

AAPSE

NEWSLETTER

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Vol. 4, No. 2

January, 1969

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BOARD OF DIRECTORS OF AAPSE MEETS

The Board of Directors of AAPSE in one of their usual four get-togethers per year, held an exceptionally successful meeting in Washington, D.C. December 16 and 17, 1968. In commenting on the meeting board members were enthusiastic relative to AAPSE's progress during the past year and its prospects for further development. When one notes the 50 percent increase in growth over the past year, the figures are encouraging. More importantly the concerted effort by the educational fraternity in attacking mutual problems seems to portend even better esprit during future intervals.

BOARD CHANGES

The recent election of new board members found Ray Loehr, Richard Dick, and Fred Pohland the successful candidates, replacing Ben Ewing, Wes Eckenfelder, and Bob Sylvester. These three have completed three year terms in office and deserve commendation for effort above and beyond the call of duty.

At the same time, the board elected new officers:

- | | |
|----------------|---------------------|
| Bob Baumann | President |
| Jack Borchardt | Vice-president |
| Richard Dick | Secretary-Treasurer |

The retiring officers were:

- | | |
|-----------------|---------------------|
| Ben Ewing | President |
| Bob Baumann | Vice-president |
| Wes Eckenfelder | Secretary-Treasurer |

PROGRESS IN EDUCATIONAL AFFAIRS

Second National Conference

The report on the Second National Conference on Environmental and Sanitary Engineering Graduate Education is off the press and the editorial committee is to be commended on the effort. The report is well presented and AAPSE should be duly proud of the final product and of its part in making the Northwestern Conference a successful undertaking.

Critical evaluations of educational efforts are not new but it should be emphasized that this effort involved nine working task forces consisting of 6 to 8 men each. All of these working committee members made substantial contributions to the total effort. While controversy was apparent, consensus did prevail. When one considers that the Sanitary Engineering segment of academia contains a total of about 300 persons and that 65 were active in the formulation of the working drafts while 154 attended the meeting to provide the necessary discussion, over 50 percent have had a major part in providing this product. Few segments of education can boast of such full participation in any such effort.

The report has been sent to all conference participants. Each program should endeavor to implement, where possible, those recommendations pertinent to their program format. Deans of engineering should be given copies where possible so that such administrative personnel will know the profession's commitment to current problems and modern thinking relative to the possibilities for solutions.

AAPSE Workshop

The AAPSE workshop this year was an unqualified success. Next spring's workshop at Myrtle Beach (June 25-27) should be oversubscribed within days after the final program is released which should be within the month. These workshop sessions are being provided for the younger faculty to enable them to acquire new talents and to consolidate older talents so that they can attain new competence in teaching techniques. Take advantage of these unique opportunities to fraternize and to absorb.

AAPSE Seminars

Two teaching seminars were held this past year, one on the teaching of Industrial Wastes and the other on the teaching of Sanitary Chemistry. It is the intent to hold these events two or three times a year, usually the day before a widely attended meeting. The subject is intended to be pertinent to teaching and further it is intended that the nuts and bolts aspects of the subject matter be well brought out. Typical problems and solutions, teaching methods and techniques as well as philosophy of learning all would be of value to young teachers and subject to critical evaluation of the older professors. Suggestions for future programs should be made to the Seminar Committee. There will be a seminar at Purdue in May, 1969; format isn't yet decided, but reserve the time and come to heckle if not to contribute, but be sure you are there. It's the best way to avoid an assignment.

Prague Conference

The long awaited Prague meeting will be held April 21, 1969. The Czechoslovakian government has assured the U. S. Committee that there should be no visa problems.

Updating Register

Updating of the 1966 program register will take place in the near future with the distribution of new forms. The format is slightly improved and additional information is requested. Take the time to fill out the forms since the data is badly needed in assessing just how much additional capacity our programs have. Personnel production has become a number one priority in solving the nation's pollution problems. You see that your program is represented and the statistics will only take devotion by the committee.

