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# Newsletter

Published Quarterly by the Association of Environmental Engineering Professors

VOLUME 13, NO. 4

SEPTEMBER, 1978

## PRESIDENT'S CORNER

As summer slowly draws to a close we have the beautiful color explosion of the leaves to look forward to in New England. This delightful season is always a pleasant interlude before winter finally arrives. Also associated with the fall season is a flurry of professional activity in the academic field which includes numerous meetings, one of which is the annual business meeting of the Association of Environmental Engineering Professors. I am looking forward to the 1978 meeting where for the first time it will be possible to make two awards in recognition of outstanding research in our field.

During the past decade Engineering Science, Inc. and AEEP have sponsored an annual research award for the best doctoral candidate thesis on water or wastewater research. It is my personal feeling that recognition of this type has stimulated a better quality of research as well as recognizing the importance of research in solving our long range environmental problems. Efforts such as this are particularly important in the unfavorable funding climate researchers have experienced for many years. It is for these reasons I am pleased that a second award for research is finally possible. The Nalco Chemical Company has funded a new research award for the best doctoral thesis yielding significant chemical research in Industrial Waste Treatment. The competition is complete and the first Nalco Award will also be made at the AEEP business meeting in Anaheim. I hope that I will be able to see as many of our membership as possible at 8:00 p.m. on October 3rd in Anaheim and share with you the feeling or pride as two of our colleagues have their research efforts recognized.

Bruce Hanes  
Tufts University

## AEEP MEETINGS IN ANAHEIM

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

AEEP Board of Directors Meeting

Sunday October 1, 1978

9:00 a.m. to 6:00 p.m.

Palm Room

Disneyland Hotel

Annual AEEP Business Meeting

Tuesday October 3, 1978

8:00 p.m. to 11:00 p.m.

Santa Rosa Island Room

Disneyland Hotel

It is hoped that every AEEP member attending the conference will make plans to attend the Annual Meeting.

## AEEP ANNUAL RESEARCH AWARDS

The AEEP - Engineering-Science Award winner for this year is Dr. Mesut Sezgin. Dr. Sezgin's thesis is entitled "The Effect of Dissolved Oxygen Concentration on Activated Sludge Process Performance." His research was conducted at the University of California (Berkeley) under the direction of Dr. David Jenkins.

The AEEP-Nalco Award for significant Chemical Research in Industrial Waste Treatment for this year goes to Dr. Richard G. Luthy for his thesis entitled "Air Flotation of Refinery Wastewaters with Organic Coagulants. Dr. Luthy's research was performed at the University of California (Berkeley) under the direction of Dr. Robert E. Selleck.

Both awards will be presented at the upcoming WPCF conference in Anaheim, Ca.

## UNDERGRADUATE REGISTER AVAILABLE

Copies of the *Register of Undergraduate Environmental Engineering Programs* are now available at a cost of \$6.00 each postpaid. Order from:

Dr. D. B. Aulenbach  
Department of Chemical and  
Environmental Engineering  
Rensselaer Polytechnic Institute  
Troy, New York 12181

## AEEP DISTINGUISHED LECTURER

The AEEP Distinguished Lecturer this year will be selected from foreign candidates. The lectureship will involve a trip to six to ten universities to lecture on environmental engineering research during the spring, 1979. Suggestions of possible candidates would be appreciated. Please write to John Ferguson, Department of Civil Engineering, University of Washington, Seattle, WA 98195.

## I A PWR

The report of USANX (the USA National Committee for Representation of the United States to the International Association on Water Pollution Research) to the Environmental Protection Agency on Developments at the ninth International Conference on Water Pollution Research at Stockholm in June 1978 was in final typing at the time of the Newsletter deadline. The report prepared by participants in the conference, is a critical interpretation of developments at the conference of potential interest to EPA. Copies of the report will be provided to participants and AEEP, and will be available through NTIS.

AEEP's representatives on the USA National Committee during the period from the Stockholm Conference to the Toronto Conference (June 23-27, 1980) are Fred Pohland and Richard Dick. Earnest Gloyna and Wes Pipes serve as alternates. USANX officers during the period are Richard Engelbrecht, Chairman; David Stephan, Vice Chairman; and Richard Conway, Secretary-Treasurer. John Andrews continues as the USA Regional Editor of *Water Research*, and manuscripts for possible publication in that journal should be forwarded to him at the University of Houston.

