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AAPSE NEWSLETTER

American Association of Professors in Sanitary Engineering

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"Many a man fails as an original thinker
merely because his memory is too good."

--Nietzsche

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FROM THE PRESIDENT'S CORNER

It is indeed a pleasure to share a few comments with you in this the first issue of our AAPSE Newsletter. The Newsletter Committee headed by Professor Ewing and consisting of Professors O'Connor, Agardy, Burgess, Malina and Washington is to be commended for their energy and initiative in developing this Newsletter which is another effort by AAPSE to improve communication among the many active educators in the field of sanitary engineering.

The need for effective communication between sanitary engineering educators and the continuing self-appraisal of philosophies and programs has never been greater. All one has to do is to look about and observe the many forces at work, many of which have rather clear cut directions while others are not so clear. One has only to consider the pending changes in the water supply and pollution control program at the federal level, the review of the organizational structure of ASEIB including a possible change in name, the organization of UCOH and its subsequent transformation to UCOWR, the organization of AAPSE, and a more recent effort on the part of a few educators within ASEE to establish an Environmental Health Engineering Committee (or Division) separate from Civil Engineering, and to represent officially ASEE (and the field of sanitary engineering) with all federal and other agencies, to recognize the need and urgency for sound considered judgment and action. In my judgment the days when one or two or a handful of individuals or institutions can properly represent sanitary engineering are long since passed. Also, there are still those who think that only a few, select, large institutions should speak for the "education sector" of the profession. I think I can speak on behalf of the Board of AAPSE when I say that our strength and effectiveness in AAPSE comes from the considered judgment resulting from effective communication with active, dedicated educators in many institutions regardless of location, prestige status, or size. In my experience, which I must confess includes only 16 years of full-time professorial service, more effective communication among professors at institutions with graduate programs in sanitary engineering has been achieved through AAPSE than had been experienced previously. Admittedly we can improve our communication in the future. To this end this Newsletter will play a substantial role.

It is reassuring indeed to observe that our membership is slowly but steadily increasing even with the high initiation and dues structure that has existed to date. For those members concerned about our dues structure, I can report that it is under study by the Board. Nonetheless, it is a bright hope for our future when educators, who are not usually among the wealthier members of our profession, believe enough in our profession and Association to pay \$100.00 to become a member. I welcome heartily the recent new members to our Association and I trust that you will join with us in increasing the activity and strength of our profession and AAPSE.

You will soon have an opportunity to participate in the development of an up-to-date roster of Graduate Programs in Sanitary Engineering undertaken by Professor Robert Sylvester's Committee including Professors Krenkel, Loehr, and Dunstan. You can read more about the current activity of this Committee elsewhere in this Newsletter. As indicated by the pilot-study already conducted, it is apparent that the information and report prepared by this Committee will fill a very conspicuous void in the overall education statistics in sanitary engineering. It is unfortunate that during the past half-dozen years when we have had the greatest manpower and financial

input in our educational effort, it is the only significant period where reliable statistics on educational productivity (M.S. and Ph.D. degree award and research effort) are not available.

Through the mechanism of this Newsletter we will have an effective medium for dissemination of news of Committee activity as well as Committee reports, news concerning our educational profession, summaries of pertinent organizational activities as well as announcements of meetings, and such items of concern to individual members that should receive distribution to the membership. It is also envisioned that the Newsletter could provide a forum for frank, open and objective discussion of controversial subjects. Also, the Newsletter will be used by the Board to seek counsel on controversial matters and to distribute information on action taken by the Board.

The format and character of the Newsletter has been developed by the Newsletter Committee with counsel from the Board. I want to assure each of you that any facet of this Newsletter is subject to change as determined by the comments of the membership. Please feel free to write either Editor Ewing or myself expressing your ideas and comments as to how the Newsletter can better serve the membership. Also please send in any items of news or news stories that you think should appear in our Newsletter. I can assure you that they will be appreciated and considered seriously by the Newsletter Committee.

I want to thank each of you for your past contribution to AAPSE and your continued support. It is indeed encouraging to observe the growing united spirit and effort behind AAPSE, especially considering the peripheral turbulence that is generated on occasion. I can assure you of the Board's unqualified support in making AAPSE a responsive, democratic and united organization that has as its only objective to improve the quality and stature of sanitary engineering education. Let us all work together effectively and collectively in this endeavour and to this end please let us have your comments, suggestions and criticisms.

