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AAPSE

NEWSLETTER

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"Some men see things as they are
and ask why. I dream of things
that never were, and ask why not."

--R. F. Kennedy

VIGOROUS IS AAPSE

Vigorous is the enthusiasm with which many of its committees are launched into their programs. The Research Committee is beginning on the drafting of a position paper to guide members of the Association and possibly Federal agencies also, regarding policies and objectives of research programs. The Educational Resources Committee is considering the updating of the Register of Graduate Programs in Sanitary Engineering. The Education Committee is completing the report of the Second Conference on Graduate Education in Environmental Engineering which was such a success last August. The Awards Committee has just completed a very difficult task. The Newsletter Committee has rejuvenated a slightly dragging Newsletter and given it a fresh new look. The Seminar Committee has just completed a vitally stimulating seminar and are planning two more. The Workshop Committee has set up a fine program for a Workshop on Analog Computer Applications. We have nineteen committees vigorously at work.

Vigorous is the interest of AAPSE members in its program. This interest was displayed when 25 members made the effort to arrive at Purdue University a day early to participate in the seminar on teaching industrial wastes in the graduate programs in sanitary engineering. By the end of the program and the starting of the dinner meeting, the number had grown to 45. The vigor of this interest was displayed in the spirited discussion at the seminar and following the address by Dr. Gordon E. McCallum at the evening meeting. I am sure we will see that same spirit at the Workshop in Tennessee in June.

Vigorous is the growth in membership. The rate of growth is continuing on a logarithmic curve. We keep getting more requests for application forms. The Membership Committee has organized and launched a campaign to make information about the organization available to those who are interested. But no selling job is needed; none is being undertaken except the viable program of AAPSE which sells itself. We are receiving many more applications from younger members of the teaching profession. These young assistant professors apparently see in AAPSE the opportunity to participate in a meaningful way and the opportunity to express themselves in a forum where they can be heard. We are also receiving more applications from more than one member of the same faculty. Our members evidently look upon participation in AAPSE as an individual thing and seek the opportunity to be involved personally, rather than simply have their school represented. These are just the reasons AAPSE was organized. We have accomplished much in moving toward those objectives.

Vigor is what we need! We can accomplish more to improve environmental engineering education if we continue the vigorous program we have started and if we can continue developing vital new programs. Your officers need more suggestions

from, all the members of AAPSE as to what other activities can be initiated. What should we be doing to recruit more new graduate students into the field? What should we be doing to provide continuing education for the profession? We are all pleased with the current vigorous program of AAPSE, but we cannot keep it running on inertia. We must have a continuous input of energy. Please give us your input.

B. B. Ewing

AMENDMENT TO AAPSE BYLAWS FOR ESTABLISHING
AFFILIATE MEMBERSHIP

The following motion to establish Affiliate Membership in AAPSE was submitted to the AAPSE membership and approved at the May 6, 1968 meeting at Purdue.

"It is moved that Article III of the Association Bylaws be amended as follows:

1. Change present Articles 3.⁰² and 3.⁰³ and 3.⁰⁴ respectively.

2. Add the following new Article 3.⁰²

3.⁰² Affiliate Membership. Affiliate Membership in the Association shall be available to qualified persons who are ineligible for full AAPSE membership as described in Article 3.⁰¹ but who are associated with an academic program in Sanitary Engineering as described in Article 3.⁰¹. Affiliate Members shall not have voting rights nor shall they be eligible to serve as members of the Board of Directors. Persons included in any of the three following categories are eligible for Affiliate Membership:

1. Individuals who hold, as their principal employment, teaching or research positions associated with sanitary engineering programs in academic institutions.

2. Individuals with research appointments with outside research institutions who also hold academic appointments with a sanitary engineering program.

3. Professors in foreign universities who would qualify for membership

were it not for their geographical location. Professors from other North American countries, because of their unique opportunities to participate in AAPSE activities, shall be eligible for either type of AAPSE membership.

Except for professors from other North American countries, persons eligible for membership are ineligible for Affiliate Membership."

AWARD FOR EXCELLENCE
IN
SANITARY ENGINEERING EDUCATION

The "Award for Excellence in Sanitary Engineering Education" in 1968 was made to Dr. Walter J. Weber, Department of Civil Engineering, The University of Michigan, Ann Arbor, Michigan. Dr. Weber received the plaque and \$1000 in cash at the annual banquet, Purdue Industrial Waste Conference. Dr. Ben Ewing, President, American Association of Professors in Sanitary Engineering and Dr. Gordon E. McCallum, Vice-President, Engineering-Science, Inc., made the presentation on behalf of the sponsoring organizations.

