



Association Of  
Environmental  
Engineering  
Professors

# NEWSLETTER

D. W. HENDRICKS

VOLUME 23, NO. 3

Published three times yearly by AEEP

DECEMBER 1988

## PRESIDENT'S CORNER

This year marks the 25th anniversary of the formation of AEEP. We have come a long way from that hotel room in Kansas City in 1968 when 7 professors each put up \$100 to help found this organization. Over the past 25 years, significant changes have occurred in every phase of environmental engineering education and practice. As members of AEEP we have much to be proud of. First and foremost, the membership of this organization, more than any other, has been responsible for training most of today's leaders in the environmental field. The results of fundamental and applied research carried out by the membership have contributed significantly to our understanding of the operations and processes used for the control of pollution and for the enhancement of the environment. Through the unselfish efforts of the membership, teaching manuals, computer software, and curriculum surveys have been prepared, and short courses and specialty conferences have been conducted to improve communications and to transfer information amongst the membership and the profession.

Although much has been accomplished, much remains to be done. Some important issues the membership of AEEP must deal with in the coming years are:

1. We need to develop programs and activities that will encourage students to seek a career in civil and environmental engineering.
2. We need to encourage congress to reinstitute grant programs for training of graduate students in environmental engineering and science.
3. We need to place more emphasis on interdisciplinary research, especially if we are to continue to have a major role in the solution of the nation's environmental problems.

4. We need to place more emphasis in our teaching and research on the prevention of pollution as opposed to end-of-the-pipe solutions.
5. We need a greater representation of disciplines amongst the membership of AEEP.
6. We need to develop closer relationships with the employers of our students. These employers should be asked to provide some continuing level of support for the training of environmental engineers and scientists.
7. We need to develop a continuing dialogue with the employers of our students concerning our responsibilities and their responsibilities for the training of our students, the nation's future professionals. Such a dialogue is especially critical now as the data and information base is expanding exponentially.
8. We need to find more effective ways to communicate the results of current research to the practitioner, to the public, to decision makers, and to each other.

AEEP can, and should, have a significant role in dealing with these issues. Your thoughts on how AEEP can provide leadership in addressing these issues are welcomed.

In summary, the next 25 years promise to be even more eventful and exciting as we begin to deal with a broader and a more complex set of environmental issues and problems. I look forward to hearing from you on the issues raised and other issues you feel AEEP should address.

With best regards for the holiday season.

George Tchobanoglous  
President

# AEEP NEWS AND ANNOUNCEMENTS

## 1988 AEEP Activities

1988 was a year full of many worthwhile AEEP activities. Workshops were sponsored in association with the Purdue Industrial Waste Conference, the AWWA Annual Conference, and the WPCF Conference. In addition, the AEEP/NSF Fundamental Research Needs Conference was held in Washington, D.C. in November with approximately 150 registrants from around the country. The sixth edition of the *AEEP Register of Environmental Engineering Graduate Programs* has been compiled and will be available in January 1989. Finally, revisions have been made to the *AEEP Unit Operations and Processes Manual*; this should also be available early next year.

## AEEP Research Conference

The AEEP Conference on Fundamental Research Directions in Environmental Engineering was held November 13-15, 1988, in Washington, D.C. The conference was supported by the National Science Foundation with supplemental funding from the Environmental Protection Agency. Approximately 150 members attended the conference. Twenty-eight assistant professors received grants to cover some of their travel expenses. The theme of the conference was fundamental approaches for controlling and managing environmental problems in air, land and aquatic environments, including multidisciplinary and multimedia perspectives. The formal program was organized with concise prepared papers and discussions in order to allow ample time for remarks from the floor.

Since about the time of the last AEEP research conference in 1982, there has been considerable legislation passed which has had a broad impact on our field. Common to all of this legislation was a set of issues which related to some of the topics discussed at the conference including: (1) the special problems of toxic and hazardous constituents, (2) the need for better understanding of the fate, transport, exposure, and risk associated with environmental contaminants, and (3) the complex interplay of societal and technical issues, often clouded with uncertainty.

