

the news

PHILADELPHIA SECTION



AMERICAN SOCIETY OF CIVIL ENGINEERS

Vol. 50 - No. 5

Our 65th Year

February, 1978

FEBRUARY MEETING

Philadelphia Section, American Society of Civil Engineers

TUESDAY, FEBRUARY 14, 1978

Engineers' Club, 1317 Spruce Street, Philadelphia

Cocktails — 5:30 P.M. Dinner — 6:30 P.M. Meeting — 7:30 P.M.

"Happy Hour" and Refreshments at the meeting — compliments of

—Robbins Engineering Instrument Service, Inc., Gloucester, New Jersey — who will display the latest in drafting and surveying supplies, field equipment and electronic distance-measuring instruments.

SUBJECT:

MARKET EAST: DOWNTOWN ATTRACTS A MAJOR DEVELOPER

SPEAKER:

SCOTT TOOMBS, Senior Development Director, The Rouse Company

HONORED GUEST:

ASCE Vice President (Zone I) **Cranston R. Rogers** will attend the meeting and brief the Section on ASCE National activities.

PROGRAM HOST:

JOHN SCHUMANN, Chairman, Transportation and Urban Development Group

Development of The Gallery at Market East represents a leap into central city revitalization for The Rouse Company, well known for its role in the construction and operation of suburban shopping malls and new towns. As Senior Development Director, Mr. Toombs was responsible for The Gallery program, including structuring and negotiating the City lease, obtaining all approvals, negotiating department store operating agreements, and coordinating the activities of a team of 20 leasing, construction, legal and other support personnel. He remains responsible for the profitability of the \$21 million project.

Mr. Toombs received his B.A. in Economics from Ursinus College in 1966 and an M.B.A. from the Wharton School of Finance at the University of Pennsylvania in 1971. Prior to joining The Rouse Company, he was engaged in product development, marketing, finance, and management consulting.

SPECIAL FEATURE:

UNIVERSITY OF PENNSYLVANIA NIGHT

This month the Philadelphia Section honors the Civil Engineering Department, ASCE Student Chapter, faculty, and alumni of the University of Pennsylvania. All Penn students, faculty, and alumni are urged to attend.

A WORD ABOUT MR. ROGERS

ASCE National Zone I Vice President **Cranston R. Rogers**, the Section's honored guest at the February 14, 1978 meeting, is vice president and manager of C. E. Maquire — an engineering firm in Waltham, Mass., and he has been in charge of a number of major planning and design projects in the Boston area.



Mr. Rogers is a graduate of The Citadel in Charleston, S.C., where in 1949 he received his B.S. degree in Civil Engineering. In 1951 he earned his masters degree from the Massachusetts Institute of Technology.

Mr. Rogers has been chairman of the Society's Professional Activities Committee and president of the Boston Society of Civil Engineering Section; has served on virtually every Section committee; and was Director of District 2, which takes in all of New England, for a three-year term which ended in 1975. He is past chairman of ASCE's New England Council.

READING BRANCH

The February meeting of Reading Branch will be on **Thursday, February 23, 1978**, at Green Valley Country Club. **William G. McLean** will speak on "Professional Competence and Registration". Dinner will be at 6:30, the meeting at 7:30. Contact Robert Richert at (215) 376-6611, Ext. 347 for reservations. All Philadelphia Section members welcome! This is a joint meeting with PSPE.

Mail Reservation Cards Immediately — Win a FREE DINNER!

STUDENTS — Plan to attend for Dinner (Half Price) or meeting after Dinner

A New Year Message:

"A SENSE OF RESPONSIBILITY"

"As engineers it is our professional responsibility to" How many times have we heard or uttered that phrase? More importantly, as it rolls trippingly off the tongue, have we looked behind the phrase to fathom its fullest implications?

"Profession" is a derivation of the latin "professionem" — which means "a public declaration". Today the dictionary defines a profession as "a vocation in which a professed knowledge of some department of learning is used in its application to the affairs of others", and "responsibility" as "being morally responsible for one's actions", a "liability," or a "bounden duty".

