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NEWSLETTER



Nassau, Bahamas, Site of Recent AEEP Workshop

ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS

JANUARY, 1973

VOLUME 8, NUMBER 2

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EDITORS' NOTES

The front cover of the NEWSLETTER features one of the many scenes enjoyed by over 50 participants and their families in the AEEP Workshop held aboard the cruise ship, the M. S. Sunward in December, 1972. The photo is provided by courtesy of Jon Liebman. Further information on technical aspects of the conference as well as the availability of Proceedings will be given in future issues of the NEWSLETTER.

The attention of our readers who are non-members of AEEP is directed to the last page of this issue. Please note that you must respond if you wish to continue to receive the NEWSLETTER.

FROM THE PRESIDENT'S DESK

In the Volume one, Number one issue of the Newsletter, then-President Pearson noted that "the need for effective communication between sanitary engineering educators and the continuing self-appraisal of philosophies and programs has never been greater." The same statement is perhaps true today — but for different reasons. Erm Pearson was writing during a time of relatively abundant support for environmental engineering programs — but during the formative days of AEEP (AAPSE). In 1973, the situation has reversed. Because of the early efforts of Professor Pearson and many others, the Association now has a well-established, diverse program for communication and service in the environmental engineering education area and has members representing institutions which graduate over 90 percent of the environmental engineering graduate degree recipients in the country. But all is not well in the area of training and research support for environmental engineering programs.

During 1972, a sizable fraction of the efforts of AEEP members, the Board members, and the officers was focused on the curtailment of government support for professional training in the environmental engineering area. These efforts helped reverse a decision to delete three million dollars from the training budget. But the problem has not gone away. It can be anticipated that the matter of training support will continue to be a major activity of the Association during 1973. To provide a focal point of the Association's activities in the training area, I have asked the immediate past President, John Austin, to chair a new AEEP Committee on Training Support.

The founders of AEEP wisely provided that no member of the Board of Directors can serve more than two three-year terms. This has made the Association a dynamic one due to the continual influx of new ideas to the Board of Directors. However, that provision of the Bylaws also has resulted in the removal from active participation in the Association of many professors who have worked hard and effectively for AEEP in the past. To provide a framework for more feedback from those individuals, a new "Advisory Committee to the Board of Directors" is being established. The Committee will be comprised of several former officers and members of the Board of Directors and will be chaired by Professor Pearson. They will serve as a group of kibitzers or a "shadow cabinet" to call to the current Board's attention activities which they think the Association should or should not be carrying out. It is hoped that formalization of this activity will not discourage the informal individual constructive comments from all members of the Association.

Structuring and staffing of other committees of the Association is actively underway. As indicated in a previous mailing to members, I would be pleased to have an expression of desires as to service on AEEP committees.

A major event during the year ahead will be the Third National Conference on Environmental Engineering Education to be held at Drexel University in Philadelphia on August 13, 14, and 15, 1973. Professor P. W. Purdom, Sr. is General Chairman of that Conference which will be sponsored by the Academy of Environmental Engineers and AEEP. Our Education Committee (chaired by Dean G. P. Hanna with Dr. Wesley O. Pipes as Board contact member) is actively engaged in planning for that meeting, and the Manpower, Undergraduate Education, and Continuing Education Committees also will be playing roles in preparation for the meeting.

The seminar at the time of the Purdue Industrial Waste Conference tentatively is scheduled to be on the teaching of introductory undergraduate courses. Professor Harold Jebins will be organizing the seminar. More on that later.

All in all, it looks like a busy year.

... Richard I. Dick

NEW AEEP OFFICERS ELECTED

At the December 17th meeting of the AEEP Board of Directors, the following officers were elected to serve during 1973:

President - Richard I. Dick, University of Delaware

Vice President - E. Joe Middlebrooks, Utah State University

Secretary-Treasurer - Wayne F. Echelberger, Jr., University of Notre Dame

Professors Anthony F. Gaudy, Jr., Joseph F. Malina, Jr., and E. Joe Middlebrooks are new members of the Board of Directors; Waldron M. McLellon, Walter J. Weber, Jr., and John H. Austin have just retired following completion of three-year terms; and John T. O'Connor, Wesley O. Pipes, Linvil G. Rich, Wayne F. Echelberger, Jr., Richard I. Dick, and David Jenkins are continuing Board members.

