



Newsletter

Published Quarterly by the Association of Environmental Engineering Professors

VOLUME 13, NO. 1

JANUARY, 1978

THE PRESIDENT'S CORNER

Whenever a job needs to be done, someone volunteers and does the work in a professional manner. It is this spirit of action and cooperation that has enabled Environmental Engineering Professors to have a voice that is heard. It has typified our organization and it is a source of our strength. The Association of Environmental Engineering Professors, AEEP, is ALIVE, HEALTHY, and GROWING as it enters its fifteenth year.

It was with pride as a member that I listened to the speakers at the AEEP/NSF Workshop last December to discuss fundamental research needs for water and wastewater treatment systems. The room was packed with representatives from private industry and government as well as representatives from our university campuses.

When Professor Rohlich began his remarks entitled "The History and Current Status of Fundamental Research in Water and Wastewater Treatment", my thoughts briefly drifted back a dozen years to May 7, 1965 when Professor Rohlich gave the opening remarks at a Seminar for Sanitary Engineering Professors, sponsored by AEEP's predecessor. This smaller meeting held at Northwestern Technological Institute was attended only by university professors. Awareness of the 1965 meeting or even of the organization was near-zero except on university campuses.

I attended the meeting because I was searching for a group or organization that would work to establish policies, make long-range plans and help to shape the environmental future of our nation, and would not accept the decisions of others about the conditions under which our profession would work and build. I was not disappointed. On that brutally hot day 12 years ago the message came across loud and clear that this was a responsive and eager group that intended to be a strong voice for the university community.

Shortly after that meeting I joined what was then

my most expensive professional organization. The Association has fulfilled its promise of action and effectiveness and has given me some of the most rewarding experiences of my professional life.

I am certain that the December 1977 conference will influence future policy with respect to basic research. It will not happen by itself or just as a result of co-sponsoring a meeting with a government agency; the influence of the meeting will result from increased communication and cooperation among members boosted by the prevailing spirit of the organization. The proceedings must and will be recorded and published to document the fundamental research needs. The proceedings in their finished form must and will be presented effectively to legislative bodies that provide funding and to government agencies that set research priorities. The success of these activities requires the work and support of the AEEP membership and not just one or two individuals. The broad base of action has been and will continue to be the strength of our organization.

In addition to its direct accomplishments, the AEEP/NSF Workshop symbolizes an improved balance between the general objectives of AEEP to foster improvement of research as well as environmental engineering education. Our profession needs both; each complements the other and builds toward a better understanding of the long-range problems that challenge our profession and our professional organization. 1978 will offer new challenges and new policy questions as a result of new and amended legislation. The challenges of the New Year will be difficult, but they will also present new opportunities. As your President I will be working to meet the challenges and discover the opportunities. However, everyone knows that it is the members, not just the President who makes real progress and real success.

Bruce Hanes

Tufts University

IN MEMORIUM

Ben Gotaas, one of the great sanitary engineers of the twentieth century, died August 24, 1977 in Evanston Hospital, Evanston, Illinois following a heart attack. He was a true professional engineer who obtained a BSCE from the University of South Dakota and practiced civil engineering in South Dakota and Iowa before going on for a master's degree from Iowa State and a second master's degree and a doctorate in sanitary engineering from Harvard. A student of Gordon M. Fair, he taught at the University of South Dakota, the University of North Carolina, the University of California, and Northwestern. At Berkley, he was twice Chairman of the Civil Engineering Department and founder of the Sanitary Engineering Research Laboratory at the Richmond Field Station. At Northwestern he was Dean of the Technological Institute 1957-1970. During World War II he was a U. S. Army

colonel and President of the Institute for Inter-American Affairs and was honored with state awards by the governments of Bolivia, Chile, Columbia and Haiti. The National University of Mexico gave him a "Founding Professor Award" for his work in organizing and planning its curriculum in sanitary engineering. He was a charter member of the National Academy of Engineering and served on advisory committees for the U. S. Army, the National Academy of Science, and the U. S. Environmental Protection Agency.

The recitation of his accomplishments and honors could be much longer but it would not convey the affection which his students and colleagues had for him and the sense of loss we have following his death. He was an inspiration to many and a leader who spoke effectively for sanitary engineering education and research in Washington. He was a gentleman and a friend.