Thus, as we seek to exercise our professional responsibility day by day, we must expect to, and indeed should, involve ourselves in that part of our "franchise" which includes speaking out when our moral obligation is so to do, *whether or not we think it will make a difference.*

Can each of us say that he has done that recently, in the office, the community, his Society? Or are we each contributing to the atrophy of our total engineering environment by "letting George do it", when, curiously, George has the same idea?

Nelson A. Rockefeller said "the nourishing of the American system requires a sense of responsibility, not only on the part of individual citizens, but especially on the part of America's leadership. I am not speaking alone of political leaders, but of the leaders of all phases of our society as well.

To the extent that they do not exercise their power and influence in the direction of the common good, they are undermining the very system that has given them that power and influence."

The iconoclastic George Bernard Shaw expressed much the same thought when he wrote that "liberty means responsibility, that is why most men dread it."

Is it a shortcoming of our profession that we do not have any equivalent of the Hippocratic Oath?, or that we do not have to swear or affirm anything to get a license or join ASCE? Had we such a procedure would we speak out more? One could hope that the absence of same is surely not holding us back. We have nothing to dread except extinction of our genus.

Some 350 years ago Francis Bacon wrote that "I hold every man a debtor to his profession". Can each of us say that we have paid our debts lately, not dues, but debts?

Bring out the trumpets !

Sincerely

Brian J. Lewis, *President*
Philadelphia Section ASCE

TECHNICAL GROUP ACTIVITIES**Construction-Structural Joint Meeting**

Date: Friday, February 10, 1978

Luncheon Meeting — Engineers' Club
12:00 Noon

Subject: Design and Installation of Sub-Sea Tunnels and Connecting Shafts for Cooling System of the Seabrook Nuclear Power Plant

Speaker: Allen J. Hulshizer, Supervising Structural Engineer, United Engineers & Constructors, Inc.

Program Hosts: George N. Bathish, Chairman, Structural Group
Frédéric L. Plotnick, Chairman, Construction Group

Geotechnical

Date: Tuesday, February 21, 1978

7:00 P.M. — Engineers' Club

Subject: Flyash Utilization

Speaker: Dr. John Minnick, Valley Forge Laboratories

Program Host: Dr. Jack Rosenfarb, Chairman, Geotechnical Group
Refreshments are served

March Meeting

Date: Wednesday, March 15, 1978

Luncheon Meeting — Engineers' Club
12:00 Noon

Subject: Biological Treatment of Combined Sewer Overflows

Speaker: Thomas Meinholz, Manager of Environmental Systems, Environmental Sciences Division, Envirex, Inc., Waukesha, Wisconsin

Program Host: Harold D. Gilman, Chairman, Hydraulics and Sanitary Group

The talk will describe an efficient solid/liquid separator process which can be expected to provide an effective treatment of combined sewer overflows. Bench scale studies were conducted at an outfall in a residential area to determine the validity of treatment.

For details and reservations contact

Patrick Cairo, Phila. Water Dept., 1270 Municipal Services Bldg., Phila. 19107; (215) 686-3883.

Transportation and Urban Development.

Sponsoring Main Section Meeting
February 14, 1978, See Title Page.

WE'RE LATE!!!

Notice: If THE NEWS arrives late — or you forget to mail your dinner card, please call The Engineers' Club, PE 5-5234 and leave word for Mr. deKovacs, Exec. Mgr., to reserve a dinner plate for you. Of course, you are welcome for the meeting later, if you are unable to have dinner. No reservation necessary.

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MARCH, 1978 ISSUE
FEBRUARY 20, 1978**

JANUARY MEETING

January 10, 1978 Engineers' Club

THE NEWS is indebted to Dr. Jack L. Rosenfarb for authorship of the technical portion of the following article. Dr. Rosenfarb, Chairman of the Section's Geotechnical Group, which sponsored the meeting, was our very amiable and competent Program Host.

In spite of a weather chill factor of -40° F., more than 100 Phila. Section members, guests and students braved the elements and attended the January meeting, which addressed the subject: "The Use of Dredgings for Landfill." Principal speaker was Dr. Raymond J. Krizek, Professor of Civil Engineering, Northwestern University.