SOLID WASTE ENGINEERING LAB MANUAL AVAILABLE

A laboratory manual designed for use in solid waste courses has been developed by P. Aarne Vesilind, Assistant Professor of Civil Engineering at Duke University, Durham, North Carolina. The contents include sections on analytical procedures as well as discussions of eleven suitable laboratory exercises. Among the topics covered in the laboratory exercise portion are sludge thickening by gravity and flotation, sludge centrifuge performance, composting of refuse, incineration, compaction in a landfill, and PERT applied to solid waste disposal.

The cost of the manual is \$2.50, payable to the Duke University Department of Civil Engineering. For further information please write to Dr. Vesilind.

EPA ISSUES NEW TRAINING GRANT GUIDELINES

EPA has recently issued a new set of proposed rules relating to the administration of training grants and fellowships. The EPA draft statement includes the following summary statement:

Publication of these proposed rules is a continuation of an effort to coordinate and conform grant award and administration policies, procedures, and terms for the various EPA grant programs, to improve administration of these grant programs and to furnish applicants, grantees, and the public with a more explicit statement of grant award and administrative requirements. Newly enacted legislation and changes in program emphasis have resulted in the following major revisions in the training grant and fellowship regulations.

a. Student support for training grants will be changed from traineeship to scholarships (tuition and fees only);

b. Special stipends will be established to provide additional support where needed to attract students to specific programs; and

c. A pilot fellowship program will be developed to promote attractiveness of State and Local employment.

Prior to the adoption of the proposed regulations, consideration will be given to comments, suggestions, or objections which may be submitted in writing to: Director, Grants Administration Division, Office of Planning and Management, Waterside Mall, 4th & M Streets S.W., Washington, D. C. 20460. All comments, suggestions or objections received before February 28, 1973 will be considered.

Of particular importance to the AEEP membership are the following sections related to training grants:

Sec. 45.135 (d) Generally training grants will provide for student support only through scholarships. Stipends are permitted when, in the judgment of the grantee, they are needed to attract qualified students provided that not more than \$10,000 may be used for such stipends within a budget period and further provided that no stipend may be less than \$1,000 or more than \$3,000.

Sec. 45.140 Project period. The project period for a training grant may not exceed 3 years.

Pertaining to Fellowships EPA has established a program for the award of "agency fellowships" in addition to "special fellowships". The following statements define and enumerate policy with regard to these awards:

Sec. 46.104 Type of fellowships.

(a) Agency fellowships are awarded to present or prospective employees of a regional, State or local environmental pollution control or regulatory agency to provide training for and upgrading of personnel in the areas of pollution abatement and control.

(b) Special fellowships are awarded to individuals for study in specialty areas which are supportive of pollution abatement and control efforts, e.g. environmental law, land use, urban planning, transportation and environmental economics.

Sec. 46.110 Benefits.

(a) Recipients of assistance under this part shall be entitled to tuition and fees, an allowance for books and supplies up to a maximum of \$250, and the normal student holidays observed by an academic institution.

(b) In addition, full-time fellows who are employees of regional, state or local environmental pollution control or regulatory agencies may receive a stipend in an amount not to exceed \$6,500 from EPA, provided that such employing agency agrees to supplement such stipend in an amount negotiated by such employing agency and EPA. Part-time fellows may receive a small stipend when justified by extraordinary needs related to the purpose of the fellowship.

Sec. 46.115 Eligibility.

All applicants for fellowships under this part must be (a) citizens of the United States, its territories, or possessions, or lawfully admitted to the United States for permanent residence, and (b) accepted by an accredited educational institution for full or part-time enrollment for academic credit in an educational program which, for agency fellowships, directly relates to pollution abatement and control, and for special fellowships, directly relates to, or is supportive of, pollution abatement and control. Applicants for agency fellowships must be present or prospective employees of a regional, State or local environmental pollution control or regulatory agency. Present employees must be recommended for a fellowship by their employing agency. Prospective employees must have a written commitment from such an agency for employment upon completion of the fellowship.

