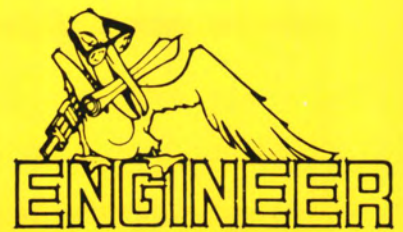




FEBRUARY 1991
LOUISIANA



Neil L. Wagoner, P.E.



H. L. Henry, Jr., P.E.



James L. Meyer, P.E., P.L.S.



J. Andy Craig, P.E., P.L.S.



Carl A. Jakob, P.E.



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FEBRUARY, 1991



ABOUT THE COVER

LES Honors Six Outstanding Engineers



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Presidential Privilege

America will observe the fortieth annual celebration of National Engineers Week during February 17 through February 23, 1991. President George Bush and the governors of our United States have proclaimed this time to give recognition to all engineers for their contributions to the advancement of our national and global societies.

In 1951, engineers first observed Engineers Week, now referred to as E-Week, in recognition of the accomplishments of engineers, particularly those of America's first president, George Washington, who was a noted military engineer and land surveyor. It is possible that he could be the inventor of stone skipping. Or was it coins? For sure, his vision of America's need for technology guided him to establish the nation's first engineering school at Valley Forge, Pennsylvania in 1778. This institution was later relocated in 1802 to West Point, New York, where it became the foundation for the United States Military Academy.

The perpetual theme for E-Week, "Engineers - Turning Ideas Into Reality", signifies the innovative or problem solving nature of the American Engineer. The old adage "necessity is the mother of invention," clearly depicts the role of engineers as they go through their careers applying intuitive and learned scientific skills to turn ideas into workable and functional designs.

One can only sit in awe when images appear on our (taken for granted) television screens which show the real story of; the planet Venus, the weather conditions anywhere, the launch and delivery of weapons deployment, corrective surgery on an unborn fetus, and any idea that anyone could have. America's 2,000,000 plus engineers can be proud of their accomplishments since the discovery of fire which sort of "sparked their imaginations".

It is interesting to learn of some research statistics and general information compiled by various organizations which employ or deal with engineers.

DID YOU KNOW ?

- According to the National Science Foundation, employment of engineers rose substantially from 1972 to 1986, increasing from almost 900,000 to over 2.2 million. However, it is projected that the number of science and engineering graduates will be unable to keep pace with an increasing demand through the 1990's. (National Science Foundation)



Kerry J. LaBauve, P.E.
President
Louisiana Engineering Society

- Over the next five years, the college-age population will decline, and accordingly, the supply of engineering graduates will likely also decline. That means placing greater reliance on technicians, technologists, and others not educated as engineers, which may result in a diminution of quality and threaten the long-term international competitiveness of the United States. (National Research Council)
- U.S. Corporations spend \$210 billion on all forms of training each year. That's more than the budget for the nation's entire elementary, secondary and higher education systems. (American Engineers Council)
- Of the 68,824 bachelor's degrees granted in engineering in 1989, fifteen percent went to women; three percent to blacks; and four percent to Hispanics. (National Science Foundation)
- Next to teaching, engineering has the largest number of professional practitioners and electrical engineering encompasses the largest number of engineers. (Institute of Electrical and Electronics Engineers)
- By the year 2000, white males will account for only 27% of the American workforce. Since the engineering profession has traditionally drawn most of its recruits from among white males, it will now have to attract greater numbers of women and minorities in order to meet the technological challenges ahead.
- In 1989, the National Academy of

Engineering announced its list of the top ten engineering achievements of the past 25 years. The top ten achievements listed are; the moon landing, application satellites, the microprocessor, computer-aided design and manufacturing, the CAT scan, advanced composite materials, the jumbo jet, lasers, fiberoptic communication, and genetically engineered products. (National Academy of Engineering)

- It is estimated that some 35,000 robots are in use in the U.S. today. The year 1961 marked the debut of industrial robots in U.S. factories according to the Society of Manufacturing Engineers (SME). The day is not far off when a brain surgeon will be able to rely on a robotic helper during surgery to position and focus a surgical instrument. (American Society of Mechanical Engineers)
- A medical marvel, the pacemaker, was made possible by an engineer. In 1960 Wilson Greatbatch, P.E. used high performance plastics, metals, and electronics to produce the first implantable heart pacemaker. (National Society of Professional Engineers)
- Numerically controlled (NC) machines and computer-aided design (CAD) are the two advanced technologies most widely used in American industry today. John T. Parsons of Traverse City, Michigan, is credited with developing the concept of numerical control in 1948. Automotive design by computer became a reality in 1964 when General Motors began using one of the world's first man-computer design facilities, developed in collaboration with IBM.
- By the year 2000, manufacturing engineers will have to be familiar with at least twice as many technologies as they know today, according to the Profile 21 survey of SME. Also most manufacturing engineers of the 21st century will work in teams rather than individually.
- According to the National Engineers Week committee's survey on Life in the 22nd Century, artificial body parts will become "off-the-shelf" items to be purchased as needed; we will inhabit the Moon and manmade planets, but not Mars or any other

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LES Forum

The "LES FORUM" invites comments on matters of interest to the profession. Comments should be brief, courteous and timely, and will be edited by the Publications Committee for balance and pertinent content.

- QBS: Another View -

The recent attempt to impose qualification based selection (QBS) on all engineers doing business in Louisiana by revising the registration law to enable the Board of Registration (Board) to impose a corresponding rule on the entire profession was initiated through the LES. Only one view has been represented in the LE making it appear to be a unanimous and the only reasonable choice.

The origin and effect of this rule gives me reason to reevaluate what it means to state that "LES represents all engineers in Louisiana." No one who participates in LES can deny that the direction of LES is essentially controlled by its engineers in private practice which represent the majority of our members active in its

affairs. No one should object when it is understood that without their active participation LES would likely cease to exist with only the participation of those in the remainder of the practice areas and there would be no effective organization to represent engineers in Louisiana. However, the effect of their majority must be considered here.

There are approximately 7000 registered professional engineers resident in Louisiana. There are approximately 2500 members in the LES of which less than 10 percent are active participants at the state level and half of these typically represent the larger and longer established private practice firms. Elementary arithmetic will show that this clique represents less than two percent of the registered professional engineers in Louisiana as the driving force behind the LES and particularly its QBS initiative.

It so happens that a majority of this clique either practices through QBS or desires to do so, and also desires to impose this means of procurement on all engineers in private practice. There is a large population of engineers in private practice that do not use QBS and have no

desire to do so. Their views have been expressed to the LES but not published in the LE.

There are two significant, stated motives behind the desire to limit procurement of engineering services to QBS. First, other means are presumed to be so competitive that fees are suppressed to the extent that the corresponding engineering services rendered may not be sufficient for an engineer to meet the standard of care required to protect the health, safety and welfare of the public as required by law. Second, other means are presumed to provide an inadequate meeting of the minds between the engineer and the client to define project goals. It was convincingly argued by engineers who successfully use a more suspect means of procurement that the presumed problems do not exist in the services they render or with the fees they receive. On this basis, they felt compelled to openly object to having any one means of procurement imposed on the profession when there is no real justification other than the presumption of a small, special interest clique.

The LES clique represents a microcosm of another that controls the National Society of Professional Engineers (NSPE) in which LES is affiliated. Several years ago, the NSPE promulgated a similar QBS rule in its code of ethics. The Supreme Court of the United States ruled that it was a violation of the Sherman Antitrust Act. By using a technicality that the jurisdiction of the Board is only within the boundaries of the State of Louisiana, the interstate jurisdiction of the federal courts can be avoided and thereby the Sherman Antitrust Act can be successfully violated. As a professional engineer, I view the use of a technicality to avoid prosecution for an act contrary to such a law as less than acceptable behavior for engineers, a society that represents them or a board that registers them.

