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PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS

1317 Spruce Street, Philadelphia, PA 19107

Vol. 60 - 4

OUR 74th YEAR

January, 1988

JANUARY DINNER MEETING

Philadelphia Section, American Society of Civil Engineers

TUESDAY, JANUARY 12, 1988

ENGINEERS' CLUB, 1317 Spruce St., Philadelphia Cocktails - 5:30 P.M. Dinner - 6:30 P.M. Meeting - 7:00 P.M.

SUBJECT:

WASTE MANAGEMENT IN THE 80'S AND BEYOND — CHALLENGES AND OPPORTUNITIES FOR THE CIVIL ENGINEER SPEAKER:

AMIR A. METRY, Ph.D., P.E., Vice President, Roy F. Weston, Inc., West Chester, PA (Continued on Page 2)

FOR RESERVATIONS FOR THE **JANUARY 12, 1988 MEETING** AND **ALL MAIN SECTION MEETINGS**, EXCEPT WHERE NOTED OTHERWISE, PLEASE CALL PRESIDENT NORMAN WEINTRAUB'S SECRETARY, PAULA, AT **(215) 592-6209**.

Dinner Meal Charge: ASCE Member - \$15.00; Non-Member - \$16.00; Students - \$8.00 STUDENTS: If you prefer, you are welcome to attend the Meeting after Dinner, at no charge.

FEBRUARY DINNER MEETING

Philadelphia Section, American Society of Civil Engineers

TUESDAY, FEBRUARY 9, 1988

Location: SHERATON VALLEY FORGE HOTEL

Route 363 and First Avenue, King of Prussia, PA

Cocktails - 5:30 P.M.

Dinner - 6:30 P.M.

Meeting - 7:30 P.M.

SUBJECT:

THE SAFE DRINKING WATER ACT

SPEAKER:

FRED MORACCO, Chief, Division of Water Supply, Pennsylvania Department of Environmental Resources.

In 1986, the United States Congress amended the Safe Drinking Water Act to apply stricter regulations to water suppliers serving greater than fifteen connections. Significant elements of this amendment include: water filtration/disinfection requirements; increased testing for contaminants; ban on lead solder pipes; and improved well head protection.

Mr. Moracco will discuss DER's strategy, requirements and timetable for implementation of the Amendment for water systems in Permsylvania.

SPECIAL FEATURE: UNIVERSITY OF PENNSYLVANIA AND VILLANOVA UNIVERSITY NIGHT

FOR RESERVATIONS FOR THE **FEBRUARY 9, 1988 MEETING** AT THE SHERATON VALLEY FORGE HOTEL, PLEASE CALL PRESIDENT NORMAN WEINTRAUB'S SECRETARY, PAULA, AT **(215) 592-6209** BEFORE 5:00 P.M. FRIDAY, FEBRUARY 5, 1988. **RESERVATIONS ARE REQUIRED**.Dinner Meal Charge: ASCE Members and Guests - \$20.00; Students - \$10.00.

STUDENTS: If you prefer, you are welcome to attend the Meeting after Dinner, at no charge.