Drexel Dominates

The meeting featured "Drexel University Night," and honored the ASCE Student Chapter and Civil Engineering Department of that school's outstanding College of Engineering. More than 50 students (mainly seniors), Student Chapter officers, alumni, graduate students and faculty members attended. It was probably the largest student body turnout since the Phila. Section's "College Night" program at regular monthly meetings was initiated several years ago.

Dr. Richard E. Woodring, Dean of Drexel's College of Engineering, and a distinguished member for many years of the Phila. Section, ASCE, introduced the Drexel people present. He reviewed the renowned cooperative education program in engineering — in which, after the freshman year, students engage in alternate periods (usually six months) of classroom study and work periods in industry — a five-year course. Dr. Woodring also spoke about professional and scholarly research projects by faculty members, as well as their service on inter-professional committees and workshops.

Three undergraduate programs of pre-eminent importance were explained by Dr. Woodring:

1. Cooperative Education
2. Emphasis on design courses — challenges to the students' ingenuity in the learning process.
3. Excellent teaching. Drexel is proud of the many national and specialized awards achieved by its College of Engineering faculty for innovations in classroom education. High priority has been focused on research in energy systems, conservation and environmental intrusions of major engineering public works.

Hopes are high that within a few years a new and larger engineering building will become a focal point of the campus.

Frank McCreesh, President of the Drexel ASCE Student Chapter (and author of the excellent column: "Drexel Student Chapter News", which appeared in the January, 1978 issue of THE NEWS) summarized the scholastic, social and athletic activities and programs of the Chapter. He also introduced to the audience the officers, committee chairmen and members of the Student Chapter.

Dr. Krizek Featured

The principal event of the evening was a slide presentation entitled "The Use of Dredgings for Landfill", by Northwestern University professor, Dr. Raymond Krizek. The talk represented the fourth in a series of lectures sponsored by the Section's Geotechnical Group on the subject of waste materials. Earlier in the year, the Group had focused attention on the problems of municipal refuse fill.

Dr. Krizek essentially described a four year research project at Northwestern aimed at assessing the engineering and environmental characteristics of maintenance dredgings taken from the Maumee River in Toledo Ohio. At this particular site, the Corps of Engineers had decided to place the river sediments in three diked storage areas near the river banks. In addition one island site was utilized. Normally, a hopper dredge containing the dredge spoils from the river bottom would fill the diked areas by means of hydraulic transport through a floating pipeline. During this process the majority of the spoil solids are trapped and any excess water is returned to the river at a control weir downstream of the inflow pipe. Considerable time was needed to fill such enclosures since they were about 1400 ft. (427 m) long, 200 ft. (61 m) wide, and 30 ft. (9 m) deep.

In particular, the project involved the study of the settlement, strength and permeability characteristics of the sediments after each pumping operation was


terminated. Due to the high level of industrialization along the river, a parallel study was also conducted to monitor the levels of pollutants associated with the dredgings.

Due to the very soft surface nature of the sites (especially soon after pumping has ended) special precautions had to be taken while working in the field. Procedures such as drilling and sampling which could normally be carried out by truck-mounted machinery, had to be performed completely by hand (jokingly described by Dr. Krizek as "two graduate student power" machinery). As the field team of as many as 20 students adjusted to the perils of this strange material, innovations such as snowshoe-like "mudshoes" and cable-drawn "rowboats" were needed. Eventually however, sufficient surface crust formed making it possible to walk within the diked areas. Unfortunately, the workers now had to contend with rain forest type thick vegetation up to 10 ft. (3 m) high.

Despite additional problems of vandalism, Dr. Krizek's group was able to generate a prodigious amount of test data. Based on this data it was concluded that the process of strength gain through dewatering of the sediments was very slow indeed; and the sites could not really be useful for normal building construction. The idea of parkland use was deemed acceptable although the many other evils of the area such as air pollution would make the locations less than ideal. Dr. Krizek ended the presentation by suggesting that the site filling technique could be modified to further improve the engineering characteristics of this unusual material.

Dr. Krizek's talk was accompanied by ample sets of slides, graphs and charts. In a question and answer period, astute questions from the students indicates a potential growing interest in this important soils engineering — environmental oriented issue of our time.

