

Association of Environmental Engineering Professors



Newsletter

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April 1998

The President's Corner

Zen and the Art of Environmental Engineering

"AEEP must continue to investigate new ways to help the EnvE academic community, and...to establish itself more as an international and interdisciplinary society."

While out driving in the hills around State College, I stopped into a gas station for directions. I thought to ask the question, "Where am I?" but the attendant asked the more useful question, "Where are you going?" It was much the same situation at the NSF Workshop, Environmental Engineering (EnvE) Frontiers, held at the Asilomar Conference Center in Monterey, California in January of this year. I stood before the greatest contemporary minds in EnvE: 10 members of the National Academy of Engineers (NAE), four truly outstanding members of AEEP, and the director of the EnvE program at NSF, Ed Bryan. Prior to the meeting, we had collected our thoughts around several questions, one of which was to define EnvE as a discipline. Within minutes, we collectively agreed not to focus on the question of where we were, but rather to ask the more relevant one: "Where should we be going?"

What are the EnvE frontiers? The discussions surrounding this and other questions was lively and exciting. Jim Morgan conveyed the image of a frontier as something that is unknown, and therefore, perhaps not definable. But practically, a frontier can be chosen just based on a need, or desire, when it requires that we explore an unknown area of science or engineering to solve pressing environmental problems. During the Frontiers meeting, we were able to reach agreement, if not consensus, on new frontiers in EnvE. Although we have not yet finalized our collective report, it is my hope that this report will stimulate similar, lively and productive conversations among the EnvE community.

Although I don't expect that anyone will drop what they are doing and head off to a new "Frontier," it is hoped that the Workshop findings will provide direction and perspective to other EnvEs in their journeys. While on these journeys, I hope that you will take time to see in all directions, that is, to look at the past to help recognize the accomplishments of your fellow AEEP members. There are two awards for which we desperately need nominations: the Outstanding Paper Award, and the Founders' Award. It should be easy to come up with a list of papers and names for these two awards. For inspiration, look over to that filing cabinet in your office crammed with research articles and think for two minutes about those papers that influenced you the most or were most useful in your teaching and research. Then take a few more minutes to e-mail the title and names on those papers to Marc Edwards (edwardsm@vt.edu).

The Founders' Award has been given out in the past to some of the original founding members of AEEP, but it is not limited to this group. The Founders' Award honors an individual who has made sustained and outstanding contributions to environmental engineering education. Perhaps while you are commuting home you can take a few minutes and identify those people whose activities impressed you and who would deserve this honor.

The AEEP awards committee is also developing the criteria for two new awards, one based on a

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current research paper and another centered more on the efforts of teaching. Awards like these do more than just puff up a person's ego. They send a message to our administrators and our

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August 3, 1998



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 News**

universities that the work being done by an EnvE is important and appreciated. And you can't have too many awards. Short of winning the Nobel (which is not offered in our field), no award can really make up for all those extra hours late at night, or early in the morning, when time was found to get that extra work done. So please take the time to honor the work of your fellow AEEP members for their achievements, efforts, and dedication to our profession by nominating some of them for these awards.

As an organization, AEEP must continue to investigate new ways to help the EnvE academic community, and I believe, to establish itself more as an international and interdisciplinary society. I have had some feedback on the proposals to expand the scope of AEEP from North America to the global community, and a name change of AEEP to AEESP (or other variations), and almost all of it is positive. Harvey Ludwig wrote a letter to me expressing his support of more international activities, suggesting further that we form a committee called "AEEP Internationalism." It is his belief that we ought to take greater leadership in addressing environmental problems in developing countries. Tom Keinath, Dean of the College of Engineering & Science at Clemson and President of IAWQ, wrote to express his support of a name change and opening our full membership status to faculty outside of North America [although he requested that such activity be closely coordinated with the Environmental Engineering Education (E3) Specialist Group of the IAWQ].

In the coming months, AEEP committees will be exploring how we can improve interactions and relationships of AEEP with our Sustaining Members and with AAEE on encouraging publications related to EnvE courses and on setting priorities for needed publications. We will also be busy organizing and planning the next Research Conference, which will be held here at Penn State in the summer of 1999. The conference will have a theme that will build on the EnvE Frontiers workshop, but it will also include an education component (likely through a teaching workshop). As always, please let me or another AEEP board member know if you are interested in participating in these or other committees.



**Association of
Environmental
Engineering
Professors**

Newsletter

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Please send submissions and comments to the editor. To estimate the amount of lead time needed for your announcement, please note that members receive the newsletter 6-8 weeks after

Thinking about EnvE frontiers, journeys into the new millennium, and the activities of our 750 AEEP members is heady stuff for all of us. Perhaps we should recall in our journey Robert Pirsig's message in *Zen and the Art of Motorcycle Maintenance*, to enjoy the trip and not just take the shortest path to our destination. I hope that we can all find the time to enjoy both our journeys as well as our destinations, as we move into new EnvE frontiers.

--Bruce Logan, Penn State University



AEEP News and Announcements

AEEP/WEFTEC '98 Scientists'

Luncheon

By popular demand, this year's lunch meeting will be held in conjunction with the WEF Scientists' Luncheon. **Dr. Thomas Fontaine** of the South Florida Water Management District has agreed to be the speaker for the WEF/AEEP Scientists' Luncheon at WEFTEC '98 in Orlando on Monday, October 5. Dr. Fontaine will provide an overview of the scientific, engineering, and political issues related to current activities and emerging plans for restoration and management of the Florida Everglades. Dr. Fontaine has been Director of the SFWMD Everglades Systems Research Division since 1992.k

1998 J.M. Montgomery/AEEP Master's Thesis Awards

The annual call for nominations for the 1998 J.M. Montgomery/AEEP Master's Thesis Awards is underway. Faculty are encouraged to submit Master's theses that contribute to the advancement of Environmental Engineering for consideration for the 1998 J.M. Montgomery/AEEP Master Thesis awards. Theses completed in 1997 or early 1998 are eligible. Three copies of the thesis should be submitted by the faculty advisor along with a short letter of transmittal that includes the student's current address. The theses will not be returned so inexpensively copied (double sided if possible!!) and bound versions are suggested. Faculty are urged to nominate no more than one thesis, and self-nominations by students will not be accepted. Theses will be reviewed for their scientific and technical merit, originality, contribution to the advancement of environmental engineering, and clarity of presentation. Cash prizes and plaques will be made to the top two students and their advisors [\$600/\$300 (student/advisor) for first and \$400/\$200 for second place awards]. Please submit nominations as soon as possible to: Dr. Susan E. Powers, Dept. of Civil & Environmental Engineering, W.J. Rowley Laboratories, Clarkson University, Potsdam NY 13699-5710. Any questions regarding this award or procedures for nominating students can be addressed to Susan Powers via email at sep@draco.clarkson.edu. ☺

AEEP newsletter submissions

Roger Ely, editor of the AEEP Newsletter, requests that submissions of news items be made electronically either by e-mail, ely@uidaho.edu, or on a disk. If electronic submission is not possible, information can be sent to:



Dr. Roger L. Ely
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Department of Civil Engineering
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AEEP web site submissions

News for posting on the internet can be sent to **Kurtis Paterson**, chair of the AEEP Electronic Communication and Education Committee and developer and maintainer of the AEEP web site, <<http://www.aeep.org>>. Please send items via e-mail to paterson@mtu.edu or contact Kurt at the following address:

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Correction:

Steve Randtke, not Marc Edwards, is the current AWWA representative on the AEEP Liaison Committee. We received a correction just after sending out the January issue.