Richard I. Dick

## WATER REUSE SYMPOSIUM

A Water Reuse Symposium will be held March 25-30, 1979 in Washington, DC. Under the direction and sponsorship of the American Water Works Association Research Foundation, Office of Water Research and Technology (US Department of the Interior), US Environmental Protection Agency, and Water Pollution Control Federation, the week-long meeting will be devoted to the renovation and reuse of wastewaters from municipalities, industry, and agriculture.

With the theme of "Water Reuse - From Research to Application," pertinent case histories, new water recycling research and practical community applications will be covered. Plenary, concurrent sessions and poster presentation will emphasize innovative approaches, national, state,

regional, and local reuse policy, health-effects studies, treatment R&D, monitoring, and control, criteria/standards development, institutional and legal problems. Technical tours through two important water recycling facilities will be available.

The program is directed to individuals from water/wastewater utilities, consulting firms, federal, state and private research organizations, regulatory agencies, research divisions of manufacturers and universities.

A preliminary program and registration form is available from:

Water Reuse Symposium  
AWWA Research Foundation  
6666 West Quincy Avenue  
Denver, CO 80235 USA  
Phone: (303) 794-7711, Ext. 251, 259, 267

## EPA TO HOST CONFERENCE

The U.S. Environmental Protection Agency will sponsor a two-day *National Conference on Water Conservation and Municipal Wastewater Flow Reduction* in Chicago on November 28 and 29, 1978. Sessions will be held at *Ramada - The O'Hare Inn* (Chicago O'Hare Airport).

Conference attendance will be limited to 500, with no registration fee required. Issues covered in the conference will include:

- Water and wastewater management issues
- Regulations affecting water supply, wastewater and their treatment
- Water and wastewater conservation technology
- Public participation, education and information in water conservation
- Case studies of water conservation, wastewater flow reduction projects.

National leaders will join with state and local officials, water and wastewater managers in presentation formats including speakers, resource panels and workshops during the two-day conference.

This conference is one form of Agency response to help implement the President's national water policy, in which a cornerstone element is attention to conservation of water. Growing Congressional interest in the topic is shared with heightened attention on the parts of many States, regions and local areas facing problems of water quantity, or water quality, or excessive hydraulic loads on wastewater treatment systems, under circumstances of rapidly rising construction and operational costs for potable water systems and for wastewater treatment processes alike

Interested persons should contact:

U.S. Environmental Protection Agency  
% Enviro Control, Inc.  
P.O. Box 1687  
Rockville, MD 20850

ATTN: Richard E. Tucker

## AEEP MEMBER RETURNS TO STATES

After spending 5 years on the faculty of the Human Environmental Science Program, School of Applied Science and Technology, Hebrew University of Jerusalem, Israel, and the past year on sabbatical leave at the Department of Civil Engineering, Northwestern University, Evanston, Illinois, Dr. Georges Belfort has recently decided to return permanently to the United States, and has accepted (from Sept. 1, 1978) a faculty position at the Department of Chemical and Environmental Engineering, Rensselaer Polytechnic Institute, Troy, New York, 12181.

## CALL FOR PAPERS

National Conference on Environmental Engineering  
San Francisco, California  
July 9-11, 1979

Sponsored by the Division of Environmental Engineering  
of the American Society of Civil Engineers  
and Co-Sponsored by:

Department of Civil Engineering,  
University of California, Berkeley  
California State Department of Health Services  
San Francisco Section of the  
American Society of Civil Engineers

Papers are being requested which promote sound engineering thought and practice in environmental engineering: notably in the provision of safe and ample public water supplies; the proper disposal or recycle of waste wastewater and solid wastes; the adequate drainage of urban and rural areas for proper sanitation; the control of water, soil and air pollution; and the social and environmental impact of these solutions. Research papers in these areas are also desired and will be included in separate sessions of the conference. Persons interested should submit one to two paged summaries of their work by November 30, 1978 to:

Professor Robert E. Selleck  
Room 663, Davis Hall  
University of California  
Berkeley, CA 94720

The XXII Conference of the International Association for Great Lakes Research will be held May 1-3, 1979 in Rochester, New York. Contributed papers and program suggestions are sought not only for great lakes but smaller ones as well. A special portion will be devoted to subjects which apply to the Finger Lakes. A feature theme of the multidisciplinary conference will be increased communication between government agencies, law makers and scientists.