Though I am not directly affected by this rule, the principles I hold compel me to object at the risk of alienating many respected colleagues. I must sympathize with and support the position of the substantial population of engineers in private practice who are outside of the controlling clique in LES and who's business opportunities will likely suffer if the LES clique has its way. **LE**

James C. Porter, P.E.



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LES Honors Outstanding Engineers

A. B. PATERSON MEDAL FOR AN ENGINEER IN MANAGEMENT

The Louisiana Engineering Society has a special award for an engineer who distinguishes himself in management. This is the A. B. Paterson Medal, which was first given in 1965. Albert B. Paterson, an active member of the Society from 1923 until his death in 1952, was an engineer, administrator, executive, banker, civic leader and humanitarian.



Neil L. Wagoner, P.E.

Neil L. Wagoner, P.E., has a long and distinguished career with the Louisiana Department of Transportation and Development. After enrolling as an engineering student with Louisiana Tech University, Neil spent the summers of 1955, 1956, and 1957 working with the Highway Department. Neil's engineering education was briefly interrupted in 1957 when he dropped out of college to work full time with the Highway Department. He returned to Louisiana Tech University in 1959 and graduated with a Bachelor of Science Degree in Petroleum Engineering. In 1961, he returned to his employment with the Highway Department in the Road Design Section.

Neil became well recognized with the Department of Transportation and Development early in his career for his management capabilities with the Road Design and Project Control Sections. In 1974, he was chosen to head the Highway

LEO M. ODOM AWARD FOR SERVICES TO THE PROFESSION

The Leo M. Odom Award, named after its first recipient in 1972, is given for distinguished service to the engineering profession in Louisiana by a Registered Professional Engineer member of the Society who, over a period of long duration, has demonstrated leadership in technical societies and other professional engineering groups.



H. L. Henry, Jr., P.E.

H. L. Henry, Jr., P.E., is retired from the position of Associate Dean for the College of Engineering, Louisiana Tech University. Most of his professional career has been devoted to education having retired in 1984 with thirty-four years of service to Tech. During his tenure at Louisiana Tech University, he served as Assistant and Associate Professor to the Mechanical Engineering Department, 1946-51; Professor and Head of the General Engineering Department, 1956-63; Head of the Industrial Engineering Department, 1963-70; Head of the Industrial Engineering and Computer Science Departments, 1970-76; Associate Dean, 1976-83; and Professor in the Department of Industrial Engineering, 1983-85.

Mr. Henry received his Bachelor of Science Degree in Mechanical Engineering and Electrical Engineering from Louisiana Polytechnic Institute, now

ANDREW M. LOCKETT MEDAL FOR CIVIC ACTIVITIES

The Andrew M. Lockett Medal is the Society's civic activities award and was first given in 1951. It is named to honor Andrew M. Lockett, a member of LES from 1900 until his death in 1945.



James L. Meyer, P.E., P.L.S.

James L. Meyer, P.E., P.L.S., President of Meyer, Meyer, LaCroix & Hixson, Inc., Alexandria, Louisiana, is a native of Alexandria. Jim attended Louisiana Tech receiving his Bachelor of Science Degree in Chemical Engineering in 1956 and his Master of Science Degree in Civil Engineering in 1965. He is a Registered Professional Engineer and Registered Professional Land Surveyor in Louisiana.

Mr. Meyer has a long history in civic activities. He has served as president of the Alexandria Optimist Club, and is a past board member of the Alexandria Chapter of the American Red Cross. He was chairman of the 1989 Arthritis Foundation of Alexandria Humanitarian Award Dinner. He was active in the United Way of Central Louisiana, Inc., serving as campaign chairman in 1979, and as president in 1982. He is a recipient of the United Way Outstanding Volunteer Service Award. He is vice president and

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**F. HUGH COUGHLIN
YOUNG ENGINEER AWARD**

This award is given to an engineer not over 35 years of age who has, to a high degree, demonstrated capabilities in his chosen field. F. Hugh Coughlin was a member of Louisiana Engineering Society from 1944 until his death in 1979. His interest in and support of young engineers was very instrumental in the establishing of this award. His name was added to the award in 1975.



J. Andy Craig, P.E., P.L.S.

J. Andy Craig, P.E., P.L.S., is a 1978 graduate of Louisiana Tech University, having received a Bachelor of Science Degree in Civil Engineering. He is a Registered Professional Engineer and Professional Land Surveyor in Louisiana.

Mr. Craig's professional career began in 1978 as a Project Engineer with Mohr & Associates, Inc., a Shreveport-based firm. Since 1988 he has been employed with BBC Engineering, Inc. in Shreveport, also as a Project Engineer. During his ten years of service with Mohr & Associates, Andy gained a great deal of experience in the design, project management, and layout of residential subdivisions, commercial and industrial developments, and shopping center projects.

Andy was Project Engineer of a twelve mile stretch of I-49, First Order Control Traverse from Industrial Loop to I-20. He was also Project Engineer on the 115 acre Business Park of Shreveport-Bossier, an

Continued on page 9

**CHARLES M. KERR PUBLIC
RELATIONS AWARD**

The Charles M. Kerr Public Relations Award is given to an engineer for distinguished service in the promotion of public relations for the engineering profession in Louisiana. It was first presented in 1965 and was named to pay tribute to Charles M. Kerr, LES President in 1954. Mr. Kerr was very active in the business world in promoting his chosen profession, engineering.



Carl A. Jakob, P.E.

Carl A. Jakob, P.E., began his professional career in 1975 with Texaco, Inc., as a project engineer for oil and gas production facilities. In 1978, he joined Gulf South Engineers, Inc., a consulting engineering firm with offices in Houma and New Orleans, Louisiana. Carl is presently Vice-President and Manager of the Houma office.

Carl has continually supported the engineering profession and has contributed to public recognition of engineers in varied ways.

He has been very active in promoting MATHCOUNTS and the engineer's role in this program. MATHCOUNTS, cosponsored by the Louisiana Engineering Society, is the first nationwide program of its kind, which combines the efforts of education, business, government and the technological community to promote math excellence among junior high school students.

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**JAMES M. TODD TECHNOLOGICAL
ACCOMPLISHMENT MEDAL**

The Technological Accomplishment Medal is given for distinguished services by an engineer for technological advancement or discoveries as contributions to the advancement of engineering.



James L. Rike, P.E.

James L. Rike, P.E., of New Orleans, Louisiana receives this award for his development of the principles governing the technology of making oil and gas wells productive at their highest capacity throughout the life of the reservoir; for his innovation in these areas by way of thirteen patents, one of which is for a coiled tubing rig using continuous thin-walled pipe that permits million dollar savings while increasing safety; and for his demonstrated expertise world-wide in making a successful technology transfer of this technology through short courses and seminars. In the petroleum industry, these operations are called "completions" and "workovers" and the engineering is often designated Subsurface Engineering, which Jim Rike helped create as a viable separate entity in the science of Petroleum Engineering.

Mr. Rike is President of Rike Service, Inc. in New Orleans. He graduated from

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NEIL L. WAGONER, P.E.

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Needs, Priorities and Programs Engineers Section. This section was responsible for the development of a highway needs survey used to guide the State's highway construction program. Louisiana became a model for other states and in 1980, Neil was appointed by Governor David Treen as Assistant Secretary for the Office of Highways. He quickly assumed responsibility for the entire highway program for the Department of Transportation and Development and established himself as a key figure in state government. He managed one of the state's largest programs with an annual budget in excess of \$750 million.