Section President Brian Lewis presented the Section's Certificate of Appreciation to our speaker for his excellent presentation. He also gave Dr. Krizek a copy of the Section's 1976 Bicentennial Celebration publication: **The History of Civil Engineering and Construction in the Delaware Valley**. The book was published as part of the Phila. Section's hosting the 1976 National ASCE Convention in the fall of that year. Copies of the valuable book are still available. For information and obtaining copies, please call Treasurer Theodore Davis, c/o Rothbaum and Davis Consulting Engineers, 215 S. Broad St., Phila. 19107 — (215) 735-6498.



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MEMBERS IN THE NEWS

Koerner Receives Award

Section Past President **Dr. Robert M. Koerner**, Professor of Civil Engineering, Drexel University, recently received a national award for his work in developing an earth dam spill device designed to prevent earth dam collapse like that

EARTHQUAKE ENGINEERING IN NUCLEAR POWER PLANTS

Editors Note: The following is an abstract by **Daniel W. Zebroski** of the **Science, Engineering & Technology (SET)** program for high school students to be held at Drexel University, as part of the 1978 Engineers' Week Celebration on **Saturday, February 18, 1978**. Participants are requested to report at the front desk of the Education and Activities Bldg., S.W. Corner 32nd & Chestnut Sts., 8:30 A.M.

Mr. Zebroski is Supervisor, Structural Mechanics, Target Technology, Ltd., Paoli, Pa. and he is in charge of the SET program at Drexel.

Earthquakes — everyone knows what they are and the effects they can have on structures not designed for that type of loading. But, how can you design a building complete with miles of piping, complex electronic control systems, turbines, generators, and a nuclear reactor so that an earthquake, having the maximum potential for that area will not interfere with the safe shutdown of the reactor? That is the problem faced by civil engineers in the design, analysis, and construction of nuclear power plants.

The objective of this workshop is to present an overview of the design concepts used to insure the safety of nuclear power plants if an earthquake does occur. Included will be slides showing nuclear power plants at various stages of construction along with a short film of a vibration test of a scale model reactor core.

of the Teton Dam and, more recently, the Toccoa Falls Dam. A collaborator of Dr. Koerner's at Drexel, Dr. Arthur Lord, Professor of Physics, also received the award, which was the result of a competition sponsored by **INDUSTRIAL RESEARCH** magazine. The results of the research were displayed at an exhibit in the Museum of Science and Technology in Chicago. The device was entered jointly into competition with the U. S. Environmental Protection Agency, which is funding further research on it. The agency believes the device could prevent pollution which occurs when holding ponds containing hazardous materials burst and spill into waterways.

Research on the device began in 1971, using about \$2,000 worth of simple electronic equipment. A prototype noise sensor which Koerner and Lord built converts the sounds of minute stress waves into electrical impulses, which can be measured. Lab tests showed that common types of soil made a considerable amount of noise when placed under stress. According to Dr. Koerner, most of the 40,000 earth dams in the United States are more than 50 feet high; and they fail with great regularity.

Heiser Assigned to Korea

Will M. Heiser, Section Past President, and Vice President of Justin & Courtney Division, O'Brien and Gere Engineers, has been directed to head temporarily the Korea office of O'Brien and Gere. Based in Seoul, it is expected that he and Mrs. Heiser will be in the East Asian country for about ten months. (Audrey Heiser is a very active member and Past President of the Section's Women's Auxiliary).

The Phila. Section wishes Will and Audrey a hearty Bon Voyage! And success and fulfillment on their mission.

Welsh Authors Journal Publication

Section Vice President **Joseph P. Welsh**, District Manager, Soiltech Department, Raymond International, Inc., is co-author with two other members of the Grouting Committee of National ASCE Geotechnical Engineering Division, of a paper entitled: **Slabjacking — State of the Art**, which was published in the September, 1977 Journal of the Division. The treatise deals with pressure injection for the purpose of raising faulty concrete pavements — formerly known as "mudjacking" — and stabilization of slabs by filling existing under-slab voids.

Mr. Welsh has a limited number of

copies of the paper, and welcomes requests from Phila. Section members. He may be reached at Raymond International, Inc., Soiltech Dept., 6825 Westfield Ave., Pennsauken, N.J. 08110 — Phone: (609) 667-3323.