EDUCATIONAL COURSES SCHEDULED FOR SPRING, 1988 ENGINEERS' CLUB

- INTRODUCTION TO PROJECT CONTROLS CPM PLANNING, SCHEDULING & COST CONTROL: Sponsor and Director, Fred Plotnick, Esq., P.E. Course begins Monday, February 22, 1988.
- PLANT LAYOUT AND EQUIPMENT AR-RANGEMENTS DESIGN CONCEPTS: Sponsor, J.L. de Kovacs; Director, J. Barger. Course begins Tuesday, February 16, 1988.
- HIGHWAY ENGINEERING CONTRUCTION: Sponsor, K. Zitomer, P.E.; Director, J.R. Syrnick, P.E. Course begins Tuesday, February 23, 1988.
- CONSTRUCTION MANAGEMENT: Sponsor, J.L. de Kovacs; Director, T. McGeehan. Course begins Wednesday, February 17,
- APPLICATION OF ANALYSIS TECHNIQUES IN MANAGEMENT AND ENGINEERING: Sponsor, C.R. Pennoni, P.E.; Director, W. Robertson. Course begins Wednesday, February 24, 1988.
- CONSTRUCTION SUPERVISION CONTRACTING AND FIELD OPERATIONS: Sponsor, J.L. de Kovacs; Director, W. Di Addezio. Course begins Thursday, February 18, 1988.
- B.O.C.A. BASIC NATIONAL BUILDING CODE 1988: Sponsor, J.L. de Kovacs; Director, D. L. Wismer, P.E. Course begins Thursday, February 25, 1988.
- CONTRACTS, SPECIFICATIONS AND LAW FOR CONSTRUCTION CONTRACTORS AND ENGINEERS: Sponsor and Director, Fredric L. Plotnick; Esq., P.E. Course begins Tuesday, February 23, 1988.

All Philadelphia Section members are entitled to discounts for the courses. For full information, call **Josef L. de Kovacs**, Executive Manager, The Engineers' Club, (215) 735-5234.

IMPORTANT!! 1987 - 1988 MEETING NOTICES

MARK YOUR CALENDAR for the dates of the remaining Philadelphia Section, ASCE monthly meetings and social functions, as follows:

All Dinner Meetings

Cocktails - 5:30 P.M.

Dinner - 6:30 P.M.

Meeting - 7:30 P.M.

Tuesday, March 8, 1988 - Engineers' Club

Subject: TO BE ANNOUNCED
Speaker: TO BE ANNOUNCED

Tuesday, April 12, 1988 - Engineers' Club

Joint Meeting with the Philadelphia Post, Society of American Military Engineers, (S.A.M.E.)

Subject: Renovation of the Frankford Elevated

Speaker: Douglas J. Fritz, Esq., P.E., Construction Manager, Philadelphia

Transit Consultants

Temple University Night

Saturday Evening, May 14, 1988

Annual Spring Dinner Dance - Colleen's, Park Town Place

Arranged by the Women's Auxiliary

JANUARY DINNER MEETING

(Continued from Page 1)

The presentation will cover a series of contemporary issues in waste management, including:

• The status of the Civilian Radioactive Waste Disposal Program, including waste storage and the planning for geologic disposal of spent fuels and other high-level waste.

 The pragmatic and technological advances in various National programs for remediation of chemical and radioactively contaminated sites.

 Key roles that Civil Engineers can play in meeting the challenges in waste management between now and the turn of the century.



Amir A. Metry, Ph.D., P.E., earned his B.S., Mechancial Engineering (1963) and M.S., Engineering Management (1967) at Cairo University and his M.S., Environmental Engineering (1969) and Ph.D., Environmental Engineering (1972) at Drexel University. Responsible charge in high positions at Weston, Inc. and others, in his specialties include: Research and Technical Services - Hazardous Industrial Waste Management; Research Associate at Drexel University; and Project Engineer/Manager for a major consulting firm in Cairo, Egypt - totalling more than twenty years' experience. Dr. Metry has managed multimillion dollar programs under contract with the U.S. Department of Energy; many hazardous waste remedial action projects for the U.S. Envi-

ronmental Protection Agency Superfund Program; and the Department of Defense Installation Restoration Program work, which included site investigation, conceptual and engineering analysis and design,

and construction management.

Dr. Metry has published numerous papers and is the author and co-author of over fifty articles and book chapters dealing with environmental management concerns including: hazardous waste management; site and groundwater restoration; air pollution control; resource recovery, low-level radioactive waste disposal; management of low-level radioactive and high-level nuclear waste; and environmental modeling and simulation.

SPECIAL FEATURE: SPRING GARDEN COLLEGE NIGHT

The ASCE Student Chapter, Faculty and alumni of the Civil Engineering Department of Spring Garden College will be honored at this meeting. All students, faculty and alumni are cordially invited to attend.

