



Newsletter

Published Quarterly by the Association of Environmental Engineering Professors

VOLUME 14, NO. 4

OCTOBER, 1979

PRESIDENT'S CORNER

The following is an excerpt from the forthcoming second edition of "Aquatic Chemistry" by Werner Stumm and James J. Morgan.

"At the bottom of many of our fresh waters, at the sediment water interface lives a little worm; the biologists call it tubifex. This worm has an interesting anatomy; its mouth is at the front end, but it breathes oxygen with the rear end. This presents the worm with a **conflict situation**: in order to eat it tends to penetrate deeper into the **food-bearing** sludge where oxygen is depleted: in order to breathe, however, it tends to ascend into the higher water layers that contain dissolved oxygen, but where there is little food.

This example of an antinomy — an organism being suspended between layers of nutrition and respiration — illustrates a basic property, a constitutive property of all organisms: Conditions of life preservation are unavoidably interrelated with conditions of life endangerment. This constitutive element is particularly evident with man in his conflict between development of natural resources and protection of the environment. Man has always built up his own order at the expense of some order in his environment. Modern man was forced to multiply destruction of environmental order to build up the increasingly intricate structure of cultural and technical civilization."

This antinomy of man — the necessary conflict between development of natural resources and protection of the environment — has given rise to environmental engineering and science. From the Broad Street Well in London to the snail darter in Tennessee, we have been involved in such conflicts and their resolution. In the future, resources can only become more scarce and the stresses on the environment from population growth and from man's technical and cultural activities **are likely to increase**. The opportunities and challenges for those who teach and those who are taught seem limitless.

Charles R. O'Melia

AEEP MEETINGS IN HOUSTON

Two very important AEEP meetings will be held in conjunction with the WPCF conference in Houston. They are:

AEEP Board of Directors Meeting
Sunday, October 7, 1979
Beginning at 9:00 a.m.
Ebony Room
Hyatt Regency Hotel

Annual AEEP Business Meeting will be held at 8:00 p.m. on Tuesday, October 9, in the Sheraton. The exact location has not been confirmed at this time. Items of business will include the presentation of awards and nominations of candidates for Board Membership.

It is hoped that every AEEP member attending the WPCF conference will make plans to be at the Annual Business Meeting. Persons wishing to bring specific topics to the attention of the Board of Directors should contact President O'Melia as soon as possible in order to be included on the agenda for the Board Meeting.

DEADLINE FOR JANUARY NEWSLETTER

Items to be included in the next issue of the NEWSLETTER should be received by the editors no later than January 7, 1980. Please submit any items of general interest to the profession to:

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

The editors would also like to receive comments and suggestions concerning the NEWSLETTER from the readership. The NEWSLETTER is published as a service to AEEP members and the editors wish to make it as useful a publication as is possible.

WATER QUALITY AREA TRAINING CENTER PROPOSAL SOLICITATION

The Columbus Laboratories of Battelle Memorial Institute, in cooperation with U.S. EPA's National Training and Operational Technology Center, is soliciting proposals for the establishment and operation of a pilot Area Training Center (ATC). The Center, scheduled to be in operation by January 1980, will offer professional educational and training programs in water quality to personnel in federal, state, and local water pollution control agencies, and other private sector groups in EPA Federal Standard Regions I and II (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, New Jersey, and New York). Eligible to respond to this proposal solicitation are two- and four-year colleges and universities located within those Federal Standard Regions. Proposals will be due by November 1, 1979.

The ATC is to serve as a functional model. Its performance will be evaluated, and the results used to recommend a national ATC implementation procedure.

Battelle has been designated by EPA as the administrative grantee and evaluator, and is responsible for preparing the request for proposal (RFP), reviewing proposals, selecting an educational institution and helping in the implementation of the pilot ATC. The educational institution selected will be subcontractor to Battelle.