Some typical topics from past programs:

Climatology  
Meteorology  
Currents  
Erosion and Sedimentation  
Pollution  
Plankton  
Aquatic plants  
Fisheries  
Land use  
History  
Aquatic ecology  
Lake restoration  
Toxic substances  
Regulation  
Wetlands  
Chemical limnology

Proposed titles or suggested discussion subjects should be forwarded as soon as possible for initial response. Abstracts will be due January 1, 1979. Interested persons should contact:

Herman S. Forest  
Rochester Area Colleges  
50 W. Main Street  
Rochester, NY 14614

The AWWA T&P Research Committee is seeking papers on research work in the water supply field for presentation at the 1979 Annual Conference to be held in San Francisco, California, June 24-29. As in 1978, two sessions have been requested by the Committee for presentation of research papers.

Papers will be chosen from abstracts received no later than Monday, December 4, 1978. All persons submitting an abstract will be notified by January 30, 1979, whether or not their paper was selected. Research papers dealing with water quality control, distribution, management and water resources are desired.

Eight copies of both an information sheet and a 300 to 1,000 word abstract of the research paper should be submitted to:

E. F. Spitzer, Secretary  
American Water Works Association  
T&P Research Committee  
6666 West Quincy Avenue  
Denver, Colorado 80235

Abstract information sheets can be obtained from the same source.

# ACADEMIC MARKET PLACE UNIVERSITY OF IOWA

The University of Iowa is seeking applicants to fill a newly established position in its Environmental Engineering Program. The position will involve primarily the coordination of teaching and research activities in the water and wastewater laboratories. Depending on individual qualifications and interests, the position could involve some teaching and the development and conduct of research. It is desired that applicants have education and/or experience backgrounds in the environmental engineering and applied science area. Actual degree requirements are open.

It is planned that the position will be filled no later than January 1, 1979. Resumes should be forwarded to:

Richard R. Dague  
Professor,  
Civil and Environmental Engineering Program  
College of Engineering  
University of Iowa  
Iowa City, IA 52242

## LOUISIANA STATE UNIVERSITY

The Department of Civil Engineering at Louisiana State University, Baton Rouge, Louisiana, invites applications from qualified individuals preferably with established records of teaching excellence and research in environmental engineering to fill a newly created faculty position in Civil Engineering (Sanitary). An individual with a background in wastewater management, chemistry, or unit operations with degree(s) in engineering is preferred. The Ph.D., or its equivalent, is required. The ability to work with students and other faculty, initiate and conduct funded research programs, and conduct graduate and undergraduate courses is essential.

For further information contact:

Professor Ara Arman, Chairman  
Department of Civil Engineering  
Louisiana State University  
Baton Rouge, LA 70803  
(504) 388-8442

## SYRACUSE UNIVERSITY

The Department of Civil Engineering invites applications to fill a faculty position at the Assistant/Associate Professor level in the Environmental Engineering area. Applicants must have a Ph.D. or equivalent experience and the ability to teach at the undergraduate and graduate levels, as well as develop research. Strength in the areas of Environmental Chemistry and related areas would be desired. Applicants should send their resumes to:

Dr. J. Charles Jennett, Chairman  
Department of Civil Engineering  
Syracuse University  
Syracuse, New York 13210

## PUBLICATION OF THESIS TITLES

As a service to the AEEP Membership, the Board of Directors has decided to publish the titles of theses completed each academic year by June 30. Only those lists submitted by the membership will be included in the listing. The next directory will appear early next fall for the 1978-79 work.

Time interval: July 1, 1978 to June 30, 1979

Classification of Titles;

Air Pollution

Agricultural Waste Management

Instrumental Methods of Analysis

Industrial Waste Treatment

Land Treatment

Non Point Pollution

Rivers, Estuaries, and Lakes

Solid Wastes

Water and Wastewater Treatment

Water Management

You may also use other classifications if there are a sufficient number of titles.

Format: "Title of Paper", Name of Author (Ph.D. or M.S.), X pp., Month, Year, Name of University (Name of Faculty Advisor).