In 1984, Governor Edwin Edwards reappointed Neil to the same position where he stayed until his retirement in January, 1987. After a twelve month stint in private industry, Governor Buddy Roemer convinced Mr. Wagoner to return to state government and selected him as his first cabinet appointee in January 1988 to head the Department of Transportation and Development.

Mr. Wagoner's appointment as Secretary of the Department of Transportation and Development in 1988 brought with it not only the support of the Governor and Legislature, but the highway engineering and construction industry as well. Through his leadership, the Department has reestablished itself as a leader in highway management. Recent passage of a Transportation Trust Fund is due in part to the respect that the motor-ing public has for the Department and its Secretary, Mr. Wagoner.

Neil is a Registered Professional Engineer in Louisiana and is a member of the Louisiana Engineering Society, the Southern Association of State Highway and Transportation Officials, the American Association of State Highway and Transportation Officials, and the Transportation Research Board.

Mr. Wagoner attended public schools in Winnfield, Louisiana, and graduated from Winnfield High School in 1954. He lettered three years in baseball and two years in basketball. He was one of four seniors selected to the Winnfield High School Hall of Fame.

Neil is married to the former Martha Barton of Winnfield, and they are the parents of three children, Cheri, Barry, and Joey. They are the proud grandparents of Jordan, Kayla and Keely. Neil and Martha are active in their church, where Neil serves as a deacon and Sunday School Teacher and Martha sings in the choir. Neil enjoys fishing, golfing, and wood-working in his free time.

The accomplishments of Mr. Wagoner

as a manager and professional engineer make him a worthy recipient of the A. B. Paterson Medal for an Engineer in Management.

H. L. HENRY, JR., P.E.

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Louisiana Tech University, in 1940. He received his Master of Science Degree in Mechanical Engineering from Illinois Institute of Technology in 1946. While working toward his master's degree, Mr. Henry taught at the Institute and obtained experience in industry while working three part-time positions as a Tool Designer for Guardian Electric Manufacturing Company, as a Structural Designer for Intercontinental Engineers, and in Mechanical Development for Municipal Engineering Company, all located in Chicago. From 1951-55, H. L. worked for the Dow Chemical Company, Freeport, Texas, as a Construction Engineer, Design Engineer, and Project Engineer.

H. L. holds memberships in the National Society of Professional Engineers, the National Council of Examiners for Engineers and Surveyors, and is a life member of the Louisiana Engineering Society and the American Society for Engineering Education.

Mr. Henry has been recognized with many professional honors. They include: Who's Who in America, 1960; Who's Who in Engineering, 1976; American Men and Women in Science, 1975; An Outstanding Educator of America, 1972; Personalities of the South, 1976; and the Tower Medallion Award, Louisiana Tech University, 1983. He is a member of Tau Beta Pi and Alpha Phi Mu. In 1990, he was elected a Life Director of the Louisiana Tech Engineering Foundation.

Mr. Henry had a long and distinguished career with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. He was appointed to the Board in 1976 to fill the unexpired term of Dean Ben T. Bogard and appointed to a full nine year term in 1979. During his tenure on the Board, he served as Secretary-Treasurer, Vice Chairman, and in 1982 was elected Chairman. On the completion of his term with the Board, he was made an Emeritus Member and was recognized by the National Council of Examiners of Engineers and Surveyors with a Distinguished Service Certificate and from the Southern Zone with a Distinguished Service Award.

Mr. Henry has devoted many hours to the profession serving as an elected officer and as a member of committees of the

professional societies to which he belongs. He has served as an instructor to practicing engineers in short courses offered in Technology Transfer and Engineering Economy. In 1977, he presented a paper on Engineering Economy at the annual meeting of the Gas Turbine Division of the American Society of Mechanical Engineers in Philadelphia. He has been active in the American Society for Engineering Education and served as a judge for Creative Engineering Designs made by students.

Mr. Henry is married to the former Eva Grissom of Quitman, Louisiana, and they are the parents of a son and daughter. They are affiliated with the Trinity United Methodist Church of Ruston. He enjoys fishing, reading, gardening, music and traveling.

His outstanding record and high standard of conduct and his active participation has been an inspiration to many of us in the Louisiana Engineering Society. His achievements exemplify the outstanding leadership recognized and honored through this award

JAMES L. MEYER, P.E., P.L.S.

Continued from page 6

serves on the board of directors of Handi-work Productions, Inc., a sheltered workshop for multi-disabled people.

He is past president of the Industrial Development Board of Central Louisiana, Inc., and currently serves on the Board of Trustees for both the Rapides Regional Medical Center and the Rapides Regional Hospital. He is chairman of the Rapides Health Services Board, a division of the Rapides Regional Medical Center. He received the Center's Certificate of Excellence for Community Leadership in 1990.

In 1986, Mr. Meyer was elected to the Board of Directors of the Central Louisiana Chamber of Commerce and served as its vice president for public services in 1988. In 1989, he became president-elect and president in 1990.

During his year as president, the Chamber's routine goals and objectives of economic development, environmental quality, business services, governmental affairs, education improvements, public research and membership services were upset by a challenge to the Military Affairs Division when it had to cope with the possibility that the single major employer in Rapides Parish, England Air Force Base, could close. Under Mr. Meyer's leadership, the Chamber presented a plan which was endorsed by local government officials to lead the effort to prepare documentation and testimony for a public hearing which

would develop the scope of study for the U.S. Air Force to consider England Air Force Base as a reasonable alternative to the proposed closure of Myrtle Beach Air Force Base, South Carolina. A team of some 80 local businessmen and governmental officials was assembled and in a brief 3-week period, presentations were completed and a public awareness campaign was conducted to encourage attendance for the hearing. Mr. Meyer spearheaded a media campaign which resulted in some 6,000 people attending the public meeting, including Governor Roemer, Senators Johnston and Breaux, Congressman Holloway, and many state legislators and locally elected officials.

The England Air Force Base project then entered a phase which required developing data for an "economic consequences" study. The Chamber continued its leadership role, preparing documentation which resulted in the U.S. Air Force determination that the estimated adverse economic impact of closure on local non-military income would be about \$3.5 billion over a ten year period. The next step was a trip to Washington for a conference with federal officials. The agenda for the meeting was the responsibility of the Chamber, and on July 31 and August 1, Alexandria Mayor Randolph and Mr. Meyer led a team of 16 businessmen and city officials to the capitol, held briefings for the entire Louisiana congressional delegation and met with Pentagon officials, including Secretary of Defense Cheney, Secretary of the Air Force Dr. Rice, several U.S. Air Force Generals, including the Commander of the Tactical Air Force, and high ranking U.S. army officers.

The Central Louisiana Chamber's role in the England Air Force Base effort has been applauded throughout the community.

The Chamber's military affairs activities were not only directed toward England Air Force Base. The U.S. Army at Fort Polk received a considerable amount of attention from the Central Louisiana Chamber, and in December, Mr. Meyer was awarded the Division Artillery "Saint Barbara's Artilleryman" Medal. In addition, the U.S. Navy announced that a nuclear attack submarine was named for the cities of Alexandria, Louisiana and Alexandria, Virginia. The USS Alexandria was launched in June, and Mr. Meyer led a contingency of central Louisiana citizens to Groton, Connecticut for the event. Mr. Meyer is now guiding plans for another trip in June, 1991, for the official commissioning of the submarine, at which time the crew, U.S. Navy officers and officials of the Electric Boat Division of General Dynamics will be entertained by the sister communities.