Dr. John A. White, Jr., Assistant Director for Engineering at NSF, spoke at the luncheon; he gave an engaging presentation on the need for engineers to step out of their traditional disciplinary roles and work toward national goals important to the whole profession. Dr. John A. Moore, Acting Deputy Administrator of the EPA, spoke at the evening banquet; the topic of his presentation was the recently-completed EPA Science Advisory Board report on the need for fundamental research within the EPA, and on research strategies for the 1990's. James J. Morgan, Professor of Environmental Engineering Science, California In-

stitute of Technology, gave a stimulating and thoughtful conference summary. He described how this conference differed from the two previous AEEP research conferences by encompassing much broader dimensions in terms of time-scales and spatial-scales. He encouraged environmental researchers to develop very strong technical expertise in a specific area, yet at the same time seek opportunities for interdisciplinary collaborations. Professor Morgan emphasized that the conference demonstrated the need for researchers to consider the broader implications of their work with regard to both research priorities and public policy agendas.

There was unanimous agreement that the conference was purposeful and stimulating, and that the AEEP needs to develop additional forums at which the membership can meet and become engaged in intense discussions about research and education. A proceedings of the conference is in preparation.

## AEEP Annual Dues

Once again, we bring you the wonderful greeting of the holiday season — it's time to pay your dues again! As you can see by the addresses listed on the back of this *Newsletter*, a new group of officers has been elected for the coming year. Bill Knocke was elected to replace Des Lawler as Secretary of the Board of Directors.

Your dues payment should therefore be sent to Dr. Knocke, Dept. of Civil Engineering, VPI&SU, Blacksburg, VA 24061, by February 1. The schedule of dues is as follows:

Professor	US \$50
Associate Professor	US \$25
Assistant Professor	US \$25

## AEEP Register of Graduate Programs

The sixth edition of the *AEEP Register of Environmental Engineering Graduate Programs* is now being printed and will be available in January 1989. The cost for AEEP members will be **\$20 if the copy is purchased by January 31**. If you are interested in purchasing a copy by January 31, please send a check for **\$24** (includes \$4 for postage and handling) to:

Dr. William R. Knocke  
Department of Civil Engineering  
200 Patton Hall  
Virginia Tech  
Blacksburg, VA 24061

Please make your check payable to AEEP.

## AEEP Membership Directory

The 1989 AEEP Membership Directory will be prepared in mid-February. If your address or phone number has changed since the last edition of the Directory, please notify Bill Knocke, Secretary of the AEEP Board of Directors, as soon as possible.

## WPCF Research Committee Needs Input

*The following article was submitted by Michael Switzenbaum. Note that his address is given at the end of the article.*

I am appealing to the membership of AEEP for support in an important matter regarding the Annual Literature Review (ALR) published each June in the *Journal of the Water Pollution Control Federation*. Based on a recommendation in a recent Publications Study Committee report, the Federation is planning on replacing the present *Journal* with two new journals next September. One will be a monthly journal containing feature articles, the Monitor, Washington update and other non-refereed materials of general interest. The second journal to be published six times per year will be a refereed research journal. The Publications Study Committee also recommends the elimination of the ALR, stating that it is no longer needed since WPCF will offer computerized literature search services.

The Research Committee believes that the computer searches are not an adequate substitute for the ALR. The ALR provides an especially valuable service for

the research communities. It involves a thorough investigation of the literature and in many cases data bases in many fields including those allied to but apart from water pollution and presents its findings in clear concise summaries.

It is my perception that one of our problems is that academia is poorly represented on the WPCF Board of Directors and its officers. This is primarily due to the lack of participation of academics in the member associations. As you know, officers in WPCF usually rise up through the ranks of member associations.

This year I will be working with the Publications Committee and President of the Federation in trying to resolve this matter. It would help me to have the views and support of users of the ALR. Therefore, if you are concerned about keeping the ALR, please let me or AEEP President George Tchobanoglous know your thoughts. It would also be useful for you to contact the President of your local member association.

Michael S. Switzenbaum, Chairman  
WPCF Research Committee  
Department of Civil Engineering  
University of Massachusetts  
Amherst, MA 01003

## Deadline for the April 1989 Newsletter

Please mail articles for the April issue of the AEEP *Newsletter* to the editor, G. D. Boardman, by March 1, 1989.