U. S. NATIONAL COMMITTEE LOOKS TO NEXT IAWPR MEETING IN PARIS

AEEP has two members and two alternate members on the U. S. National Committee (USANC) of the International Association on Water Pollution Research (IAWPR). They are Warren Kaufman and Robert Sylvester as members and Richard Dick and David Jenkins as alternates. USANC is composed of representatives from AEEP, ACS, AIChE, ASCE and the WPCF. The group met in Atlanta on October 11. Significant items discussed included:

1. Election of three USANC members to the IAWPR Governing Board: These were Warren Kaufman, Bernard Berger and Francis Middleton.
2. Election of new officers for USANC: Bernard Berger was re-elected chairman with understanding that position is to rotate after the next conference; Warren Kaufman was elected Vice-Chairman, Francis Middleton Technical Program Coordinator, and Robert Canham, Secretary-Treasurer with understanding that the position will be rotated after the next conference.
3. The 1972 Jerusalem Conference was considered to have been well organized and well attended; 1200 registrants from 40 nations.
4. Richard Dick discussed the position of AEEP with USANC and the \$500 yearly dues contributed along with the other members. The essential position was that AEEP has a relatively small membership, that we cannot afford the dues, that most of our members are represented on USANC through other organizations and that despite the fact that AEEP was instrumental in forming IAWPR and USANC, we are not getting our proportional monies worth. AEEP was asked to present their position to USANC in writing and to make a proposal for a specific amount of dues reduction. By-law changes would be required.
5. As you have all been previously notified, preprints of the Jerusalem Conference are to be made available to Universities on a request basis.
6. The 1974 IAWPR Conference will be held in Paris during September. It will have the same format as the Jerusalem Conference. In addition to the regular program, there will be nine workshop sessions, the two on technology transfer and water reuse and toxic discharges being assigned to the USA. A better method of paper solicitation and review is being developed.
7. IAWPR is planning a series of continuing education conferences in various parts of the world including some in the USA.
8. Preprints of the Paris Conference papers will be offered for sale prior to the Conference.
9. Individual memberships in IAWPR are not growing as rapidly as desired, partly because many can read the journal "Water Research" in their library and because many are not aware of the existence of individual memberships.
10. USANC By-laws were amended to provide for a method of electing officers and stipulating their terms of office.

THIRD NATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING EDUCATION
SCHEDULED FOR AUGUST 1973

Drexel University in Philadelphia will be the host school for the Third National Conference on Environmental Engineering Education to be held August 13, 14, and 15, 1973. This conference is a follow-up to conferences held in June, 1960 at Harvard and August, 1967 at Northwestern. The format for the conference will be similar to that of the previous ones.

Seven committees will prepare draft position papers which will be mailed to conference participants in June. At the conference, the draft position papers will be discussed and modified. On the final day of the conference the position papers will be either accepted or rejected by majority vote of the conference. The conference report, which is scheduled for publication in December, 1973, will serve as a set of guidelines for the development of academic environmental engineering programs over the next few years.

The committee titles and chairmen are:

1. Environmental Quality Problems and Goals, 1975-2000
 Wesley E. Gilbertson
 State of Pennsylvania
2. Manpower Needs
 E. Joe Middlebrooks
 Utah State University
3. Educational Needs, Technologists Training
 John H. Austin
 Clemson University
4. Educational Needs, Undergraduate Environmental Engineering
 Donald B. Aulenbach
 Rensselaer Polytechnic Institute
5. Educational Needs, Graduate Environmental Engineering
 George P. Hanna, Jr.
 University of Nebraska
6. Educational Needs, Continuing Education
 M.D.R. Riddell
 Greeley and Hansen
7. National Policy on Environmental Engineering Education
 John A. Logan
 Rose Polytechnic Institute

The conference is jointly sponsored by AEEP and AAEE. The general chairman for the conference is P. W. Purdom. Information on participation in the conference can be obtained by writing to Professor Purdom at:

Center for Urban Research and Environmental Studies
Drexel University
Philadelphia, Pennsylvania 19104

- W. O. Pipes

ILLINOIS FORMS INSTITUTE FOR ENVIRONMENTAL STUDIES

An Institute for Environmental Studies has been established in the University of Illinois at Urbana-Champaign. It includes the present Task Force on Heavy Metals, the Water Resources Center and the Center for Human Ecology. Prof. Benjamin B. Ewing, director of the Water Resources Center, was named by Chancellor J. W. Peltason to be acting director of the institute.