Comments: Since the availability of documents vary, persons interested in a specific publication will be asked to contact the Faculty Advisor directly.

**Deadline: Submit by August 31, 1979 to:**

J. F. Judkins, Jr. and J. M. Morgan

Co-Editors

AEEP Newsletter

Department of Civil Engineering

Auburn University

Auburn, Alabama 36830

## 1977-78 THESIS TITLES

### WATER AND WASTEWATER TREATMENT

"Deep-Well Disposal of Treated Wastewater in Dade County, Florida," Udai P. Singh (Engr.), 335 pp., June 1978, University of Florida (Thomas deS. Furman, Sr.)

"Use of Daphnia for Oxidation Pond Effluent Polishing," Susan Kane, M.S., 88 pp., December 1977, The University of Texas at Austin (Neal E. Armstrong).

"The Effects of Hydraulic Detention Time on the Activated Sludge Process," Malcolm Walker, M.S., 63 pp., December 1977, The University of Texas at Austin (Joseph F. Malina, Jr.).

"Chemical Sludge Disinfection," Alejandro Ramirez, Ph.D., 192 pp., May 1978, The University of Texas at Austin (Joseph F. Malina, Jr.).

"The Fate of Solids-Incorporated Poliovirus During Continuous, High-rate Anaerobic and Aerobic Digestion," Dee Ann Sanders, Ph.D., 128 pp., December 1977, The University of Texas at Austin (Joseph F. Malina, Jr.).

"An Evaluation of the Rotating Biological Surface Reactor for the Removal of Phenol and 2,4 Dichlorophenol," Steve Hartman, M.S., 74 pp., August 1977, The University of Texas at Austin (Joseph F. Malina, Jr.).

"Pilot Reactor Clarifier: Laboratory Analysis of Design, Construction, and Operation", Paul R. Schroeder, M.S., 121 pp., April, 1977, Vanderbilt University (Edward L. Thackston).

"Modelling Wastewater Treatment Plant Performance Variables". Andrew C.-L. Kwong (M.A.Sc.), 232 pp., December 1977, University of Toronto. (B. J. Adams.)

"Bulking of Activated Sludge at Low Temperature". Edmund E. Salenieks (M.A.Sc.), 135 pp., May 1978, University of Toronto. (J. G. Henry.)

"Microbiological Aspects of Aerobic Digestion at Low Temperatures". Frank D. Kemp (M.A.Sc.), 98 pp., May 1978, University of Toronto.

"Utilization of a Multi Substrate Synthetic Waste by a Submerged Biological Filter," Timothy J. O'Connor (M.S.), 75 pp., September 1977, Clarkson College of Technology, (Paul A. Jennings)

"The Coagulation and Direct Filtration of Humic Substances with Polyethylenimine," Harold T. Glaser (M.S.), 110 pp., January 1978, Clarkson College of Technology, (James K. Edzwald)

"Slug Alkalinity Addition for Enhancement of Nitrification in the Activated Sludge Process", Ronald D. Hilburn, (MSE), December 1977, University of Washington, (John F. Ferguson).

"Solubilization of Organic Carbon During the Acid Phase of Anaerobic Digestion", John A. Eastman, (Ph.D.), February 1977, University of Washington, (John F. Ferguson).

"Effluent Irrigation in Western Washington: A Case Study of the Lake Hills Disposal Site", Mikkell Anderson, (MSCE), December 1977, University of Washington, (Robert O. Sylvester).

"Gravity Thickening of Sludge," Peter Kos (PhD), 306 pp., Jan. 1978, Univ. of Massachusetts, Amherst, (Donald Dean Adrian).

"Kinetics of Simultaneous Diffusion and Reaction for the Nitrification Process in Suspended Growth Systems," Wen Kang Shieh (PhD), 204 pp. June 1978, University of Massachusetts (Enrique J. La Motta).

"Mathematical Model of the Fluidized Bed Biofilm Reactor." Leo Thomas Mulchay (PhD), 260 pp. June 1978, University of Massachusetts (Enrique J. La Motta).

"Effect of Aerator Size on the Performance of Activated Sludge Process at Outdoor Temperatures." Alan Y. L. Li (MS), 81 pp. September 1978, University of Massachusetts (Tsuan Hua Feng).