For further information, contact the project director:

Lawrence G. Welling
Battelle Memorial Institute
505 King Avenue
Columbus, Ohio 43201
614-424-7172

AEEP/NALCO RESEARCH AWARD

The first Nalco/AEEP award for significant chemical research in Water and Wastewater Treatment was announced at the AEEP Workshop held at the AWWA Annual Meeting in San Francisco. The winners were:

Dr. Wei-chin Ying (Student)
Research Engineer
Calgon Corporation
Pittsburgh, Pennsylvania

Dr. Walter J. Weber, Jr. (Advisor)
Department of Civil Engineering
University of Michigan
Ann Arbor, Michigan

Dr. Ying's Dissertation is entitled:
"Investigation and Modeling of Bio-Physico Chemical Processes in Activated Carbon Columns"

The award consists of \$2500 divided between the Dissertation author and his major professor (\$1250 each).

COUNCIL FOR INTERNATIONAL EXCHANGE OF SCHOLARS

The council for International Exchange of Scholars announces that two Fulbright-Hays Program awards in Turkey in environmental engineering are available for the 1980-81 academic year. The awards are open to U.S. citizens holding a Ph.D. in an appropriate field and the rank of associate professor or an equivalent position in private industry. The openings are located at Ege University in Izmir and Istanbul Technical University. Financial benefits include a maintenance stipend and dependents' allowance for children. For more information contact:

Gary L. Garrison
Program Officer, Middle East
Council for International
Exchange of Scholars
Suite 300
Eleven Dupont Circle
Washington, DC 20036
(202) 833-4950

CALL FOR PAPERS

The AWWA announces a Call-For-Papers for the Ninth Annual Universities Forum to be held during the AWWA Annual Conference in Atlanta, June 15-20, 1980. Abstracts should be submitted to:

Dr. John T. Novak
0045 Engineering Building
Department of Civil Engineering
University of Missouri
Columbia, MO 65211

Papers should be related to municipal, agricultural, or industrial water supply problems including water treatment, water quality control, and water resource development and management. Presentations should be 15 minutes in length and will be followed by a 5-minute discussion period. The presenter must be a student. For details, contact Dr. Novak at the above address.

ACADEMIC MARKET PLACE

SCHOOL: University of North Carolina at Chapel Hill
POSITION: Assistant Professor of Environmental Science and Engineering

QUALIFICATIONS: Ph.D. in Environmental Engineering
RESPONSIBILITIES: Teach graduate courses and direct research in environmental engineering.

APPLICATION DEADLINE:

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

SCHOOL: Bradley University
POSITION: Open (tenure track)
QUALIFICATIONS: B.S. in Civil Engineering,
Doctorate or equivalent experience.
RESPONSIBILITIES: Teach courses in undergraduate and
professional development programs.
APPLICATION DEADLINE: November 15, 1979
CONTACT: Dr. B. B. Muvdi
Department of Civil Engineering and
Engineering Mechanics
Bradley University
Peoria, IL 61625
(309) 676-7611

SCHOOL: McGill University
POSITION: Assistant or Associate Professor (tenure
track)
QUALIFICATIONS: Ph.D. or equivalent experience
RESPONSIBILITIES: Undergraduate and graduate teach-
ing and research.
APPLICATION DEADLINE: Appointment to begin
January 1, 1980
CONTACT: Professor P. J. Harris, Chairman
Department of Civil Engineering
McGill University
817 Sherbrooke St. W.
Montreal, Quebec
Canada H3A 2K6

SCHOOL: Illinois Institute of Technology
POSITION: Assistant or Associate Professor
QUALIFICATIONS: Ph.D. in Environmental Engineering
RESPONSIBILITIES: Graduate and undergraduate teach-
ing, direct graduate research.
APPLICATION DEADLINE: Position available January
or September 1980
CONTACT: Dr. J. W. Patterson
Department of Environmental Engineering
Illinois Institute of Technology
Chicago, IL 60616

SCHOOL: South Dakota School of Mines and Technology
POSITION: Assistant Professor of Civil Engineering
QUALIFICATIONS: Ph.D. for permanent employment
(M.S. and experience for temporary
appointment).
RESPONSIBILITIES: Teach undergraduate and graduate
courses and direct research in
environmental engineering.
APPLICATION DEADLINE: November 30, 1979
CONTACT: Professor W. W. Coyle, Chairman
Department of Civil Engineering
South Dakota School of Mines and
Technology
Rapid City, South Dakota 57701
(605) 394-2442

PUBLICATION OF 1978-79 THESIS TITLES

Each fall the AEEP NEWSLETTER publishes the titles of theses completed during the preceding academic year. Only those titles submitted by the membership and other NEWSLETTER readers are included in the listing. The next such directory will be published early next fall and will include theses completed during the period July 1, 1979 to June 30, 1980. Details pertaining to next year's listing will appear in subsequent NEWSLETTER issues.