The Illinois Board of Higher Education in approving the new unit said the institute should provide for:

--Active participation of qualified faculty and researchers employed at other public and private institutions in the state.

--Inclusion of concerned board staff in the planning and evaluative functions of the institute.

--Public service activities which will include teaching as well as dissemination of research findings, and consultation in governmental and private sections.

--Student involvement in instructional research through participation in faculty-directed, problem-oriented task forces.

Ewing, an AEEP member, said that during the coming year, in addition to the heavy metals, water resources and human ecology units, there will be an effort to identify at least one additional major interdisciplinary task force. He said course outlines will be developed and formal approval for these courses sought, and that a nucleus of environmental courses at both graduate and undergraduate levels is anticipated by the 1973-74 academic year.

JERUSALEM CONFERENCE PREPRINTS AVAILABLE

Just a reminder that preprints from the Jerusalem Conference are now available for student use. Please contact the AEEP member handling the distribution in your area (see last AEEP NEWSLETTER for listing) if you would like a set for student use at your institution. Since copies will be distributed on a first come, first served basis, you should make your request as soon as possible.

MEETINGS AND CONFERENCESWWEMA Meets in Chicago, March 14-16

The Water and Wastewater Equipment Manufacturers Association is sponsoring the Industrial Water and Pollution Conference in Chicago on March 14-16, 1973. There will be over 100 technical papers plus over 200 exhibit booths of equipment concentrating solely on industrial water supply and air, water, and solid waste pollution control. For further information write WWEMA, 744 Broad Street, Newark, New Jersey 07102.

Manhattan Conference, May 21-25

The 18th Summer Institute in Water Pollution Control will be held at Manhattan College. Two one-week courses will be offered concurrently, May 21-25, 1973, for advanced study in Biological Waste Treatment and in Mathematical Modeling Of Natural Water Systems.

Enrollment, on a pre-registration basis, will be limited. Tuition for each of the five-day courses is \$250.00. This continuing engineering education program is designed to enhance the competence of practicing engineers and scientists in governmental agencies, industrial concerns, consulting engineering offices, research organizations and academic institutions.

For further information, contact:

Donald J. O'Connor
Environmental Engineering & Science Program
Manhattan College
Bronx, New York 10471

Mathematical Model Symposium in England

A symposium on the Use of Mathematical Models in Water Pollution Control will be held on September 10-14, 1973, at the University of Newcastle upon Tyne. Papers include discussions of modelling techniques, models of polluted environments, models of treatment units and processes, and river basins models.

For further information write:

Department of Civil Engineering
The University
Claremont Road
Newcastle upon Tyne, NE1 7RU

Nebraska to Hold Two Summer Institutes

Two one-week Summer Institutes for practicing professionals and academicians will be presented at the University of Nebraska, Institute I, entitled "Planning and Management of Urban-Metropolitan Water Systems" will be held from July 15-20, 1973. The objective of this course is to present state-of-the-art technology for planning and managing urban-metropolitan water resources systems. Case studies will be used to illustrate application for new techniques.

Institute II, entitled "Multiple Objective Water Resources Planning Techniques" will be held from July 22-27, 1973. The objective of this course is to acquaint participants with state-of-the-art techniques for evaluating social, environmental and economic objectives. Case studies will be used to illustrate the multi-objective planning process.

Special rates will be available for a limited number of academic personnel. These will be assigned on a first come, first served basis.

For additional information, contact:

Dr. Warren Viessman, Jr., Director
 Nebraska Water Resources Research Institute
 University of Nebraska - East Campus
 212 Agricultural Engineering
 Lincoln, Nebraska 68503

ROYAL SOCIETY OF HEALTH INVITES MEMBERSHIP

On November 12, 1972, Dr. Walton Purdom met with Mr. P. Arthur Wells, Executive Secretary of the Royal Society for the Promotion of Health and the Chairman of Council, at the annual meeting of the American Public Health Association which was held in Atlantic City. Mr. Wells invited members of the Association of Environmental Engineering Professor to apply for membership in the Royal Society of Health. One of their major areas of interest is in the environment and the relationship between environment and health. Persons interested in some of the European activities and experiences in this field may enjoy reading the journal of that organization. Persons concerned should contact: Mr. P. Arthur Wells, Executive Secretary, Royal Society of Health, 13 Grosvenor Place, London SW1X 7EN.