PLANNING UNDERWAY FOR FOURTH NATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING EDUCATION

The Board of Directors of AEEP has authorized the 4th National Conference on Environmental Engineering Education and assigned authority for this conference to the Education Committee. The conference will be held at the University of Texas—Austin and is tentatively plan-

ned for the Spring or Summer, 1980. Any comments or suggestions concerning the conference should be directed to Jim Patterson, Department of Environmental Engineering, Illinois Institute of Technology, Chicago, Illinois, 60616.

AEEP BECOMES SPONSORING ORGANIZATION FOR AAEE

During the past year AEEP became a sponsoring organization of the American Academy of Environmental Engineers. Thereby, it joined with other sponsors that include: ASCE, WPCF, AWWA, ASEE, AIChE, APHA, APCA, APWA and NSPE. The Bylaws of AAEE state, "The primary objective of the Academy is to work towards the advancement of all aspects of environmental engineering. Within the primary objective, the Academy aims to improve the professional practice of environmental engineering, to enhance the status of professional engineers engaged in this vital activity, to promote good public relations and to encourage sound legislation in the area of environmental engineering, to stimulate interest in and awareness of the world's relation to the environment, and to support and encourage research and education in this

field."

Among its various activities, the Academy grants and issues to engineers, duly licensed by law to practice engineering, certificates of special knowledge of environmental engineering and publishes lists of such persons for public use. Certification may be obtained by examination or invitation. Any member of AEEP may be eligible for certification by either of these mechanisms. However, for three years after AEEP became a sponsoring organization, members of AEEP may apply for certification without examination under a type of "grandfather clause" for new sponsors if the applicant meets certain requirements. Details on membership requirements may be obtained by writing to the newsletter editors.

WINNER OF "AEEP/ENGINEERING SCIENCE AWARD FOR BEST DOCTORAL THESIS RELEVANT TO PRACTICE"

Mr. Gordon McCollum, Vice President, Engineering Science (ES) presented the annual research awards sponsored by his firm at an open meeting of the Association of Environmental Engineering Professors held in the Hotel Sheraton, Philadelphia, on Tuesday evening, October 4.

The awards consist of two \$500 checks given respectively to the author and his research advisor for the prize-winning doctoral candidate thesis on water or wastewater research as judged by a committee of professional researchers and practitioners. This year's recipients were the thesis author Dr. Bill Batchelor, Assistant Professor at Texas A and M University, and his research advisor, Dr. A. W. Lawrence, Vice President, Koppers Co., Inc. The title of the winning thesis is "Automatic Denitrification Using Sulfur Electron Donors." The research work was performed at Cornell University where both men were in

residence prior to their present positions.

The awards donor, Engineering-Science, is an international firm involved in design, research and planning related to quality of the environment. This marks the 10th year that Engineering-Science has sponsored this competition to recognize outstanding research in the field. A record 16 theses were considered for the award.

The competition for this year's award will be for those theses completed between July 1, 1977 and May 31, 1978. The research will be judged on the following basis: scientific and technical — 20%; originality — 20%; practical — 50%; and clarity — 10%. Three copies of the candidate's thesis must be submitted by May 31, 1978 to Dr. John F. Andrews, Department of Civil Engineering, University of Houston, Houston, Texas, 77004. (713-749-4481)

AEEP MEMBER ELECTED PRESIDENT OF WPCF

PHILADELPHIA, PA— Richard S. Engelbrecht, president-elect of the Water Pollution Control Federation, will begin his term as President of the organization in October of this year at the Federation's 50th annual conference.

Dr. Engelbrecht is a graduate of Indiana University from which he received his A.B. and Massachusetts Institute of Technology where he was awarded his M.S. and Sc. D. He then joined the Department of Civil Engineering faculty at University of Illinois at Urbana-Champaign where he was awarded a professorship in 1959. He is currently serving as Commissioner from Illinois on the Ohio River Valley Water Sanitation Commission (ORSANCO).

In addition to the WPCF, Dr. Engelbrecht is a member of AAAS, AEEP, ASM, AWWA and IAWPR. He was President of the Central States Water Pollution Control Association in 1969 and National Director from 1972-75.