## GENERAL NEWS

### Loehr Chairman of EPA Science Advisory Board

Dr. Raymond Loehr, a professor of civil engineering at the University of Texas at Austin, has been named chairman through 1990 of the EPA Science Advisory Board (SAB). The SAB is an advisory panel of independent scientists and engineers who provide a quality control check on the scientific basis of many EPA regulations. Dr. Loehr has been a member of the SAB for six years, most recently serving as chairman of the board's Environmental Engineering Committee. He is an active member of the National Academy of Engineering and has served on the National Academy of Sciences and National Research Council committees. He holds the Hussein M. Alharthy Centennial Chair at the University of Texas, previously taught at Cornell University and the University of Kansas and has written two books on waste management and 150 technical publications and reports on municipal and industrial waste management. Dr. Loehr succeeds Dr. Norton Nelson of New

York University Medical Center, who will continue to serve on the SAB Executive Committee.

### Free IAWPRC Memberships for Graduate Students

From revenue generated by an endowment fund, the U.S.A. National Committee (USANC) of the International Association on Water Pollution Research and Control (IAWPRC) once again will award a number of gratis one-year student memberships in IAWPRC. Included are subscriptions to *Water Research* and *Water Quality International*. Awards will be made on a first-come basis subject to the condition that not more than one graduate student from any one university be granted an award unless fewer applications than awards available are received by the application deadline (15 February 1989). Graduate students wishing to be considered for such an award should have their faculty advisor nominate them in a letter directed to:

Dr. T. M. Keinath  
USANC Chairman  
Environmental Systems Engineering  
Clemson University  
Clemson, SC 29634-0919

No university should nominate more than three graduate students. If more than one is nominated, the list should be prioritized.

## **AWWA Solicits Applications for Wolman Fellowship and Lars Scholarships**

AWWA's Abel Wolman Doctoral Fellowship Program is designed to encourage promising students from countries with AWWA sections to pursue advanced training and research in the field of water supply (including management, treatment, and distribution). A fellowship providing up to two years of support (up to \$15,000 per year) is awarded annually to the most outstanding applicant. To be eligible the student must expect to complete the requirements for the Ph.D. degree by the Fall of 1991 and be a citizen of a country having an AWWA section (Canada, Guam, Mexico, Puerto Rico, or the U.S.). Applications are **due by April 1, 1989**. Application forms and additional information can be obtained from AWWA (6666 W. Quincy Ave., Denver, CO 80235).

The Larson Aquatic Research Support (LARS) scholarships are intended to honor the memory of Dr. Thurston E. (Lars) Larson by providing support and encouragement to outstanding graduate students preparing for a career in one of the fields of science or engineering to which Dr. Larson made significant contributions, including (but not limited to) aquatic chemistry, corrosion control, analytical chemistry, and environmental chemistry. Two scholarships are planned to be awarded in 1989: a \$3,000 scholarship for an M.S. student and a \$5,000 scholarship for a Ph.D. student. To be eligible the student must be pursuing an advanced degree at an institution of higher education located in Canada, Guam, Puerto Rico, Mexico, or the U.S. and expect to complete the requirements for the degree sometime *after* August 31, 1989. Applications are **due by March 1, 1989**. Application forms and additional information can be obtained from AWWA (6666 W. Quincy Ave., Denver, CO 80235).

## **Water Pollution Control Federation 1989 Student Paper Competition**

### **Rules of the Competition**

**Topic:** Any paper dealing with water pollution control, water quality problems, water-related concerns, or hazardous wastes is invited.

**Abstracts:** A 250- to 1000-word abstract should be received by the Water Pollution Control Federation before February 1, 1989. The Student Activities Committee will review the abstracts and select the winners.

**Papers:** The authors of the selected abstracts will present their papers during either a Technical Session or a Poster Session at the Annual WPCF Conference in San Francisco, California, October 3 to 8, 1989. Final determination will be made by the WPCF Program Committee.

**Travel:** The Water Pollution Control Federation does not pay travel expenses to the Annual Conference.

**Selection Criteria:** Selection will be based on relevancy of subject matter and originality of the thoughts, concepts, or solutions presented.

**Authorship:** Only current or recently graduated (within approximately 1 calendar year of February 1, 1989) students are eligible for this competition. Faculty advisors cannot be listed as co-authors. However, they may act in an advisory capacity.