ACADEMIC POSITIONS AVAILABLEDean of Engineering at Delaware

Applications are requested for the position of Dean of the College of Engineering, University of Delaware commencing July 1, 1973 (or otherwise by arrangement). The college has strong undergraduate and graduate programs in Chemical, Civil, Electrical, and Mechanical and Aerospace Engineering including interdisciplinary activities. A staff of 60 full time faculty is engaged in the instruction of 750 undergraduate and 200 graduate students as well as research in a wide range of technical fields. The Dean of this college should possess high professional qualifications as well as evidence of administrative ability. Applications should be sent to Professor R. H. Wood, Chairman of the Search Committee, Chemistry Department, University of Delaware, Newark, Delaware 19711. The University of Delaware has an affirmative action program and is committed to the employment of women and minority members.

Drexel University to Add Staff

Drexel University has the following three positions available: Air Pollution Chemist, Toxicologist--Microbiologist, and Air Pollution Engineer (Control Processes). Professional rank and salary are open. The Environmental Program offers a graduate curriculum in several distinct environmental areas (Air, Water, Solid Waste, Occupational Health, Environmental Science, Environmental Management) as well as other expanding areas. Both the M.S. and Ph.D. degrees in either science or engineering are granted. In addition to a broad teaching program, research in the various areas normally associated with an interdisciplinary approach to environmental problems is being conducted. Applicants should be interested in accepting the challenge of taking an established program, and expanding from this base, to build one of the foremost centers for the comprehensive study of man's environment. Inquiries should be directed to Dr. Irwin H. Suffet, Assistant Professor of Chemistry and Environmental Science, Center for Urban Research and Environmental Studies, Drexel University, Philadelphia, PA 19104 (215-895-2270) or Dr. Richard A. Mutula, Head, Environmental Studies Institute (215-895-2266).

Virginia Tech Seeks Young Engineer

Virginia Polytechnic Institute is currently receiving applications for an Assistant Professor position in sanitary engineering. Candidates should have a strong interest in undergraduate as well as graduate instruction and should have considerable background in water chemistry and preferably an interest in physio-chemical treatment processes. Applications should be sent to Dr. Paul H. King, Professor of Sanitary Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061.

CANADIAN UNIVERSITIES FROM ENVIRONMENTAL RESEARCH COUNCIL

At a formal founding meeting, held recently at the University of Toronto, twenty seven persons representing environmental research centres in 18 Canadian universities confirmed the establishment of an organization to be known as the Council of Centres at Universities for Research on the Environment.

Their action followed the publication of a "general statement of intent" by representatives of eight university-based research centres which stated that the Council would be composed of multidisciplinary groups and centres that are engaged in environmental research at Canadian universities. The aim of the Council is two-fold: To facilitate communications among research groups and centres and their members; and to promote environmental studies in Canada.

At the meeting, a twelve-point Constitution was agreed upon and an executive committee was elected. This will consist of P. E. Jones (U of T) (chairman); Michel Slivitsky, l'Université de Québec, and Ken Arenson, University of Manitoba, as two-year directors; and Wolfgang Schultz, University of Alberta, and J. R. Winter, Acadia University, as one-year directors. Other universities participating in the founding meeting were: Queen's University, Simon Fraser University, University of Prince Edward Island, University of New Brunswick, University of British Columbia, University of Quebec, Trent University, Laurentian University, l'Université de Sherbrooke, l'Université de Montréal, McMaster University, l'Université de Laval; and University of Western Ontario.

Activities of the new organization will include the gathering and dissemination of information concerning activities of members; the yearly publication of an inventory of environmental research in progress or in the planning stage; the publication of a newsletter and the organization of an annual conference. The Council has adopted the initials CCURE (pronounced "secure") as its short title.

NEMEROW TO VISIT IN ITALY

Dr. Nelson L. Nemerow, Professor of Civil Engineering and Faculty Chairman of the Environmental Engineering program at Syracuse University, will be on sabbatical leave for the next six months in Italy.

He will be associated with the National Research Institute, working primarily with Dr. Robert Passino in Rome, Italy. He will also be consulting with various industries in Italy on industrial waste problems and lecturing at educational institutions both in Italy and Southern Europe during this period.