ASCE HONORS WEGGEL

J. Richard ("Rich") Weggel, Ph.D., P.E., Philadelphia Section, ASCE Vice President, was presented a National ASCE Award by Section President Norman G. Weintraub at the December 8, 1987 Section Meeting held at Drexel University.

ASCE annually acknowledges members for their outstanding service to the Society and the profession. The Certificate of Appreciation awarded Dr. Weggel commends him for dedication and participation as a Committee Member and Chairman of National ASCE Management Group D (MGD). This Group oversees the work of the five ASCE Technical Divisions involved with water: Environ-

mental Engineering Division; Hydraulics Division; Waterway, Port, Coastal and Ocean Division; Water Resources Planning Division; and Imigation and Drainage Division. One ASCE Board of Direction member serves on MGD, as does one representative from each of the constituent Divisions.

Dr. Weggel served as Chairman of MGD last year and will remain on the Committee for one additional year as Past Chairman. He is the Waterway, Port, Coastal and Ocean Division's representative on MGD, and he also serves on the Executive Committee of

Weggel continued

that Division. Last year, as Chairman of MGD, he was MGD's representative on ASCE's Technical Activities Committee (TAC).

The Philadelphia Section recognizes Rich Weggel's noteworthy activities in National ASCE affairs, as well as his outstanding dedication and service on behalf of the Philadelphia Section. We join National in congratulating our dynamic Vice President on achieving this high honor.

PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS

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Wismer and Hall Appointed

David L. Wismer, P.E., Deputy Commissioner, and Roland W. Hall, P.E., Chief, Construction Section - both of the Philadelphia Department of Licenses and Inspections - have been appointed to prominent positions in Building Officials and Code Administrators International (BOCA).

Mr. Wismer was named Chairman of the Building Code Changes Committee; and Mr. Hall was appointed to the Research and Evaluation Commit-

In a letter to The Honorable W. Wilson Goode. Mayor, Philadelphia Section Past President Albert M. Tantala, P.E., noted that ". . . these appointments are a credit to the individual engineers. and to the City of Philadelphia. The City employs many outstanding, hard-working engineers, and I am pleased to bring to your attention the recent honors received by these two Civil Engineers, who are members of the Philadelphia Section, American Society of Civil Engineers. . ."

The Philadelphia Section echoes Mr. Tantala's tribute, and extends its additional high praise to Mr. Wismer and Mr. Hall.

Caccese Receives Club Award

Philadelphia Section Past Director Lewis A. Caccese, P.E., President, Bulco Engineering Associates, is the 1987 recipient of the Engineers' Club of Philadelphia George Washington Medal. He was honored at a Testimonial Luncheon and Presentation Ceremony at the Engineers' Club on December 3, 1987.

Established in 1966, the criterion for selection of the Medalist is "... outstanding contribution to technical progress by a member of Engineering Management. . . " Recipients with National standing for achievements over the spans of their professional careers are sought within the Delaware Valley. The 1987 Award is the twentieth presentation of the George Washington Medal.

Covering a broad spectrum, Lew Caccese's professional experience includes: Officer of major Consulting Engineering firms; Chief, Construction Division, U.S. Army Corps of Engineers, responsible for all major construction projects maintenance work in a 15,000 square mile geographical area involving Pennsylvania, New Jersey and Delaware, with budgets of \$100 million. He is a recognized National expert on channel improvements and dredging. He is a Past President, South Jersey Branch, ASCE; Past President, Philadelphia Chapter, PSPE; and Past Vice President, S.A.M.E.

In addition to the Engineering Societies recited above, Mr. Caccese is a member of several specialty Technical Societies, and the Engineers' Club of Philadelphia. He is involved in many community and academic endeavors and civic Boards. He has received numerous honors and awards, including: The U.S. Army "Decoration for Exceptional Civilian Service"; The Secretary of the Army's citation for "Exceptional Engineering Competence, Superior Managerial Expertise and Innovative Leadership"; Delaware Valley and PSPE 1974 Engineer of the Year Award; and several others.