Within the WPCF, Dr. Engelbrecht has served as

chairman of the Research Committee and on the Executive Committee. In 1970, Dr. Engelbrecht was elected chairman of the Illinois section of AWWA and received the Water Utility Man of the Year (Fuller) award in 1974. In 1976, he was the recipient of the AWWA Publication Award and was also elected to the National Academy of Engineering.

For his professional and research interests which primarily focus on microbiological problems associated with water pollution control, he has received the Harrison Prescott Eddy Medal and the Arthur Sydney Bedell Award from the WPCF.

The Water Pollution Control Federation is a technical membership organization founded in 1928 to serve the needs of the field. Its present membership of 25,000 is made up of those responsible for the design, construction, operation, and management of water pollution control facilities in the U. S. and many other countries.

AEEP PRE-CONFERENCE WORKSHOP PLANNED FOR PURDUE INDUSTRIAL WASTE CONFERENCE

AEEP will sponsor a workshop entitled "Land Treatment of Waste — Status and Use of the Technology" to be held in conjunction with the 1978 Purdue Industrial Waste Conference. The workshop is scheduled for Room 214 of the Stewart Center from 8:30 a.m. to 4:30 p.m. on Monday, May 8, 1978. The registration fees are: \$10 for AEEP members; \$35 for non-members; and no charge for currently enrolled students. Registration fees and requests for the complete schedule or additional information should be directed to Dr. William J. Jewell, Workshop Organizer, 202 Riley-Robb Hall, Cornell University, Ithica,

New York 14853. (Telephone: 607-256-4533).

Total registration in the one-day workshop will be limited to about 150. Featured speakers include: Robert K. Bastian, USEPA; Herman Bouwer, Water Conservation Laboratory, Agricultural Research Service; Thomas H. Hinesley, University of Illinois; William J. Jewell, Cornell University; Raymond C. Loehr, Cornell University; Allen R. Overman, University of Florida; Charled Tound, Metcalf and Eddy, Inc.; Sherwood W. Reed, USACE; George Tchobanoglous, University of California - Davis; and Richard E. Thomas, USEPA.

1976-77 ENROLLMENT SURVEY COMPLETED

A comprehensive information base of graduate enrollment trends in environmental engineering and related areas is important since these individuals will provide the future leadership in the water pollution control field. Consequently, AEEP has, since 1971, conducted an annual graduate enrollment survey in order to provide the necessary data base.

At the peak of the EPA Training Grant effort more than 100 graduate programs were receiving grants and about 1250 new M. S. students were enrolled in water pollution control engineering areas each year. In 1972 EPA announced that support provided for graduate training would be eliminated by 1976. Results of the 1976-1977 survey, conducted by William Jewell, indicate that a 68 percent decline in enrollment has occurred over the past 4 years and that only 406 new M. S. students were enrolled in environmental engineering programs in 1976. This represented a new low for the period over which the survey has been conducted. Furthermore, only 173 new M. S. students were enrolled in air pollution control programs.

The recent survey indicated that employment

opportunities remain excellent and starting salaries are continuing to increase. Projections indicate that the existing enrollment will not support the future man-power requirements in the water pollution field. Thus, it is doubtful whether pollution control mandates will be attained. The most serious danger is that the massive pollution control spending programs will be continued; and untrained personnel will become responsible for their implementation.

Copies of the 1976-1977 Enrollment Survey may be obtained from William Jewell, Cornell University, Ithaca, New York 14853.

NEW ENROLLMENT SURVEY REPORTS DUE

Program directors who have not yet submitted information for the 1977-78 Enrollment Trends Survey should do so as soon as possible. Completed forms should be directed to Dr. P. Arne Vesilind, Department of Civil Engineering, Duke University, Durham, NC 27706. (Telephone 919-684-2434).