This award is made biennially by the American Association of Professors in Sanitary Engineering and Engineering-Science, Inc. The interests of the various universities, engineering offices, teachers, and other individuals can be measured in a number of direct ways; however, if the indication of the number of nominations, the pounds of documenting data representing biographical sketches and the feet of filing space required to hold the accumulated data are indicative, the winner should indeed feel a most high degree of accomplishment to have received this award under such competitive conditions.

The Awards Committee reports that there were 9 highly qualified candidates that made the last review circuit. Needless to say, the vote was very close, but the Committee's vote as submitted to the Board of Directors of AAPSE was unanimous. Congratulations are certainly in order for Dr. Weber in this acknowledgment of his achievements.

Senior faculty are encouraged to begin their planning for submitting possible candidates for the Award for Excellence in Sanitary Engineering. The general guidelines are as follows:

- a. Eligibility for the award shall be limited to instructors and professors principally engaged

in teaching in water science and engineering and who are the age of thirty-seven or under and who have published, as senior or sole author, at least one professional or scientific paper in a recognized journal.

b. Selection of the recipient of the Award shall be based on:

1. an outstanding scientific contribution in the field of water research and development, or
2. demonstrated outstanding professional works and leadership, or,
3. a combination of (1) and (2) in which equal weight shall be given to academic (research and teaching) and professional achievements.

c. The nomination of an individual for the award shall be made by five members of the teaching profession principally concerned with water engineering and science. In preparing the case in support of the nomination, supporting letters should be included from the nominating committee as well as from other scientist and engineers familiar with the nominee's work. The case should be supported by reprints of published scientific and professional papers, engineering reports, text and reference books, and any other written material attesting to the professional and scientific competence of the nominee. The nominating committee should indicate in which of the three categories (cf., B) the individual is being placed in nomination.

d. The Award will be administered by a minimum of a three-member "Prize Committee" nominated by the President and including one member of the Board of Directors and two members of the Association.

The decision as to the recipient of the Award shall be made by a simple majority of the Board convened in formal session.

e. The Award will be made each two years at the regular annual meeting of the Association.

E. F. Gloyna
J. O. Ledbetter

THE FOURTH INTERNATIONAL CONFERENCE
ON
WATER POLLUTION RESEARCH

An Important Event on Your Calendar

The Fourth International Conference on Water Pollution Research will be held in Prague, Czechoslovakia from 2-6 September, 1968. Featuring 48 papers in three Technical Sections on Stream Pollution, Waste Water Treatment, and Lakes, Reservoir, and the Ocean, the Fourth Conference is being organized by the Czechoslovak National Committee of the IAWPR in similar manner as the prior International Conferences at London (1962), Tokyo (1964), and Munich (1966). Added events at Prague will include a panel discussion on the "Reuse of Water" with presentation of three fundamental position papers, a technical film festival featuring scientific, instructional, and public relation films, and an international exhibition of books and journals dealing with all areas of water quality management.

It is important to consider the objectives of this outstanding event:

1. To provide a forum where developments on outstanding research in water pollution from all parts of the world may be presented, and to provide a scientific medium for the publication of such reports;
2. To provide an opportunity for scientists and engineers engaged in the water pollution research to meet and discuss matters of common interest;
3. To encourage international communication and understanding among scientist and engineers engaged in the technical solution of water pollution problems;
4. To encourage newly developing nations to participate in conduct of research on water pollution problems;
5. To promote international goodwill by providing an opportunity to scientists from many nations to pool their research experience and knowledge in the solution of water pollution problems;
6. To shorten the time lag between development of research findings and practical application in engineering design.

In the tradition of past conferences, an ideal location has again been selected for the Fourth Conference. The City of Prague is a delightful mixture of a perfectly preserved European city with a millenium of cultural heritage, and a modern hustling city replete with modern hotels, a new subway, and an exciting cafe night life. A number of social events are planned to bring the Conference participants together, including a reception on the opening evening in historic Waldstein Palace Garden followed by a night coach tour through the city. A special ladies' program is being planned to include visits to points of architectural interest and historical monuments, gardens, art galleries, museums, and a fashion show.

Prague is connected by airlines with all parts of the world. Visitors can also come to Czechoslovakia by train or car. Visas can be obtained immediately at the nearest Czechoslovak Consulate, and hotel accommodations are being arranged by the Conference Organizing Committee through the Czechoslovak Travel Bureau, CEDOR.