LIFE MEMBERSHIPS AWARDED

A Special Event at the December 8, 1987 Philadelphia Section Dinner-Meeting at Drexel University was the awarding of Certificates of Life Membership in ASCE to eleven Philadelphia Section members. The presentations were made by President Norman G. Weintraub.

Awardees in attendance, who received their Certificates in person were:

Antonio P. Ballestero, Jr. Zaven K. Davidian Harvey P. Howard Norman H. Martin Constantin Pervanis Sandor Popovics

Life Members who did not attend the Meeting, and whose Certificates were mailed to them are:

Mitchell W. Beardsley Harold L. Burmeister

Joseph I. Daily Sam Madway

Gerald E. Oman

The Philadelphia Section extends its heartiest congratulations to the newly-elected ASCE Life Members.

DECEMBER MEETING

December 8, 1987 At Drexel University

The ACEC Peer Review Program

In a very pleasant diversion from the usual location of Dinner-Meetings at the Engineers' Club, the Philadelphia Section's December 8. 1987 monthly Dinner-Meeting was enjoyed in the Grand Hall of the Creese Student Center, Drexel University. Kudos are extended to Section Vice President Rich Weggel, who made all the arrangements with the University for the affair. A delicious roast prime rib of beef dinner was served by Drexel's competent and courteous Food Service staff. In a letter to the Drexel Food Service Manager, Thomas Benfield, Dr. Weggel conveyed the Section's appreciation of the staff's efforts and he expressed the expectation that future meetings of the Section will be arranged at Drexel.

The main topic of discussion for the Meeting was "The American Consulting Engineers Council (ACEC) Peer Review Program."

Tantala Testifies on BOCA Code

Section Past President Albert M. Tantala, P.E., testified on November 30, 1987 before the Committee on Licenses and Inspections of the City Council of Philadelphia, concerning the adoption of the 1987 Building Officials and Code Administrators International (BOCA) National Building Code,

"... On behalf of the 1600 members of the Philadelphia Section, American Society of Civil Engineers," said Mr. Tantala, "I strongly support Bill No. 1428. The adoption and incorporation of the BOCA National Building Code, Tenth Edition, 1987, will enable Philadelphia to remain in the forefront with current construction methods and materials; with current and uniform engineering design criteria; and with current code administration procedures. . .'

Principal speakers were Eric L. Flicker, P.E., President, Treasurer and Chief Executive Office, Spotts, Stevens and McCoy, Inc., Consulting Engineers, Wyomissing, PA; and Delon Hampton, Ph.D., P.E., President, Delon Hampton Associates, Consulting Engineers, Washington, D.C. Swarthmore College Night

The meeting honored the ASCE Student Chapter, the School of Engineering, Faculty and Alumni of Swarthmore College. Professor Faruq M.A. Siddiqui, who has been for many years the ASCE Student Chapter Faculty Advisor, thanked the Philadelphia Section for inviting the Swarthmore representatives to the Meeting and providing the Student Chapter the opportunity to participate.

Professor Siddiqui spoke about the unique engineering program at Swarthmore, which effectively combines Engineering with Liberal Arts, to provide a broad-based technical education. Swarthmore students earn an ABET accredited B.S. degree in Engineering in four years. Typically, students are required to take 32 courses in four years to graduate - 12 courses in Engineering, 4 in Sciences, 4 in Mathematics and 12 in Humanities or the Social Sciences. Students can concentrate in four specialties: Civil, Mechanical, Electrical and/or Computer Engineering. Approximately 40% of the students continue on to Graduate School after earning their B.S. degrees.

Thus, Swarthmore provides an education which prepares students to deal effectively with the technical, as well as the non-technical aspects of the complex challenges facing the engineers of our time.