WELCOME TO NEW AEEP MEMBERS

Bill Batchelor
Assistant Professor
Department of Civil Engineering
Texas A & M University
College Station, Texas 77843

Erik R. Christensen
Assistant Professor
Department of Mechanics
University of Wisconsin
Milwaukee, Wisconsin 53201

David H. Foster
Assistant Professor
Department of Civil and Architectural Engineering
University of Wyoming
Box 3295 - University Station
Laramie, Wyoming 82071

Arland H. Johannes
Assistant Professor
Department of Chemical and Environmental Engineering
Rensselaer Polytechnic Institute
Troy, New York 12181

Jack V. Matson
Assistant Professor
Department of Civil Engineering
University of Houston
Houston, Texas 77004

Stephen P. Shelton
Assistant Professor
Department of Civil Engineering
University of South Carolina
Columbia, South Carolina 29208

Michael K. Senstrom
Engineering Systems Department
Boelter Hall 7619C
University of California at Los Angeles
Los Angeles, California 90024

MID-ATLANTIC INDUSTRIAL WASTE CONFERENCE

The Tenth MID-ATLANTIC INDUSTRIAL WASTE CONFERENCE will be held at the University of Delaware on June 19-20, 1978. Topics of special concern include new treatment processes, heavy metal wastes, sludge treatment and disposal, effluent discharge guidelines,

pretreatment and recycle systems, toxic wastes, economic evaluation of treatment, as well as general cases. For more information contact Dr. J. B. Carberry, Department of Civil Engineering, University of Delaware, Newark, DE 19711.

INTERNATIONAL ASSOCIATION OF WATER POLLUTION RESEARCH

The Ninth Biennial Conference of the International Association of Water Pollution Research will be held in Stockholm on June 12-18, 1978. Post-Conference activities include Research Seminars on "Kinetics of Wastewater Treatment" (in Copenhagen), "Lake Restoration" (in Lund), "Eutrophication in Deep Lakes" (in Gjøvik, Norway), and "Water Pollution Control in Pulp and Paper Industries" (in Stockholm). Additionally, participants might consider attending the 4th European Sewage and Refuse Symposium and the 5th International Sewage and Refuse Engineering Exhibition in Munich during the week of June 5-9, 1978. Information on the IAWPR Biennial Conference may be obtained from Richard Dick at Cornell University. Fred Pohland, Georgia Tech, has made travel arrangements for Conference attendees.

The Eleventh Biennial Conference of the International Association on Water Pollution Research will be

held in Toronto in June, 1980. The Canadian National Committee has invited the U. S. A. National Committee to submit proposals for possible Post-Conference Seminars in the United States. Those interested in considering the development of a proposal to USANC for a possible Post-Conference Seminar should contact Richard Dick, Cornell University, concerning IAWPR and USANC Guidelines for such seminars.

A proposal has been submitted by USANC to EPA for preparation of a report on International Research activities based on developments at the Stockholm Conference. A similar report, based on the IWAPR Conference in Sydney, has previously been submitted. It is available from the National Technical Information Service. The NTIS Accession Number is PB-268-365, and it costs \$3 in microfiche and \$8 in paper.

ASTM ENVIRONMENTAL CHEMISTRY - FATE MODELING GROUP FORMED

The American Society for Testing and Materials has recently initiated an expanded activity in the area of environmental chemistry-fate modeling of new and expanded-use chemicals. This activity constitutes a section of the ASTM E-35 committee. G. Fred Lee of the Environmental Sciences Program at the University of Texas at Dallas, Richardson, Texas 75080 is organizing this section activity and is serving as section chairman. He is being assisted by Anne Jones, graduate student at the University of Texas at Dallas.

The overall objective of this section's activities is to develop a mathematical model that can be used to provide the information needed by industry and governmental agencies to predict the environmental concentra-

tions and the fate of new or expanded-use chemicals and their transformation products with a sufficient degree of reliability to determine whether any of them could accumulate in some part of the terrestrial or aquatic environment in sufficient concentrations to have an adverse effect on environmental quality and/or man.

A meeting of this section was held in Cleveland in early November 1977; the next meeting is scheduled for Narragansett, Rhode Island March 15-16, 1978.

Those interested in becoming involved in the ASTM activities devoted to environmental chemistry-fate modeling should contact Professor Lee for further information.

AEEP/NSF "FUNDAMENTAL RESEARCH NEEDS" CONFERENCE

A conference entitled "Fundamental Research Needs for Water and Wastewater Treatment Systems" was held in Washington, D.C. on 15 December 1977. The Conference was organized by the Association of Environmental Engineering Professors and sponsored by the National Science Foundation.