In Memoriam

[**Editor's note:** The following was published recently in the *Journal of Environmental Engineering* and is reprinted here with the kind permission of ASCE.]

Donald J. O'Connor (1922-1997): Historic Teacher and Scholar of Environmental Engineering

Environmental Engineering has a history, the roots of which extend many decades into the past, the fruits of which are given to us today through the efforts of our teachers and scholars. Donald J. O'Connor, who died on April 18, 1997 at the age of 74, is a man who placed into our field the deep roots of exceptional teaching and scholarship, intimately bound with personal love and concern for students and colleagues.

Dr. O'Connor's teaching was legendary at Manhattan College where, for more than forty years, he combined a remarkably clear exposition with an infectious excitement and enthusiasm for Environmental Engineering. How many of his students marveled at the world that was opened to them in Environmental Engineering through his teaching, research, and practical experience, and then followed him into the profession. His legacy as a teacher of so many of the members of our profession will stand as a unique achievement.

Dr. O'Connor's work in mathematical modeling of water quality will always stand next to that of the great researchers and practitioners in our field: Streeter, Phelps, Camp, Fair, to name a few. The insights gained through carefully constructed analytical models of water quality processes, developed long before the advent of modern computers, and the steadfast insistence on comparison of model to observed data--the necessity of which needs to be conveyed even more today than ever before--are hallmarks of his work. His Ph.D. thesis produced what is now known as the O'Connor-Dobbins reaeration formula which eliminated one of the two unknown parameters in the Streeter-Phelps model of dissolved oxygen in streams. His work in streams: the addition of the photosynthetic source, which introduced the Fourier series solution, and nitrification and benthic sinks, extended the range of applicability of the Streeter-Phelps model. But his most lasting accomplishment was his solution to the estuary problem: how to apply the Streeter-Phelps

uncanny ability to manipulate data and present it in ways that clarified the underlying regularities; and his intuitive leaps to solution frameworks which went to the heart of the problem.

Don O'Connor believed mightily in the role of the engineer in our discipline, a belief that is evidenced by his many papers in this Journal and by the many awards he received from the EED, the ASCE and the larger field of engineering. Examples include:

Member of National Academy of Engineering
Board of Trustees Distinguished Professor,
Manhattan College
Professional Engineer in New York State
ASCE: James R. Croes Medal (1991)
ASCE, EED: Simon W. Freese Award (1990)
WPCF: Gordon M. Fair Medal (1989)
ASCE, EED: Four awards of Rudolph Hering Medal
(1958, 1966, 1983, 1989)

The reception of four Rudolph Hering Medals from our Division is a record that will probably stand in perpetuity! That record clearly reflects the three decades of recognition by reviewers that Don's work continued to make significant contributions to our field. His long list of more than 75 articles and his contributions in an advisory capacity on many levels of government, academia, and the research community all attest to a man willing to serve our discipline freely and with joy.

In addition, Dr. O'Connor conducted numerous water quality analyses and modeling investigations, including New York Harbor, the Great Lakes, the Sacramento-San Joaquin Delta, and the Chesapeake Bay, as well as many rivers, streams, and lakes throughout the U.S. As a consultant to private industry as well as government, he was held in high esteem for his willingness to objectively analyze the situation, present conclusions and to summarize complex situations in a way that was understandable to the non-professionals.

How grateful we should be that Donald O'Connor traveled in

framework to what appeared to be a hopelessly complex physical setting that included tidal motion, stratification and irregular geometry, to name a few. His solution was to model the slack water distributions and represent longitudinal mixing using a dispersion coefficient. This was vintage O'Connor--an insightful manipulation of the data (slack time concentrations translated to mean tide positions) combined with an intuitive leap to a mathematical model (tidal- and density-driven mixing modeled as a dispersion coefficient). That 1960 paper in the *Sanitary Engineering Journal* was the beginning of modern water quality modeling. It was followed by eutrophication modeling in the 1970's and toxic chemical modeling in the 1980's. Finally, the work from his last

How grateful we should be that Donald O'Connor traveled in our field! He is an example for all of us, and he is already sorely missed. Along with others in our history, it is necessary that those who will enter the field in the years ahead be made aware of people like Don who have gone before us and have shown us by their lives what it truly means to be an Environmental Engineer.

Robert V. Thomann, Manhattan College
 Dominic M. Di Toro, Manhattan College
 Wu-Seng Lung, University of Virginia

Dr. Donald O'Connor's work published in the *Journal of Environmental Engineering and the Journal of Hydraulic Engineering*:

1. O'Connor, D. J., & Dobbins, W. W. (1958). Mechanism of reaeration in natural streams. *Trans. ASCE*, 123, 641-684.
2. O'Connor, D. J. (1960). Oxygen balance of an estuary. *J. Sanit. Engrg. Div.*, ASCE, 86 (SA3), 35-55.
3. O'Connor, D. J. (1965). Estuarine distribution of non-conservative substances. *J. Sanit. Engrg. Div.*, ASCE, 91 (SA1), 23-42.
4. O'Connor, D. J., St. John, J. P., & Di Toro, D. M. (1968). Water quality analysis of the Delaware River Estuary. *J. Sanit. Engrg. Div.*, ASCE, 94 (SA6), 1225-1252.
5. O'Connor, D. J., & Muller, J. A. (1970). Water quality model of chlorides in the Great Lakes. *J. Sanit. Engrg. Div.*, ASCE, 96 (SA4), 955-976.
6. O'Connor, D. J., & Di Toro, D. M. (1970). Photosynthesis and oxygen balance in streams. *J. Sanit. Engrg. Div.*, ASCE, 96 (SA2), 547-571.
7. Thomann, R. V., Di Toro, D. M., & O'Connor, D. J. (1974). Preliminary Model of Potomac Estuary Phytoplankton. *J. Envir. Engrg.*, ASCE, 100 (2), 699-715.
8. O'Connor, D. J., & Lung, W.S. (1981). Suspended solids analysis of estuarine systems. *J. Envir. Engrg.*, ASCE, 107 (1), 101-120.
9. O'Connor, D. J., Mueller, J. A., & Farley, K. J. (1983). Distribution of Kepone in the James River Estuary. *J. Envir. Engrg.*, ASCE, 109 (2), 396-413.
10. O'Connor, D. J. (1983). Wind effects on gas-liquid transfer coefficients. *J. Envir. Engrg.*, ASCE, 109 (3), 731-752.
11. O'Connor, D. J., & Mueller, J. A. (1984). Water quality analysis of New York Harbor Complex. *J. Envir. Engrg.*, ASCE, 110 (6), 1027-1047.
12. Lung, W.S., & O'Connor, D. J. (1984). Two-dimensional mass transport in Estuaries. *J. Hydr. Engrg.*, ASCE, 110 (10), 1340-1357.
13. O'Connor, D. J. (1988). Models of Sorptive Toxic Substances in Freshwater Systems. I: Basic Equations. *J. Envir. Engrg.*, ASCE, 114 (3), 507-532.
14. O'Connor, D. J. (1988). Models of Sorptive Toxic Substances in Freshwater Systems. II: Lakes and Reservoirs. *J. Envir. Engrg.*, ASCE, 114 (3), 533-551.
15. O'Connor, D. J. (1988). Models of Sorptive Toxic Substances in Freshwater Systems. III: Streams and Rivers. *J. Envir. Engrg.*, ASCE, 114 (3), 552-574.
16. O'Connor, D. J. (1989). Seasonal and long term variations of dissolved solids in lakes and reservoirs. *J. Envir. Engrg.*, ASCE, 115 (6), 1213-1234.
17. Blumberg, A. F., Galperin, B., & O'Connor, D. J. (1992). Modeling vertical structure of open-channel flows. *J. Hydr. Engrg.*, ASCE, 118 (8), 1119-1134.
18. O'Connor, D. J. (1995). Inner region of smooth pipes and open channels. *J. Hydr. Engrg.*, ASCE, 121 (7), 555-560.