WATER AND WASTEWATER TREATMENT

"Removal of Laboratory Cultured Algae from Aqueous Suspension with Magnesium Hydroxide", John Robert Markham, Jr., (MS), 105 pages, June 1979, Auburn University (Joe M. Morgan).

"Performance of Pilot-Scale Intermittent Sand Filters Loaded with Oxidation Pond Effluent", Gary Leroy Huffman, (MS), 187 pages, June 1979, Auburn University (Joe M. Morgan).

"Changes in Dewatering Properties of a Textile Sludge During Aerobic Digestion", Michael Lee Hatcher, (MS), 89 pages, December 1978, Auburn University (J. F. Judkins, Jr.).

"Treatment of Laundromat Wastewater by Polymer Addition and Intermittent Sand Filtration", Kenneth R. McGraw, (MS), 87 pages, December 1978, Auburn University (J. F. Judkins, Jr.).

"Removal of Naturally Occurring Manganese From Alabama Waters by Rapid Sand Filtration Using Calcium as a Filter Aid", Robin Steven Peacock, (MS), 47 pages, March 1979, Auburn University (S. R. Jenkins).

"Alternative Sludge Management Systems for the Urban Studies Area of Nashville, Tennessee," Thomas B. Green, Jr. (MS), 112 pp., May 1979, Vanderbilt University (Edward L. Thackston).

"Determination of the Degradability of Sulfanilic Acid in the Activated Sludge Process," Anita K. Shipley (MS), 62 pp., May 1979, Vanderbilt University (W. Wesley Eckenfelder, Jr.).

"Development of a Methodology for Designing Fine-Grained Dredged Material Sedimentation Basins," Raymond L. Montgomery (Ph.D.), 231 pp., May 1979, Vanderbilt University (Edward L. Thackston).

"The Pyrolysis of Municipal and Industrial Sludges", Raymond Leone (MS), 75 pp., August 1978, University of New Hampshire (Dennis J. O'Brien advisor).

"A Trihalomethane Study of the Durham, New Hampshire Water Treatment Plant", Kenneth Stewart (MS), 62 pp., University of New Hampshire (Dennis J. O'Brien advisor).

"Trihalomethane Yields of Fulvic Acids Fractionated by Sephadex Gel Permeation Chromatography", Marc Jewett (MS), 46 pp., University of New Hampshire (Dennis J. O'Brien advisor).

"Characterization of Fulvic Acid Fractionated by Gel Permeation Chromatography", Richard Bixby (MS), 95 pp.,

University of New Hampshire (Dennis J. O'Brien advisor).

"Performance of Anaerobic Filters and Septic Tanks Applied to the Treatment of Residential Wastewater," by Judith C. Kennedy, (MS in Engineering, 93 pp., May 1979, University of Washington (Robert W. Seabloom)

"Direct Filtration Studies of Trihalomethane Precursor Removal of Humic Acid Waters and the Grasse River," Jud F. Lancto (MS), 105 pp., May 1979, Clarkson College of Technology, (James K. Edzwald)

"Treatment Process Variations to Reduce TTHM Residuals in a Finished Water," Edward L. Hatcher (MS), 110 pp., August 1979, University of Central Florida (Taylor).

"Heavy Metals in the Water and Wastewater System of the University of Central Florida," William Keith McCully (MSE), 80 pp., June 1979, University of Central Florida (Yousef).