**Awards:** First Prize — Operations Students — \$1000  
First Prize — Bachelors and Masters Students — \$1000  
First Prize — Ph.D. Students — \$1000

### **Send Abstracts to:**

Dr. Otto M. Kolar, Director of Education  
Water Pollution Control Federation  
601 Wythe Street  
Alexandria, VA 22314  
☎ (703) 684-2407

## **Water Pollution Control Federation Robert A. Canham Fellowship**

Applications are now being received for the Robert A. Canham Fellowship. The Fellowship, honoring the former WPCF Executive Director, provides \$2500 for a study tour in **England** of the **research** and development facilities of the **Water Research Centre, Inc.**, and a treatment facility.

Specific tour arrangements will be made with WPCF and WRC.

### **Rules of Application**

1. Post baccalaureate persons currently involved in the environmental field may be awarded the fellowship.
2. Special consideration will be given to those applicants who have had some practical experience.

3. Fellowship recipient will be required to submit to WPCF a written report suitable for publication, on the study tour within 90 days of return from trip.
4. Recipient of fellowship must indicate in application of their intent to work in the environmental field for two years.
5. Application must be completed and filed with WPCF by **March 1, 1989**.
6. A detailed statement of career goals and aspirations in the environmental field must be prepared (750 words minimum, 1000 words maximum). Statement must be attached to application form.
7. Fellowship is to be used for a study tour of England at the Water Research Centre. Tour is to be for a minimum of three weeks.
8. Recipient is responsible for taxes due on fellowship.

**For information and application forms, contact:**

Dr. Otto M. Kolar, Director of Education  
 Water Pollution Control Federation  
 601 Wythe Street  
 Alexandria, VA 22314-1994  
 ☎ (703) 684-2407

## NSF Funding for Polar Environments Research

The National Science Foundation's Division of Polar Programs identified Environmental Engineering (Waste Management) as one of six engineering areas exhibiting "research needs," in the Foundation's Program Announcement 88-21, Ocean Engineering and Technology at the NSF. When compared to engineering in temperate regions, engineering practice in polar environments differs because of low temperatures and the problems posed by permafrost, sea ice and ice shelves. For support of research involving field work in the Antarctic, the proposal deadline is June 1 for field work starting no sooner than 15 months later. Copies of the Program Announcement may be obtained from Dr. Bryan at the following address:

Edward H. Bryan, Ph.D.  
 Program Director, Environmental  
 Engineering, Rm. 1128  
 National Science Foundation  
 Washington, D.C. 20550

## River des Peres Designated National Historic Civil Engineering Landmark

The River des Peres Sewerage and Drainage Works, the first large urban drainage works designed from

the engineering applications of what is now considered modern hydrology and the first large-scale demonstration of the use of large reinforced concrete arch sewer sections, has been designated a National Historic Civil Engineering Landmark by the American Society of Civil Engineers (ASCE). Designed to identify and give recognition to historically significant civil engineering projects, ASCE's landmark status is bestowed on structures that have contributed to the development of the nation or a large region of it.

Commenting on the Sewerage and Drainage Works, Michael Brynac, Chairman of ASCE's St. Louis Section's History and Heritage Committee states, "The River des Peres Works, constructed from 1924-1931 was the first civil engineering project of its kind to be so honored. It provides the backbone facility for the 110 square mile St. Louis drainage basin." The River des Peres project solved the problems of both urban drainage and sanitary sewage conveyance in one major project.

## Publications Available from ASCE

The proceedings and papers listed below may be ordered from the American Society of Civil Engineers (ASCE) at the following address:

ASCE Publications  
 345 East 47th Street  
 New York, NY 10017-2398  
 ☎ (212) 705-7538

### The Role of Social and Behavioral Sciences in Water Resources Planning and Management

Proceedings of an Engineering Foundation Conference in conjunction with the Universities Council on Water Resources — Santa Barbara, California — May 3-8, 1987.

Edited by Duane D. Baumann and Yacov Y. Haimes  
 Published by ASCE, May 1987  
 425 pages, \$35.00

### Planning Now for Irrigation and Drainage in the 21st Century

Proceedings of a conference sponsored by the Irrigation and Drainage Division — Lincoln, Nebraska — July 18-21, 1988.

Edited by DeLynn R. Hay  
 Published by ASCE, July 1988  
 786 pages, \$63.00

### Hydraulic Engineering

Proceedings of the 1988 National Conference sponsored by the Hydraulics Division of ASCE — Colorado Springs, Colorado — August 8-12, 1988.