Van Atta Retires from ASTM Post

Fred F. Van Atta recently retired from his post as Chief Financial Officer of the American Society for Testing and Materials (ASTM), after 24 years of service. Mr. Van Atta was responsible for the financial activities, administrative needs and the headquarters facility of the Society. From 1946-1952, Mr. Van Atta was affiliated with the American Concrete Institute, ultimately serving as acting Secretary-Treasurer.

Mr. Van Atta will be honored as a new Life Member of ASCE at the Phila. Section meeting on March 14, 1978.

CONSTRUCTION GROUP APPEAL

The Phila. Section ASCE Construction Technical Group asks the Membership for help in achieving its professional objectives. Chairman **Fred Plotnick**, who has served faithfully and admirably for several years, needs a Vice Chairman, Secretary and Treasurer, as well as additional members, so that the Group can function meaningfully in this important branch of civil engineering.

Individuals interested in joining the Group and continuing its progressive work are urged to contact Chairman **Frederic L. Plotnick**, 806 Hillton Lane, Elkins Park, Pa. 19117 — Phone: (215) 782-1246; or Technical Group Coordinator, Vice President **Joseph P. Welsh**, Raymond International, Inc., Soiltech Dept., 6825 Westfield Ave., Pennsauken, N.J. 08110 — Phone: (609) 667-3323.

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Please Take THE NEWS Home. Your Wife Wants to Read The Women's Auxiliary Items.

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JOEL B. JUSTIN RETIRES

Joel Bates Justin, P.E., a member of ASCE since 1939, and now a Life Member, retired on December 31, 1977, at age 70, as President of Justin & Courtney, Inc. This firm established by his father in 1933, was operated many years as a partnership with Neville Courtney, P.E., former Treasurer and active member of the Philadelphia Section. Joel has been active in the Philadelphia Section having risen to the office of Vice President until his many international activities took him out of Philadelphia on extended trips.

The firm is known around the world for its expertise in Water Resources Development, especially on dams, hydroelectric power, pumped storage, irrigation, flood control and river development work. From 1964 to 1972, the firm operated as a partnership with Joel B. Justin, P.E., Will M. Heiser, P.E. and John J. Williams, P.E. In 1973, O'Brien & Gere Engineers, Inc. of Syracuse, N.Y. specialists in Environmental Engineering, acquired controlling interest in the firm.

Joel Justin is retiring from Justin & Courtney but not withdrawing from the engineering profession. He has established a private office at 2022 Suburban Station Building. He will be busy, with numerous trips to Iran, representing Taleghani & Daftary, long time associates as a firm of Consulting Engineers in Teheran, Iran. Khalil Taleghani is a fellow of ASCE. Joel will be directing the development of a large hydroelectric and pumped storage project in Iran, with the detailed work to be done by the Justin & Courtney Division of O'Brien & Gere Engineers, Inc. This firm with its former staff continues to operate as specialists in Water Resources Development including Environmental Engineering, under the new direction of Peter C. Johnson, P.E., Member, ASCE.

A testimonial dinner for Joel was hosted by O'Brien & Gere Engineers on Friday, January 13, 1978 at the Blair Mill Inn, Hatboro, Pa. More than 150 friends and professional associates honored Mr. Justin at the beautiful affair.

SENT IN YOUR PHILA. SECTION DUES YET? If not, please do so NOW. Do your part to maintain the Section's progressive and dynamic professional programs.

Mail your check, payable to: **Phila. Section, ASCE**, in the amount of \$10.00 to Theodore Davis, Treasurer, c/o Engineers' Club, 1317 Spruce Street, Phila., Pa. 19107. Thank you.

