



PRESIDENT'S CORNER

The hot, dry summer of 1987 is almost history and most of you are already back in your fall classes. Where has the 1986-87 academic year gone? Rather than taking your time to read a long discourse, let me summarize some activities of interest succinctly.

- Dr. Charles O'Melia, chairman of our Research Committee has forwarded a proposal to the National Science Foundation requesting support of an AEEP Conference on Fundamental Research Directions in Environmental Engineering. The conference will be held in the Washington, DC, area in the January-May, 1988, period. The American Association of Environmental Engineers has agreed to co-sponsor the Conference. Look for more information as plans are hardened.
- The Board of directors of AEEP has forwarded the nominations of Dr. C. P. Leslie Grady, Jr. and Dr. Appiah Amirtharajah as Diplomats to the American Academy of Environmental Engineers. Dr. Frederick Pohland, Chairman of the AAEE Liaison Committee, reports that several additional nominations are being considered by his committee.
- Congratulations to our members selected as nominees for the Board of Directors for 1987-1990. They are:
 - T. M. Keinath, Clemson University
 - J. B. Neethling, UCLA
 - C. R. O'Melia, Johns Hopkins
 - J. H. Sherrard, Virginia Polytechnic Institute and State University
 - M. T. Suidan, University of Illinois

W. J. Weber, University of Michigan

Good luck to all of you in the election; be prepared to work to win!

- The Proceedings: Fifth Conference on Environmental Engineering Education are printed and available. I am sure you can get copies from Bob Baillod of Michigan Tech or from our own Secretary — Des Lawler of the University of Texas - Austin.
- Congratulations go to Dr. David Jenkins who has been selected as our "Distinguished Lecturer for 1988".
- Watch for developments! The AAEE has asked AEEP for advice in implementing the AAEE/Kappe Lecturer tour. The Kappe lecturer will be a "practicing" engineer selected from the membership of the Academy to visit environmental engineering educational institutions. Information concerning selection of universities, costs, etc., will be forthcoming from both AEEP and the Academy.
- The AEEP Legislative Analysis Committee Report on *Protecting Our Environment: The Need for Exploratory Research* and the supplement *Protecting Our Environment: The Cost of Exploratory Research* were mailed to over 150 U.S. legislators with legislative committee interests in the environment. The position taken by AEEP has been entered into the Congressional Record and several legislators have complimented us on our positions.

SEE YOU IN PHILADELPHIA!

E. Robert Baumann
President

AEEP NEWS AND ANNOUNCEMENTS

Engineering-Science/AEEP Best Thesis Award for 1986

Mr. Nickolas L. Presecan of Engineering-Science and the AEEP are pleased to announce that Drs. Walter Weber and M. Yavuz Corapcioglu have selected the thesis entitled "Fermentation of Particulate Organic Matter to Methane in a Thermophilic Anaerobic Attached Film Expanded Bed Reactor" by **William Wade Clarkson** as the Outstanding Thesis of 1986. The thesis was supervised by **Dr. William J. Jewell**, Cornell University. Congratulations to both Clarkson and Jewell.

Distinguished Lecturer for 1988

Next year's AEEP Distinguished Lecturer will be Dr. David Jenkins, Professor of Environmental Engineering at the University of California, Berkeley. Dr. Jenkins has agreed to prepare two lectures for the Distinguished Lecturer tour next spring:

1. *The Causes and Control of Activated Sludge Solids Separation Problems*

The separation of activated sludge solids from the treated effluent by clarification is often the process step that limits the performance of the activated sludge process. Problems with this separation process range from poorly flocculated activated sludge, through the overgrowth of filamentous organisms causing poor compaction to microbially caused foams or scums. The microbiological basis of the various activated sludge solids separation problems will be discussed. Examples of using this knowledge of process microbiology to the resolution of practical problems will be given. Research needs in this area will be identified.

2. *Sources, Transformations and Fate of Phosphate in Chemical and Biological Waste Treatment Processes*

The fundamental chemistry and microbiology of phosphate removal from wastewater by the activated sludge process will be discussed. Processes considered will include the simultaneous chemical precipitation of phosphate by precipitants such as iron and aluminum added to the activated sludge process; also considered will be the so-called enhanced biological phosphorus removal processes.