"Dynamic Modeling of the Biomonitor and its Application to the Activated Sludge Process," Chiu-Yang Chen (Ph.D.),

193 pp., May, 1978, Vanderbilt University, (W.W. Eckenfelder, Jr.).

"Effluent Quality Variation at Different Organic Loadings with Multicomponent Substrate in the Activated Sludge Process," Semra Siber (Ph.D.), 162 pp., August, 1977, Vanderbilt University (W.W. Eckenfelder, Jr.).

"Upflow Filtration for Dissolved Organic and Suspended Solids Removal in a Secondary Effluent," Roque A. Roman-Seda (M.S.) 77 pp., May, 1978, Vanderbilt University, (W.W. Eckenfelder, Jr.).

"Water Treatment Systems for Rural Areas in Developing Countries," Alvara A. Salazar-Arias (M.S.), 116 pp., May, 1978, Vanderbilt University, (Frank I. Parker).

## WATER MANAGEMENT

"A Technical Appraisal of Detergent Phosphorus Legislation". Roy A. Budd (M.A.Sc.), 114 pp., January 1978, University of Toronto (P.H. Jones).

"Approaches to Residential Water Conservation," Mark M. Lucas, (MSCE), March 1978, University of Washington, (Robert W. Seabloom).

## AIR POLLUTION

"Use and Limitations of In-State Impactors," William D. Balfour (MS), 133 pp., August 1977, University of Florida (Dale A. Lundgren).

"Photochemical Reactions of Forest Fire Combustion Products," W. Henry Benner (Ph.D.), 203 pp., August 1977, University of Florida (Paul Urone).

"Toward Stochastic Models for Air Pollution," John F. Chadbourne (Ph.D.), 125 pp., December 1977, University of Florida (Paul Urone).

"The Chemistry of Precipitation in North Central Florida," Charles D. Hendry (MS), 141 pp., December 1977, University of Florida (Patrick L. Brezonik).

"High Velocity Filtration of Submicrometer Aerosols," Arther L. Genoble (ME), 104 pp., June 1978, University of Florida (Dale A. Lundgren).

Development of an Empirical Eigenvector Technique as an Urban Air Pollution Model", Richard Robert Knapp (PhD), 184 pp., July 1977, University of Massachusetts (Donald Dean Adrian).

"The Comparison of Nondimensional Concentration Coefficients, K's, Computed from Wind Tunnel Experiments and Field Tests for CO Emissions from Highway 91 at two Areas of the Brightwood Community Center," James F. Norton (MS) 170 pp. December 1977, University of Massachusetts (Donald Dean Adrian).

"A Model for the Effect of Building Down-Wash of Ambient Concentrations: A Case Study," Harvel Murray Rogers, Jr. (M.S.), 71 pp., May, 1978, Vanderbilt University (Karl B. Schnelle, Jr.).

"User's Guide to Dispersion Models PTMTPW and C9M3D," Alan E. Schmidt (M.S.), 86 pp., Dec., 1977, Vanderbilt University (Karl B. Schnelle, Jr.).

## INSTRUMENTAL METHODS OF ANALYSIS

"The Development of a Rapid Quantitative Analysis for Bacterial Densities Using Impedance Techniques," W. Martin Strauss (M.S.), 76 pp., Dec., 1977, Vanderbilt University (George W. Malaney).

## INDUSTRIAL WASTE TREATMENT

"Acid Mine Drainage and a Field Method for the Treatment of Inherently Occurring Acid Water Bodies," Charles Sumner Higgins, Jr. (M.S.), 42 pp., May, 1978, Vanderbilt University (Edward L. Thackston).

"Biological Treatability Study of High Salinity Industrial Wastewater," Nelson Elias Olaya-Yagual (M.S.), 85 pp., May, 1978, Vanderbilt University, (W.W. Eckenfelder).

"Evaluation of Wastewater Treatment Systems," Augustin Ramirez-Escolona (M.S.), 181 pp., May, 1978, Vanderbilt University, (W.W. Eckenfelder).

"Pilot Plant Studies of Lead Removal by Adsorbing Colloid Flotation," Douglas L. Miller, Jr. (M.S.), 69 pp., May, 1978, Vanderbilt University, (Edward L. Thackston).