AAPSE Outstanding Foreign Scholar Tour

AAPSE is, this year for the first time, sponsoring a nationwide tour for an outstanding foreign scholar. Dr. Downing from England has accepted our invitation and is expected to visit six universities in the spring of 1969. It should be stressed that AAPSE intends to make such speaking tours as comprehensive as possible so that all schools benefit from such an exchange. It must be recognized that time limitations and to some extent, the wishes of our guest must be catered to, but in general we stress the dual nature of the exchange and hope that it becomes a two-way street for intercommunication on an international basis participated in by all schools in AAPSE.

FWPCA PROGRAM OUTLINE

A further portion of the board activity involved a meeting with FWPCA officials. The following excerpts of the conversation which ensued are herewith presented for help and guidance in organizing research and training programs to the mutual advantage of all.

First, there is great concern at all levels with problems of recruitment. Educational program difficulties were presented by your board in substantial detail. The board came away feeling that FWPCA has a new awareness of the problems inherent in the educational environment; while the educators in turn get a much more thorough understanding of the Federal, mission oriented, form of support. It seems apparent that the two can be joined so as to produce the response both seek.

There has been a sense of foreboding among educators that demonstration type research and the increasing emphasis on crash type institute research would destroy the educational research process. The slower more deliberate approach by a team of faculty and students when contrasted to the speed and efficiency of the research oriented, postdoctoral team, may lack appeal. Still the former does produce manpower oriented to pollution problems while the latter tends to go all out for a moment, but then move on to other problems perhaps in other fields with little total devotion to the polluted water area.

Obviously both approaches need to be stressed and it is the board's consensus that FWPCA officials only need the mechanism by which competition between various educational programs may be maintained, and through which mission oriented research and training can be stimulated, and they will take steps to implement such a program.

The entire board felt exhilarated and inspired to go home and renew efforts to meet the educational challenge. The following approach to funding therefore stems from the facts disseminated above along with other informal statements made by the FWPCA officials and would appear to be a possible solution to some of our extremely vexing educational problems.

The Sanitary Engineering Community has always desired continuity in their budgeting. This fact stems from the difficulty of keeping a program moving when research and training funds are uncertain. FWPCA budgetary commitments have an even greater lead time than do those of most universities. For example, factors affecting the 1971 budget must be assembled now for presentation in early spring of 1969. Also, by March of 1969 the FWPCA will have a feeling for the approximate magnitude of budgetary figures available for the fall of 1969 and 1970 (fiscal 1970). After knowing the areas of support funds, academicians may plan their programs, and submit requests in May or June. Their requests will be considered and acted on so as to hopefully have approval by September. If a starting date as late as the following September is desired to permit recruitment during the fall and spring, this can also be requested. In most cases, many problems in planning and staffing can thus be worked out without the professor getting involved making promises to potential students for support funds when such financial support has not yet been approved.

The FWPCA has with this mechanism provided a helping hand in surmounting a most difficult problem. It is up to the educator to accept the challenge now, and get on with the pollution battle.

As a first step in release of FWPCA program organization the following chart is being presented.

The chart shows the present categorization of (a) FWPCA Research development grants, (b) demonstration grants, and (c) R&D contract programs. The two digit numbers indicate subprograms while the four digit numbers represent subprogram elements. The subprogram elements may have a single number offset to their right (i.e. (a)=1, (b)=2 or (c)=5). These figures represent the committed funds (in hundreds of thousands of dollars) involved in that respective portion of the element as of January 1, 1969. It should be emphasized that these figures do not represent priorities nor do they represent the original budgetary figure. These funds are residual as of the date noted and are available for applicants at any time up to early May of 1969. Such figures as these released four times a year (the present plan) will permit a great deal of program planning by the academic fraternity. It should also be noted that where no numbers exist, that substantially all presently budgeted funds have been allocated. This does not mean that the agency should not be contacted relative to a proposal in a category which would appear to have no residual funds. Contacts may be made with the following individuals who have knowledge of the subprograms indicated.