Jim Meyer is not only the epitome of

a civil servant, but he encourages and inspires other engineers to take a greater part in the civic well being of their communities, parishes and the State of Louisiana. Under his leadership as founder and President of Meyer, Meyer, LaCroix & Hixson, Inc., most civic clubs in Alexandria (Alexandria Kiwanis Club, Alexandria Lions Club, Optimist Club of Alexandria, Exchange Club of Alexandria and the Alexandria Rotary Club) have a representative active member from the firm. With the exception of the Rotary Club, engineers from the firm have been president of each of the civic clubs within the last ten years.

Jim is married to the former Joy Sumner of Sumner, Mississippi. They have two grown children, a son and a daughter. He is active in St. Timothy's Episcopal Church, serving his 12th year as Treasurer and his 3rd year on the Vestry. He enjoys hunting, fishing and golf.

Mr. Meyer's service to his community and profession are in keeping with the ideals of the Andrew M. Lockett medal. His civic involvement is an inspiration to the engineering profession.

J. ANDY CRAIG, P.E., P.L.S.

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Auto Mall and commercial development. The Business Park project was situated in the Flood Plain of Bayou Pierre and required extensive earthwork, as well as complex drainage design.

Since joining BBC Engineering, Andy has served as Project Engineer on numerous major municipal projects. Among those projects are the following: (1) Dean Road Improvements - nearly two miles of urban paving and major drainage improvements for the City of Shreveport; (2) Stoner Relief Sewer, Phases I and II approximately 18,000 linear feet of sanitary sewer mains for the City of Shreveport; and (3) Highway LA 511 Widening Project - provided continuous turn lane by widening and overlay of an urban section of roadway. He is currently completing a major drainage study which includes backwater analysis, flood plain considerations, and extensive channel modifications.

Active in the Louisiana Engineering Society, Andy has held all local chapter offices including President in 1984-85. He has served as a member of the State Constitution and Bylaws Committee and the Ethics and Professional Conduct Committee. He served as Chairman of the State Young Engineers Committee in 1983. Andy served on the LES Board of Direction in 1987-89 as a State Director.

As a member of the American Society of Civil Engineers, Andy has served on various committees at the local level. He was a member of the Engineering and Scientific Council of Shreveport from 1979-82 and served as its Chairman in 1981. Andy is also a member of the Louisiana Tech Engineering Foundation, having served as a Board Member since 1987, the Louisiana Tech Alumni Chapter, and the National Society of Professional Engineers.

Andy is married to the former Lydia Gordy of Shreveport. They have two sons, Joshua, age 6, and Colby, age 3. Andy serves as the Director of the Adult 9 Sunday School Department and as a choir member at Sunset Acres Baptist Church, where he is also an ordained Deacon and a past member of the Finance Committee. For recreation he enjoys hunting, fishing, and golfing.

Andy Craig has demonstrated exceptional capabilities in his chosen field of engineering and has generated an enthusiastic approach toward professional achievement. His success can only serve to inspire and encourage other young engineers.

CARL A. JAKOB, P.E.

Continued from page 7

In 1987, Carl initiated the MATHCOUNTS tee shirt program in conjunction with the local chairperson. He organized a program to solicit donations from employers of engineers to cover the cost of providing a tee shirt to each student participant in the Bayou Chapter area. Firms donating toward this cost have their names printed on the shirt. This program has successfully continued annually with the issuance of hundreds of shirts publicizing MATHCOUNTS, LES/Bayou Chapter and Engineers.

During Carl's term as Bayou Chapter President, he expanded Engineers' Week activities to include the cities of Morgan City and Thibodaux. For this expansion, he modified the national EW poster to include Louisiana engineering feats and added a local contact person. The poster was distributed to banks, public buildings, land surveying firms, and employers of engineers.

For the 1988 LES Spring Awards Meeting, Carl organized a 5K and 1 mile run as part of the social activities open to members and the public. A large number of participants of the community took part in this event and again more tee shirts publicizing LES were distributed.

Mr. Jakob was instrumental in initiating

Continued on page 10

ing a Directory of Engineers for the Bayou Chapter. The directory was expanded to include a section of employers and a section to describe projects of local firms. The directory was distributed to members, local banks, advertisers, and participants of the LES state convention.

More recently, Carl authored a LES Resolution, adopted by the Board of Direction in October, 1990, on "Qualification Based Selection" (QBS) which can serve as a basis for a QBS facilitator program to educate the public. He has also organized Louisiana support for a proposed National Engineering Hall of Fame.

He is presently serving as citizen volunteer coordinator for the Terrebonne Parish Christmas Tree Program for coastal erosion. This involves donating personal time as an engineer to organize and implement a program to install discarded trees in the marsh to protect wetlands.

Carl is a member of the Louisiana Engineering Society and the National Society of Professional Engineers Professional Engineers in Private Practice Division, where he has served as Chapter President, State Director and LES-PEPP Chairman. He is also a member of the American Society of Civil Engineers, the Water Pollution Control Federation, the American Waterworks Association, and the Consulting Engineers Council of Louisiana, Inc. Civic activities include Rotary and service as youth sports coach and scout leader.

He received a Bachelor of Science Degree in Civil Engineering from Clarkson College of Technology, Potsdam, New York. He is a Registered Professional Engineer in Louisiana, Mississippi, Florida and Alabama. Carl is married to the former Barbara Mack of Houma and they are the parents of two sons, Todd, age 8 and Kyle, age 6. They are active members in the Grace Lutheran Church of Houma. In his free time Carl enjoys running, boating, and skiing.

Mr. Jakob has given freely of his time, talents, and resources to improving the image and identity of the professional engineer through public relations. His outstanding contributions to LES and the profession are in keeping with the ideals of the Charles M. Kerr Public Relations Award.

JAMES L. RIKE, P.E.
Continued from page 7

Texas A & M University in 1948 and is a Registered Professional Engineer in Louisiana and Texas. His primary technical forum is the Society of Petroleum Engineers (SPE). He was, for eighteen

years, a member or Chairman of the Well Completions Committee for SPE; he was a member of the 1972 Fall Meeting Program Committee, and helped organize the Formation Damage Symposiums initiated in 1974. Jim served as SPE "Distinguished Lecturer" in 1973, reaching over thirty domestic and international sections of the Society. He was Chairman of the Well Completions Reprint Booklet Committee and keynote speaker for the 1979 International Petroleum Exposition Symposium.

Mr. Rike, best known for his success in improving production at the lowest cost, has had a petroleum career equally divided between reservoir behavior, drilling, and operations. During forty-three years with Exxon (Humble Oil & Refining Company) and as a consultant, his assignments included drilling, production operations, unitization, reservoir analysis, completion and workover design, development of new techniques, and training.

Engineering assignments in the United States covered operations throughout the country, both onshore and offshore. International assignments have included Central and South America, Canada, Africa, Middle East, Far East, Asia, and Europe. He has consulted in training, management or engineering areas in virtually every petroleum producing country in the non-Communist world.

Mr. Rike played a key role in the development of tubingless completions, directional perforators, sand control with plastics, coiled tubing rigs, concentric tubing workover and completion operations, and advanced offshore completion practices. He has authored patents and papers on these new developments, as well as cementing, perforating, wireline operations, workover economics, and worldwide industry practices.

Thirty manuals have been composed by Jim covering the proper engineering of many areas of critical concern of the petroleum industry. He formulated special new techniques to protect the public and the environment with improved technology in the casing and cementing of wells to exclude communications with fresh water sands. These same new approaches maintain well control more decisively and prevent blowouts, especially in workovers.

The "coiled tubing unit," one of Jim's thirteen patents, is currently revolutionizing the completion and workover of wells worldwide. After co-inventing the "coiled tubing unit," he proved the feasibility of the idea, helped build the first prototype rig, and supervised the initial utility of this rig to develop successful techniques and procedures, and to establish appropriate limitations.