19. O'Connor, D. J. (1998). Chemical reaction and gas transfer in natural waters. *J. Envir. Engrg.*, ASCE, 124 (2), 85-93.

Organizations of Interest

AWRA elects new President

Dr. **N. Earl Spangenberg**, College of Natural Resources at the University of Wisconsin-Stevens Point, has been elected President of the American Water Resources Association for 1998. Spangenberg received a B.S. in Forest Management from Oregon State University and an M.S. and Ph.D. in Watershed Management from Colorado State University. He currently teaches physical water resources and forestry courses at the University of Wisconsin.

AWRA awards and scholarships

AWRA has selected the first two recipients of scholarships from its Richard A. Herbert Memorial Education Scholarship Fund out of 20 applications received from around the country. **Sharla Benjamin Lovern** at the Virginia Polytechnic Institute and State University is the recipient of the undergraduate scholarship. **Suzanne P. Wechsler** at the State University of New York is the graduate scholarship recipient. AWRA requests applications for the 1998-99 Richard A. Herbert Memorial Scholarships. Two

For folks interested in zero-valent metals for use in treatment walls, the old list of references on groundwater remediation with zero-valent metals has been updated and converted to a searchable database. The new location is <<http://cgr.ese.ogi.edu/ironrefs/>>. It's now a much more powerful resource, allowing searches by author, year, title, keywords, etc. The results may be sorted by author or year. Return everything in the database or just the latest additions, and more.

The total number of entries is now over 200. For more information, contact Paul G. Tratnyek, Associate Professor, Environmental Science and Engineering, Oregon Graduate Institute, Portland, Oregon.

AAAR Annual Meeting

The American Association for Aerosol Research (AAAR) is a nonprofit professional organization for scientists and engineers who wish to promote and communicate technical advances in the field of aerosol research. The 1998 AAAR Annual Meeting will be held June 22-26 in Cincinnati. This meeting is the primary activity of the Association and also the activity of

\$1,000 scholarships will be awarded, one to a full-time undergraduate student and one to a full-time graduate student. Candidates must be enrolled in a water resources program for the 1998-99 academic year. For more information, contact Stephen Dickman, phone (715) 355-3684; e-mail stdi@ltus.com. AWRA presented the following awards at its 33rd Annual Conference in Long Beach, California:

The William C. Ackermann Medal for Excellence in Water Management was presented to **Peter G. Hubbell**, Principal, Water Resources Associates, Inc., Tampa, Florida, for his exemplary water management practices in the State of Florida. Selected as Fellow Members of the Association were **D. Briane Adams** and **Michael J. Sale** for their outstanding contributions to water resources. The Icko Iben Award was presented to **Alan P. Covich**, Director, Dept. of Fishery and Wildlife Biology, Colorado State University, for his efforts in fostering dialogue among disciplines concerned with water resources. The William R. Boggess Award for the "Outstanding Paper in the Association's Journal, the *Water Resources Bulletin*," was given to **Warren A. Gebert** and **William R. Krug** for their paper, "Stormflow Trends in Wisconsin's Driftless Area," published in August 1996. The President's Award for Outstanding Service was presented to **Jeffrey T. Armbruster** in recognition of his outstanding contributions to AWRA. The CAHABA/WARRIOR Student Chapter at the University of Alabama was selected as the Outstanding Student Chapter for 1997 and the Florida State Section was selected as the Outstanding State Section for 1997.

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greatest potential interest to the AEEP. This has become a major conference with international representation that includes research papers presented in platform and poster sessions as well as workshops, tutorials, plenary overview papers, and an awards program. AEEP members interested in more information about the annual meeting or the Association should contact the American Association for Aerosol Research, 1330 Kemper Meadow Drive, Suite 600, Cincinnati, Ohio 45240-1634. Information can also be obtained at <http://www.aaar.org/aaar>. The Association fosters the exchange of information among members and with other disciplines through conferences, symposia, and the publication of a professional journal, *Aerosol Science and Technology*. AAAR was founded in 1982 by David Ensor, Sheldon Friedlander, Benjamin Liu, and David Shaw. In recent years, the membership has grown to over 800.

ACS National Meeting

AEEP will be hosting a reception at the ACS National Meeting in Boston August 23-27. In concert with this reception, Alan Stone of Johns Hopkins and Janet Hering of the California Institute of Technology are organizing a symposium entitled "Research and Education Challenges in Environmental Chemistry." This symposium should be of interest to AEEP members since environmental chemistry is a vital component of environmental engineering. Research and education in environmental chemistry presents many challenges to the academic community. These challenges arise from the need for students to obtain both a fundamental grounding in chemistry and an understanding of the environmental systems, both natural and engineered, to which their chemical training will be applied.

This symposium will highlight the central role that environmental chemistry plays in areas ranging from environmental engineering to toxicology and will explore issues such as future directions of environmental chemistry, curriculum development, and funding prospects. Speakers may include Joel Baker (Chesapeake Biological Laboratory, University of Maryland), Allen Elzerman (Environmental Engineering Science, Clemson University), Jean-Francois Gaillard (Civil & Environmental Engineering, Northwestern Univ.), Michael Hoffmann (Environmental Engineering Science, Caltech), Susan Larson (Civil & Environmental Engineering, Univ. of Illinois), Drew McAvoy (Proctor & Gamble), Nick Nikolaidis (Civil & Environmental Engineering, Univ. of Conn.), Lynn Roberts (Geography and Environmental Eng., Johns Hopkins University), and Rhodes Trussell (Montgomery-Watson).