--Erman A. Pearson

EDITORIAL - - WHO'S GOT THE CHAMPAGNE?

In an academic career in sanitary engineering, one does not often have an opportunity to launch a new journalistic venture. We do not wish to let Volume I, Number 1 "slip down the ways" without seizing the opportunity to break a bottle of bubbly stuff over her bow to welcome her to the "fleet." There are certainly plenty of journals, magazines, newsletters, circulars, advertisements, and other printed matter crossing our readers' desks. But this is a special purpose vessel. We hope it does not serve as a warship, but rather as a real working communication vessel.

Every good ship needs an eager and able crew. We are indeed fortunate that the AAPSE Admiralty has assigned to her an Editorial Committee who are all enthusiastic about the Newsletter and its important role in the work of AAPSE. Our Associate Editor, Professor J. T. O'Connor, is an ardent supporter of AAPSE and a talented writer. Our Assistant Editors, Professors Agardy, Burgess, Malina, and Washington are all eager to be about their assignments. We look forward with considerable pleasure to being able to work with them.

A working ship of this type needs a much bigger crew than this, however. Every member of AAPSE is a part of the crew--a much-needed part. The Editorial Committee are only helmsmen. The Board of Directors have already been very helpful in charting our course. We need from every member of the Association suggestions, comments, ideas, criticism, complaints, and gripes. If a few bouquets are thrown in, we don't mind. We must have some feedback from our membership if we are to accomplish our objective of serving as a communication link between the Board and Officers of AAPSE and its members and among the members. Remember that two-way communications are needed and we hope each of you will consider the Newsletter your transmitter, as well as your receiver.

ANNUAL OPEN MEETING

Research and Research Support is the theme of the second annual open meeting of AAPSE which will be held at the Traymore Hotel in Atlantic City on October 12, 1965. The meeting is scheduled for 8:30 p.m., which is a little later than last year's meeting so that it will not interfere with some of our members' social plans.

The Board of Directors have arranged for Dr. Irving Gerring, Executive Secretary of the Environmental Science and Engineering Study Section of NIH to discuss "Research Grants Program of the U.S. Public Health Service and Grantsmanship." He will be armed with the most recent statistics on where the money goes and who has been getting it. Dr. Gerring will also lead a discussion of the research grant review procedure. With him will be Dr. R. A. Littleford of the Research Grants Branch, Division of Water Supply and Pollution Control, USPHS.

Dr. Leon Weinberger, Assistant Chief of Research, Division of Water Supply and Pollution Control, USPHS, will discuss the "Federal Research Program in Water Supply and Pollution Control."

Also on the agenda is a report of Professor Sylvester's Committee on Graduate Education Programs in Sanitary Engineering. Nominations for directors for the coming year will be made.

The meeting is open to all sanitary engineering educators who are potential members of AAPSE and others interested in sanitary engineering education. It is hoped that all of our AAPSE members will be there to discuss these important issues and that they will urge our colleagues who are not members to feel free to attend the meeting also.

SANITARY ENGINEERING EDUCATION AND RESEARCH STATUS AND NEEDS --

A SPECIAL COMMITTEE REPORT

The Officers and Directors of AAPSE have felt for some time the need for an up-to-date inventory of the sanitary engineering educational and research resources vested in educational institutions in the United States. Professor Kaufman drafted a set of guidelines for such a study which outlined the following purposes: a) to enable

a student to make selections for graduate study that best suit his interests and qualifications, b) to require each institution to identify its academic resources and program objectives and to compare these with those of their colleagues throughout the U.S., and c) to serve in public relations, especially with federal and state as well as international agencies. The Board of Directors approved the proposed study and appointed a Special Committee to undertake the assignment at their meeting on February 19, 1965. The Special Committee consists of Professor R. O. Sylvester (Chairman), Professor P. A. Krenkel, Professor R. C. Loehr, and Professor G. H. Dunstan.