"The Effect of Nickel and Anaerobic Filtration," Philip Thomas Smith, (M.S. in Sanitary Engineering), 121 pp., October 1977, Civil Engineering Syracuse University (Drs. M. Rand and J. Charles Jennett).

"The Application of Submerged Anaerobic Filtration to Evaporator Condensates from an Acid-Sulfite Pulping Process", Mary Sue Anderson, (MSE), March 1978, University of Washington, (John F. Ferguson).

"Treatment of a Wastewater Chemically Synthesized Pharmaceutical Manufacturing Process with the Anaerobic Filter," by Tim Allen Seeler, (M.S., Sanitary Engineering), 145 pp., October 1977, Civil Engineering Department, Syracuse University (J. Charles Jennett).

"Evaluation of the Anaerobic Filter a Device for Treating a Chemically Synthesized Pharmaceutical Waste," Elliot Floyd Sachs, (M.S. Sanitary Engineering), 143 pp., May 1978, Civil Engineering Department, Syracuse University (Dr. J. Charles Jennett).

"The Treatment of Kraft Pulp Mill Evaporator Condensates by Submerged Anaerobic Filtration", Anne Crawford, (MSCE), March 1978, University of Washington, (John F. Ferguson).

## NON POINT POLLUTION

"Northampton Urban Runoff Characterization, Storage, Treatment and Costs," Thomas J. McAloon, (MS), 99 pp January 1978, University of Massachusetts (Donald Dean Adrian).

"Simulating the Heavy Heavy Metal Toxicity of Urban Runoff on BOD," Chao-Hsiang Yen (MS), 44 pp, April 1978, University of Massachusetts (Donald Dean Adrian).

"Application and Testing of Stormwater Modeling Technology," Thomas J. Nunno (MS), 66 pp May 1978, University of Massachusetts (Donald Dean Adrian).

"Combined Sewer Overflow Total Suspended Solids Abatement Decision with Uncertain Events," William Patrick Tully, (Ph.D.), 432 pp., May 1978, Syracuse University, (Drs. J. Charles Jennett and M. Rand).

## RADIOLOGICAL HEALTH

"Naturally Occurring Terrestrial Radioactivity in Selected Areas of Florida," Chadi D. Groome (MS), 58 pp., August 1977, University of Florida (Charles E. Roessler).

"Airborne Radon Progeny in Florida Structures - Evaluation with Integrating Dosimetry Devices," Paul E. Knapp (ME), 91 pp., December 1977, University of Florida (Charles E. Roessler).

"Development and Verification of Test Models Predicting radon - 222 Flux Emanation from Soils," Harold Boudreau (ME), 53 pp., March 1978, University of Florida (William E. Bolch).

## RIVERS, ESTUARIES, AND LAKES

"Evaluation of the Edinger-Polk Model for a Heated Discharge into a Uniform Current," F. Douglas Shields, Jr. (M.S.), 50 pp., August, 1977, Vanderbilt University, (Frank L. Parker)

"Theoretical Analysis and Two-Dimensional Computer Model of Passive Biota Entrainment at Cooling Water Intakes of Power Plants," Clement Kleinstreuer (Ph.D.), 174 pp., December, 1977, Vanderbilt University (Frank L. Parker).

"Studies of the Periphyton Community of Lake Conway, Florida," Charles P. Feerick (MS), 101 pp., December 1977, University of Florida (Thomas L. Crisman).

"The Significance of Seepage in the Nutrient and Water Budgets of Florida Lakes," Charles R. Fellows (MS), 140 pp., June 1978, University of Florida (Patrick L. Brezonik),

"Water Quality Response to Sewage Effluent and Urban Runoff in the Halifax River, Florida," James E. Scholl (ME), 140 pp., June 1978, University of Florida (James P. Heaney and Wayne C. Huber).

"The Role of Macrophytes on the Phosphorous on Long Lake", John O. Gabrielson, (MS), March 1978, University of Washington, (Eugene B. Welch).

"One Dimensional Mathematical Model of the Santos Estuary, Santos, Brazil," Fritz Wagener, M.S., 83 pp., August 1977, The University of Texas at Austin, (Neal E. Armstrong).

"The Effects of Channelization on the Waste Assimilative Capacity of Small Streams", Edward C. Davis, M.S., 79 pp., August, 1976. Vanderbilt University (Edward L. Thackston).