ENGINEERS' CLUB COURSES

The Education Committee of the Engineers' Club of Philadelphia announces courses which might be of interest to Phila. Section, ASCE members:

Construction Supervision, Contracting and Field Operations
12-Thursday evenings
February 16 through May 4, 1978
7:00 P.M. - 9:00 P.M.
Fee: \$160 includes textbooks

Practical Applications of Solar Energy
10-Wednesday Evenings
February 15 through April 19, 1978
7:00 P.M. - 9:00 P.M. Fee: \$160

Waste Disposal — Regulations and Techniques
10-Thursday Evenings
February 16 through April 20, 1978
7:00 P.M. - 9:00 P.M.
Fee: \$160 includes textbooks

All courses are to be held at the Engineers' Club, 1317 Spruce St. The Club Dining Room will be open to those taking the courses. Full information and application forms may be obtained at the Club, phone: 735-5234. Enrollment is limited.

WOMEN'S AUXILIARY

January Meeting Rescheduled

Because of the severe weather the January 18, 1978 regular Luncheon Meeting of the Auxiliary was cancelled. It has been rescheduled for **Wednesday, February 15, 1978, 12:00 noon**. A departure from the usual, it will be held at the **Canuso Two Street Tavern, S.E. Cor. 2nd and South Streets, Head House Square, Center City, Phila.** For reservations (including guests), please contact Mary Ellen (Mrs. Warren R.) Van De Vort — (215) IV 3-0714.

Wives of Phila. Section members are urged to join our fine Women's Auxiliary, and guests are always welcome at their monthly luncheons. For membership information and applications, please call Membership Committee Chairman Marie (Mrs. Kenneth J.) Zitomer — (215) LI 8-5324.



LEGISLATIVE CORNER

by John E. Spitko

Your State Legislature at Work

Most of the time, I write articles informing you of bills in the state legislature that will affect engineers and engineering in the Commonwealth. However, to illustrate how your state legislature can work for you, House Bill 1928 is presented. HB 1928 would authorize counties of first through eighth classes to enact county ordinances "compelling those who engage in subsurface investigation to complete and record a report setting forth the findings." The bill gives as its purpose the facilitation of "protection of the land and the prevention of landslides, mine subsidence or other potentially catastrophic developments." The bill goes on to list, in great detail (like a spec for a boring contract), the information to be recorded.


Now this seems like a very desirable piece of legislation. It would give counties an enforcement tool, but only if they wanted it. Usually, however, legislators don't introduce bills like this unless someone asks them to, so I called Representative Logue, who introduced the bill. A member of his staff told this surprised caller that there was some blasting work to be done on a single bridge near Pittsburgh. Citizens want to make sure that the work is done very carefully. This bill, if passed (and maybe even if not passed), would assure this. Representative Logue had five other Assembly members co-introduce the bill with him. So, I looked them up in my list of the Session of 1977 Legislators and, lo and behold, they were all from the Greater Pittsburgh area. So here's a case of possibly only a single county wanting a state legislative authorization. But what's the legislature going to do, pass an act authorizing Allegheny County to make certain the contractor on XYZ Bridge in Pittsburgh doesn't cause a landslide with his blasting? Of course not. So a bill, which really has statewide implications, is introduced. This is one way in which Pennsylvania's statutes are developed.

(more next month)

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"ENGINEERING ADVERTISEMENT . . ."

Editor's Note: The following is the first of a two-part abstract of the 1977 Daniel W. Mead Competition Zone 1 award winning paper by Phila. Section Membership Secretary **Joseph R. Syrnick**. The full title of the paper is: **"Engineering Advertisement — Where Should the Line be Drawn?"** Mr. Syrnick, who is the Phila. Section Asst. Chairman of Publications and Associate Editor of THE NEWS, was presented a National ASCE Certificate of Commendation by President Brian Lewis at the December 14, 1977 Section meeting. (See the January, 1978 issue of THE NEWS). The second part of the abstract will appear in THE NEWS next month.

ITEM: - Two days before leaving office, a governor of a large, industrial State utilizes several news conferences to announce that he intends to open professional offices which will offer "a new kind of concept . . . in the State."

ITEM: - An architectural engineering firm widely distributes Experience and Qualification brochures which strongly infer that the firm is uniquely skilled to offer designs which result in project construction costs which are substantially lower than projects designed by "conventional" A/E firms.

ITEM: - A local newspaper carries a story about a newly opened law office including a schedule of rates for consultations.

These illustrations are typical of the practices which are causing concern to many professional people. The question involved is whether it is ethically acceptable for those engaged in providing professional services to advertise their work.