The Committee developed a sample questionnaire designed to permit obtaining from each institution information pertaining to its sanitary engineering program. The information includes the academic and research objectives, program outline, faculty, admission requirements, degrees conferred, formal courses offered by the department and supporting courses in other departments, laboratory, office and computer facilities, sources of financial support, and numbers of graduate students enrolled in recent years.

The questionnaire was distributed initially to only ten institutions as a pilot study to determine the effectiveness of the questionnaire and to permit its modification prior to distribution to all the institutions. These ten institutions included the University of Washington, San Jose State College, Clemson University, New Mexico State University, University of Illinois, University of Texas, Vanderbilt University, Manhattan College, University of Kansas, and University of California at Berkeley. The Special Committee is now reviewing the replies from these institutions and working on the final form of the questionnaire. A report of the Special Committee is on the agenda for the AAPSE annual meeting in Atlantic City so that all members can learn more about this important work.

EVANSTON SEMINAR FOR SANITARY ENGINEERING PROFESSORS

The program of the seminar for sanitary engineering professors which convened on the campus of Northwestern Technological Institute on May 7th was devoted primarily to matters pertaining to organizations of particular interest to sanitary engineering educators. The program was arranged largely by Professor Rohlich and other members of his committee which was appointed by the ad hoc group of professors gathered at the Taft Center in Cincinnati in June, 1964, at the invitation of Dr. Harry Kramer. Local arrangements for the Evanston meeting were made by Dean Gotaas and our other colleagues at Northwestern.

Professor Jack E. McKee presented a report on the accreditation of graduate programs in sanitary engineering by ECPD. At the time of his report, eight schools had had their programs accredited and four others were being considered. He reported that every school which had applied for accreditation had been granted this recognition. He mentioned, however, that in a few instances he has suggested that a school not request accreditation of its graduate program in sanitary engineering because he thought that they might be unsuccessful in meeting the requirements. Generally, he has encouraged all schools which appear to be eligible to apply for accreditation. He stressed the role of ASEIB in this important function in establishing criteria and recommending members of the inspection team.

Professor McKee discussed the advantages and disadvantages of accreditation and the attitude of some graduate deans with regard to the principle of accrediting specific programs in graduate schools. Professor McKee pointed out that one of the advantages of the accreditation program is that ECPD will be able to restrict the number and improve the quality of the graduate programs through this mechanism. In response to a question from Professor Kaufman regarding the role of non-engineers in sanitary engineering education in the review of programs in connection with accreditation, Professor McKee acknowledged that there are no non-engineers in the accreditation group, although many of the group of persons listed as qualified to serve on inspection teams are of course quite competent to review the scientific portion of the graduate program.

The next presentation on the program was made by Professor P. W. Purdom on the relationship of ASEIB to the sanitary engineering professors. He discussed the accomplishments of ASEIB, setting forth a strong and well-organized case for the American Academy of Sanitary Engineers and the Board. He emphasized the new programs of the Board, including a new sub-committee chaired by Professor N. M. Nemerow to consider ways of recognizing, or perhaps certifying, sanitary scientists. Professor Purdom then discussed the various names that are being considered as alternates for ASEIB. These include "environmental engineering" and "environmental health engineering" as well as the present name, "sanitary engineering." The subject was discussed at great length by the seminar participants, the result being that almost everyone who spoke on the subject expressed himself as being in favor of the term which is being used on his own campus. It was pointed out that the term "environmental engineering" has been pre-empted on some campuses by groups interested in city planning, landscape architecture, etc. or by those concerned with controlled environmental spaces. A poll of the professors present indicated the group favored the designation "sanitary engineering" three to one over "environmental engineering" with no votes for "environmental health engineering." It was suggested by Professor Kaufman that ASEIB might well canvas the entire membership of the Academy before deciding to change the name.

After the luncheon recess, Professor Kaufman presented a summary of what he considered major problems confronting the sanitary engineering profession. These include: 1) financial support of graduate programs, especially the new environmental health center or institute concept of PHS, 2) changes in the organization of PHS and formation of a new federal agency concerned with water pollution, 3) the role of the non-engineer in graduate programs in sanitary engineering or environmental science and engineering and his role in the sanitary engineering profession, and 4) research needs and the capability of the young engineer to meet these needs.