Dr. Jenkins' lecture tour will be arranged sometime during the period February 15 - April 30, 1988. Institutions which are interested in hosting Dr. Jenkins should send a letter request by November 15, 1987, to:

Professor Makram T. Suidan
Room 3230 Newmark Civil Engineering Lab.
University of Illinois
208 North Romine Street
Urbana, IL 61801
(217) 333-9017

The letter request should contain the following information:

1. Name of institution and contact person.
2. Whether the program will be co-hosted with another institution.
3. Preferred lecture topic and whether a video tape of the lecture could be made.
4. Preference or restrictions on date for a visit during February-April; please try to be as flexible as possible.
5. A brief statement describing how a visit by Dr. Jenkins would fit into your institution's current academic activities.

Costs of the lecture tour are shared among the host institutions on a total lump sum, fixed cost basis. It is anticipated that each university would contribute approximately \$780 to cover cost of travel and living expenses, as well as to provide a modest honorarium. The Distinguished Lecturer Committee will review the requests and arrange an itinerary. It is anticipated that there will be more requests for visits than may be accommodated on one tour. In that case the committee's decision will be guided by several criteria including: special consideration for those institutions which have not been visited by a Distinguished Lecturer within the last year or two, focus of research and teaching activities at the institutions, and the possibility of having two or more institutions co-host a visit.

AEEP/WPCF Workshop on Biotechnology

AEEP will again offer a Sunday workshop coincident with the WPCF Conference. The program is entitled "Biotechnology in Environmental Engineering" and will be held at Drexel University on Sunday, October 4th. Registration is \$25 for AEEP members, \$50 for non-members, and \$10 for students. Handouts and refreshments will be provided. Please spread the word to non-members who might be interested in this topic.

Program

- 1:00** Welcome — C. P. L. Grady Jr.
1:05 - 1:25 Introduction — J. D. Byers
1:25 - 2:10 Review of Molecular Biology — C. P. L. Grady Jr.

2:10 - 3:00 Genetic Engineering - Concepts and Techniques — G. S. Saylor

3:00 - 3:20 Break

3:20 - 4:10 Development of Tailored Mixed Cultures Using Engineered Selective Pressures — R. L. Irvine*

4:10 - 5:00 Factors Affecting the Fate of Engineered Organisms in Natural and Engineered Environments — J. D. Bryers

5:00 Adjourn

*Unconfirmed

Registration at the door is permissible, but advance payment will be appreciated. Please mail pre-registration to Brian Dempsey, 212 Sackett Building, Penn State University, University Park, PA 16802.

AEEP Annual Membership Luncheon

The AEEP Annual Membership Meeting will be held on Monday, October 5, from 11:45 AM to 1:15 PM, at the Penn Tower Hotel, Philadelphia, PA. The Penn Tower Hotel is located directly adjacent to the Philadelphia Civic Center Convention and Exposition Halls, the site of the 60th Annual Conference of the Water Pollution Control Federation. The annual membership luncheon is traditionally conducted on the first day of the WPCF conference, as this affords a convenient opportunity for many AEEP members to attend the luncheon. The annual luncheon allows for meeting among colleagues, the sharing of news of the organization, and the presentation of awards.

The Penn Tower Hotel will provide a banquet luncheon buffet including pasta and green salads, poached salmon, beef tips, breast of chicken, and assorted vegetables and pastries with dessert and beverages. The cost is \$15.50 per person, and non-AEEP members are welcome.

Member News

Dr. Robert J. Peters recently left Purdue University to join Argonne National Laboratory as an Environmental Systems Engineer in the Energy and Environmental Systems Division. He has the responsibility for technology assessment of contaminated groundwater remediation techniques, hazardous waste treatments and soil decontamination methodologies. Bob's new address is:

Dr. Robert W. Peters, P.E.
Energy and Environmental Systems Division
Bldg. No. 362
Argonne National Laboratory
9700 South Cass Avenue
Argonne, IL 60439
☎ (312) 972-7773

Dr. William R. Knocke, a Professor at Virginia Polytechnic Institute and State University, is on sabbatical leave at the University of Massachusetts, Amherst, during the 1987-88 academic year. Bill's address there is:

Dr. William R. Knocke
Department of Civil Engineering
Marston Hall
University of Massachusetts
Amherst, MA 01003
☎ (413) 545-0685

AEEP-Purdue Workshop Proceedings

A limited number of proceedings prepared for the 1987 AEEP-Purdue workshop on Metals Control and Recovery may now be purchased for \$10. This document of approximately 150 pages provides a broad spectrum of theoretical and pragmatic knowledge on the issues of heavy metal management within aqueous systems. Please send your check made out to AEEP to Prof. James E. Alleman, School of Civil Engineering, Purdue University, West Lafayette, Indiana 47907. Please allow two to three weeks for mailing.