The "coiled tubing unit" uses up to

19,000 feet of thin-walled steel pipe (40,000 - 70,000 psi min. yield) which is alternately coiled on a spool or straightened to run in and out of wells. This work is done with the major control valves ("Christmas Tree") still on the well, and with well tubing and isolation packers locked in place for greater safety.

The process saves 80 to 90 percent of workover costs and results in better productivity through use of clean fluids, or the use of no extraneous fluids, since the well can be worked on "live" and the coil can be run and pulled against pressure. The operations are safer since the well can be circulated during the entire operation, including running and pulling pipe; and the major controlling "Christmas Tree" is left in place for all operations. The rig has reduced the \$2 million cost per job of workovers in Australia and North Slope Alaska to \$200,000 to \$400,000 per job.

As a consultant, Rike has been retained by major and independent oil and gas producing companies, both domestic and foreign, drilling contractors, workover contractors, service companies, universities, and professional organizations. Jim is well known for his seminars with managers, engineers, and field supervisors on well completion and workover practices, reservoir engineering, surface production facilities, and other production areas. Jim has consulted or done in-house training for Amoco; Dowell; Schlumberger; Shell; Union; Phillips; Gulf; Mobil; BJ Hughes; ARCO; British Petroleum; Texaco; Exxon; Occidental; Hunt; Chevron; Government Agencies; YPFB, Bolivia; Petro Peru; Lagoven and Maraven, Venezuela; Petrobras, Brazil; Ecopetrol, Colombia; PTI, Nigeria; ADMA and ADCO, Abu Dhabi; GUPCO, Egypt; Pertamina, Indonesia; PEMEX, Mexico; JAPEX, Japan; and many others.

In 1990, Jim received the Production Engineering Award from the Society of Petroleum Engineers. He was selected to write a textbook on "Completions and Workovers" funded and sponsored by SPE. Jim served as a Citizen Ambassador to the Soviet Union with forty other authorities to help the USSR learn to expand productivity without harming the environment.

Jim is quite successful as a teacher and consultant. He has demonstrated an unusual ability to structure studies and make recommendations such that clients can build their own conclusions on good basic technology, sound logic, and thoroughly demonstrated results. It is always a big surprise to see Jim mix managers, experienced engineers, research personnel, young engineering graduates, and

Continued on page 20



Leta G. Bueto
Executive Director
Louisiana Engineering Society



Louisiana Light Awards Competition Underway

Applications for the 1991 Louisiana Lights Awards program are now being accepted.

A project of Louisiana's Investor-Owned Electric Companies, the statewide program was created to find and honor the most imaginative use of exterior lighting on public and private buildings.

Winning structures are chosen for outstanding technical achievement, enhancement of architectural lines, and impact on the nighttime environment. Commercial buildings may be entered by owners, architects, designers, or admirers. Winning entries receive handsome, engraved trophies.

Categories are single-story; two-to-five story; six stories and above; speciality lighting (including foundations, monuments and landscape design), and historical lighting, recognizing buildings with historical significance.

Entry forms may be secured by calling or writing the nearest member of Louisiana's Investor-Owned Electric Companies. Members of LIOEC are Central Louisiana Electric Company (CLECO), Gulf States Utilities (GSU), Louisiana Power & Light Company (LP&L), New Orleans Public Service (NOPSI), and Southwestern Electric Power Company (SWEPCO).

Deadline for entries is April 30. Winners will be announced by May 31. Information may be secured by calling Linda Vangilder at (504) 529-3161.

First place winners in the 1990 competition were Sportran Center, Shreveport, for single story buildings; Riverwalk Market Place, New Orleans, two-to-five stories; Louisiana Land & Exploration Tower, New Orleans, six stories and above, and Crescent City Connection, New Orleans, specialty.

Annual Meeting Scheduled For LES/PEG and LSPECS

The annual meeting of the Louisiana Engineering Society/Professional Engineers in Government and the Louisiana Society of Professional

Engineers in Civil Service is scheduled for March 9, 1991, 11:00 a.m. - 4:00 p.m., at Drusilla Place, Baton Rouge.

A seafood luncheon will be served at 12:00 noon with music provided from 1:00 p.m. - 4:00 p.m. Wear your stepping shoes and dress casual for this event. Cost is \$20.00 per person and reservations may be made by phoning (504) 379-1852. Guaranteed reservations and cancellations are required on or before March 1, 1991.

NSPE Publishes New Standard General Conditions For Construction Contract

The general conditions of the construction contract widely used by the engineering profession has been revised to reflect new construction industry trends in insurance, dispute resolution, asbestos and hazardous waste. The "Standard General Conditions of the Construction Contract" (1910-8) was revised through a two-year joint effort by the Engineers Joint Contract Documents Committee (EJCDC), and has been endorsed by the Associated General Contractors of America. The EJCDC is a coalition of four organizations: the Professional Engineers in Private Practice Division of the National Society of Professional Engineers, the American Society of Civil Engineers, the American Consulting Engineers Council and the Construction Specifications Institute. EJCDC is chaired by NSPE member John Boyd, Jr. of Boyd, Brown, Stude and Cambern in Kansas City, Missouri.

The changes made in the General Conditions include new hazardous material language stating a contractor may stop work in an area upon discovering previously unknown hazardous material. New dispute resolution language allows greater flexibility in choosing dispute settlement methods. Mediation, mandatory arbitration and binding arbitration are endorsed as the preferred methods of resolving disputes. Revisions in bonding and insurance provisions reflect changes in insurance industry practices and terminology.

The changes are detailed in a

"Commentary on the 1990 Editions" (1910-9A) by John R. Clark, Esq.. An expanded and detailed index is included for easier access to General Condition document sections.

The 1990 General Conditions are accompanied by 17 other construction related documents that include standard guides, forms, applications, certificates, instructions, bond forms and notices.

Copies of the 1990 Construction Contract General Conditions and additional information can be obtained by writing the NSPE Orders Department, 1420 King Street, Alexandria, Virginia 22314 or calling (703) 684-2882.

Educational Assistance Limited

The concept is an old and simple one: you give me something and I'll give you something in return. It's called bartering; and now hundreds of disadvantaged kids are calling it their ticket to a college education.

It begins with EAL soliciting goods from companies who want to dispose of excess inventory, ranging from computers to carpeting. EAL matches the tax deductible donation with a college that has need for the material. Then, the school creates a scholarship for the worth of the donation in the company's name. Everyone wins in this unusual barter arrangement - the company, the college, and most importantly the student!

The seeds of EAL were planted in the early 1950s by Roy and Ella Jenkins, an Iowa farm couple. They lost their only son in WWII, and rather than keeping the insurance money from his death, decided to "invest" it in the life of a needy young person. They chose the 17 year old V.R. Roskam and paid his way through college. Roskam remembered their generosity and in 1982 founded Educational Assistance Limited.

Since 1983, EAL has generated over \$5 million in scholarships for over 1000 low-income students at 160 colleges nationwide. In 1988, EAL was presented with the prestigious President's Volunteer Action

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ANNUAL REPORT

Louisiana State Board of Registration For
Professional Engineers and Land Surveyors

For 1990

Regular meetings of the Board were held in January, March, June, July, September and November.

The tabulation that follows indicates actions taken by the Board on applications for the registration of Professional Engineers and Land Surveyors and for the certification of Engineers-In-Training and Land Surveyors-In-Training.

Professional Engineers

Applications approved	427
Applications disapproved	194
Applications withdrawn	01

Land Surveyors

Applications approved	22
Applications disapproved	22
Applications withdrawn	0
Applications approved for certification	454
Applications disapproved	156

Land Surveyors-In-Training

Applications approved for certification	30
Applications disapproved	22

The following is a tabulation of the total number of Professional Engineers, Land Surveyors and Professional Engineers (Public Employees), Engineers-In-Training and Land Surveyors-In-Training holding registration and certification as of December 31, 1990:

Professional Engineers	14,445
Land Surveyors	2,288
Engineers-In-Training	4,159
Public Employees	02
Land Surveyors-In-Training	77

Below is a tabulation of the number of Professional Engineers registered in the various branches as of December 31, 1990. (Some persons are registered in more than one branch.)