Torkornoo Describes Chapter Activities

Swarthmore ASCE Student Chapter President Richard Torkornoo introduced his fellow Officers, Chapter Members and Contact Members in attendance:

Vice President - Salvatore Tranchina

Secretary - Keith Doyle

Treasurer - Peter Koso

Chapter Members - Sarah Mooers

- Tamar DiFranco

Contact Members - Dan Honig Richard Mabry

Mr. Torkornoo noted that what the Chapter lacks in size it more than compensates in dedication and enthusiasm. Some highlights of the Chapter's accomplishments, of which President Torkomoo is justly proud, include:

 Honorable Mention Award for best Beam-Strength-to-Weight design in the Concrete

Beam Design Competition.

· A tour of One Liberty Place, the new Center City skyscraper. The Construction Manager of the project was the Guide for the group.

 Two Chapter members attended the National Society ASCE Student Chapters Leaders Conference in Hartford, CT in 1987.

· Co-sponsored the party for Freshman Engineering students; and many other educational and rewarding activities.

President Torkornoo explained that Engineering Students usually double-major in Physics, Mathematics, Economics, Art History, English Literature and/or Psychology.

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ASCE DUES BILL AND TECHNICAL GROUP DETAILS

Section members will notice in the 1987 dues bill from National ASCE Headquarters, that the PHILADELPHIA (SECTION) DUES is itemized as \$13.00. This amount includes assessment for membership in one Phila. Section Technical Group of your choice. If you choose to be a member of more than one Group, please add \$1.00 for each Group.

Also, because National's bill did not list the Technical groups to which your \$1.00 payments were to be applied, you are requested to get in touch with the Chairman of the Technical Groups of your preference, so that their membership lists can be classified.

The appropriate individuals to contact are the following:

Liaison

J. Richard Weggel
Drexel University
Dept. of Civil Engineering
Philadelphia, PA 19104
(215) 895-2355

Younger Member Forum Anthony M. Micciolo, Chairman 1141 Dyre Street Philadelphia, PA 19124 (215) 744-8767

Construction

Fredric L. Plotnick, Chairman 806 Hillton Lane Elkins Park, PA 19117 (215) 487-1443

Engineering Management Chairman position available. If interested, please contact J. Richard Weggel (See "Liaison" above).

Geotechnical

Moustafa A. Gouda, Chairman Lippincott Engineering Associates 501 Burlington Avenue Delanco, NJ 08075 (609) 461-1239

Structural

Timothy H. Hoahs, Chairman
Walker Parking Consultants
2 Penn Center Plaza
Philadelphia, PA 19102
(215) 751-9555
David A. Van Ocker, Vice Chairman
(215) 735-9755

Transportation and Urban Development

William T. Thomsen, Chairman Urban Engineers, Inc. 300 N. 3rd Street Philadelphia, PA 19106-1193 (215) 922-8080

Water and Environmental Engineering Farid F. Mansour, Chairman

United Engineers & Constructors, Inc. 30 S. 17th Street Philadelphia, PA 19101 (215) 422-3376

DECEMBER MEETING

(Continued from Page 3)

The Peer Review Program

Philadelphia Section Structural Group Chairman Timothy ("Tim") H. Haahs introduced the principal speakers of the evening.

Eric L. Flicker, P.E., President, Treasurer and C.E.O., Spotts, Stevens and McCoy, Inc., Wyomissing, PA, presented a slide show with audiocommentary which featured a fictitious management evaluation and control program covering a comprehensive analysis of the ACEC Peer Review concept and objectives. He focused on the severe requirements of today's professional community - in both engineering and other disciplines - stressing the liability risks of consulting firms. Mr. Flicker explained that the reviewers are volunteers - Architect/Engineer qualified experts who receive special training in the rigid requirements of the program; and the policies and organizational structure of the ACEC-sponsored Review Groups. He described the operational and policy manual, and criteria distributed to the firms being reviewed; and the entire review process - from initial interviews, performance analyses and examination, administration procedures - to the final report and evaluation of the various aspects of the firm's practices.