Codes of practice for engineers have been in existence, in various formats, for many years. ASCE adopted its first Code of Ethics in September 1914 and many additional implicit regulations were commonly adhered to by the bulk of engineers in practice. In 1947, the Engineers' Council for Professional Development (ECPD) promulgated a uniform set of "Canons of Ethics for the Engineer". This "new" code consolidated many of its predecessors and became a foundation around which other engineering societies rallied. Containing language very similar to the original ASCE Code, the ECPD version made it clear that the advertisement of professional services was a prominent concern. Section 2

read as follows:

"He (the engineer) will not advertise his work or merit in a self-laudatory manner, and he will avoid all conduct or practice likely to discredit or do injury to the dignity and honor of his profession."

Throughout the years the ECPD Code has been amended, but in each case, the basic concern against immodest advertisement is evident. The current ASCE Code of Ethics contains a fundamental canon which states:

"Engineers shall build their professional reputation on the merit of their service and shall not compete unfairly with others."

Pros and Cons of Advertisement

One might ask, "Why all the soul-searching over the professional advertisement issue? Why should individual engineers be so concerned that some members of the profession are advertising their availability to perform technical services? After all, times have changed. The economy is depressed, and engineering firms have to tell their story if they are to attract new clients. The issue is a complex one and one which is not likely to be settled easily.

Advertising has been restricted by professional organizations because they believe that improper advertising, using deceptive Madison Avenue techniques, will harm the profession itself. They argue that, because of complexity and variation, engineers have very little tangible information to advertise. It is only through prior work experiences and/or detailed consultations that prospective clients can outline their problem and evaluate the engineer. At the same time the engineer can size up the task, talk of specifics and, if appropriate, begin to develop a fee quotation.

The proponents of advertising by engineers, including consumer protection organizations, argue that the ethical ban is merely a self-protective shield against the pressures of price competition. It is a way for the large firms to remain powerful, influential and prosperous. By restricting advertising, and by adhering to other explicit or implied canons of ethics, outright competition is effectively eliminated and fees cannot readily be compared from firm to firm.

The anti-advertising forces counter by saying this is how it has to be. They stress that engineering is an intangible service, involving public safety, the general welfare of millions of people and sometimes even national security. It is not a commercial product that clients shop for in the same manner as they might purchase laundry detergent. They emphasize their argument by pointing

out that engineering is a serious business, limited advertisement would open the floodgates to high pressure, persuasive techniques which are intended to by-pass the intellect, reduce rationality, and, if successful, lead to improvident actions by prospective clients.

The proponents rebut by citing problems presently encountered by engineering consultants who, restricted from advertising, find themselves in the unfavorable position of having to compete with engineer/contractors who are able to present attractive design-and-construct packages. Are the client's best interests being served by this arrangement? Might it not be better to engage a competent, independent, and unbiased engineering firm to prepare contract documents for bid by qualified, independent contractors, thus reaping the benefits of competitive bids?

Action by Societies and Others

Recent legal actions by both governmental agencies and the general public have made it clear that professional ethics are under siege. Using consumerism as the motive and antitrust laws as the basis of attack, the prosecution contends that self-imposed restraints limiting professional advertisement represent a conspiracy to restrict free trade.

The Federal Trade Commission (FTC) has recently taken legal action against the American Medical Association in conjunction with the AMA's ethical prohibition against advertising by doctors. The United States Department of Justice has filed suit against the American Bar Association on similar grounds.

No doubt the final outcome of the above cases will set the tone for future regulations as they relate to the engineering advertisement issue. There have however, already been several recent decisions which relate in a general way to the question at hand. In a Virginia State Bar decision the United States Supreme Court held that the establishment of mandatory fee schedules for title searches was a conspiracy to fix prices, and therefore illegal.

In another case, the Supreme Court ruled that a state law prohibiting price advertising of prepackaged drugs violated the right of free speech. The ruling however, clearly noted the following:

"We stress that we have considered in this case the regulation of commercial advertising by pharmacists. Although we express no opinion as to other professions, the distinctions, historical and functional, between professions, may require consideration of quite different factors.

(more next month)