Agricultural	294
Chemical	1,208
Civil	6,421
Electrical	2,336
Industrial	142
Mechanical	3,950
Metallurgical	38
Mining	35
Petroleum	1,386

A total of 1209 written examinations were administered in 1990. Of these, there were 587 examinations in the fundamentals of engineering, 58 in the fundamentals of land surveying, 474 in the principles and practice of engineering, 26 in the principles and practice of land surveying and 35 in the laws and procedures of land surveying in Louisiana. Engineering examinations were administered at examination centers in Baton Rouge, Lafayette, New Orleans and Ruston in April and October. On the same dates, land surveying examinations were administered in New Orleans.

Annual Report to the Governor

Dear Governor Roemer:

Pursuant to the provisions of Louisiana Revised Statute 37:691 B, I submit the report of the transactions of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors for the fiscal year 1990. A duly certified audit and financial statement showing the receipts and disbursements for the fiscal year ending June 30, 1991 will be sent to you at a later date.

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors was created by Act 73 of the Legislature of the State of Louisiana at the regular sessions of 1950. The Act delegates to the Board the duty of registering qualified persons as professional engineers and land surveyors, and charges the Board with the responsibility of enforcing the provisions concerning violations.

The members of the Board and the expiration dates of their appointment are as follows:

Sam L. Sullivan, August 21, 1991;
Robert D. Fenner, July 31, 1992; Ara Arman, January 24, 1993; Malcolm L. Hurstell, July 31, 1993; Albert J. Dunn, February 18, 1994; Randall F. Barron, August 24, 1994; Coan J. Bueche, August 24, 1994; William J. Thevenote, Jr., August 31, 1995; Larry A. McKee, August 31, 1995; Morris P. Hebert, August 31, 1996;

At the annual meeting of the Board held on June 25, 1990, the following officers were elected effective January 23, 1991:

Sam L. Sullivan, Chairman
Malcolm L. Hurstell, Vice Chairman
Albert J. Dunn, Secretary

Very truly yours,

Ara Arman

Chairman of the Board, 1990



**Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.**



Members of the Board

Louisiana Revised Statute 37:683 A specifies areas of professional practice for members of the Board. With reference to that section and in accordance with the Bylaws of the Board, the following list is presented:

Private Practice of Engineering:

Larry A. McKee and
Robert D. Fenner

Engineers in Government Employment:

Albert J. Dunn and Coan J. Bueche

Engineers Employed in Industry:

Malcolm L. Hurstell and William J.
Thevenote, Jr.

Engineers Employed in Education:

Ara Arman, Randall F. Barron and
Sam L. Sullivan

Professional Engineer and Land Surveyor Engaged in Land Surveying:

Robert D. Fenner

Professional Land Surveyor:

Morris P. Hebert

Mr. Rodger D. Phelps' term expired on September 14, 1990, and you appointed Mr. Morris P. Hebert as his replacement.

On August 21, 1991, Mr. Sam L. Sullivan's term expires. Mr. Sullivan was appointed by the Governor to fulfill the unexpired term of Robert W. Parker (deceased). La. R. S. 37:683 B permits his reappointment to a full six year term. At least thirty (30) days prior to the expiration of his term, the President of the Louisiana Engineering Society will submit nominations to you for consideration.

Act 73 of 1950 That's over 40 years ago!

This change in the registration law was significant. Up until 1950, only Civil engineers were registered in the State of Louisiana. Louisiana was the first state to consider the registration of engineers and the second state to require the registration of such in 1908. Wyoming was the first to pass the law in 1907.

I want to briefly discuss three of the changes which took place in 1950 and where we are today.

FIRST: After registering only Civil Engineers for over 40 years, the law was changed in 1950 to read "--- professional engineers will be issued certificates in registration in one or more of the following branches: Agricultural; Chemical; Civil; Electrical; Industrial; Mechanical; Metallurgical; Mining; Petroleum." On January 22, 1991 another branch of engineering was added --- Nuclear.

SECOND: In adding other branches for registration in the State of Louisiana in 1950, compromises were made. One compromise is stated in Louisiana Revised Statute 37:701.C "This chapter shall not apply to, affect, interfere with or in anywise regulate employees of a person, firm, or corporation engaged in industrial operations, including, but not limited to, producing, processing, manufacturing, transmitting, distributing, or transporting, when performing services within the State of Louisiana in the course and scope of the business of said person, firm, or corporations, or affiliates thereof. In the event any of the activities set forth in this subsection shall fall within the definition of the practice of engineering as defined in paragraph (A) of Section 682 of this chap-

ter, such activities shall be under the supervision and charge of a professional engineer, duly registered under the provisions of this chapter. However, this subsection shall not apply to persons practicing Civil Engineering or Land Surveying, who must at all times comply with the provisions of this chapter". Another compromise is found in Louisiana Revised Statute 37:702 (5) which states in part that the law shall not prevent "the practice of engineering exclusively as an officer or an employee of a public utility corporation authorized to do and doing business in this state, by rendering to such corporations such service in connection with its facilities and property which are subject to regulation, with respect to safety and security thereof of the Public Service Commission of the State of Louisiana ---" and so on.

The Board interprets the law to mean:

(1) Public Utilities subject to the regulation of the Public Service Commission of the State of Louisiana and firms or corporations engaged in industrial operations need not be registered with the Board as a firm or corporation.

However ---

(2) All Civil Engineering and Land Surveying work must be done by or under the direct supervision of a registrant of the Board. **AND ---**

(3) If the firm or corporation conducts activities which may be defined as the practice of engineering [Louisiana Revised Statute 37:681 (8)] then such activities shall be under the supervision of a professional engineering registrant of the Board. **AND ---**

(4) An individual may not present himself to the public by verbal claim, sign, advertisement, letterhead, card or any other way as an Engineer unless he is first registered with the Board.

This so-called "industrial exemption" provision of the statute has been confus-

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415 New Orleans, La. 70130 on the following dates.

1991

Mar. 25-26

June 3-4

July 22-23

Sept. 23-24

Nov. 11-12

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The following article is copied from the December, 1990 issue of *Communique*, a publication of DPIC Companies, Inc., Monterey, California.

Do I Still Need Insurance When I Retire?

by Nigel Renton, CPCU, President
Dealey, Renton & Associates

Editor's Note: Nigel Renton is a most distinguished and experienced insurance broker and president of Dealey, Renton & Associates in Oakland, California. An honors graduate of Oxford University, Nigel's thirty-eight-year insurance career includes managing and editing a variety of insurance publications and teaching insurance related courses. This article on insurance consideration for retiring design professionals is taken from Dealey, Renton's newsletter, Tidings. Call your DPIC agent, for answers to how the points made in this article might pertain to you.

The Prior Act Problem

A frequent source of concern to design professionals is what to do about possible future claim for past work when they retire from an active practice. As usual in matters related to retirement, the advice can be summarized simply: Plan ahead!

After a quarter of a century of the Claims Made policy, there are still a few architects and engineers who may need to be reminded that coverage for prior work ceases when a professional liability policy is not renewed. This applies whether or not the design professional continues in practice. What can you do to minimize cost, and yet retain protection?

Corporate Employees

This is the easy one. Remember, the essence of this applies whether or not you have been an owner, a corporate officer, or any other employee. Even if you take no action whatsoever, there is a strong probability that you will be covered as an individual for any acts performed as an employee of your firm if your former employer maintains coverage. But problems arise when:

1. The corporation goes out of business.
2. The corporation can't purchase pro-

fessional liability insurance.