Edited by Steven R. Abt and Johannes Gessier  
 Published by ASCE, 1988  
 1,276 pages, \$90.00



## **The Physics of Sediment Transport by Wind and Water**

This volume of hallmark papers by Ralph Bagnold will aid the contemporary researcher in the study of sediment transport.

Edited by Colin R. Thorne, Robert C. MacArthur and Jeffrey B. Bradley

Prepared under the auspices of the Committee on Sedimentation of the Hydraulics Division of ASCE.

Published by ASCE, June 1988

378 pages, \$32.00

## **Basic Water Treatment for Application World-Wide, Second Edition**

This book concentrates on the essentials and practicalities of water treatment, and on systems that can provide what is needed at the least cost and will be easy to maintain.

Edited by George Smethurst

Published by Thomas Telford, Ltd., August 1988

224 pages, \$30.00

# **PERSONAL ACCOMPLISHMENTS**

## **Engineering-Science and CH2M-Hill Ph.D. Dissertation Awards**

The Engineering-Science and CH2M-Hill Ph.D. dissertation awards were presented during the AEEP 25th Anniversary Luncheon, October 3, 1988, at Dallas, Texas. Recipient of the Engineering-Science Award was **James R. Mihelcic** for his thesis, "Microbial Degradation of Polycyclic Aromatic Hydrocarbons under Denitrification Conditions in Soil-Water Suspensions." His thesis advisor was Richard G. Luthy, Department of Civil Engineering, Carnegie Mellon University. **John E. Tobiason** received the CH2M-Hill Award for his thesis, "Physicochemical Aspects of Particle Deposition in Porous Media"; his thesis advisor was Charles R. O'Melia, Department of Geography and Environmental Engineering, The Johns Hopkins University. Each award recipient received a plaque. In addition, Drs. Mihelcic and Tobiason were presented with checks for \$1000, while the faculty advisors received a prize of \$500. The judges for the competition were faculty advisors of recent AEEP dissertation awardees: Professors William Jewell, Cornell University, and Francois Morel, Massachusetts Institute of Technology.

## **ASCE's Rudolph Hering Medal**

**Gerald E. Speitel Jr.**, Assistant Professor at the University of Texas, and **Francis A. DiGiano**, Professor at the University of North Carolina, received the American Society of Civil Engineers' 1988 Rudolph Hering Medal. The medal is for the paper which contains the most valuable contribution to the increase of knowledge in, or advancement of, environmental engineering. Their paper, which was published in ASCE's *Journal of Environmental Engineering* in June 1987, addressed the detachment of microorganisms from granular activated carbon in packed-bed reactors.

## **ASCE's Samuel Arnold Greeley Award**

**William Becker**, senior environmental engineer, American Water Works Service Co., Voorhees, NJ, **Steven Tambini**, director of engineering at American Water Works Service Co., and **Dr. James Edzwald**, professor of civil engineering at the University of Massachusetts, have been named winners of the American Society of Civil Engineers' (ASCE) 1988 Samuel Arnold Greeley Award. The award recognizes the contributions made by the individuals to the environmental engineering profession.

Becker, Tambini and Edzwald received a plaque and certificate describing their accomplishments on October 26 during ASCE's National Convention held in St. Louis, MO. The award was established in 1968 by ASCE's Sanitary Engineering Division (now the Environmental Engineering Division) in honor of Samuel A. Greeley, past director and honorary member of ASCE.

## **The 1988 Hoover Medal**

**William R. Gianelli**, chairman of the Board of Directors of the Panama Canal Commission and a consulting engineer in Pebble Beach, CA, was awarded the 1988 Hoover Medal during the American Society of Civil Engineers' (ASCE) 1988 Fall Convention and Exposition held in St. Louis, MO.

The medal, established in 1929, commemorates the civic and humanitarian achievements of Herbert Hoover and is given for great, unselfish, non-technical services by an engineer to his fellowman. It is presented by the Hoover Medal Board with representation from the American Society of Civil Engineers, the American Society of Mechanical Engineers (ASME), the American Institute of Mining, Metallurgical and Petroleum Engineers (AIME), the American Institute of Chemical Engineers (AIChE) and the Institute of Electrical and Electronics Engineers (IEEE).