Additional information and registration forms can be obtained from Dr. T. G. Shea, Room 114, McLaughlin Hall, University of California, Berkeley, California, 94720. Travel information can be obtained from Dr. Franklin J. Agardy, Department of Civil Engineering, San Jose State College, San Jose, California, 95114.

T. G. Shea

BUSINESS MEETING

**Purdue University
May 6, 1968**

The following topics were discussed:

1. Professor Sylvester has resigned from the Board of Directors and will be replaced by Professor Loehr.
2. A workshop will be held at Nashville on June 23-26, 1968.
3. The Sanitary Engineering Register is being updated (Professor Dale Carlson).
4. Report on seminar programs (discussed elsewhere): Professor John O'Connor is open to suggestions for a topic for the Third Seminar to be held at the WPCF meeting.

5. Second Award for Excellence in Teaching was to be presented at the Wednesday banquet at Purdue. (Professor Walt Weber received the award.)
6. A change in the Bylaws was approved.

After a banquet following the meeting, Mr. Gordon McCallum, (Vice President of Engineering-Science, Inc.) spoke on the topic, Manpower for Consulting Engineering. He pointed out that private enterprise is going more for better trained people and will need a good quality product in the future. He stressed four important needs for the man in consulting practice:

1. Good technical training
2. Oral and written communication skills
3. Knowledge of economic and social restraints on the decision-making processes, and
4. Confidence and faith in himself and the profession.

R. G. Spicher

THE SEMINAR - ANOTHER FIRST FOR AAPSE

The first in a planned series of seminars on "teaching in sanitary and environmental engineering" was held at Purdue University on Monday, May 6, 1968, the day prior to the start of the Purdue Industrial Waste Conference. The subject of the seminar was "The Teaching of Industrial Wastes Treatment Practice." About thirty AAPSE members were present for the first seminar.

The atmosphere was very informal as the seminar discussion leaders gave 5 to 10 minute presentations on assigned topics and thereafter brought the audience into the discussion.

The topics considered were:

1. Don Bloodgood: the influence of the Purdue Industrial Wastes Conferences on the teaching of industrial wastes.
2. Wesley Eckenfelder: how consulting activities influence the teaching of industrial wastes.
3. John Andrews: Unit operations in lieu of industrial wastes treatment practice.

4. Jack Borchardt: the need for a separate and discrete course in industrial wastes treatment practice.
5. Jack Cleasby: the use of the laboratory in conjunction with the teaching of industrial wastes treatment.
6. Alan Molof: the industrial viewpoint.
7. Nelson Nemerow: philosophy of textbook in teaching industrial waste treatment.
8. John O'Connor: results of the survey on the teaching of industrial wastes treatment.

Throughout the seminar the audience response was animated, particularly when controversial issues were raised. In response to questioning, Don Bloodgood explained how Purdue students were able to complete 16 papers in a single semester (as indicated in the response to the survey questionnaire). Don also stated that 2500 to 3000 copies of the Purdue Conference Proceedings are distributed annually.

Wes Eckenfelder's statement that "I don't believe you can teach a course in industrial waste without having gone through a plant study of the industrial waste processes at least once," and that there are "a hell of a lot of problems that don't appear in the book," met with general agreement.

On the other hand, temperatures rose when John Andrews condemned the teaching of industrial waste treatment practice to obsolescence. John felt that "a drastic distinction between municipal and industrial wastes should not be made. Basic principles apply to each." John pointed out that at Clemson University, the unit operations-unit processes-systems analysis approach served to provide the student with unifying principles which would apply to the solution of a wide variety of engineering problems. The teaching of these courses at Clemson, moreover, is a team effort.

Jack Borchardt represented the majority viewpoint when he asserted that "the industrial waste problem is the antithesis of the municipal waste problem" and that teachers should "dwell on the differences between municipal and industrial waste treatment."

Jack Cleasby reported on the use of the laboratory at Iowa State to augment classroom teaching of industrial wastes. Students are required to select a particular industrial waste for laboratory study. They work alone or in pairs to demonstrate, for example, the treatability of a specific organic material, the alkaline precipitation of nickel, the oxidation of cyanide on activated carbon, or the use of the three-stage lagoon process for meat packing wastes.

The student conducts a literature search, writes a proposal outlining the method of attack, the apparatus required, and the expected results. Upon the completion of the laboratory study, the student prepares a written report and presents an oral report to the class.

Alan Molof commented on the need for the professor to introduce some of the complexities of industrial operations into the teaching of industrial wastes practice. He pointed out that a major difference between municipal and industrial waste treatment practice was that in-plant modifications can be employed to drastically alter the character of or diminish the quantity of industrial wastes.