3. The corporation can't afford (or chooses not to afford) coverage.
4. Your employer has a form of coverage in which former employees must be specifically named if they are to receive continuing protection.

If in doubt about the last point, give your insurance broker a call. Many companies provide this coverage automatically, and if there is an exception, it is often possible to have the name of a former employee added without cost.

Obviously, unless other arrangements are made, this will not protect you for moonlighting activity, working for yourself previously, or working for some other firm. In reality, as long as your firm is in existence, it is likely that the firm itself will be the principal target, not you, unless you have "deep pockets." Also, even if you are not formally covered by the policy, it is likely that the need for your cooperation will induce the insurer to furnish you with defense and perhaps even indemnification without cost.

Clearly, it is the first three possibilities which are of the greatest concern. It is desirable, when contemplating retirement, to consult an attorney. He or she can probably negotiate an agreement which will (among other matters) call upon your employer to continue, if feasible, to provide insurance protection in at least the amount of the existing policy. Preferably, this will be with a deductible no greater than a certain amount (or call upon the employer to hold you harmless if a higher deductible prevails). Your written agreement should specify who will pay the deductible. Such policy should provide protection for you for your work performed for the firm, and the agreement should provide for you to be given due notice in the event of cancellation or non-renewal.

Of course, such an agreement may not be worth much if the company goes out of business, and no one is particularly interested in letting you know. So, in addition to making this arrangement, it is wise to try to keep abreast of your former employer's activities.

Another thing which can happen is for the firm to be acquired by another entity. In some instances, the acquiring firm will arrange for the run-off coverage for the

acquired firm to be covered under its own program. In other instances, there may be a preference for calling upon the principals of the acquired firm to continue their own insurance program for as long as they consider it appropriate.

How long is appropriate? That's a bit like asking for "absolutely pure" water! What can be said is that the likelihood of claims reduces every year, and takes a sharp reduction when the statute of limitation expires. Here again, no simplification such as that gives the right answer for everyone. Your lawyer, your insurance broker, and perhaps your accountant, need to share in the consideration. What about work performed out of state? What if statutes of limitation are overruled? Are the bulk of your assets protected by home-steading, trusts, and so forth?

Partnerships

What is true for corporations is essentially true for partnerships.

The principal difference is that the chance of a viable firm remaining for an indefinite period is generally lower for a partnership, although that is not necessarily true in all cases. It is appropriate, when leaving a partnership, to call upon your successor, or partnership, or even a corporation, to provide the same type of protection as should be furnished by a corporation for its former employees.

Sole Proprietors

It is hardest, and usually expensive, for retiring sole proprietors to obtain the necessary protection. In most instances, this is accomplished by "tail coverage," often known as "run-off coverage." Virtually all professional liability insurers will be glad to quote terms for continuing protection after you have ceased to practice. This coverage will normally cost somewhat less than full coverage in the first year, and that price will normally reduce to a minimum premium after a period of several years. Depending upon the limit selected, the minimum premium may seem exorbitant to you. In some instances, you may be able to obtain a quotation for the first three years of tail coverage, and it may be possible to renew coverage thereafter in further periods of three years at a time.

Some insurers have made available



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



retirement policies with a one-time premium, but this is unusual. You and the broker will hope that the insuring company is still solvent if a claim arises many years after your retirement, and preferably that the company will still know how to handle professional liability claims. In the past there have been many companies that have gone into this business and out again. You are better off if your insurance at retirement is placed with a company specializing in the business, with a good track record in responding to claims.

In the past, Dealey, Renton has been able to assist a number of sole proprietors to obtain such protection by sensible advance planning. As a sole proprietor, the goodwill of your practice is usually worth something. If you can bring in a qualified successor to take over the practice you can look to him or her to furnish ongoing protection just as if you were leaving a corporation or partnership. Similar agreements about furnishing

future coverage can be made, with appropriate legal advice.

There is another solution. It is for the sole proprietor to join another firm, whether or not as a principal, for the final few year of practice. In doing so, one of the conditions should be that ongoing professional liability insurance should be furnished for the design professional on retirement. This is a drop in the bucket to a large firm, but the firm's chosen deductible may be almost as much as the cover you have maintained as an individual! If you have carried \$250,000 protection with a deductible of \$5000, you won't find the right answer with a firm carrying \$5 million in protection with a self-insured retention of \$250,000.

Sometimes, going to work for an old friend may be the best answer. You arrange with the friend to pay for the extra cost of an endorsement giving run-off coverage for your old work. When you retire, continue the coverage. Usually,

after a few years, there will be no additional charge for "piggybacking" on the policy. It is usually better to find a young friend (or friends) with whom to join up, otherwise the goal of long-term run-off protection may be frustrated by the premature death or early retirement of the old friend. **LE**

Consulting Engineers Council of Louisiana, Inc. now has a FAX machine! For your information, the number is (504) 387-0844.

Interested in knowing more about Consulting Engineers Council of Louisiana? If you are a Louisiana engineer with a Louisiana domiciled firm, contact the CEC/L office at P.O. Box 1549, Baton Rouge, LA 70821, or call (504) 387-0843.

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TOTAL JOB CAPABILITY

NÔTRE MÉTIER

Continued from page 13

ing to many engineering graduates employed by the industry. The Board is in the process of communicating directly with industry explaining the restrictions so as to insure that the law is clearly understood.

THIRD: Act 73 of 1950 made it possible for the Board to register state employees doing engineering work for the state as Public Employee Engineers so long as they were employed by the state or a political subdivision thereof. I have reviewed the Board files and find that only two (2) engineers remain active in the category of Public Employee Engineers. These are Messrs. Roy J. Boudreaux and Dimpsey White both associated with the Department of Transportation & Development. I salute both of you for your time honored service to the state as Public Employee Engineers.

What changes can we expect in the next forty years?

The Society of American Military Engineers (SAME), the Frankfurt, West Germany post, sponsored a conference on June 22, 1989 entitled "Design, 92". Twelve European countries participated in this conference and each country was asked to define:

Professional requirements for registration

Information sources for registration

Selection basis for engineering work

Determination of fees for engineers

Design criteria for engineers

Solicitation procedures for engineers

Working conditions for engineers

Technical control for engineers

Isn't it interesting that SAME, an American organization, sponsored such a conference. This conference is only the beginning. The international race is about to really get started with EC, 92 in Europe.

What role will United States engineers take in this development?

I don't have the answer, however all of us had better take note and think about it. Understanding what is taking place in the rest of the world may be a good place to start. Most of our professional counterparts in the European Community speak our language. How many of us have an understanding of how Germans, French, Italians, English and other Europeans do business or select individuals or firms for professional services? We certainly have the technical skills to be competitive. I do not however see that we have the foreign

language capability and business skills to match.**LE**

PRESIDENTIAL PRIVILEGE

Continued from page 4

planets; we will not control the earth's weather and our most critical environmental problems will be hazardous waste disposal, lack of natural resources, clean air and water shortages; nearly one-third of all respondents believe that new communications techniques will make newspapers obsolete.

Infrastructure

Investment

The United States ranks fifty-fifth in the world in capital investment in infrastructure. (Rebuild America)

Capital spending has dropped from 2.3 percent of GNP in 1960 to 1.1 percent today. (National Council on Public Improvement)

Traffic

If a worker is delayed 20 minutes each day by rush hour traffic, he or she will

continued on page 17

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PRESIDENTIAL PRIVILEGE

Continued from page 16

have wasted two year's time waiting in traffic and another six months waiting for red lights to change.