# CONFERENCES AND EDUCATIONAL PROGRAMS

## Stanford University to Sponsor International Symposium on Contaminants in the Subsurface Environment

Stanford University has announced it will hold an international symposium on "Processes Governing the Movement and Fate of Contaminants in the Subsurface Environment," July 24-26, 1989.

Presentations will focus on the physical, chemical and biological processes that are most important to chemical migration and transformation in the unsaturated zones above aquifers as well as in groundwater zones. Sorption, dissolution,

volatilization, diffusion, multi-phase flow, and abiotic and biotic transformation processes will be emphasized. The symposium will stress experimental investigations, but presentations oriented toward transport simulation will be included if they bear on the fundamentals of processes affecting the transport and fate of contaminants.

To obtain a brochure with information on conference fees and accommodations, please contact:

Prof. Perry L. McCarty  
Department of Civil Engineering  
Stanford University  
Stanford, CA 94305-4020  
☎ (415) 723-4131  
Telefax Number: (415) 723-5599

## EMPLOYMENT OPPORTUNITIES

### University of Cincinnati

The Department of Civil and Environmental Engineering at the University of Cincinnati invites applications for a tenure-track position at the assistant or associate professor level in environmental engineering. Research expertise in the area of biological treatment processes is preferred, although outstanding candidates in all environmental engineering areas will be considered. Responsibilities include: teaching at both the graduate and undergraduate level; the development of a strong research program; and advising of students at the B.S., M.S. and Ph.D. levels. The anticipated starting date is September 1989. The Environmental Engineering Program has recently expanded to include 12 full-time faculty members and 54 full-time graduate students in the areas of water, waste water, hazardous waste and air pollution control. Unique opportunities exist for research interactions with the three USEPA research facilities in Cincinnati. Applications received before January 31, 1989 will be given priority, but the search will continue until the position is filled. *UC is an affirmative action/equal opportunity institution and in that spirit, we encourage applications from a broad spectrum of people including women and members of ethnic minorities.* Applicants should send their resumes and the names of three references to: Dr. R. Scott Summers, Search Committee Chairperson, Department of Civil and Environmental Engineering, University of Cincinnati, Cincinnati, OH 45221-0071.

### University of Delaware

The Department of Civil Engineering at the University of Delaware invites applicants for a tenured or tenure-track position in Environmental Engineering. The rank will depend on the qualifications and ex-

perience of the applicant. Expertise in hazardous waste or wastewater treatment will be preferred. Major responsibilities include teaching both undergraduate and graduate courses and developing a strong research program. Senior candidates must have an outstanding record of research; junior candidates will be expected to demonstrate exceptional potential for scholarly achievement. A Ph.D. degree and evidence of excellent teaching and research are required. Candidates with at least one degree or teaching experiences in civil/environmental engineering are desirable. Applications received by November 30, 1988 will be given first consideration; however, the search will continue until the position is filled. Applicants should send a resume and the names of three references to: Professor C. P. Huang, Chair, Search Committee, Department of Civil Engineering, University of Delaware, Newark, DE 19716. *The University of Delaware is an Affirmative Action, Equal Opportunity Employer.*

### Drexel University

The Department of Civil Engineering and the Environmental Studies Institute invite nominations and applications for the endowed chair in environmental engineering. The chair is named in honor of L. Drew Betz, Drexel alumnus and founder of Betz Laboratories, Inc. The successful candidate will be awarded tenure as a full professor. The Betz endowment provides a separate budget in support of the chair professorship. Preferred credentials for the candidates include a bachelor's degree in engineering, a doctorate in civil or environmental engineering, and a strong background in research related to control of environmental hazards. Duties include development of a nationally recognized research program, participation in all aspects of graduate

education and in undergraduate teaching. The chair holder is expected to provide leadership within the university and to the profession. A search for a L. D. Betz Professor of Ecology is also in progress, and it is expected that the two chairs will work together to provide leadership for the environmental program at Drexel. Initial screening for the position will begin January 3, 1989 and will continue until a suitable candidate is found. Submit applications, including curriculum vitae, statement of interests and the names of at least three references to:

Dr. Richard E. Woodring, Dean  
College of Engineering  
Drexel University  
Philadelphia, PA 19104-6684

*Drexel University is an equal opportunity, affirmative action institution and invites applications from women and minorities.*

## Illinois Institute of Technology

Nominations and applications are invited for the position of Chairman of the Pritzker Department of Environmental Engineering at IIT. This position is available in August, 1989.