ATTN: Computer Buffs !!

Check out the new "electronic"
Purdue-AEEP Environmental Engineering
BOILER BULLETIN BOARD
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(Modem protocol: 8 data bits, no parity)

AEEP Newsletter Editor Change

Gregory D. Boardman, Associate Professor of Environmental Engineering at Virginia Polytechnic Institute and State University, is now editor of the AEEP Newsletter. Richard R. Noss at the University of Massachusetts was the former editor and is to be congratulated for having done a fine job.

Deadline for the December 1987 Newsletter

Please mail articles for the December issue of the AEEP Newsletter directly to the editor, G. D. Boardman, by October 31, 1987.

GENERAL NEWS

National Science Foundation Establishes Hazardous Substance Research Center at UCLA

One of the two new Engineering Research Centers to be supported by grants from the National Science Foundation will be devoted to the topic of hazardous substance control. The Center will be located at the University of California at Los Angeles (UCLA) and will be under the direction of Dr. Sheldon K. Friedlander, Professor of Chemical Engineering. UCLA will receive up to \$18 million over the five-year period, \$2 million of which will be awarded in Fiscal Year 1987. The goal of the Center will be to develop and apply an interdisciplinary engineering systems approach to the cost-effective improvement of hazardous substance control, considering the flow of hazardous substances from their origin in a manufacturing process through their treatment, eventual disposal, possible release from containment, transport and transformation in the environment. It will also consider the eventual exposure of plants and humans and other animals to these hazardous substances. UCLA Faculty who will be among those contributing to the operation of this center include Yoram Cohen, William H. Glaze, J. B. Neethling, Richard L. Perrine, Michael K. Stenstrom, Vincent L. Wilker, and William W-G Yeh.

The second of the two Engineering Research Centers that were the subject of a National Science Board announcement on March 23, 1987, will be located at the University of Colorado at Boulder in cooperation with Colorado State University on optoelectronic computing systems. The establishment of these two Centers will bring the total up to 13 since the initiation of this program in 1985. For further information, contact Dr. Edward H Bryan, National Science Foundation, Washington, DC 20550.

London Office for IWEM

The Institution of Water and Environmental Management (IWEM) has acquired office accommodation at 15 John Street, London WC1N 2EB. The IWEM has been formed following an amalgamation agreement between the Institute of Water Pollution Control, the Institution of Public Health Engineers and the Institution of Water Engineers and Scientists.

Environmental Engineering Selection Guide Available

The 1987 edition of the *Environmental Engineering Selection Guide* has just been released by the

American Academy of Environmental Engineers. The *Guide* is provided free of charge to all qualified (those that employ environmental engineers) upon request. The *Guide* provides a listing of environmental engineering experts for consulting assignments. It also lists the accredited environmental engineering programs at U.S. universities and all those professors who are certified environmental engineering specialists.

To obtain a free copy of the *Guide*, write on your letterhead to the American Academy of Environmental Engineers, 132 Holiday Court, Suite 206, Annapolis, Maryland 21401.

Proceedings Available from ASCE

Detection, Control, and Renovation of Contaminated Ground Water. Proceedings of a symposium sponsored by ASCE's Environmental Engineering Division's Committee on Water Pollution Management and co-sponsored by the United States Environmental Protection Agency, Office of Ground Water Protection. Edited by Norbert Dee, William F. McTernan and Edward Kaplan. Published by ASCE, 1987; 226 pages, \$22.00.

Urban Runoff Quality — Impact and Quality Enhancement Technology. Proceedings of an Engineering Foundation Conference organized by the Urban Water Resources Research Council of the Technical Council on Research. Edited by Ben Urbonas and Larry A. Roesner. Published by ASCE, 1986; 486 pages, \$38.00.

Activated Sludge Manual Available

A new manual on the activated sludge process has been published by the Institute of Water Pollution Control. The manual provides a comprehensive compilation of all aspects of the activated sludge process. It deals with microbiology, physical properties, mechanism of oxygen transfer and factors affecting oxygen transfer. Other separate sections include process design considerations; methods of aeration; sludge production, separation and recycling; nitrification and denitrification; process modifications; and operation and control.