During the discussion period which followed, it was suggested that a second conference of a few days duration to discuss sanitary engineering curriculums would be appropriate. The last such conference was that held at Harvard University in 1960 under the sponsorship of ASEIB and NSF. It was suggested that ASEIB be invited to sponsor another such conference. Professor Kaufman spoke to the motion and supported the concept strongly. He moved an amendment that the conference be sponsored jointly by ASEIB and AAPSE, in view of the interest both groups have in sanitary engineering education and in view of the fact that neither group represents all sanitary engineering educators. Professor Gloyna seconded the motion for the amendment. Professor McKee opened the discussion by indicating that AAPSE should never have been established and that its role and activities properly belong with ASEE, which is represented on ASEIB. He strongly opposed the joint sponsorship. Professor Purdom spoke against the amendment,

but alluded to the rather extravagant comments of the previous speaker. Professor McKee moved to table the amendment motion; this was defeated by a vote of 18 to 13 with several abstentions. Professor Kaufman stressed that only a sincere desire to cooperate with ASEIB prompted him to amend the original motion. He could not see why members of ASEIB would object to working with colleagues in the academic profession in developing a properly structured program for the next conference. The motion to amend passed, and the amended motion passed with one dissenting vote. Chairman Rohlich indicated he would transmit the invitation to the presidents of ASEIB and AAPSE.

On June 15, President Pearson sent a letter to Dr. Allen D. Brandt, Chairman of the ASEIB informing him that the Board of AAPSE heartily supports the concept of a Conference on Graduate Education and AAPSE would be pleased to collaborate with ASEIB as a co-sponsor. On July 7, President Pearson received a letter from Dr. Brandt advising that his letter had been referred to the ASEIB Committee on Sanitary Engineering Education for consideration and a recommendation. The next meeting of the Board of Trustees of ASEIB is in mid-October so no formal action can be taken by that group on the matter until this time.

The final action of the Evanston Seminar was to agree that, whether a longer conference on curriculum under ASEIB-AAPSE sponsorship is held in 1966 or not, it is desirable that the annual seminar should continue during years when a major conference is not held. The present ad hoc committee which was appointed in Cincinnati to arrange the Evanston seminar was charged with responsibility of appointing a three-member committee to arrange the next annual seminar.

CHICAGO MEETING - - ASEE ENVIRONMENTAL HEALTH ENGINEERING COMMITTEE

Many of our readers received from Professor McKee an announcement of an open meeting of the Environmental Health Engineering Committee of ASEE in connection with the annual ASEE meeting in Chicago in June. For those who were not able to be in Chicago for that meeting, the Newsletter has prepared a summary of the development of the Committee and its activities.

Early in the summer of 1964, a small group of sanitary engineers in ASEE persuaded President Easton to appoint an ad hoc committee whose function would be a) to consider how ASEE can best serve the "sanitary engineer," b) to work with the ad hoc group of sanitary engineering professors formed at the Taft Center in June 1964, and c) to consider formation of a sanitary engineering group which would have divisional status in contrast to committee status under the Civil Engineering Division. The committee appointed by President Easton consisted of Professor J. E. McKee (Chairman), Professor R. Eliassen, Dean H. B. Gotaas, Dean R. H. Clough, and Professor R. T. Skrinde. The committee held no meetings, but functioned by direct conversation and correspondence.

"Recognizing that President Easton's charge to the Committee was very broad, an attempt was made to delineate specific duties and responsibilities as guidelines for the present effort and for whatever organizational structure emerges," according to the annual report. The Committee agreed, therefore, upon the following "specific purposes": a) to provide advice to the officers of ASEE on all matters

relating to education in the broad field of environmental engineering and science, b) to serve as the official group representing ASEE for liason with all federal agencies and other societies in matters relating to environmental engineering and science, c) to cooperate closely with ASEIB and to nominate ASEE's representatives on ASEIB, d) to promote summer faculty institutes in this field to be sponsored by governmental or private agencies, e) to draw up long range plans for the development of education in the broad fields of environmental engineering and science, f) to function cooperatively with ASEIB in matters of accreditation of graduate programs in sanitary or environmental engineering, and g) to publish a newsletter or to contribute to ASEE publications relative to matters affecting education in this field. Some Newsletter readers might be interested in comparing these purposes with the objectives of AAPSE as set forth in the by-laws.