The department has six regular faculty members and one research professor and awards M.S. and Ph.D. degrees. One-third of the approximately 80 current graduate students are full time. The department conducts in excess of \$1 million in research annually and houses the Industrial Waste Elimination Research Center (IWERC) — a USEPA supported Center of Excellence. A major research thrust of the department is industrial and hazardous waste management, including extensive collaboration with the IIT Research Institute, for example, through the jointly sponsored Center for Hazardous Waste Management. Other areas of interest include water and wastewater engineering, environmental monitoring and assessment, air resources engineering, environmental chemistry and microbiology and related policy issues.

The successful candidate will be a nationally recognized individual with a strong track record in sponsored research who can provide leadership to an active and diverse group of faculty students and who can increase interactions with industrial sponsors and governmental organizations. The successful candidate must have an earned doctorate in environmental engineering or in a related field and be qualified for appointment at the rank of full Professor.

Letters of nomination, or resumes with names of three references should be forwarded to:

Dr. Darsh T. Wasan  
Chairman of Search Committee  
Illinois Institute of Technology  
IIT Center  
Chicago, IL 60616  
☎ (312) 567-3001

## Michigan State University

Nominations and applications are invited for the position of Chairperson of the Department of Civil and Environmental Engineering. A Chairperson is sought who has an earned doctorate, leadership ability, administrative skills, and a record of achievement in both research and teaching. The successful candidate will appreciate the necessity for strong undergraduate and graduate education as well as for further advancement in research and continuing education.

The department includes undergraduate and graduate education and established research programs in environmental engineering, fluids and water studies, geotechnical engineering, structures, and transportation. In addition, Highway Traffic Safety Programs provides the nucleus for an expanding continuing education effort. As part of the continuing expansion of the college over the past decade, the department will be moving into new facilities in the summer of 1989. In the College of Engineering there are six other departments, a division of engineering research, the Composite Materials and Structures Center, and the Case Center for Computer-Aided Engineering and Manufacturing. The college also has active programs in cooperative and continuing education.

The position of chairperson will be available as early as July 1989. Applications, including a statement of application and a resume, and nominations will be considered until the position is filled with screening of applicants beginning on 1 February 89. Please indicate whether confidentiality is desired.

Applications, nominations, and inquiries should be sent to: Richard W. Lyles, Search and Rating Committee Chairperson, Department of Civil and Environmental Engineering, Michigan State University, East Lansing, Michigan 48824-1212.

*MSU is an Affirmative Action/Equal Opportunity Institution.*

## Michigan State University

The Department of Civil and Environmental Engineering at Michigan State University is seeking to fill two tenure-track positions in the area of Environmental Engineering. These openings are a part of a program expansion in hazardous and industrial waste management in conjunction with the establishment of several research centers in the State of Michigan. Candidates with expertise related to hazardous substances and industrial wastes are especially encouraged to apply.

One position requires specialization in biological processes. Of particular interest are candidates with expertise in the degradation of hazardous substances and strong backgrounds in both microbiology and engineered biological systems. No specific specialization is defined for the second position, although expertise that is directly related to the envi-



ronmental behavior and control of hazardous substances is desired.

Qualifications include an earned Ph.D. and demonstration of a strong commitment to research. Successful candidates will be expected to be active in sponsored research and teaching at both the graduate and undergraduate levels. Applicants for associate and full professor must have established publication and funding records.

Applicants should send their resume, the names and addresses of three references, and a description of their teaching and research interests to:

William C. Taylor, Professor and Chair  
Department of Civil and Environmental  
Engineering  
Michigan State University  
East Lansing, MI 48824  
☎ (517) 355-5107

*MSU is an Affirmative Action/Equal Opportunity Institution.*

## Michigan State University

**Position:** Laboratory Supervisor — Environmental Engineering Laboratories

**Specialization:** environmental analytical chemistry

**Desired qualifications:** M.S. or Ph.D. in a discipline related to the above specialization

**Experience:** Position requires previous experience in environmental analytical chemistry and in the supervision of lab personnel. Applicant should have experience with all of the standard instrumental techniques and extensive experience with GC/MS systems. Previous experience with EPA methods, QA/QC plans, methods development, lab budgeting are essential. Familiarity with LIM systems, lab automation, electronics troubleshooting, high hazard lab procedures are desirable.