Nelson Nemerow, although not able to attend the session, sent a statement regarding the philosophy which shaped his textbook on industrial wastes treatment. Nelson commented, as if anticipating the focal point of the seminar discussion:

"I do not believe that all professors teaching the theories and practices of waste treatment should possess the same philosophy related to solutions to these problems. In fact, I believe that differences of opinion, modes of teaching, and even basic philosophies strengthen our profession."

"The subject of industrial waste treatment encompasses both the theories of unit operations and the practices of engineering. It should not be a memory course nor should it be one of solely mastering the basic theories underlying waste treatment. The last statement should clarify my position as one not either advocating waste by waste memorization of facts and figures nor penetrating and detailed studies of the theories of treatment units."

Finally, the results of a survey based on a questionnaire sent to all AAPSE members was presented by the seminar chairman, John O'Connor. The survey indicated that 22 responding schools offered a course in industrial wastes, while four did not. Those that did not, indicated that they felt the topic was covered adequately in unit operations or municipal waste treatment courses. Furthermore, the course was generally offered as an option and term papers were almost universally required. It is planned that a summary of the results of the questionnaire will be mailed to all AAPSE members.

J. H. Austin

SECOND AAPSE SEMINAR

The Teaching of Water Chemistry

To Be Held: At The AWWA Conference, Cleveland, Ohio

Exact Time and Place: To Be Announced

We hope that you are planning to attend the American Water Works Association meeting in Cleveland during the first week of June. We are planning a second AAPSE Seminar on "The Teaching of Water Chemistry" to be held during the Conference in which a number of educators will be invited to discuss such topics as:

- a. The subject matter content of a Water Chemistry course.
- b. The use of Chemistry Department Course offerings to supplement chemical training.
- c. Methods of teaching research techniques and familiarization with the research literature.
- d. Extent of overlap with other applied Chemistry areas such as Chemical Oceanography and Limnology.

The Seminar Committee

E. R. Baumann
R. W. Hann, Jr.
W. K. Johnson
Max Katz
Ivan Metzger
J. T. O'Connor
R. F. Christman

DISTINGUISHED FOREIGN LECTURER TOUR ESTABLISHED

The Visiting Lecturers Committee has announced the establishment of an AAPSE Distinguished Foreign Lecturer Tour. Under this program, an outstanding engineer or scientist from a foreign country will be invited to come to the United States to present lectures at a group of participating American universities. The cost of the program will be supported by lecture fees paid by the cooperating universities. The Committee is currently in the process of selecting the first Distinguished Foreign Lecturer. It is anticipated that the first tour will be made sometime during the 1968-1969 academic year. Sanitary engineering programs which are interested in

cooperating in the AAPSE Distinguished Foreign Lecture Tour and who would be able to participate in sharing the costs of the program, are invited to contact Richard I. Dick, 3230 Civil Engineering Building, University of Illinois, Urbana, Illinois, 61801. It is hoped that a sufficient number of universities with appropriate geographic distribution will be interested in participating, so that the cost per university will be comparable to the expense of travel and honorarium for an American lecturer.

The Visiting Lecturers Committee is also interested in coordinating lecture tours for distinguished foreign scientists and engineers who are in the country on other business matters. AAPSE members who are aware of foreign visitors who will be in the country and who are able to improve communications with foreign countries by delivering interesting seminars at American universities are invited to contact members of the Visiting Lecturers Committee. Professors Washington, Berger, Susag, Williford and Dick are members of the committee. The committee would attempt to establish an itinerary of American universities which were willing to support a tour of universities for the visitor.

SOLICITATION FOR RESEARCH PAPERS FOR WATER RESEARCH AND THESIS AND REPORT SUMMARIES

The former International Journal of Air and Water Pollution is now the official Journal of the International Association of Water Pollution Research and titled, "Water Research."

The Journal is rapidly receiving the status it deserves of high-quality research papers from all parts of the world. Increasing contributions from the United States have mainly been in the Biological Sciences, Fisheries, Chemical Sciences, etc. To date we have received a rather poor response from the Engineering Fraternity.

AAPSE is a participating member of the American National Committee for IAWPR. I hope you can consider submitting some of your research papers to Water Research. Until August of this year, I will be serving as Editor in the United States and would welcome your contributions any questions you may have relative to the Journal.

In discussing research publications with various technical persons from abroad, it seems there is no place where thesis, University reports, and special conferences are summarized. We are considering publishing some of these materials in Water Research. If you have any such material which you think would be of interest to your colleagues here