The Conference was organized to direct the attention of those in government, academia, and the private sector to the need for increased efforts in long-term, fundamental research on water and wastewater systems. Through the definition of specific research needs, moreover it is hoped that a greater proportion of the research talents available in the environmental engineering profession will be diverted to fundamental research thus reversing the trend toward short-term, immediate application research which has come to dominate the field.

Twenty nationally prominent speakers defined research needs for the conferees. The papers served as the focal point for extensive and lively discussion. Hon. George E. Brown, Jr. (U.S. Congressman, California, 36th

District) gave the luncheon address.

Drs. Arthur Ezra and Edward Bryan of the National Science Foundation indicated in their respective addresses that funding for fundamental research in the environmental engineering area will likely increase as more high quality proposals are received.

Dr. Ezra went on to explain that a high-quality proposal usually consists of the following elements:

(1) a well-documented literature review; (2) an excellent experimental plan; and (3) a well conceived justification. He pointed out, furthermore, that many proposals that are turned down upon first submission should be revised in accordance with the reviewers' comments and resubmitted. Ezra indicated that the highest funding rate is for recycled proposals.

Conference proceedings should be available in early May 1978 at \$7.50 to AEEP members and \$15 to non-members. Copies may be obtained by writing Dr. Michael J. Humenick, Department of Civil Engineering, University of Texas at Austin, Austin, Texas 78712.

NEW AEEP OFFICERS ELECTED

At the December 17, 1977 Board Meeting in Arlington, VA, the officers for the 1978 term were elected. Dr. N. Bruce Hanes, Tufts University, replaces Dr. George P. Hanna, University of Nebraska, as President of AEEP

for 1978. Dr. Charles R. O'Melia, University of North Carolina at Chapel Hill, was elected to the office of Vice President and replaces Dr. Hanes in that position. Dr. C.P. Leslie Grady, Jr., Purdue University, was re-elected as Secretary-Treasurer.

BOARD APPOINTS NEW NEWSLETTER CO-EDITORS

At their December 17, 1977 meeting, the Board of Directors appointed Drs. Joseph F. Judkins, Jr. and Joe Miller Morgan to serve as Co-Editors of the AEEP NEWSLETTER. They replace Dr. Stanley L. Klemetson who served most admirably in the position of Editor for the past two years.

In their charge to the new Co-Editors the Board directed that various steps be undertaken to reduce, or at least hold constant, the cost of printing and distributing the NEWSLETTER. Some changes have already been made. These include alterations in the NEWSLETTER format, a return to one-color printing and the application for a bulk mailing permit. Other changes are under consideration at the present.

The new Co-Editors would certainly appreciate any suggestions and comments (pro or con) relative to this or any other aspect of the NEWSLETTER publication and distribution. In addition, the Co-Editors solicit items of general interest to the profession for inclusion in the April issue of the NEWSLETTER. The deadline for this material is April 10, 1978. All comments, suggestions and items for publication should be directed to either J. F. Judkins, Jr. or Joe M. Morgan, Department of Civil Engineering, Auburn University, Auburn, AL 36830. (Telephone: 205-826-4320.)

ACADEMIC MARKET PLACE

CLEMSON UNIVERSITY

The Department of Environmental Systems Engineering at Clemson University has a tenure track opening for an applied aquatic chemist at the assistant professor level. Applicants who have earned an engineering PhD and have specialized in applied aquatic chemistry will be given highest consideration. Individuals who hold a PhD in aquatic chemistry and have a genuine engineering orientation are also encouraged to apply. Duties will include teaching at the graduate level, research and public service. Submit vitae, references, and pertinent publications to Dr. T. M. Keinath, Head; Department of Environmental Systems Engineering; Clemson University; Clemson, SC 29631. Deadline for receipt of applications is 1 April 1978. Clemson University is an Equal Opportunity/Affirmative Action Employer.

CORNELL UNIVERSITY

The Department of Environmental Engineering at Cornell University has an opening for a Post Doctoral Research Associate. The position involves full-time work on an NSF-funded research project. The research concerns evaluation of factors influencing the physical properties of sludges and the effect of those physical properties on the integration of sludge treatment, utilization, and disposal processes to form effective overall sludge management schemes. A PhD degree in Environmental Engineering or equivalent education and/or experience is necessary. Laboratory and computer experience is desirable.