The Committee next voted by four to one to change the name of the proposed new Division in ASEE to the "Environmental Engineering and Science Division" rather than the "Sanitary Engineering Division." (Note: This is contrary to action taken at the Evanston Seminar on a similar question. See related story in this issue of Newsletter.--Ed.)

At the meeting in Chicago, Chairman McKee reported on his exploration of the possibility of a summer institute in environmental engineering between the Taft Center and the University of Cincinnati. He suggested a 10 to 12 week course with 1/3 time in lectures at the University of Cincinnati and 2/3 time at Taft Center studying research techniques, etc. He suggested the University of Cincinnati might apply to the Office of Resource Development (ORD) of the USPHS for a grant to support the institute. Chairman McKee recommended this be pushed by ASEE for summer, 1966.

Chairman McKee recommended that, since the present Committee consists mostly of "old hands" in sanitary engineering, burdened with administrative responsibilities, the membership of the Committee should be turned over to younger men and expanded considerably. It is understood that Professor A. F. Gaudy, Jr. has accepted chairmanship of the Committee.

The Newsletter has recently received the following comments from Professor Gaudy.

"I am very excited about our possibility of getting a Division for Environmental Engineering and Science. This is the very thing that many of us for many years have been wishing could come about, and it appears that if we all push together we will be able to accomplish it. I am hoping to be able to make some statements concerning this new divisional status at the AAPSE get-together at Atlantic City. It certainly seems to me that at last we will have an opportunity to have our voices heard in the ASEE organization.

"I believe the most immediate aim and the most practical goal of the Committee is to show the necessary justification to the ASEE Board for the formation of a DIVISION FOR ENVIRONMENTAL ENGINEERING AND SCIENCE....It was the opinion of Dr. Lobingier, president-elect, that the Board would not approve such a step until good arguments for justification were put forth. When I talked with him at the recent ASEE meeting he was of the opinion that through the work of our present committee such a need could be shown, and he will vigorously support such a proposal. It is up to us...to provide the ammunition he needs to back us up. It is entirely possible that this new division can be inaugurated at

next year's ASEE meeting. Many of us may feel that we should be spending more effort in delineating the higher academic aims of our profession; however, these aims will be more easily attained after we reach our organizational goal of divisional status....

"I have suggested to president-elect Lobingier and secretary Collins that we be given program time at next year's conference....Active participation of educators in our area at this conference would assuredly do much to show the justification for divisional status. Even more importantly, the conference may do much to delineate the scope and interrelationships of our academic activities and indicate directions in which we should go. For divisional status we must emphasize the truly interdisciplinary aspects of our field."

Members of AAPSE should realize that there are those in our academic circle who are concerned about the formation of a separate division in ASEE. The feeling is that such a division would split sanitary engineering educators away from the Civil Engineering Division. There are many who still consider themselves generically civil engineers, and specifically sanitary engineers. Many sanitary engineering graduate programs function administratively within a Department of Civil Engineering, and with great success. Graduate students still come largely from civil engineering undergraduate curriculums and the educational policies of those civil engineering curriculums have a vital effect on sanitary engineering graduate programs.

It is the policy of AAPSE to urge its members to join and support ASEE. Furthermore, it is not the intent of AAPSE to pull the sanitary engineering educator away from the parent engineering educational organization, but only to focus the attention of its members on problems that are unique to its group. AAPSE does not favor anything which would tend to divide the academic group. While AAPSE has been accused by some of splitting sanitary engineering educators away from the rest of the profession, it appears that some of these same persons now advocate a split within ASEE.

The formation of a new division in ASEE will have profound effects, and there will be some controversy regarding the wisdom of this course of action. AAPSE members should take every opportunity to discuss the matter fully to insure that, if such action comes about, it represents the desire of more than just a few sanitary engineering educators.

UCOWR MEETING --- FORT COLLINS, COLORADO --- JULY, 1965

The 1965 meeting of the University Council on Water Resources (UCOWR) was held in Fort Collins on July 9 and 10, following the Western Resources Conference on July 6, 7, & 8. AAPSE members will be interested to know that there are now two sanitary engineers on the executive board of UCOWR; Professor Earnest F. Gloyna of the University of Texas, and Professor Leonard B. Dworsky of Cornell University.