1102		
1104	W. A. Rosenkranz	Washington, D. C.
1101		
1105	W. A. Cawley	Washington, D. C.
1106		
1200	W. J. Lacey	Washington, D. C.
1212		
1300		
1305	H. Bernard	Washington, D. C.
1400	E. J. Martin	Washington, D. C.
1405		
1500	H. Bernard	Washington, D. C.
1508	E. J. Martin	Washington, D. C.
1601	A. F. Bartch	Corvallis, Oregon
1602		
1613	A. F. Forziati	Washington, D. C.
1701		
1709	F. M. Middleton	Cincinnati, Ohio
1801	C. M. Tarzwell	Narragansett, R.I.
1807	D. T. Mount	Duluth, Minn.

1 RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAM

SUBPROGRAMS

11	12	13	14	15	16	17	18
MUNICIPAL POLLUTION CONTROL TECHNOLOGY	INDUSTRIAL POLLUTION CONTROL TECHNOLOGY	AGRICULTURAL POLLUTION CONTROL TECHNOLOGY	MINING POLLUTION CONTROL TECHNOLOGY	OTHER SOURCES OF POLLUTION CONTROL TECHNOLOGY	WATER QUALITY CONTROL TECHNOLOGY	WASTE TREATMENT & ULTIMATE DISPOSAL TECHNOLOGY	WATER QUALITY REQUIREMENTS RESEARCH
1101 Sewered Wastes c=9	1201 Metal & Metal Products c=1	1301 Forestry and Logging	1401 Mine Drainage c=12	1501 Recreational b=1	1601 Biotrophication b=5	1701 Dissolved Nutrient Removal a=1 c=3	1801 Municipal Uses a=1
1102 Combined Sewer Discharges c=19	1202 Chemicals & Allied Products	1302 Rural Runoff	1402 Oil Production	1502 Boat & Ship Construction Projects c=1	1602 Physical-Chemical Identification of Pollutants a=1	1702 Dissolved Refractory Organics Removal c=4	1802 Industrial Uses a=1
1103 storm sewer Discharges c=4	1203 Power Production	1303 Irrigation Return Flows b=1	1403 Oil Shale c=1	1503 Impoundments b=1	1603 Biological Identification of Pollutants a=1	1703 Suspended and Colloidal Solids Removal c=2	1803 Agricultural Uses a=1
1104 Non-Sewered Runoff c=8	1204 Paper and Allied Products a=1	1304 Animal Food Lots c=1	1404 Other Mining Sources c=1	1504 Salt Water Intrusion	1604 Source of Pollutants c=1	1704 Dissolved Inorganics Removal c=3	1804 Recreational Uses a=2
1105 Non-Sewered Municipal Wastes c=1	1205 Petroleum and Coal Products a=1	1305 Non-Sewered Rural Wastes	1405 Phosphate Mining	1505 Natural Pollution Dredging & Landfill c=1	1605 Fate of Pollutants in Surface Waters c=1	1705 Dissolved Biodegradable Organics Removal c=6	1805 Fish and Other Aquatic Life c=6
1106 Joint (Mun./Ind.) Wastes c=4	1206 Food & Kindred Products b=1			1506 Oil Pollution c=8	1606 Fate of Pollutants in Ground Waters a=1	1706 Microorganisms Removal c=2	1806 Other Single Uses
	1207 Machinery and Transportation Equipment				1607 Water Quality Control c=1	1707 Ultimate Disposal a=1	1807 Multiple Uses
	1208 Stone, Clay & Glass Products				1608 Water Quality Control c=1	1708 Waste Water Renovation & Re-use c=7	
	1209 Textile Mill Products				1609 Water Resources Planning and Resources Data	1709 General Waste Treatment c=1	
	1210 Lumber and Wood Products				1610 Cold Climate Research	Technology	
	1211 Rubber and Plastic				1613 Thermal Pollution b=2		
	1212 Miscellaneous Industrial Sources c=2						

RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAM STRUCTURE

AAPSE BREAKS ONE HUNDRED

At present count AAPSE membership stands at 107. This is quite a number considering the uphill struggle since the original 30 or so started the organization. The membership now encompasses 61 colleges and universities in the United States and Canada. It is also of interest to note that five schools have four or more members.