For more information, contact Prof. Janet Hering, California Institute of Technology, 1200 E. California Blvd., Environ. Eng. Sci. (138-78), Pasadena, CA 91125, (tel) 626-395-3644, (fax) 626-395-2940, (e-mail) jhering@cco.caltech.edu; <<http://vayu.che.caltech.edu/~ees/Hering.html>>.

AGU Hydrology Section

The American Geophysical Union was established in 1919 by the National Research Council and operated as an unincorporated affiliate of the National Academy of Sciences until 1972 when it was incorporated in the District of Columbia. AGU now claims over 35,000 members in more than 115 countries. The stated mission of AGU is to advance the understanding of Earth and its environment and to disseminate results to the public. This is accomplished principally through the activities of the AGU Sections and through AGU publications. The Section activities that are likely to be of most interest to AEEP members are those of the Hydrology Section. This is AGU's largest section, consisting of over 6000 members. The principal activity of the Hydrology Section is to organize and promote technical sessions on relevant topics in the hydrologic sciences at the AGU Fall and Spring meetings.

The AGU Fall and Spring Meetings cover all areas of the geophysical sciences, but the high level of participation by the Hydrology Section in breadth, depth, and sheer numbers of papers (over 1000 in Fall 1997) guarantees a critical mass and gives members the feeling of attending a "meeting within a meeting." Proposed topics and descriptions for Hydrology technical sessions are developed by the Section's eight Technical Committees. These include: Erosion and Sedimentation; Groundwater; Large-Scale Field Experimentation; Policy Sciences; Precipitation; Remote Sensing; Snow, Ice and Permafrost; Surface Water; Unsaturated Zone; and Water Quality. Any AGU member can propose to convene a special session; the session proposal is reviewed and revised by a Technical Committee before being published in *Eos*. Abstracts submitted to the meetings do not necessarily have to fit in to one of the advertised special sessions; general hydrology sessions are also organized based on the submissions received.

The AGU Fall Meeting is held in San Francisco every December; the Spring Meeting takes place in Baltimore or an

alternate East coast location in May. Calls for papers are printed in AGU's weekly publication, *Eos*, with abstracts being due approximately three months before the meeting. AGU requires and publishes only abstracts of papers.

AGU publishes ten peer-reviewed journals as well as the weekly newsletter, *Eos*. *Water Resources Research* is the AGU journal probably most widely used by AEEP members. Others that may be of interest include: *Journal of Geophysical Research*, *Reviews of Geophysics*, and *Geophysical Research Letters*.

AGU encourages membership by keeping dues at the lowest possible level. Regular member dues are \$20 per year; student dues are \$7 per year. Journal subscriptions and meeting abstract proceedings are available for additional charges.

AGU Spring Meeting set for May 26-29 in Boston

Hydrology Section participation at AGU meetings continues to grow. Due to the capacity limitations of meeting facilities, currently about one-third of the Hydrology papers can be scheduled as oral presentations with the remaining two-thirds as posters. Students are strongly encouraged to participate, and a number of outstanding student paper awards are made for every meeting.

This year's Spring Meeting will be held in Boston, May 26-29. Thirty Special Sessions have been proposed in Hydrology. The titles of abstracts that have been submitted electronically for the Spring Meeting are available for viewing on AGU's web site (listed below). The 1998 Fall Meeting is scheduled for December 6-10; abstract submissions are due August 26, 1998.

Meeting registration and organization continues to be streamlined through the availability of interactive web transactions. Members can submit abstracts, make hotel reservations, and register for meetings through AGU's web site.

One exciting development that can be reported for *Water Resources Research* during the past year is online availability to AGU members of all WRR papers dating back to 1990. This is an extremely convenient way for a member to look up a paper when away from his or her own library and an alternative way for members to subscribe to the journal.

The officers of the Hydrology Section are currently Mary Anderson (U. Wisconsin), President; Ken Bencala (USGS), Secretary; and Soroosh Sorooshian, President-Elect (U. Arizona). Professor Sorooshian will take over as President in July 1998 and will be running Section activities during 1998-2000 with recently-elected officers, Kenneth Potter (U. Arizona), President-Elect, and Marc Parlange (Johns Hopkins U.), Secretary. For further information, readers are encouraged to visit AGU's web site at

<http://www.agu.org/>; the Hydrology Section's latest activities are described on <http://www.esd.ornl.gov/societies/>.



Employment Opportunities

University of Kentucky

ENVIRONMENTAL ENGINEERING POST-DOC POSITION. The Department of Civil Engineering at the University of Kentucky invites applications for a post-doctoral position in Environmental Engineering working with Dr. Gail Brion beginning July 1, 1998. Candidates should have an earned Ph.D. degree in civil/environmental engineering, environmental science, or related discipline. Areas of interest are flexible as Dr. Brion has a varied background. Dr. Brion is an experimentalist with considerable laboratory skills in basic water chemistry and environmental virology and microbiology. She is interested in looking at preventing waterborne disease by engineering applications. Currently Dr. Brion is researching detection and identification of non-point source runoff from urban and agricultural areas, development of methods for recovering encysted protozoa and viruses from environmental waters, disinfection, adsorption-based, point-of-use treatment devices, and water reuse. An individual with interests in these areas is encouraged to apply, however, any applicant with complementary skills will be considered. Position responsibilities include research proposal development, laboratory supervision of graduate students, and manuscript preparation. Salary is dependant upon skills. One great job benefit is working with great mentors, fair people, and intellectually stimulating colleagues. Another benefit is the laboratory facilities. The Department is housed in a new building with excellent offices, classrooms, and laboratories. The labs are quite stunning and well-equipped. Four environmental laboratories occupy 5,000 square feet with four environmental chambers and an equipment room containing several gas chromatographs, an ion chromatograph, laminar flow hoods, anaerobic hoods, epifluorescent microscopy equipment, centrifuges, and ultra-cold freezers. Two environmental and four water resource faculty currently support the rapidly growing program in Environmental Engineering. Faculty participate in several campus-wide environmental activities with the Kentucky Water Research and Resources Institute, the Center for Applied Energy Research, the Agricultural Sciences School, and other academic programs. For more information, view <<http://www.engr.uky.edu/CE/cetmb.html>>. Review of applications will begin immediately and continue until the position is filled. Applicants should send by e-mail or snail mail a resume, a statement of research interests, and a list of at least three references to:

Dr. Gail Montgomery Brion
Department of Civil Engineering

affirmative action employer. Women and minorities are encouraged to apply.