"Study of the Movement of Saline Wedges in Non-Mixed Estuaries", Henri Jean-Luc Maubert, M.S., 56 pp., April, 1977, Vanderbilt University (Richard H. French).

"Reaeration Study", William C. Schrieber, Jr., M.S., 76 pp., May, 1977, Vanderbilt University (Edward L. Thackston).

"Evaluation of the Edinger-Polk Model for a Heated Discharge Into a Uniform Current", F. Douglas Shields, M.S., 50 pp., April, 1977, Vanderbilt University (Frank L. Parker).

"The Stability of a Two Layer Flow Without Shear in the Presence of Boundary Generated Turbulence: Field Verification", Steven C. McCutcheon, M.S., 71 pp., May, 1977, Vanderbilt University (Richard H. French).



"A Retrospective Benefit-Cost Analysis of Water Resources Projects in the Cumberland River Basin", William J. Martin, M.S., 80 pp., April, 1977, Vanderbilt University (Frank L. Parker)

"The Use of an Electronic Particle Counter for Determining Phytoplankton Volume Concentration," Frank R. Peters (M.S.), 133 pp., August 1977, Clarkson College of Technology, (Joseph V. DePinto)

"Recovery of Adirondack Acid Lakes by Fly Ash Treatment," Roger S. Howell (M.S.), 90 pp., June 1978, Clarkson College of Technology, (Joseph V. DePinto and J.K. Edzwald)

"Laboratory Study of the Kinetics of Phytoplankton Decomposition and Subsequent Phosphorus Regeneration," 10 pp., June 1978, Clarkson College of Technology, (Joseph V. DePinto)

"A Modified Tracer Technique: Development and Refinement of a Technique for Measuring the Reaeration Rate,  $K_2$ ." Joseph M. Kwasnick (MS), 68 pp., December 1977, University of Massachusetts (Tsuan Hua Feng).

"Effect of Secondarily Treated Effluent on a Central Florida Freshwater Marsh Ecosystem with Estimation of Phosphorus Budget," Thomas J. Dolan (MS), 208 pp., June 1978, University of Florida (Suzanne E. Bayley).

"Dwarf Cypress in the Big Cypress Swamp of Southwestern Florida," Eric W. Flohrschutz (MS), 161 pp., June 1978, University of Florida (Howard T. Odum).

"Distribution and Dynamics of Organic Matter and Phosphorus in a Sewage Enriched Cypress Swamp," John K. Nessel (MS), 159 pp., June 1978, University of Florida (Suzanne E. Bayley).

## SOLID WASTES

"The Production, Characterization and Movement of Land-fill Leachates in the New England Environment," Ronald L. Lavigne (MS), 190 pp., August 1977, University of Massachusetts (Donald Dean Adrian).

"The Leachate Attenuation Properties of Soil Under Anaerobic Conditions", Aaron A. Jennings (MS), 210 pp., August 1977, University of Massachusetts (Donald Dean Adrian).

"Leachate Reactions with Soils", Franklin S. Tirsch, (MS), 171 pp. September 1977, University of Massachusetts (Donald Dean Adrian).

"Determination of Stability Constants between Selected Metals and Organic Molecules from Sanitary Landfill Leachate," Robert W. Pease, Jr., (MS), 61 pp December 1977, University of Massachusetts (Donald Dean Adrian).

"Leachate Attenuation by Percolation through Soil," George G. Lombardo (MS) 85 pp June 1978, University of Massachusetts (Donald Dean Adrian).

## SYSTEMS ECOLOGY

"Value and Water Budget of Cypress Wetlands in Collier County, Florida," David Y. Burr (MS), 112 pp., August 1977, University of Florida (Suzanne E. Bayley).

"The Natural Energy Basis for Soils and Urban Growth in Florida," Edward J. Regan (MS), 176 pp., August 1977, University of Florida (Howard T. Odum).

"Energy Analysis and Computer Simulations of Pastures in Florida," Rolando Gutierrez (MS), 186 pp., March 1978, University of Florida (Suzanne E. Bayley).

"Energy Analysis of Intermediate Technology Agricultural Systems," Michael S. Burnett (MS), 170 pp., June 1978, University of Florida (Howard T. Odum).

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### AEEP NEWSLETTER

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