Editor

PRAGUE CONFERENCE

The Fourth International Conference on Water Pollution Research will be held on April 21-25, 1969.

For charter flight information (New York to Prague and back) contact:

Dr. Franklin J. Agardy
Department of Civil Engineering
San Jose State College
San Jose, California 95114

The tentative plan is to use Air France as the carrier. The jet will hold 141 passengers and the fare, based on a full plane, is anticipated to be approximately \$250. The tentative dates are, Departure: Saturday, April 19, Return: Sunday, April 27.

The flight arrangements are on a tight schedule. Deposits will have to be in by February 1, 1969. If you plan to go, write for information immediately.

AVAILABILITY OF PROCEEDINGS OF AAPSE WORKSHOPS

The Proceedings of the Third Annual Workshop of the American Association of Professors in Sanitary Engineering, Applications of Analog Computers in Sanitary Engineering, is now out of print. The last available copy was sold December, 1968.

The Proceedings of the forthcoming workshop on Applications of Systems Analysis in Sanitary Engineering, to be held in June, 1969, will be available shortly thereafter.

In light of the limited availability of Proceedings, it is strongly urged that you make arrangements for such Proceedings by contacting:

John F. Andrews
Workshop Chairman
Environmental Systems Engineering
Clemson University
Clemson, South Carolina 29631

FWPCA AWARDS \$4,068,280 IN RESEARCH GRANTS

The Federal Water Pollution Control Administration has awarded research grants and contracts totaling \$4,068,280 during the months of October and November to help develop new or improved methods of solving the Nation's water pollution problems.

Wastes from industry received the greatest chunk with grants totaling \$2,158,295. Grants and contracts for other research projects totaled \$1,909,985.

Research, development and demonstration grants totaling \$2,158,295 for new or improved methods of preventing or treating industrial wastes were also awarded.

FOURTH ANNUAL AAPSE WORKSHOP

The Fourth Annual AAPSE Workshop will be on "Applications of Systems Analysis in Sanitary Engineering," and will be held at Myrtle Beach, South Carolina, June 24-27, 1969.

BACKGROUNDS AND EARLY CAREERS OF ENGINEERING DOCTORATE RECIPIENTS

A recent article in the Journal of Engineering Education (59, 3, November, 1968) pointed out that Sanitary and Civil Engineering are the two fastest growing fields. They also are second and third respectively as regards Ph.D's going into university teaching. There has been a doubling of doctorates in Sanitary Engineering every two years since 1958-60. This growth and subsequent employment with regard to our profession poses several questions. Are we finally closing the manpower

gap with regard to professional needs in the pollution field?
Are we saturating the educational field with sanitary engineers?

Editor

DISSERTATION ABSTRACTS

Titles of recent dissertations will be published regularly in the AAPSE Newsletter; all researchers are encouraged to participate in this listing. Information on titles, author, faculty advisor, and date of completion should be submitted for publication to W. J. Weber, Jr., Department of Civil Engineering, The University of Michigan, Ann Arbor, Michigan, 48104. Further information regarding any of the dissertations listed below may be obtained by writing to the appropriate faculty advisor(s).