Water Quality Association Lisle, IL

CERTIFICATION OFFICER AND LABORATORY SUPERVISOR. The Water Quality Association in Lisle, Illinois is seeking a certification officer and laboratory supervisor for its Gold Seal product testing and validation program. Responsibilities include securing applications from manufacturers for performance testing of household drinking water treatment unit equipment, involving fees for WQA laboratory services, supervision of laboratory personnel and tests of water treatment products, organizing test data results and administration of Certificates of Validation, and participation in industry product performance standards writing. Requires a B.S. in chemistry or engineering, mechanical and plumbing skills, and knowledge of laboratory instrumentation operations such as atomic absorption spectroscopy and gas chromatography. Experience with home water treatment technologies a plus. Salary range \$30,000 to \$45,000. Send letter of interest and resume to:

Technical Director
Water Quality Association
4151 Naperville Rd
Lisle, IL 60532-1088
(FAX) 630-505-9637

San Diego State University

RESEARCH TECHNICIAN IN ENVIRONMENTAL ENGINEERING, DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING. FULL-TIME PERMANENT APPOINTMENT.

RESPONSIBILITIES: The incumbent will serve under the supervision of the Blasker Professor of Environmental Engineering to: 1) Operate and maintain all analytical instruments including AA, GC, GC-MS, HPLC, IC, TOC, etc; 2) Manage several environmental engineering laboratories, including chemical ordering/storage, instrument calibration/trouble shooting, laboratory safety, record keeping, and hazardous waste management; 3) Train students in the environmental engineering laboratories; 4) Design and perform experiments for the Water Quality Lab and Unit Operations Lab; and 5) Under supervision, conduct research, co-author peer-reviewed papers and participate in writing research proposals. The person is also expected to interact with other

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 Email: gbrion@engr.uky.edu
The University of Kentucky is an equal opportunity and

faculty members in the Environmental Engineering Program.
QUALIFICATIONS: A Master's degree in analytical chemistry, environmental chemistry, or environmental engineering with a minor in environmental chemistry. At least two years of work experience in an environmental laboratory

is required. A Ph.D. degree in the same disciplines would be preferred. The successful candidate is expected to demonstrate the capability of handling the analytical instruments listed above and should have extensive knowledge of wet chemistry. Computer literacy and strong communication skills are required.

SALARY: \$43,188--\$52,080, commensurate with experience, knowledge, and skills.

APPLICATION PROCEDURE: Applicants must complete the SDSU employment application for Research Technician III. Applications are available at San Diego State University, Personnel Services, 3rd Floor, Administration Building, San Diego, CA 92182; phone (619) 594-5836. Applicants also need to submit a cover letter and resume describing skills, knowledge, abilities, and experience, along with three reference letters. Review of applications will begin on March 30, 1998 and will continue until a suitable candidate is found. The position will be available on July 1, 1998. Applicants with disabilities requiring special application and/or interview arrangements may call (619) 594-4646 or (619) 594-8075. *San Diego State University is an Equal Opportunity Employer and does not discriminate against persons on the basis of race, religion, national origin, sexual orientation, gender, marital status, age, or disability.*

University of Michigan

The Department of Civil and Environmental Engineering at the University of Michigan invites applications for a tenure-track faculty position in Environmental Engineering. A Ph.D. degree in Environmental or Chemical Engineering or a related field is required. It is desired to fill the position at the Assistant Professor rank, but truly outstanding individuals at the Associate or Full Professor level will also be considered. Preference will be given to applicants with research interests and expertise in physical-chemical processes. Those with a research focus on waste avoidance and minimization or advanced technologies for treatment of gaseous, liquid, or solid wastes are particularly encouraged to apply. A commitment to excellence in teaching and research is expected. Responsibilities will include teaching at the undergraduate and graduate levels and maintaining a creative and vigorous research program. To apply, please send a resume, a description of teaching and research interests, and

Kentucky Water Resources Research Institute. The Institute was established in 1964 to stimulate research and education in water resources and water-related environmental topics and has become one of the leading institutes in the country. (For more information, please access <www.uky.edu/WaterResources>.) This is a full-time position reporting to the Vice President for Research and Graduate Studies. Qualified applicants must have a Ph.D. in an appropriate field of Science or Engineering, a scholarly record of research and publications, good communication skills, demonstrated management capabilities, and a good record of public and professional society service. A joint appointment in an appropriate academic department is possible depending on the qualifications and experience of the applicant. Review of applications will begin April 1, 1998 and continue until the position is filled. All qualified persons should send a resume and a list of at least three references to: Ms. Kris Hobson, Office of the Vice President of Research and Graduate Studies, 207 Administration Building, University of Kentucky, Lexington, KY 40506-0032.

The University of Kentucky is an Affirmative Action, Equal Opportunity Employer, and actively seeks the candidacy of interested minorities and women.

University of Houston

Environmental Engineering Faculty Position, Cullen College of Engineering, University of Houston. The Department of Civil and Environmental Engineering at the University of Houston invites nominations and applications for a tenure-track faculty position at any level effective August 1998 or January 1999. We will consider emerging and nationally recognized candidates with a Ph.D. and a demonstrated record of scholarship in one of the following areas: air quality measurement and control, geo-environmental engineering, or water quality measurement and control. Duties will include undergraduate and graduate teaching and research related to the candidate's area of expertise. Applicants with an engineering degree and a P.E. license will be given preference. The search will remain open until the position is filled. The Department of Civil and Environmental Engineering comprises 16 faculty in the areas of geotechnical, materials, structural, environmental, ocean, and water resources engineering. The UH Environmental Engineering Program comprises 60 graduate students and 5 core faculty from Civil and Environmental Engineering with 30 associated faculty from the Colleges of

the names and addresses of at least three references to: Dr. Kim F. Hayes, Chairman, Search Committee, Environmental and Water Resources Engineering Building, Room 181, The University of Michigan, Ann Arbor, MI 48109-2125. The review of applications will begin immediately and continue until the position is filled. EWRE program information and faculty profiles are available on the web at <<http://www.engin.umich.edu:80/dept/cee>>.

The University of Michigan is an equal opportunity/affirmative action employer, and especially encourages women and minorities to apply.

University of Kentucky

DIRECTOR OF THE KENTUCKY WATER RESOURCES RESEARCH INSTITUTE. The University of Kentucky announces a search for the senior leadership position in the

Engineering, Natural Science and Mathematics, Law, Business, and Social Sciences. With the recent addition of one million dollars of new analytical instrumentation, the Environmental Engineering Laboratories remain among the best in the world. The University of Houston is a Research II institution with 31,000+ students located in America's fourth largest city. The intellectual, social, and artistic environment is outstanding. Applicants should send resumes along with names, addresses, and phone numbers of three appropriate references to: Dr. Dennis A. Clifford, P.E., DEE Chairman and Professor Department of Civil and Environmental Engineering University of Houston Houston, Texas 77204-4791.

The University of Houston is an Equal Opportunity/Affirmative Action employer, and especially encourages women and minorities to apply.

Book Reviews by P. Aarne Vesilind

THE HEATED DEBATE: Greenhouse Predication versus Climate Reality

by Robert C. Balling, Jr., Pacific Research Institute, San Francisco, 1992 (with introduction by Aaron Wildavsky)

My dad used to say that there are only three ways you can have an argument: 1) one person does not know what he or she is talking about, 2) neither one knows what they are talking about, and 3) they are talking about different things. The global climate debate is often characterized as a Category 2 argument--the models are simply not good enough to construct knock-down arguments for one side or the other. But I believe the real problem is that the opponents are talking about different things. We think the argument is between scientists who predict that the rise in the earth's temperature will be 1° over the next decade, versus the ones who argue that it will be more like a rise of 3° , who all argue with those who say the earth will actually be getting cooler. But the argument should really be about whether we CARE that such global change occurs. If we don't care, then it makes little difference what the magnitude of global warming will be. It might even be beneficial to some areas of the earth. But if we care very much that we humans are changing the global ecosystems by our selfish actions, then even a small change is important.

