to Professor John Austin, Environmental Systems Engineering, Clemson University, Clemson, South Carolina, 29631. Deadline for receiving applications is November 30, 1974. Equal Opportunity (M/F) Employer.

University of Saskatchewan

The Civil Engineering Department has a faculty position available at the Assistant Professor level, commencing September, 1975. A Ph.D. or equivalent is required with consideration given for appropriate northern-oriented environmental engineering and core subjects at the undergraduate and graduate level, directing research and participating in development of Environment Engineering Program. Reply to Professor C. D. Smith, Head, Civil Engineering, Department, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.

**Utah Water Research Laboratory -
Utah State University**

The Utah Water Research Laboratory, Utah State University, has two openings, one in each of the general areas of water quality biology and of environmental engineering. Minimum qualifications include a Ph.D. degree and some specific research experience in the water quality area. Salary and appointment commensurate with qualifications. Submit an experience resume, transcript of university work, a brief outline of current research, and three letters of recommendations. Persons interested in research on effects of oil development, mineral extraction, and diffuse sources on the biological and chemical integrity of streams and lakes and methods of treating municipal and industrial wastes in rural areas are invited to apply to Dr. Jay M. Bagley, Director, Utah Water Research

University of Southern California

The University of Southern California Environmental Engineering Program has an immediate opening for an Assistant Professor of Civil and Environmental Engineering with specific duties in developing programs for teaching and research directed to the following areas.

- a) Environmental systems planning and resource management.
- b) Applications of operations research techniques in environmental impact analysis.

The successful candidate is expected to have a background in environmental engineering, water resource development, economics, and operations research.

Please contact Professor Frank R. Bowerman, Director, Environmental Engineering Programs, University of Southern California, University Park, Los Angeles, California 90007.

Illinois Institute of Technology

The Department of Environmental Engineering at Illinois Institute of Technology has an opening for a full-time faculty member in the area of domestic and industrial water pollution control. Responsibilities include teaching at both the graduate and undergraduate levels, and direction of graduate research. A Ph.D. in Environmental Engineering is required and some experience preferred but not necessary. Appointment may be at the Assistant or Associate Professor level, depending upon qualifications. The position is available for January or September, 1975. Applicants should send a resume with three letters of reference, and a transcript of graduate work to Dr. James W. Patterson, Chairman, Department of Environmental Engineering, Illinois Institute of Technology, Chicago, Illinois, 60616. Equal opportunity (M/F) Employer.

Washington State University

Washington State University has an immediate opening for a new position at the assistant professor level in Environmental Engineering. The position requires teaching and research responsibilities in the area of water quality engineering with emphasis in mathematical and physical modeling of aquatic and wastewater systems. Undergraduate degree in engineering and Ph.D. degrees are desired. Preference will be given to candidates with industrial and/or research experience. Submit detailed resume with copies of the course work taken and have three reference letters sent directly to: Dr. S. K. Bhagat, Professor and Head of Environmental Engineering, Washington State University, Pullman, Washington 99163. An equal opportunity employer.

Wayne State University

The Department of Civil Engineering at Wayne State University has a faculty position open in the general areas of water quality, wastewater treatment, water resources beginning anytime after September 1, 1974. The position requires undergraduate-graduate teaching and sponsored research activities. An earned doctorate and undergraduate civil engineering degree are required. Rank and salary are dependent upon qualifications. Apply to Dr. John Lamb, Chairman, Department of Civil Engineering, Wayne State University, 667 Merrick, Detroit, Michigan, 48202. An Affirmative Action/Equal Opportunity Employer.

State University of New York at Buffalo

A faculty position is open in the Department of Civil Engineering at the State University of New York at Buffalo. Person with Ph.D. in environmental engineering desired to strengthen undergraduate and graduate programs in environmental and water

University of Cape Town

Drexel University

Vanderbilt University

Mississippi State University

University of California - Berkeley

Carnegie - Mellon University

University of Washington

Texas A&M University

Kansas State University

Water Resources

Air Quality Management

Leadership position in the Air Quality Management Program. Will expand present air pollution program and coordinate campus wide interdisciplinary air quality management activities. Applicant should have experience in the air quality management field including contacts, knowledge of funding sources and general state of the art. Ph.D. desired, M.S. considered.

Water Reclamation and Treatment

Position involves teaching and research involving water treatment and waste treatment. Applicant should have considerable practical design experience in the consulting field. Research program will include advanced waste treatment, operational troubleshooting, and industrial waste treatment. Ph.D. and experience required.

Environmental Biologist

Position involves teaching and research in applies biology as part of the Environmental Engineering Division Staff. Experience in field studies, bioassay procedures and environmental impact studies is desirable.

All Environmental Engineering Areas

Research Associates and Research Assistants - Full time or Part time. A wide variety of positions are available to applicants with various backgrounds and experiences.

Estuarine Water Quality Management And/or Oil and Hazardous Material Control

Position involves teaching and research in Estuarine Water Quality Management, including water quality monitoring in rivers and estuaries, control of hazardous materials, oil spill containment and removal and other marine related environmental problems.

Write or Call:

Roy W. Hann, Jr., Ph.D., P.E.
Professor and Head
Environmental Engineering Division
Civil Engineering Department
Texas A&M University
College Station, Texas 77843

(713) 845-3011



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