University of Illinois

- a. Title: "Modeling Urban Atmospheric Temperature Profiles"
Author: Davis, M. L.
Advisor: R. S. Engelbrecht
- b. Title: "Uptake of Soluble Phosphate by Activated Sludge"
Author: Hall, M. W.
Advisor: R. S. Engelbrecht
- c. Title: "Destabilization-Aggregation of Dilute Colloidal Suspensions by Polyelectrolytes"
Author: Jordan, R. M.
Advisor: B. B. Ewing
- d. Title: "A Probabilistic Analysis of Dissolved Oxygen-Biochemical Oxygen Demand Relationship in Streams"
Author: Kothandaraman, V.
Advisor: B. B. Ewing
- e. Title: "Evaluation of Alternative Waste Treatment Facilities"
Author: Sonnen, M.
Advisor: B. B. Ewing

University of Michigan

a. Title: "A Study of the Removal of Flocculent and Discrete Particulate Matter in a Rapid Sand Filter"

Author: Foess, G. W.

Advisor: J. A. Borchardt

North Carolina State University

a. Title: "Study of Vortex Motions in Wake Flows"

Author: Harrawood, P.

Advisor: M. Amein and C. Smallwood

Rensselaer Polytechnic Institute

a. Title: "Bacterial Oxidation of Manganese in a Fresh Water Lake"

Author: LaRock, P. A.

Advisor: H. L. Ehrlich

b. Title: "The Mass Spectrometric Determinations of Uranium Concentrations in Potable Waters of New York State"

Author: Levin, A. A.

Advisor: F. A. White

c. Title: "An Investigation of Rubidium Concentrations in Fresh Water Reaches of the Hudson River"

Author: Murphy, K. R.

Advisor: F. A. White

d. Title: "Oxygen Transfer and Utilization in High Solids Microbial Systems"

Author: Stiefel, R. C.

Advisor: D. R. Washington

ITEMS OF INTEREST

Garbage in the Ghetto

It is not only citizen apathy and inadequate refuse collection services which lead some big-city ghettos to be strewn with garbage and trash.

The President's Commission on Civil Disorders reported that a major reason for the litter is "the peculiarly intense needs of ghetto areas for sanitation services." The Commission's report cited higher population density, lack of well-managed buildings, receptacles or disposals, high relocation rates (causing a high volume of bulk refuse), greater use of streets as an "outdoor living room" in the summer (since air conditioners are scarce), large numbers of abandoned cars, and severe rodent and pest problems. The Washington Post reports that for these reasons, trash is collected up to six times a week in Harlem and in Chicago's South Side.

Up to half the refuse in slums is produced on the streets, the Post added, not in homes, and this means a greater need for street receptacles and street-sweeping.

Civil Engineering--ASCE
October, 1968, Page 88

Office of Environmental Impact

A new organization, the Office of Environmental Impact, is being set up to function within the office of the Secretary of Transportation. The new office will provide policy guidance in such areas as air and water pollution. Congressmen are also stepping up their activities in the environmental control section of lawmaking. Ninety of them have formed an Ad Hoc Committee on the Environment to evaluate the impact of federal programs and policies on natural resources and environment. The committee is chaired by Rep. Richard L. Ottinger of New York, and its members will draw on the advice of a companion group of 97 scientists and businessmen.

Water Newsletter
Volume 10, No. 24
December 23, 1968

Engineering Graduates Switch from Graduate School to Jobs

Do you know that engineering graduates switched from graduate school to jobs last spring? The annual survey of the Engineering Manpower Commission showed only 18% of the June B.S. graduates enrolling in graduate school, whereas there were about 25% annually for the past three years. Graduates apparently preferred to seek employment where they might have some chance to receive occupational deferment to almost certain induction into the army if they continued their education.

Engineering Education
November, 1968

INTERESTING READING

1. Politics and the Initial Regulatory Agencies, by William L. Carey, McGraw-Hill Book Co. (1967).
2. Regulatory Aspects of Federal Water Pollution Control, by Murray Stein, 45 Denver L.J. 267, (Spring, 1968).