In this Category 3 argument, the book by Balling, a respected climatologist at Arizona State University, is of little use. He never asks the great question of "should I care?" But what he does do is provide a great deal of evidence to bolster the

scientific arguments of both sides of a Category 2 debate. His purpose is to allow the reader to be better informed and to be able to identify the hollow arguments on both sides. As Balling says in his first chapter:

The purpose of the book is not to win the reader over to one side or another in the greenhouse debate. Rather, its purpose is to explore the range of outcomes that may result from the buildup of greenhouse gases....The book is an invitation to (1) drop any rigid attachment to one side of the debate or other, (2) begin to explore the complexities of the debate, (3) learn to appreciate the strengths and weaknesses of the various arguments, and (4) place more thought in the climate components of policies that deal with climate change.

This book is valuable to us in a number of ways. It can be a wonderful supplementary reader in air pollution classes, or it can be a source of great material to spice up lectures, or it can be simply a good summertime read. I recommend it highly. With one caveat. The Introduction is written by Aaron Wildavsky (whoever he is) and this introduction is precisely the crap that Balling tries to diffuse. Driven by right wing demons,

Wildavsky demonstrates a galling lack of appreciation of environmental problems while pushing his libertarian religion. The Pacific Research Institute is a right wing organization that KNOWS that it has the truth and angels on its side and that everyone else is wrong. Wildavsky apparently believes that the strongest argument is to make fun of the opposition. I can just imagine how embarrassed John Balling must have been to have the publisher include Wildavsky's introduction in the book.

If you buy this book, rip out the first 22 pages. The rest is a really excellent discussion of the issues. Balling understands that in Category 2 arguments, the more we know and the more we understand each other, the lower will be the temperature of our arguments and the better will be our policy decisions.

ENVIRONMENTAL MODELING: Fate and Transport of Pollutants in Water, Air and Soil,
by Jerald L. Schnoor, John Wiley & Sons, New York, 1996

Just what IS an environmental model? For that matter, what is a model?

I remember having great and heated discussions on this question when I was a graduate student. Should there not be a set of criteria we can use to determine what is and is not a useful model? If I can remember correctly, we snotty-nosed graduate students decided that for something to be a model it has to be 1) descriptive, 2) verifiable, and 3) predictive. The very simplest models are mathematical, such as $F = ma$, or chemical, such as $\text{CaO} + \text{H}_2\text{O} = \text{Ca(OH)}_2$. The Streeter-Phelps model mathematically simulates the oxygen levels in a stream while the Gaussian air dispersion model simulates concentration of pollutants downwind from a source. All these models describe nature, and are predictive and verifiable. Models do not have to be mathematical. Pilot plants for evaluating the efficacy of a treatment technique for an industrial waste are models. The Kynch batch thickening analysis is a descriptive as well as mathematical model. Conceptual models, such as Charlie O'Melia's ideas on the action of polymers in flocculation are useful models. All these are tools that we can use in environmental engineering.

Jerry's excellent book could not, obviously, include all these models. Instead, as the subtitle implies, the text concentrates on the models related to the fate of chemicals in the environment. Included in the book are chapters on: Transport Phenomena; Chemical Reaction Kinetics; Equilibrium Chemical Modeling; Eutrophication of Lakes; Conventional Pollutants in Rivers; Toxic Organic Chemicals; Modeling Trace Metals; Groundwater Contamination; Atmospheric Deposition and Biogeochemistry, and (my favorite) Global Change and Global Cycles.

The models are described from a fundamental point of view and a prerequisite in partial differential equations is clearly needed for courses using this book. A course in aquatic

chemistry, or at least a second chemistry course (which civil engineers tend to finesse) would also be useful. The book has a lot of neat problems and is well organized. I would see it as a useful textbook for a second environmental engineering course or an introductory graduate level course.

If there is a gripe, it is trivial and has nothing to do with the content. The publisher (Wiley) has seen fit to take shortcuts on the quality of the figures and graphics. This is a deplorable trend we see with most publishers. Glancing through some old texts (e.g. Fair & Geyer) will demonstrate just how badly we have regressed in the quality of the graphics. Note to publishers: It really DOES matter how the book looks.

Jerry has authored an excellent text that will find wide use in our business.

ATMOSPHERIC CHEMISTRY AND PHYSICS: From Air Pollution to Climate Change

by John H. Seinfeld and Spyros N. Pandis, John Wiley & Sons, New York, 1997

Wow! What an effort! This is the definitive book on atmospheric chemistry and physics, the Stumm and Morgan of air pollution.

John Seinfeld's previous book, *Atmospheric Chemistry and Physics of Air Pollution*, stood for many years as the best air pollution book, and now this vastly updated and revised version is even better.

But it is not a book for the faint at heart. Seinfeld and Pandis take the fundamental high road in approaching the topic and do not shy away from mathematical complexity.

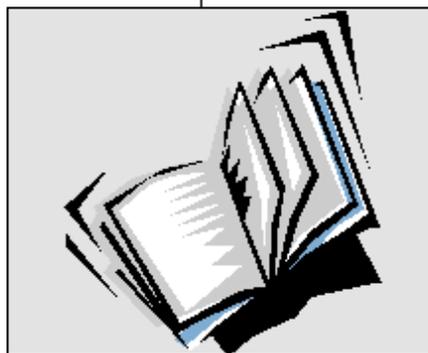
Writing this book must have been difficult on two fronts, first just the sheer amount of information, and secondly the organization. Air chemistry is such a complex subject that there seems to be no linear route to its understanding. Often the pictures that emerge can be paradoxical. And even worse, the science has to be applied eventually to public policy. The authors give one such example in the Preface:

Witness the unique combination of dynamical forces that lead to a wintertime polar vortex over Antarctica, with concomitant formation of polar stratospheric clouds that serve as sites for heterogeneous chemical reactions involving chlorine compounds resulting from anthropogenic chlorofluorocarbons—all leading to the near total depletion of stratospheric ozone over the South Pole each spring. [Then] witness the nonlinear, counterintuitive, dependence of the amount of ozone generated by reactions involving hydrocarbons and oxides of nitrogen at the urban and region scale—although both hydrocarbons and NO_x are ozone precursors, situations exist where continuing to emit more and more NO_x actually leads to less ozone.

But the authors do an admirable job of organizing the

topics in a teachable sequence and provide plenty of end-of-chapter problems to grapple with. They even try to grade the problems in terms of difficulty. Problems labeled (A) should be plug-and-chug, (B) problems are more difficult, all the way to problems labeled (C) which probably the authors themselves cannot solve and hope that some smart undergraduate will show them how to do it.