"Cost Optimization Methodology for the Preliminary Design of Wastewater Treatment Plants", Roberto M. Narbaitz, M.A.Sc., 195 pp., May 1978, University of Toronto (Dr. B. J. Adams advisor)

"An Evaluation of Two New High Rate Biological Wastewater Treatment Technologies", Bernard P. Kuslikis, M. Eng., 89 pp., October 1978, University of Toronto (Dr. J. J. Ganczarczyk advisor).

"Complexation of Heavy Metals in Sanitary Landfill Leachates", Keith Knox, M.A.Sc., 98 pp., August 1978, University of Toronto (Dr. P. H. Jones advisor)

"Activated Sludge Process Control and Simulation", Sridhar Ganesan (MS), 52 pp., 1979, Washington State University (Surinder K. Bhagat)

"Nitrogen Removal From Wastewater Using Sequencing Batch Reactors", James E. Alleman (Ph.D.), 188 pp., August 1978, University of Notre Dame (Robert L. Irvine)

WATER MANAGEMENT

"An Evaluation of a Water Quality Model for Lower Granite Reservoir", Debra Appleyard (MS), 31 pp., 1978, Washington State University (William Funk)

"Verification of Water Flow in Liberty Lake", Nader Bazzazieh (MS), 111 pp., 1978, Washington State University (William Funk)

"Hydrologic Evaluation of Mine Tailing Disposal Sites", Patricio Gonzalez, M.A.Sc., 193 pp., May 1979, University of Toronto (Dr. B. J. Adams advisor)

"Approaches to Residential Water Conservation", Mark M. Lucas, (MSCE), 98 pp., December 1977, University of Washington (Robert W. Seabloom)

"Properties of Steady, Viscosity-Stratified Flow to a Line Sink," Thomas M. Walski (Ph.D.), 203 pp., May 1979, Vanderbilt University (Frank L. Parker)

"Theoretical Feasibility of Two-Layer Stratified Ponds for Collection of Solar Energy," Gary M. Hyatt (MS), 69 pp., May 1979, Vanderbilt University (Richard H. French)

"An Acute Toxicity Bioassay for Pesticides in Water Using *Paramecium Multimicronucleatum*," Joseph Roberts (MS), 67 pp., December 1978, Vanderbilt University (Williams L. Mills)

"Prevention of Airborne Legionnaires' Disease by

Formulation of a New Cooling Water for Use in Central Air Conditioning Systems," Tzyy-Yu J. Pan, Master of Engineering, 97 pp., May 1979, Stevens Institute of Technology (Dr. Lawrence K. Wang and Dr. Mu Hao Wang)

"Computer Analysis: Planning and Design of Water Distribution System for the Town of Bennington, Vermont," Raymond J. Yesselman, Master of Engineering, 280 pp., June 1979, Rensselaer Polytechnic Institute (Dr. Lawrence K. Wang and Dr. Donald B. Aulenbach)

INDUSTRIAL WASTE TREATMENT

"Design of Pollution Control Facility, Louisville and Nashville Railroad Company, Howell Yard, Evansville, Indiana," Paul F. Lynes (M.Eng.), 91 pp., May 1979, Vanderbilt University (Edward L. Thackston)

"Color Removal from Spent Vegetable Tanning Liquors by Coagulation with Polyelectrolytes," Janice L. Suddath (MS), 67 pp., May 1979, Vanderbilt University (Edward L. Thackston)

"Treatment of Acid Diatomaceous Earth Mining Wastewater", by Libby Morris Lace (MS), 118 pp., May 1979, University of New Hampshire (Paul L. Bishop advisor)

"Physicochemical Treatment for Lithograph Wastewater", by Russell Sullivan (MS), 73 pp., August 1979, University of New Hampshire (John A. Olofsson, Jr. advisor)

"The Uptake and Release Properties of Ion Exchange Resins Selective for Copper (II)," Matthew J. Maslyn (MS), 92 pp., July 1978, Clarkson College of Technology, (James K. Edzwald and Joseph V. DePinto)

"Wastewater Pre-Treatment System for a Printed Circuit Board Plant," Raymond F. Green (MSE), 70 pp., June 1979, University of Central Florida (McLellon)