UCOWR has now established a standing Committee on Water Resources Education and Research. Professor Ray Linsley of Stanford University is Chairman of this Committee. There are Subcommittees on Hydrology, Land-Water Relationships, Water Resources Engineering, Social Sciences, and Water Quality. Professor Warren Kaufman is Chairman of the Subcommittee on Water Quality.

The August Issue of the UCOWR NEWSLETTER included an article on the 1966 Federal Water Research Program. Since the information will be of interest to many sanitary engineering professors, it is being reproduced here. President E. A. Pearson has pointed out that the research has been classified in the table without any explanation as to who did it or how. Several of the list of priority projects are of interest; e.g., Urban Storm Drain Design.

1966 FEDERAL WATER RESEARCH PROGRAM

In preparation for the fiscal year 1966 budget and in anticipation of a long-range plan for water resources research, the Committee on Water Resources Research of the Office of Science and Technology developed a short list of priority research projects which it felt should receive special consideration for possible budget increases. These priority projects are either new projects or ones which should receive substantially increased emphasis in addition to the ongoing research programs:

Waste Water Reclamation and Reuse--Health, Education, and Welfare

Causes and Effects of Water Pollution from Rural Lands--Agriculture;
Health, Education, and Welfare

Urban Storm Drain Design--Commerce; Health, Education, and Welfare

River Forecasting for Water Resources Management--Commerce

Water Conservation and Water Yield Improvement--Agriculture

Water Resource Economics--Defense; Agriculture

Soil Mechanics and Engineering Geology--Defense

Effects of Pesticides on Aquatic Environment--Interior

Ground Water-Surface Water Relationships--Interior

Chemical Relations Within Ground-Water Bodies--Interior

Because the program for desalting sea and brackish water was under active review in other channels, the Committee took no action with regard to it in preparing the list of priority projects. The analysis of budget changes for water resources research are listed in the accompanying table.

ANALYSIS OF BUDGET CHANGES FOR WATER RESOURCES RESEARCH

	1964		1965		Change		1965		Change	
	actual \$1,000	estimate \$1,000	actual \$1,000	estimate \$1,000	\$1,000	Percent	estimate \$1,000	Percent	\$1,000	Percent
By Agency:										
Agriculture	11,034	13,030	1,996	14,490	1,460	18.0	14,490	11.2		
Commerce	1,236	1,219	-17	1,544	325	-1.4	1,544	26.7		
Defense	3,440	3,481	41	3,979	498	1.2	3,979	14.3		
HEW	13,188	13,110	-78	17,626	4,516	-0.6	17,626	34.4		
Interior	30,076	39,270	9,194	57,975	18,705	23.4	57,975	47.5		
AEC	3,106	2,342	-764	2,497	155	-24.5	2,497	6.6		
NSF	1,727	1,750	23	2,080	330	13.1	2,080	18.9		
TVA	922	1,120	198	1,220	100	21.4	1,220	8.9		
Total	64,729	75,322	10,593	101,411	26,089	16.3	101,411	33.3		
By Category:										
I. Nature of water	1,769	1,640	-129	1,770	130	-7.3	1,770	7.9		
II. Water cycle	12,768	13,463	695	15,630	2,167	5.4	15,630	16.1		
III. Water and land management	9,754	11,509	1,755	12,334	825	18.0	12,334	7.2		
IV. Development and control	7,165	9,306	2,141	8,311	-995	29.8	8,311	-10.7		
V. Qualitative aspects	10,273	11,942	1,669	13,454	1,512	16.2	13,454	12.7		
VI. Reuse and separation	10,375	8,827	-1,548	15,977	7,150	-14.9	15,977	81.0		
VII. Economic systems	2,032	2,786	754	3,286	500	3.7	3,286	17.9		
VIII. Engineering systems	4,930	8,137	3,207	17,808	9,671	65.0	17,808	119.0		
IX. Manpower and facilities	5,663	7,712	2,049	12,841	5,129	36.3	12,841	66.4		
Total	64,729	75,322	10,593	101,411	26,089	16.3	101,411	33.3		