The topics covered include: The Atmosphere; Atmospheric Composition, Global Cycles and Lifetimes; Atmospheric Photochemistry and Chemical Kinetics; Chemistry of the



Stratosphere; Chemistry of the Troposphere; Chemistry of the Atmospheric Aqueous Phase; Properties of the Atmospheric Aerosol; Dynamics of Single Aerosol Particles; Thermodynamics of Aerosols; Nucleation; Mass Transfer Aspects of Atmospheric Chemistry; Dynamics of Aerosol Populations; Organic Atmospheric Aerosols; Meteorology of Air Pollution; Cloud Physics; Micrometeorology; Atmospheric Diffusion Theories; Analytical Solutions for

Atmospheric Diffusion (The Gaussian Plume Equation); Dry Deposition; Wet Deposition; Atmospheric Chemistry and Climate; Radiative Effects of Atmospheric Aerosols; Atmospheric Chemical Transport Models; and Statistical Models.

The material in this book easily covers two semesters of work, so it would not be a useful book for a one-semester air pollution survey course. But as the definitive work that will have lasting value to students who plan careers in air pollution control, it is one of a kind. All 1325 pages of it. Wow!

BRIEFLY NOTED:

MODELING AND ANALYSIS OF RESERVOIR SYSTEM OPERATIONS

by Ralph A. Wurbs, Prentice Hall TRP, Upper Saddle River, NJ, 1996

A modern treatment of reservoir modeling that includes a lot of great hydraulic data, water accounting procedures, flood routing, and reliability and risk analysis. Nice descriptions of the major reservoirs in the United States. This book would be useful for a reader in an advanced water resources course. It has no homework problems and would be difficult to use as a primary text in a survey course, however. Ralph Wurbs is on the civil engineering faculty at Texas A&M.

CREATING FRESHWATER WETLANDS

Second Edition, by Donald A. Hammer, CRC Lewis, Boca Raton, FL, 1997

This is the second edition of the successful book on wetlands published in 1991. A lot has happened in the intervening years, most of it good, and the author takes a positive view on wetland development and management. Although much of the book covers the construction of new wetlands, a lot of good stuff is in here about the restoration and management of old or threatened

swamps, marshes and bogs. The book has a lot of information on the whole field and beautiful, colored pictures, and could honestly be called a handbook. It also has a flavor of an enthusiast.

If you don't like wetlands, the tone will be irritating. For those of us (er... people) who agree with Hammer, this is a fine book.



QUANTITATIVE SOLUTIONS IN HYDROGEOLOGY AND GROUNDWATER MODELING

by Neven Kresic, CRC Lewis, Boca Raton, FL, 1997

Neven Kresic heads up the groundwater modeling section of Law Engineering and Environmental Services, and as such is responsible for actually **applying** all these models we egg-heads come up with. This book is an attempt to show how these applications can be made. The book is nicely illustrated with high quality sketches that would be useful for making overheads. The subjects are instructed by non-numerical problems that ask the question, and then the discussion shows how the problem would be solved. My only criticism with this approach is that I would then like to see a real (numerical) problem to cap off the discussion, but this is a small quibble. A fine book.

ENVIRONMENTAL ION EXCHANGE: PRINCIPLES AND DESIGN

by Anthony M. Wachinski and James E. Etzel, CRC Lewis, Boca Raton, FL, 1997

Anthony Wachinski is the director of technology transfer at Thames Water Utilities in The Woodlands, Texas, and James Etzel is Professor Emeritus at Purdue. They have brought together what they believe to be the first comprehensive volume on the topic of ion exchange. The contents include basic concepts of ion exchange, cold process lime-soda softening, laboratory scale testing of ion exchange and applications and design. The book is much too short to be used as a semester text but the example problems would be useful in developing lectures on this topic.

GROUNDWATER GEOCHEMISTRY: FUNDAMENTALS AND APPLICATIONS TO CONTAMINATION

by William J. Deutsch, Lewis Publishers, Boca Raton, FL, 1997

If there ever was a Ph.D. dissertation that was devoted to the

ENVIRONMENTAL ISOTOPES IN HYDROGEOLOGY

by Ian Clark and Peter Fritz, Lewis Publishers, Boca Raton, FL, 1997 Environmental isotopes are those that occur naturally in abundance in our environment, and include H, C, N, O, and S. These are also the main elements in our hydrological, biological, and geological systems. Using the isotopes to date and trace is a major advantage to us, and this book is a fine introduction to this field. Ian Clark is at the University of Ottawa and Peter Fritz is at Leipzig-Halle.

SPREADSHEET APPLICATIONS IN CHEMISTRY USING MICROSOFT EXCEL

by Dermont Diamand and Venita C. A. Hanratty, John Wiley and Sons, New York, 1997, \$34.95

This book includes a computer disk that can be used to develop the spreadsheet for solving problems. Particularly interesting is the section on physical chemistry, and the authors show how the spreadsheet can be used to solve kinetics, metal complex equilibria, titration curves, and other problems.

COMPUTATIONAL ENGINEERING GEOLOGY

by Edward Derringham, Prentice Hall, Upper Saddle River, NJ, 1998

The intended audience of this workbook-style book is engineers and scientists taking the first survey course in engineering geology, or a physical geology course with an engineering slant. The most impressive part of this book is the numerous problems that can be used for instruction. This is not one of your pretty designer books on engineering geology, with full-color pictures of sedimentary rocks, but a true working-class, blue-collar grunt book on how to solve the problems. If you teach engineering geology, take a look at this one. Ed Derringham is at the Wentworth Institute of Technology.

FORMULA HANDBOOK FOR ENVIRONMENTAL ENGINEERS AND SCIENTISTS

by Gabriel Bitton, John Wiley and Sons, New York, 1997, \$42.95

It is dangerous to write a book listing formulas because it is so easy to test. Everyone has a pet formula and the first thing they do is see if it is included in the book. If it isn't, then the book is clearly worthless. If it is, then it may be useful. One exclusion and it's all over. So I tested. It flunked. Again I tested. And it passed. Then I read the preface and noted that the author intended to collect formulas that deal primarily with biological/biochemical processes. Don't expect to see formulas on processes. But for the bio-heads, this would be a good book to have on the shelf when you need just the right formula at 3 a.m. My greatest gripe with the book is the

If there ever was a Ph.D. dissertation that was devoted to the general understanding of geochemistry, this would be it. The thorough and careful review of literature in this field is worth the price of the book. William Deutsch is with Woodward-Clyde, and the application flavor comes through. This book would be a valuable addition to the library of anyone who studies groundwater contamination.

absence of an index. Sometimes you know a formula by the name of a person associated with it, and an index would be invaluable. Gabriel Bitton is a professor of Environmental Engineering Sciences at the University of Florida.

Conferences

"Protecting Water Quality in the Distribution System: What is the Role of Disinfectant Residuals?" Philadelphia, Pennsylvania April 26-28, 1998

AWWA, in conjunction with IWSA, is hosting this special conference. For conference program and registration information, see the web site <<http://www.awwa.org/tande/disinfect.htm>>.