"Removal of Heavy Metal by Chitosan", William D. McGee (MS), 1979, Washington State University (Ervin Hindin)

RIVERS, ESTUARIES, AND LAKES

"Practicality of Determining Chlorophyll a Concentrations by Continuous Flow Measurement of in situ Fluorescence". James Miller (MS), 90 pp., 1978, Washington State University (William Funk)

"Influence of a Biotic Sink on the Release of Phosphorus from Littoral Sediments of Liberty Lake, Washington", Stephen Breithaupt (MS), 35 pp., 1979, Washington State University (William Funk)

"Toxicity of Aluminum Sulfate to *Daphnia Pulex* with Change in Dilution Water and pH", Sidney Harper (MS), 37 pp., 1979, Washington State University (William Funk)

"Determination of Trophic Status of Lake Ozonia Through Algal Monitoring," Michael J. Palozzi (MS), 74 pp., July 1978, Clarkson College of Technology, (Joseph V. DePinto and Thomas C. Young)

"An Evaluation of Phosphorus Budgets and Trophic Status Models for Adirondack Lakes," Scott C. Martin (MS), 200 pp., January 1979, Clarkson College of

Technology (Joseph V. DePinto and James K. Edzward)

"The Recovery of Adirondack Acid Lakes by Chemical Manipulation," Robert F. Guminiak (MS), 104 pp., May 1979, Clarkson College of Technology (Joseph V. DePinto)

"A Survey of Surface Mining in Grundy County, Tennessee as it Effects Water Quality," Louise Eva Gorenflow, (MS), 167 pp., August 1978, The University of Tennessee (Roger A. Minear)

SOLID WASTES

"Treatment and Disposal of Hazardous Wastes in the East Central Florida Region," Tracey Lynn Bell (MS), 70 pp., June 1979, University of Central Florida (Cooper/Brown)

"The Removal of Heavy Metals from Coal Ash Leachate by Soil Sorption", Dennis Devlin (MS), 92 pp., 1979, Washington State University (Ervin Hindin)

"Planning, Design, and Management of Sanitary Landfill," Shiao Lii Chen, Master of Engineering, 82 pp., May 1979, Stevens Institute of Technology (Dr. Lawrence K. Wang and Dr. Mu Hao Wang)

RADIOLOGICAL HEALTH

"Critical Exposure Pathways: An Analysis of the Environmental Impact of Gaseous Effluents from Light-Water-Cooled Reactors," Robert Danna (MS), 72 pp., June 1979, University of Central Florida (McLellon)

"Environmental Aspects of the Nuclear Fuel Cycle and High Level Radioactive Waste Disposal," Robert S. Kent (MS), 114 pp., University of Central Florida (McLellon)

AIR POLLUTION

"Scrubber Design for Phosphoric Acid Production Facility," Edward E. Mayer (MS), 68 pp., June 1979, University of Central Florida (Wanielista)

"All-Glass Impinger Modifications to Improve the Recovery of Aerosolized Fecal Coliform," Deborah A. Allen (MS), 75 pp., May 1979, Michigan State University, (Mackenzie L. Davis)

"The Shortrange Downwind Decay of Fecal Coliform Aerosol," Richard M. Wirsing (MS), May 1979, Michigan State University (Mackenzie L. Davis)

"Light Hydrocarbon Concentrations in Various Geographical Sections of the United States", Paul E. Neil (MS), 53 pp., 1979, Washington State University (Hal Westberg)

NON POINT POLLUTION

"Optimization of Stormwater Management Practices and Processes," Mark Michael Calabrese (M.S.E.), 140 pp., University of Central Florida (Wanielista)

"Parametric Model for Suspended Sediment Load Rate in Strip Mined Watersheds," Man Lun Simon Tam, (MS), 135 pp., June 1979, The University of Tennessee (Bruce A. Tschantz)

WATER CHEMISTRY

"The Effect of Bromide on Trihalomethane Formation," James C. Bird, (MS), 148 pp., August 1979, The University of Tennessee (Roger A. Minear)

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