Interested individuals should contact:

Richard I. Dick
Department of Environmental Engineering
Hollister Hall
Cornell University
Ithaca, New York 14853

Cornell is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF TEXAS AT AUSTIN

The Department of Civil Engineering at the University of Texas at Austin announces the availability of four faculty positions at the assistant professor level. Priority areas include Water Resources, Air Pollution and Water and Wastewater Treatment. Interested persons should submit a resume with references to:

Joseph F. Malina, Jr., P.E.
Chairman, Department of Civil Engineering
The University of Texas at Austin
Austin, Texas 78712

The University of Texas at Austin is an Equal Opportunity/Affirmative Employer.

UNIVERSITY OF NEW YORK AT BUFFALO

The Department of Civil Engineering, SUNY/ Buffalo, announces the opening of two, tenure-track faculty positions beginning September 1978.

- (1) One in the area of Environmental Engineering, specializing in one or more of the following: Physical-chemical treatment processes, disposal of waste on land, water supply, urban hydrology.
- (2) One in the area of Structural and Geotechnical Engineering, specializing in one or more of the following: structural analysis and design, structural dynamics, structural materials, structural systems, foundation analysis and design, soil properties and behavior.

Duties involve teaching and student advisement at the undergraduate and graduate level, and initiating and carrying out one's own research program. Salary and rank commensurate with qualifications, with a junior-level appointment preferred. Doctoral degree required.

Please direct inquiries to:

Dr. Dale D. Meredith
Acting Chairman
Department of Civil Engineering
State University of New York at Buffalo
Buffalo, New York 14214

SUNY/ Buffalo is an equal opportunity/ affirmative action employer. We are especially interested in identifying prospective minority and women candidates. No person in whatever relation with SUNY/ Buffalo shall be subject to discrimination on the basis of age, color, national origin, race, religion, or sex.

UNIVERSITY OF NORTH CAROLINA at CHAPEL HILL

The Department of Environmental Sciences and Engineering of the University of North Carolina at Chapel Hill has an opening in Water Resources Engineering for a faculty member at the Assistant Professor level. Applicants should have a PhD in applied fluid mechanics and be interested in research and graduate teaching in flow phenomena pertinent to water supply, water and wastewater treatment, wastewater discharge, or natural aquatic systems.

If you know of anyone who would be interested in this position, please ask them to forward vitae, references and pertinent publications to Dr. Philip C. Singer, Department of Environmental Sciences and Engineering, School of Public Health 201H, University of North Carolina at Chapel Hill, Chapel Hill, NC 27514. The University of North Carolina is an equal opportunity/affirmative action employer.

UNIVERSITY OF MAINE AT ORONO

The University of Maine at Orono is seeking applications for the position of Assistant, Associate or Full Professor of Civil Engineering. Responsibilities include participation in undergraduate, graduate and professional continuing education teaching and development of graduate programs in the area of the applicant's expertise. Qualifications include a PhD in Civil Engineering or some related field with emphasis in one of the following areas: Environmental Engineering, Ocean and Coastal Engineering, Surveying or Structures. Salary and rank of appointment will be dependent upon the applicant's qualifications and experience. The position is available for the Fall 1978 term and may be for either a 9 or 12 month appointment. Applications should be submitted prior to April 1, 1978 to:

Dr. Richard F. Dominguez, Chairman
Department of Civil Engineering
University of Maine at Orono
103 Boardman Hall
Orono, Maine 04473
207-581-7105

NORTH DAKOTA STATE UNIVERSITY

The Civil Engineering Department of North Dakota State University has an opening for a permanent faculty position. The professional rank and salary is open and depends on professional qualifications, education and experience.

Major Area: Sanitary/Environmental Engineering
Professional experience and a Masters Degree in Sanitary Engineering are required. A Doctor's Degree in Sanitary Engineering is desirable. This faculty member will be responsible in the area of undergraduate and graduate courses in Sanitary Engineering, research activities, and to direct the 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 1250 students.