MANPOWER NEEDS FOR WATER AND WASTEWATER EQUIPMENT MANUFACTURERS

by E. Joe Middlebrooks

The water and wastewater equipment manufacturers and chemical suppliers represent the most diverse group that employs professional and technical personnel in the environmental field. Services provided by this group range from turn-key type operations, which provide everything required for a completed treatment facility, to the sale of chemicals. The professionals performing the various functions include all types of academic backgrounds, and it would be essentially impossible to use a general classification scheme for the entire industry. However, the largest employers of professional and technical personnel are the major equipment manufacturers, and in general these firms are organized the same way.

Manpower Utilization

Table 1, compiled from several equipment manufacturers employing professional staffs ranging in size from 78 to 395 employees, shows the average percent effort devoted to the various categories of activities.

TABLE 1
Average Distribution of Effort Devoted to Various
Activities at Several Equipment Manufacturers

<u>Activity</u>	<u>Distribution of Professional Effort, %</u>
Research and Development	8.7
Product Engineering	26.5
Marketing	10.2
Manufacturing	13.3
Sales	25.4
Administrative	15.9

In the categories employing the majority of the scientists and engineers, product engineering, sales, and research and development, there was little variation among the firms in the percent effort devoted to these activities. Therefore, it appears reasonable to use these data in estimating the manpower needs for scientists and engineers by equipment manufacturers based upon the number of employees per one hundred thousand dollars of sales. An average of one professional (employees holding a bachelors degree or better) was employed by the firms surveyed for each \$176,000 in sales. Assuming that the majority of the engineers and scientists are employed in the product engineering, sales, and research and development activities, one engineer-scientist would be employed for each \$290,000 in sales. Although data on the number of technicians were not available from the firms surveyed, contacts with trade associations and personnel in the equipment manufacturing business indicate a ratio of approximately two technicians to each engineer-scientist.

Equipment Expenditures

The number of firms distributing products and services have undoubtedly increased with the increased expenditures in water pollution control in the past two or three years; however, many of the new firms entering the field have purchased old established firms and are marketing the same products under another name. Also, many of the new firms handle only speciality items and do not contribute significantly to the total market. Therefore, it appears that the total number of firms handling the majority of the sales have changed very little in the past two or three years. Kollar and Youngwirth (1) reported the results of a survey of the water and wastewater treatment equipment industry that showed a total of 179 establishments in 1968. They estimated that this group of establishments represented about 95 percent of the equipment sales to public and private municipal water and wastewater utilities, and no more than 70 percent of the equipment sales for industrial water and wastewater treatment. The lower coverage of industrial equipment was caused by a bias in the questionnaire mailing list which excluded some of the equipment manufacturers who produce recirculation and waste reclamation equipment. Of the total of 179 firms, only twelve reported shipments in excess of five million dollars, and fifty reported shipments between \$1 and \$5 million. Over fifty firms reported equipment shipments of less than \$500,000.

In 1968 approximately \$1.75 billion were spent on water pollution control which resulted in equipment shipments of \$117 million, or 6.7 percent of the total water pollution control expenditure. These values exclude many small pieces of equipment as well as pipes, valves, fittings, and fees for various services performed by the equipment manufacturers, but probably represent the major income received by the industry. Assuming that 6.7 percent of the total expenditure for water pollution control will be spent on equipment in 1971 and 1976, \$335 million and \$402 million will be spent in 1971 and 1976, respectively.

The majority of the large equipment manufacturers are Associate Members of the Water Pollution Control Federation, and these firms are listed annually in the Yearbook. In 1971, 153 firms were listed. This total indicates that the survey by Kollar and Youngwirth was relatively complete and certainly represented a substantial proportion of the receipts from equipment sales.

Manpower Needs

Using the parameters developed in the above paragraphs with the projected expenditures for the next five years, Table 2 was developed.