The *Activated Sludge Manual* is available from the IWPC, 53 London Road, Maidstone, Kent ME16 8JH. Price £9.50 (£7.50 to members), including postage (by surface mail overseas).

NOTEWORTHY PERSONAL ACCOMPLISHMENTS

LeRoy C. Feusner, Oil and Hazardous Substance Response Supervisor, Wyoming Department of Environmental Quality, is the first environmental engineer to obtain board certification from the American Academy of Environmental Engineers in the specialty of hazardous waste management.

The American Academy of Environmental Engineers has been providing board certification for licensed professional engineers since 1955. The specialties certified include: air pollution control, industrial hygiene, public health engineering, radiation protection, solid waste management and water supply/wastewater engineering. The Academy introduced an additional specialty, hazardous waste management, in January 1987.

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Denny S. Parker, senior vice president at Brown and Caldwell in Walnut Creek, CA, delivered the Simon W. Freese Lecture at the American Society of Civil Engineers' 1987 National Conference on Environmental Engineering, July 6-8. Parker's talk focused on "Wastewater Technology Innovation for the Year 2000".

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William O. Pruitt, retired irrigation engineer and lecturer at the University of California in Davis, has been

named winner of the American Society of Civil Engineers' Royce J. Tipton Award. Instituted in 1964 by the Society's Board of Direction, the award was established to recognize contributions to the advancement of irrigation and drainage engineering.

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Michael J. Donahue has been appointed Executive Director of the Great Lakes Commission, an eight state compact agency providing a regional voice on environmental quality, economic development and resource management issues. In making the announcement, Commission Chairperson Thomas D. Martin stated, "Dr. Donahue brings to the Commission an impressive track record in regional governance and advocacy. His understanding of pressing issues will serve the Commission well in representing member states at the federal and Congressional levels".

Established in 1955 by legislative action of the eight Great Lakes states and subsequently recognized by Congress in federal law, the Great Lakes Commission is comprised of governors' appointees, state officials and legislators. Commission activities include interstate coordination, consensus-building, and advocacy on a range of issues affecting the economic and environmental health and welfare of the region's residents.

MEETINGS AND COURSE ANNOUNCEMENTS

Course on Water Supply and Sanitation for Developing Countries

The Department of Civil Engineering at the University of Ottawa will be offering a four day intensive course on "Water Supply and Sanitation for Developing Countries" from June 6-9, 1988. The course, being offered for the fifth time, will cover low cost, renewable energy technologies and consider economic and sociocultural aspects of technology implementation. The cost of the course is \$250 (Cdn) for attendees of the Vth IWRA World Water Congress and \$400 (Cdn) for others. The course will be given by a team of consultants and professors with extensive overseas experience.

For further information, please contact:

Dr. Ron Droste
Water and Sanitation Course
Department of Civil Engineering
University of Ottawa
Ottawa, Ontario, Canada K1N 6N5
Phone: 613-564-3348
Telex: 053 3338

International Conference on Microbiology of Waters and Wastewaters

An International Conference on the Microbiology of Waters and Wastewaters will be held in Newport Beach, California, February 8-11, 1988. The Conference is sponsored by the International Association for Water Pollution Research and Control and is being co-sponsored by the National Science Foundation, the American Society for Microbiology, the American Water Works Research Foundation, and the University of California at Irvine.

Dr. R. R. Colwell will present the opening address "The Need for Interaction between Microbiologists and Engineers". Dr. Colwell is Professor of Microbiology, University of Maryland, and Past president of the American Society for Microbiology.

Dr. P. L. McCarty will address the Conference Banquet on the topic "The Particular Relevance of Science to Environmental Engineering Practice". Dr. McCarty is the Silas H. Palmer Professor of Environmental Engineering at Stanford University, California.

For further information and to obtain a brochure describing the program, and registration and accommodation details, please contact Professor David Jenkins, Department of Civil Engineering, 607 Davis Hall, University of California, Berkeley, CA 94720, USA; telephone number (415) 642-5337.

ASCE's National Convention

The American Society of Civil Engineers' annual convention will be held on October 25-28 at the Disneyland Hotel in Anaheim, CA. The format of the conference is being referred to as "World of Technology". The conference will serve as an international forum for the entire civil engineering community by providing an introduction to new methods of practice and educational opportunities. Focusing on "A Civil Engineer's Commitment to Quality", the meeting will feature a keynote address by The Honorable James B. Deutsch, commissioner of Jefferson City, MO, who handed down a 400-page landmark opinion on the case of two engineers involved in the Hyatt Skywalk failure.