Typical employees' and principals' interviews were illustrated, as well as checking follow-throughs in office procedures and work analyses. While the reviewers do not intrude into the technical details of the firm's operations - such as mathematical calculations and scientific analyses - they do study contracting processes from promotional initiatives to budgeting operation control, marketing and presentations.

Dr. Hampton Elaborates

Delon Hampton, Ph.D., P.E., President, Delon Hampton Associates, Consulting Engineers, Washington, D.C., told his audience that the Professional in today's marketplace is undergoing significant upheavals. He noted that the ACEC Peer Review Program has attracted the attention of, and is recognized by, local firms, government agencies and national institutions. He reviewed the modest organizational beginnings in concert with other Technical and Developmental Societies. Founded on its sound progress and achievements, he projected substantial growth in the future.

Positive Results

Dr. Hampton listed several salient progressive derivative effects of the ACEC Peer Review Program:

- It improves employee morale.
- It broadens the sphere of operations of a firm.
- It advises on better use of human resources, to improve their efficiency and production.
- Management organization is improved, building the potential for accelerated future growth of the firm

At a very small cost, asserted Dr. Hampton, there is opportunity to derive maximum benefits from the Program, especially in reducing liability exposure in the litigious era which this generation of professionals is experiencing. He is convinced that the Quality Manual now being developed by ACEC is destined to become the standard for the profession. It will enable firms to examine their practices, give impetus to improvements in their operations and needs, and remove negative influences on these functions.

SECTION ACTIVE IN 1988 ENGINEERS' WEEK

Many Philadelphia Section, ASCE, members will occupy official positions on the 1988 Engineers' Week Committee during the Delaware Valley Celebration February 19-27, 1988, in conjunction with National Engineers' Week throughout the United States.

The Philadelphia Section's candidate in 1987, Dr. Richard E. Woodring, Dean, College of Engineering, Drexel University - and Engineer-of-the-Year for Delaware Valley last year - has been named General Chairman for the 1988 Engineers' Week Committee. The theme of the Celebration is: "Engineers: Turning Ideas Into Reality."

Some fifty Engineering, Scientific and Technical Societies sponsor the observance in the Delaware Valley. Principal Local functions of the Week will include:

- · A Career Day for high school students.
- · A Science Teachers' Workshop.
- A Competition among college Engineering Students for the best paper on the 1988 Engineers' Week theme.
- Awards for Outstanding Engineering Achievements in the Delaware Valley.
- Election of Engineer-of-the-Year for the Delaware Valley.
- A proclamation Luncheon and Dirner Banquet honoring the Engineer-of-the-Year.

More complete details and schedules of events will be published in the February, 1988 issue of THE NEWS.

Philadelphia Section, ASCE members who have been appointed to key 1988 Committee positions - in addition to General Chairman Woodringare:

Albert M. Tantala - Vice Chairman

Norman G. Weintraub - Secretary and Chairman, Banquet Committee

Victor A. Marcus - Chairman, University Liaison/Engineers' Club Luncheon and PenJerDel Luncheon Committees.

Leo F. O'Connor - Chairman, Outstanding Engineering Achievement Committee.

John Durrant/Kenneth J. Zitomer - Co-Chairmen, Outstanding Teacher Award Committee.

Susan Best - Chairman, Proclamation Luncheon Committee.

Joseph Krulikowski - Chairman, Mathcounts Committee.

Other Active Members of the Engineers' Week Committee without Committee Chairmanships or special assignments are:

C. R. Pennoni

Dr. Robert M. Koerner Joseph R. Syrnick

The Philadelphia Section, ASCE is always an active participant in the Armual Engineers' Week and contributes to the General Committee to help finance the many activities of the Celebration.

Question and Answer Period

Many interesting, probing observations, comments and questions were directed to our distinguished speakers by members of the audience. Expressing the sentiments of all attendees, Section President Norman G. Weintraub congratulated the speakers for their outstanding presentations on this intriguing and promising aspect of Engineering Management.