**Description:** The position involves the management of analytical laboratory activities for the environmental engineering program. Individual will be expected to operate and maintain GC, GC/MS, HPLC, IC, AA and TOC, liquid scintillation, and spectrophotometric instruments; to train students, faculty and staff in their use; and to schedule instrument use by various research projects. The lab supervisor will also be responsible for overseeing safety and QA/QC plans for all environmental engineering labs, developing and monitoring specialized plans for specific research projects, developing standardized procedures for routine lab activities, and training new lab personnel in all of these aspects. Additional duties include hiring and supervision of lab staff, overseeing a lab budget, and participation in the preparation of proposals and manuscripts.

**Salary:** commensurate with qualifications

### Contact:

Dr. Thomas C. Voice  
Michigan State University  
Department of Civil and Environmental  
Engineering  
A125 Engineering Research Complex  
East Lansing, MI 48824  
☎ (517) 355-8240

*MSU is an Affirmative Action/Equal Opportunity Institution.*

## Michigan State University

**Position:** Program Manager for Training and Technology Transfer — EPA Hazardous Substance Research Center for Regions 3 and 5

**Desired qualifications:** Education and experience related to hazardous substance management is essential. Familiarity with waste reduction techniques, industrial assistance programs, and state government organizations would be particularly valuable. Experience in the development and oversight of training and technology transfer programs is highly desirable. The selected individual must possess effective written and verbal communication skills and demonstrate an ability to work with people.

**Description:** The EPA Hazardous Substance Research Center for Regions 3 and 5 is currently being established by a consortium consisting of Michigan State University, the University of Michigan, and Howard University. The training and technology transfer aspects of the center will be overseen by a Program Manager reporting to the Associate Director at Michigan State. The individual selected for this position will have the following responsibilities:

1. oversee training projects conducted by investigators at the three universities and funded by the center,
2. institute a program that will help state governments in Regions 3 and 5 to develop industrial assistance programs for waste management that emphasize waste reduction,
3. organize an annual symposium to present the research findings of investigators in the consortium to individuals involved in waste management,
4. prepare a semi-annual newsletter on center activities, and
5. develop and implement plans for future training and technology activities.

**Salary:** commensurate with qualifications

## Contact:

Dr. Thomas C. Voice  
Michigan State University  
Department of Civil and Environmental  
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A125 Engineering Research Complex  
East Lansing, MI 48824  
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## SUNY/Buffalo

The Department of Civil Engineering at SUNY/Buffalo invites applications for anticipated tenure-track position in the area of environmental engineering. Applicants must have a Ph.D. and will be expected to teach in the graduate and undergraduate programs of the Department. All applicants are expected to develop funded research programs in their area of interest. The position will be at the Assistant Professor level. First consideration will be given to applications received prior to January 1, 1989.

The New York State Center for Hazardous Waste Management has been established at the State University of New York at Buffalo to develop research, information transfer and service in hazardous waste management. The successful candidate will be expected to participate in the Center activities and work with six other faculty in the Department in the area of water resources and environmental engineering. The Department currently has a total of 26 faculty members, 130 graduate students, and 140 juniors and seniors.

Send resumes and names of at least three references to:

Dale D. Meredith  
Professor and Chairman  
Department of Civil Engineering  
State University of New York at Buffalo  
Buffalo, NY 14260

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## Rutgers University

Extension Specialist in Environmental Science, Cooperative Extension, Cook College/New Jersey Agricultural Experiment Station, Rutgers University, New Brunswick, New Jersey. 12 month, tenure-track faculty appointment. 100% Extension. Responsible for planning, implementing and evaluating educational programs with emphasis in: solid waste, industrial and agricultural wastes, municipal leaf composting and sewage sludge. Programs will be carried out with and through County Extension Agents to government officials, agencies and professional organizations. Conducting research projects consistent with assigned extension program area responsibilities is expected. Ph.D. in Environmental Sciences or related area is required. Competent computer, speaking and writing skills are essential. Applications accepted until December 10, 1988. Send resume with names and addresses of three or more references to: Anne L. Sheelen, Assistant Director of Extension, Cooperative Extension, P.O. Box 231, New Brunswick, NJ 08903. *Rutgers University is an Equal Opportunity Employer.*

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Association Of Environmental Engineers Professors

# NEWSLETTER

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