Infrastructure Session at ASCE's National Convention

Lowell B. Jackson, member of the National Council on Public Works Improvement, is expected to release

the committee's findings concerning the U.S. Infrastructure on October 25 at 12 p.m. during his opening day luncheon address. Jackson was the first civil engineer to be appointed to the National Council on Public Works Improvement by President Reagan. The Council is charged with reporting the state of the nation's infrastructure to the President and Congress. Currently, Jackson is Executive Director of the Colorado Department of Highways.

For registration information, contact: Conventions & Exhibits Department, ASCE, 345 East 47th Street, NY, NY 10017, or call (212) 705-7218.

CSCE-ASCE National Conference on Environmental Engineering

A Joint CSCE-ASCE National Conference on Environmental Engineering will be held July 13-15, 1988, in Vancouver, B.C., at the Pan Pacific Hotel, Harbourside. The official host will be the Environmental Engineering Group, Dept. of Civil Engineering, UBC. Submission deadline for abstracts is November 4, 1987. Abstracts may cover all topics associated with Environmental Engineering aspects of air, noise, radiation, solid and hazardous waste, water pollution, water supply, waste treatment and public health engineering. All abstracts will be reviewed by a National Abstract Review Committee, appointed by the Technical Co-Chairmen (Bill Oldham, UBC, and Dave Stensel, U. of Washington). Accepted papers will be published in a Summary Proceedings, prior to the conference. For further details and complete instructions for preparation of extended abstracts, please contact: Donald S. Mavinic, Conference Chairman, Department of Civil Engineering, University of British Columbia, Vancouver, B.C., Canada V6T 1W5; (604) 228-4752.

FACULTY POSITIONS AND RESEARCH FELLOWSHIPS

University of California, Berkeley

The University of California, Berkeley, Department of Civil Engineering, seeks applicants for a tenure-track faculty position in the area of Sanitary/Environmental Engineering. The position may be appointed at any level; however, preference will be given to applicants at the assistant professor level.

Applicants should have a doctoral degree in engineering with a strong background in applied chemistry and an interest in conducting research and teaching in the physical and chemical processes pertinent to the treatment of industrial and hazardous wastes. Teaching at both an undergraduate and graduate level is expected.

Applicants should send a detailed resume together with the name and address of three references to:

Professor Robert L. Taylor, Chairman
Department of Civil Engineering
University of California
Berkeley, CA 94720

Applications received by December 15, 1987, will be given first consideration; however, all applications will be considered until the position is filled. The position will begin on July 1, 1988. *The University of California is an Equal Opportunity, Affirmative Action Employer.*

Clarkson University

The Department of Civil and Environmental Engineering, Clarkson University, is accepting applications for a tenure-track position in Environmental

Engineering at the assistant or associate professor level. Ph.D. required. Responsibilities include undergraduate and graduate teaching and contribution to an active graduate research program. Research interests should be in biological or chemical processes in water and wastewater treatment systems or in natural waters. Send resume to Dr. Norbert L. Ackermann, Dept. of Civil and Environ. Engr., Clarkson University, Potsdam, NY 13676. *Equal Opportunity Employer.*

Research Fellowships Available

Lenox Institute, Lenox, Massachusetts, has four Research Fellowships available for Master's candidates during academic year 1987-88. Applicants must have a B.E. or B.S. degree. Contact Ms. S. Malumphy at (413) 637-3025 for application forms.

2nd Edition of Computer Software Manual

A second edition of the AEEP Computer Software Manual is planned. The first edition of this manual has become a valuable resource for demonstration and utility programs in environmental engineering courses. The success of the manual will depend largely on voluntary contributions. Programs on all aspects of environmental engineering are welcomed.

If you have written computer programs or developed spreadsheet templates and wish to have it included in this second edition of the manual, please complete the following form so that we can add your name as a potential contributor. Note that this is only an *intent*, not a *commitment* to contribute!

Name: _____

Address: _____

Phone: (____) _____-_____

I would like to contribute _____ (number) programs, mostly written in _____ (language, spreadsheet). The programs fall into the following **general** categories: (ex. activated sludge, adsorption, chemical treatment, river models, etc.)

Please return form to:

J.B. Neethling
4532 D Boelfer Hall
Civil Engineering Department
University of California
Los Angeles, CA 90024-1593
(213) 825-1774