"Water Quality Modelling of Lakes, Rivers and Catchments" Imperial College, London June 10-12, 1998

Conducted by Steve Chapra, University of Colorado, and Paul Whitehead, University of Reading, at Imperial College of Science, Technology and Medicine, London, U.K., the workshop is described in detail at the web site <<http://ewre-www.cv.ic.ac.uk/wqmshop.html>>. Registration information (cpd@ic.ac.uk) and technical information (s.chapra@ic.ac.uk) can be obtained via e-mail. For additional information, contact Prof. Steven C. Chapra, Environmental and Water Resources Engineering, Civil Engineering, Imperial College of Science, Technology & Medicine, London SW7 2BU, United Kingdom.

**Environmental Engineering Division Program,
American Society of
Engineering Education 1998 National
Conference, Seattle, Washington
June 28-July 1, 1998**

Sunday, June 28 (12:30-5:00 pm)

NEW this year! Teaching Workshop for Environmental Engineering Design in Introductory and Senior Level.

Monday, June 29 (7 pm)

Division Dinner/Social Meeting (Location TBA)

EED Technical Program consists of four sessions on Tuesday and Wednesday including a session sponsored jointly with the Civil Engineering Division. See details for times, locations, and topics at the conference web site, <<http://www.asee.org/conferences/html/annual.htm>>.

Wednesday, July 1 (12:30 pm)

Environmental Engineering Division Annual Business Meeting
For additional information contact Marilyn Barger, Ph.D., P.E., Assistant Professor, Civil Engineering Department, FAMU-FSU College of Engineering, 22525 Pottsdamer St., Tallahassee, FL 32310-6046; phone (850) 487-6121, fax (850) 487-6142, e-mail

**30th Mid-Atlantic
Industrial and Hazardous
Waste Conference
Philadelphia, Pennsylvania
July 12-15, 1998**



The Mid-Atlantic Industrial and Hazardous Waste Conference is an annual meeting of environmental engineers from consulting, manufacturing, federal, state, and local government agencies, utilities; and universities. The meeting is sponsored by a consortium of Middle Atlantic universities and consists of oral presentations, poster presentations, exhibits, and published proceedings. For more information on the conference, please contact Lee Christensen, phone (610) 519-4957, fax (610) 519-6754, or e-mail lchriste@email.vill.edu.

**“Pollution Prevention and
Environmental Risk Reduction”
AIChE Annual Meeting
Miami Beach, Florida
November 15-19, 1998**

This topical conference will feature 19 sessions focusing on the fundamental aspects of pollution prevention (e.g., process design, separation technology, reaction engineering, and monitoring), the relation of this growing aspect of chemical engineering with environmental monitoring and pollutant transport in the environment, and implications for exposure and environmental and human health risks. The conference should be of interest to those interested in fundamental environmental science and engineering issues and practitioners who must deal with various aspects of pollution prevention, risk reduction, and regulatory compliance. The conference will include sessions that deal with reduction of toxic emissions toward the goal of zero discharge by new approaches to process design, material substitution, novel separation techniques, advanced chemistry tools, and reaction engineering methods. For further information and a list of sessions, refer to the conference web site at <<http://www.cerr.ucla.edu/aiche/>>.

Publications

New from EESI Publishing...

ENVIRONMENT & ENERGY WRAP-UP REPORT

105TH Congress, First Session

The Wrap-Up Report on the First Session of the 105th Congress provides information on the major issues--from air pollution to utility deregulation--in play during 1997. To order, contact EESI Publishing, 122 C St., NW #700, Washington, DC 20001; phone 1-888-884-EESI or 202-628-6500; fax 202-628-1825.

Members receive 20% off AA Press

AEEP members will receive 20% off the following Ann Arbor Press publications when they mention the AEEP Newsletter:

- *Chemistry of Drinking Water Treatment, Second Edition, by Samuel D. Faust and Osman M. Aly*
- *Pesticides in the Atmosphere, edited by Michael S. Majewski and Paul D. Capel*
- *Pesticides in Surface Waters, by Steven J. Larson, Paul D. Capel, and Michael S. Majewski*
- *Pesticides in Ground Water: Distribution, Trends, and Governing Factors, edited by Jack E. Barbash and Elizabeth A. Resek*
- *Practical Manual of Wastewater Chemistry, by Barbara Hauser*
- *Advances in Modeling the Management of Stormwater Impacts: Volume 5, edited by William James*
- *Watershed Hydrology, Second Edition, by Peter E. Black*
- *Proceedings of the 51st Purdue Industrial Waste Conference (1996), edited by Ronald F. Wukasz and Cynthia S. Dalton*
- *Proceedings of the 50th Purdue Industrial Waste Conference, edited by Ronald F. Wukasz and Cynthia S. Dalton*
- *EPA Environmental Assessment Sourcebook, edited by J. Russell Boulding*
- *EPA Environmental Engineering Sourcebook, edited by J. Russell Boulding*
- *Chlorine and Chlorine Compounds in the Paper Industry, edited by Victor Turoski*
- *Metals in Surface Waters, edited by Herbert E. Allen, A. Wayne Garrison, and George W. Luther III*
- *Metal Contaminated Aquatic Sediments, edited Herbert E. Allen*
- *Subsurface Restoration, edited by C.H. Ward, John A. Cherry, and Marion R. Scalf*

To order any of the books listed, call 1-800-858-5299.

Endnotes...

A Charlotte, North Carolina man, having purchased a case of rare, very expensive cigars, insured them against—get this—fire. Within a month, having smoked his entire stockpile of fabulous cigars, and having yet to make a single premium payment on the policy, the man filed a claim against the insurance company. In his claim, the man stated that he had lost the cigars in “a series of small fires.” The insurance company refused to pay, citing the obvious reason that the man had consumed the cigars in the normal fashion. The man sued—and won!

In delivering his ruling, the judge stated that since the man held a policy from the company in which it had warranted the cigars against fire, without defining what it considered to be “unacceptable fire,” it was obligated to compensate the insured for his loss.

Rather than endure a lengthy and costly appeal process, the insurance company accepted the judge’s ruling and paid the man \$15,000 for the rare cigars he lost in “the fires.” After the man cashed his check, however, the insurance company had him arrested on 24 counts of arson. With his own insurance claim and testimony from the previous case being used as evidence against him, the man was convicted of intentionally burning the rare cigars and sentenced to 24 consecutive one-year terms.



APPLICATION FOR MEMBERSHIP in the *ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS*

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Ordinarily, dues are payable to the Association on January 1. When you join AEEP, dues paid before October 1 will be credited to the current year. You will receive that year’s *AEEP Directory* and back issues of the *Newsletter*. New member dues paid after October 1 will be credited to the following year. After joining, you will receive a copy of the *Newsletter* and a current *AEEP Directory* if extra copies are still available. Otherwise, you will receive a new *Directory* the following year.

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