WATER POLLUTION

Far-reaching measures to combat water pollution failed to pass in the 90th Congress. Senator Muskie, a strong advocate in this field, laid the blame on intensive late session lobbying efforts by interests opposed to the control of oil pollution and preconstruction planning restraints. This measure promises to be one of the first orders of business in the 91st Congress. In fact, Muskie indicated at the close of the 90th Congress that he plans to push the bill in time for the first supplemental appropriation bill in order to provide Federal contract authority for the construction of sewage treatment plants. The President has recently termed Federal authority in this area a "high priority item for the next Congress."

Following the death of proposed Federal controls regarding oil pollution, seven international oil companies, representing 30% of the world's total tanker tonnage, announced a voluntary program for making compensation up to \$10 million to governments for the cost of containing or cleaning up oil spills damaging coastlines. All oil companies and major tanker fleet owners will be asked to join the plan which will become effective when the owners of half the free world's tanker tonnage have agreed to it.

And on November 13, the White House announced approval of a national contingency plan for combating oil spills which provides for coordinated action to insure the best use of available equipment and skilled manpower to deal effectively with the problem. Overall policy direction for the plan is to be provided by the National Inter-Agency Committee for Control of Pollution by Oil and Hazardous Materials.

Legislative Bulletin

UPCOMING MEETINGS

American Society of Civil Engineers Conference

"Water Resources Engineering"

February 3-7, 1969

Jung Hotel

New Orleans, Louisiana

American Society of Civil Engineers Annual Meeting

"Environmental Engineering"

October 13-17, 1969

Pick Congress Hotel

Chicago, Illinois

American Society of Civil Engineers Conference

"Water Resources Engineering"

January 26-30, 1970

Sheraton-Peabody Hotel

Memphis, Tennessee

Fourth American Water Resources Conference

November 18-22, 1968

Commodore Hotel

New York City, New York

Contact: Philip Cohen

U.S. Geological Survey

1505 Kellum Place

Mineola, New York 11501

Eleventh Sanitary Engineering Conference -- University of Illinois

"Influence of Raw Water Characteristics on Treatment"

February 5-6, 1969

Illini Union Building

Urbana, Illinois

Registration Fee: \$27 (Includes two luncheons)

Contact: Division of University Extension

Room 116e

Illini Hall

Champaign, Illinois 61820

**Eighth Annual Sanitary Water Resources Engineering
Conference -- Vanderbilt University**

June 5-6, 1969

Sheraton Motor Inn

Nashville, Tennessee

Contact: Dr. Edward L. Thackston

Assistant Professor of Sanitary and

Water Resources Engineering

Vanderbilt University

Box 133, Station B

Nashville, Tennessee 37203

ASCE Sanitary Engineering Division -- Cornell University

Specialty Conference on Sanitary Engineering

Research, Development and Design

July 14-16, 1969

Contact: Professor Alonzo Lawrence

Hollister Hall

Cornell University

Ithaca, New York 14850

**"Symposium on Improved Municipal Solid Waste Collection
and Disposal Practices"**

City of Santa Clara and San Jose State College

March 7-8, 1969

Hotel St. Claire

San Jose, California

Fifth Rudolfs Research Conference

"Origin, Distribution, Transport, and Fate of
Organic Compounds in Aquatic Environments"

June 30, July 1-2, 1969

Contact: Mr. Roger Locandro

Office of Resident Instruction, Room 206

College of Agriculture and Environmental Sciences

Rutgers, The State University

New Brunswick, New Jersey 08903

FWPCA Seminar

"Nutrient Removal and Advanced Waste Treatment"

February 5-6, 1969

Lloyd Center Auditorium

Portland, Oregon

Contact: Mr. Lyman J. Nielson

Regional Program Director

Training and Manpower Development

Pacific N.W. Water Laboratory

200 S.W. 35th Street

Corvallis, Oregon 97330

NEW AAPSE MEMBERS

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