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

Applicants should send their resume and a transcript of their graduate study to:

Dr. James L. Jorgenson, Chairman
Civil Engineering Department
North Dakota State University
Fargo, North Dakota 58102

North Dakota State University is an Equal Opportunity/Affirmative Action Employer.

RUTGERS UNIVERSITY

The Department of Civil and Environmental Engineering is seeking applications for prospective faculty positions at the Assistant Professor level beginning September 1, 1978. Specialties to be considered are water resources, construction, geotechnical engineering and structures.

Duties include undergraduate and graduate level teaching, pursuit and development of research in area of specialty, and other general faculty obligations. Candidates must have a B.S. in Civil Engineering and a PhD in one of the areas listed with strong research orientation.

Applications should be received before March 1, 1978.

Send resume and the names of three references to:

Dr. Joel Wiesenfeld, Chairman
Department of Civil & Environmental
Engineering
Rutgers University, P.O. Box 909
Piscataway, NJ 08854

VIRGINIA POLYTECHNIC INSTITUTE and STATE UNIVERSITY

The Department of Civil Engineering at Virginia Polytechnic Institute and State University is seeking applications for the position of Assistant Professor. A PhD and promise of success in both teaching and research are required. Candidates should hold an undergraduate degree in either Civil or Chemical facet of water quality management. Additional interest in solid waste disposal would be helpful. The appointment would be to a tenure-track position, beginning in September 1978. An EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION employer. Resumes should be directed to Dr. R.D. Walker, Head, Dept. of Civil Engineering, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061.

WORCESTER POLYTECHNIC INSTITUTE

WPI, Department of Civil Engineering has a faculty opening in Environmental Engineering. A PhD in environmental or sanitary engineering is required. In addition to teaching undergraduate and graduate level courses, the selected person will be extensively involved in project advising under the new WPI Plan. The Civil Engineering Department offers programs leading to B.S., M.S. and PhD degrees. The person should have a strong commitment to research, particularly sponsored research, in the area of Water Quality Control. Excellent research facilities exist within the Department and at WPI's Alden Research Laboratories.

Interested persons should apply to:

Dr. K. Keshavan
Professor and Head
Department of Civil Engineering
Worcester Polytechnic Institute

Worcester, Massachusetts 01609

WPI is an equal opportunity/affirmative employer.

AEEP

PRELIMINARY FINANCIAL REPORT – GENERAL FUND

1977

(Does not include Texas Publications Account nor NSF Workshop Funds)

Cash on hand – Jan. 1, 1977	\$ 200.00	checking account
	<u>10289.04</u>	savings account
	10489.04	

Income

Dues	\$ 7732.00
Publications	55.00
Workshops(Purdue)	45.00
Interest (Savings Account)	492.19
Misc.	<u>157.57</u>
	8481.76

Expenses

Office	\$ 762.88
Newsletter	1129.56
Board Meetings	664.32
Workshop (Purdue)	<u>1798.10</u>
Committees	685.50
USANC dues	500.00
Government Activities	377.71
Misc.	<u>321.06</u>
	6239.13

Balance +2242.63

Cash on hand – December 31, 1977 12731.67

2950.44	checking account
<u>9781.23</u>	savings account
12731.67	

January 16, 1978

C.P. Leslie Grady, Jr.
Secretary—Treasurer

OFFICERS

PRESIDENT

N. Bruce Hanes
Department of Civil Engineering
Tufts University
Medford, MA 02155
617-628-5000 Ext. 442

VICE PRESIDENT

Charles R. O'Melia
Department of Environmental Engineering
University of North Carolina
Chapel Hill, NC 27514
919-966-1052

SECRETARY-TREASURER

C.P. Leslie Grady, Jr.
School of Civil Engineering
Purdue University
Lafayette, IN 47907
317-494-4129

DIRECTORS

Richard R. Dague
University of Iowa

John F. Ferguson
University of Washington

C.P. Leslie Grady, Jr.
Purdue University

N. Bruce Hanes
Tufts University

Roger A. Minear
University of Tennessee

John T. Novak
University of Missouri - Columbia

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

Clifford W. Randall
Virginia Polytechnic Institute

Gerald A. Rolich
University of Texas - Austin