TABLE 2
Personnel Employment by Major Equipment Manufacturers

Category	Number of Full-Time Equivalent Employees		
	1968	1971	1976
Engineer-Scientist	405	1,150	1,390
Other Professionals	260	760	890
Technicians	810	2,300	2,780

It must be emphasized that these estimates of manpower represent only the major equipment manufacturers. There are literally hundreds of firms that sell speciality items that require the services of professionals of various types, but without a more detailed census of the industry as a whole, it is impossible to place a value on the number employed or the number likely to be needed in the future. However, it is not anticipated that a significant increase in the demand for **environmental specialists, such as those produced by university training programs**, will be **exerted by this segment of the industry.**

Reference

1. Kollar, K. L. and Youngwirth, W. G., "A Growing Market for Water and Wastewater Treatment Equipment," Water & Sewage Works, 117, 319-325, 1970.

NEWSLETTER TO ACCEPT ADVERTISING SPONSORS

The **NEWSLETTER**, after considerable deliberation by the **AEEP** Board, has **elected to accept** advertising sponsors beginning with the summer issue. Half page advertisements as well as business card listings will be available. Rates are presently being determined and will be announced in the next issue.

NEWSLETTER SEEKS ANNOUNCEMENTS OF AVAILABLE SUMMER EMPLOYMENT

In order to **expand** the **NEWSLETTER's** service to its readers, **opportunities for summer faculty employment** will be included in the Spring issue (April, 1973). Please send such announcements to the editors. **The NEWSLETTER will also continue to note opportunities for overseas travel, sabbaticals, and similar programs.**

O'MELIA RECEIVES AEEP AWARD

Professor Charles R. O'Melia, Professor of Environmental Sciences and Engineering at the **University of North Carolina**, was the recipient of the **AEEP "Distinguished Faculty Award"** given biennially by the Association. The award, made to a young faculty member 37 years of age or less, seeks to recognize excellence in teaching and research. Dr. O'Melia received the award on October 10, 1972 at a luncheon of the **Water Pollution Control Federation**. Professor John Austin of **Clemson University**, President of AEEP, made the presentation.

Dr. O'Melia joined the **North Carolina faculty** in 1966, coming from **Harvard University** where he was a **Post Doctoral Fellow and Lecturer**. He received the **B.C.E. degree** from **Manhattan College** in 1955, the **M.S.E.** in 1956 and the **Ph.D.** in 1963 from the **University of Michigan**. Professor O'Melia's teaching ability has been recognized by students, being honored twice with the **"Best Lecturer"** award (to a faculty member) made by students in the **Water Resources Engineering** program area at **North Carolina**. His research abilities are well known throughout the profession and were honored in 1965 when he received the **publications award** of the **American Water Works Association** for his studies of **rapid sand filtration**.

WELCOME TO AEEP NEW MEMBERS

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Prof. John L. Carter
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Milwaukee, Wisconsin 53233

Prof. James A. Mueller
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EPA ASSISTANT ADMINISTRATOR CARROLL SAYS 1977 TREATMENT GOAL CAN'T BE MET

The 1977 goal for providing improved waste treatment in all U. S. cities probably will not be met, according to an Environmental Protection Agency official.

Thomas E. Carroll, assistant administrator for planning and management, was reported by the Seattle Times as saying on November 15 that even with the use of \$18 billion in federal aid over the next three years, only about three quarters of the work required by the 1972 Federal Water Pollution Control Act can be completed. There is not sufficient time to plan, design, finance, and construct the treatment plants required by law, Carroll said.

Carroll said that most industries can meet the 1977 goal of providing the best practicable treatment of industrial wastes. He added that the goal imposes a tough burden on industry and the cost of the necessary work has not been established. EPA is now working with 21 major industries in developing guidelines describing ways in which the 1977 goals can be met, Carroll said.

NEWSLETTER SEEKS TO UPDATE MAILING LIST

The Association of Environmental Engineering Professors is pleased to provide copies of its Newsletter to those interested in activities of the Association but who are not eligible for membership. Currently, several times as many complimentary Newsletters are being mailed to non-members of the organization as are mailed to members. This represents a significant financial drain, and, whereas the Association continues to desire to provide copies of the Newsletter to interested individuals, it seems desirable to purge the mailing list of any current recipients of the Newsletter who do not desire to continue to receive it. Accordingly, non-members of AEEP who desire to continue to receive copies of the Newsletter are requested to complete the attached form and return it to the Newsletter editor. Whereas Newsletters will continue to be supplied without charge, non-members wishing to support AEEP's activities and cover costs of Newsletter publication are invited to include donations.

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