By the year 2000, approximately 7.5 billion gallons of gas will be wasted due to traffic congestion.

Passenger delays exceeded 2,000 hours per day in 1986 and cost consumers and air carriers over \$3 billion in 1987.

From 1980 to 1988, traffic growth has increased at an average rate of 5 percent annually. By the year 2005, U.S. Highway travel is expected to top 3 trillion vehicles. In thirty years total travel is expected to double.

Bridges

Forty-two percent of the nation's estimated 575,607 bridges are structurally deficient or functionally obsolete. (Rebuild America—Federal Highway Administration)

There is one bridge collapse every 2 days. (Rebuild America)

Waste

An estimated 40,000 tons of waste are being generated every day, 95 percent of which are being disposed of in landfills that are rapidly reaching the end of their disposal capacity. One third are expected to exhaust capacity by the end of 1993. (Rebuild America)

The annual U.S. generation of 158 million tons of municipal solid waste would fill a convoy of 10-ton garbage trucks, 145,000 miles long, over half way from here to the moon. (Rebuild America)

E-Week is not about LES, NSPE, ASCE, or any technical or professional organization. E-Week is about engineers, you and me, turning ideas into reality. **LE**

Have a good celebration!

POTPOURRI

Continued from page 11

Award. From some 2,100 nominated organizations, only 18, including EAL, received the award.

In addition to the barter system, EAL has entered into several joint ventures with community based organizations in

financially disadvantaged communities called College Opportunity Programs. Two of the four programs are located in Chicago's inner city, one in central Michigan and one in Appalachian Pennsylvania. EAL agrees to commit \$500,000 in college tuition scholarships to a group of youngsters while they are still in Junior High School. The community agrees to hire a full time youth worker to mentor, tutor and hold the students accountable for their studies. Both EAL and the community work to create "glimpses of opportunity" for the students. These include summer trips to Washington, D.C., nearby colleges and other educational experiences.

EAL is a non-profit, volunteer based organization. It is just one of the ways American Businesses are influencing the lives of disadvantaged youngsters. As V.R. Roskam says, "We want to salvage lives."

Are Specialty Registrations Necessary?

In recent months, several Forum guest editorials have argued for more assistance in recruiting civil engineering students. Others have argued that the problem is not enrollment numbers but the lower quality of student applicants, attributed to the reduced status of the civil engineering profession in our society. If registered civil engineers would behave in a manner befitting the title of professional engineer, we could clean up the problem of under-supply and reduced stature in one fell swoop.

There was a time when professional engineers were not categorized as structural, or electrical or mechanical engineers, but simply as professional engineers. Part of the calling was an understanding of the limits of their knowledge and capability; they practiced within those limits. That meant that professional engineers were duty bound not to take on projects that involved areas of practice not within their competence. However, when practicing within their capabilities, they did so with pride and authority. The stature was not questioned.

If the stature of professional engineering has decreased, then professional engineers have done it to themselves. In order to protect their own practices, they assisted governmental bodies or quasi-governmental boards in developing licensing for

specialties. I suspect that this was done largely to exclude others from the practice, and therefore create more opportunity for the "specialists" that were already designated.

In the past, the professional engineer was bound by a code of ethics to understand what his or her specialty was. Just as important was a clear understanding of what he or she did not know. If we have sunk to the point that professional engineers don't even know what they are competent to do, and have to take a test to find out, then we have indeed lowered the status of the profession.

Some might argue that in this age of complexity, specialization is necessary. I find no fault with that belief—only the surrendering of the decision about the limits of one's expertise to some outside body.

Further erosion of the profession, ably assisted by professional engineers, comes by way of public agencies with what they call peer review or design review. (Note that the "peer review" practiced by various governmental agencies should not be confused with "peer review" carried on within the profession as a method of upgrading a firm's practice.) We all know that it is virtually impossible for a civil engineering project to exist that is not publicly funded, is on public land, or is adjacent to public land. It is rare that a piece of civil engineering be untouched by a public body.

Public agencies have decided that the acceptance of an engineer's stamped drawings depend on a review by another professional engineer—and there is always another PE willing to do that. Unfortunately, these reviews usually add conservatism to the engineering and often deteriorate into a game of "bother your neighbor." The first time someone informed me that he had been appointed to review my work and that to do so it would be necessary to see my calculations, I was a little upset. Why didn't he do his own calcs? That was nothing, compared to my fury when the calcs came back with little red check marks in the column as if they were on a fourth-grade arithmetic quiz.

What ever became of respecting a professional engineer for his or her competence? Instead, PEs rush to take review assignments that generate fat fees; they

Continued on page 20

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LES Awards Meeting, April 24-27, 1991, Shreveport Louisiana

General Program

Wednesday, April 24, 1991

11:00 a.m. - 5:00 p.m.
1:30 p.m.
7:00 p.m. - 8:00 p.m.

Registration
Golf Tournament
Shreveport Country Club
2:00 p.m. Tee Off
Lunch On Your Own
Cocktail Party
Holiday Inn - Hospitality Suite
Drinks and Hors d'oeuvres

Thursday, April 25, 1991

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 12:00 Noon
12:00 Noon - 1:30 p.m.
1:30 p.m. - 3:00 p.m.
3:00 p.m. - 3:30 p.m.
3:30 p.m. - 5:00 p.m.
6:00 p.m. - 9:00 p.m.

Registration
Seminar: "The Engineering of Achievement"
Dr. Ernest Kistler, Ph.D., P.E.
Lunch - McNeil Street Pump Station
Walking Tour of this ASCE Engineering Landmark
COMMITTEE MEETINGS
Membership
Young Engineers
Engineering Education
Scholarship
Executive Committee
Liaison/State Board of Registration
Break
PRACTICE DIVISION MEETINGS
Construction
Education
Government
Industry
Private Practice
DINNER - Barksdale Air Force Base Officers Club
Entertainment: 8th Air Force Silver Wings
George Hancock Quartet

Friday, April 26, 1991

8:00 a.m. - 12:00 Noon
8:30 a.m. - 10:00 a.m.
10:00 a.m. - 10:30 a.m.
10:30 a.m. - 2:00 p.m.
10:30 a.m. - 12:00 Noon

Registration
COMMITTEE MEETINGS
Public Relations
Intersociety Relations
Political Action Committee
LES Nominating Committee
Break
Council of Deans Meeting
COMMITTEE MEETINGS
Legislative
Ethics and Professional Conduct
Long Range Planning
Constitution and Bylaws

10:30 a.m. - 12:00 Noon
12:15 p.m. - 1:45 p.m.

2:00 p.m. - 4:00 p.m.
4:15 p.m. - 5:30 p.m.
6:30 p.m. - 7:30 p.m.
7:30 p.m.

Saturday, April 27, 1991

8:00 a.m. - 12:00 Noon
Board of Direction Meeting

Louisiana Engineering Foundation
LUNCHEON
Speaker: To be announced
Presentation of Student Papers
General Membership Meeting
Cocktails (cash bar)
AWARDS BANQUET

Spouses' Program

Wednesday, April 24, 1991

11:00 a.m. - 5:00 p.m.
1:30 p.m.
7:00 p.m. - 8:00 p.m.

Registration
Golf Tournament
Shreveport Country Club
2:00 p.m. Tee Off
Lunch On Your Own
Cocktail Party
Holiday Inn - Hospitality Suite
Drinks and Hors d'oeuvres

Thursday, April 25, 1991

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 9:15 a.m.
9:15 a.m.
12:30 p.m.
1:30 p.m.
2:30 p.m. - 4:00 p.m.
6:00 p.m. - 9:00 p.m.

Registration
Hospitality Suite Open
Historic Tour of Shreveport
Lunch at the Petroleum Club
Shopping Spree
Hospitality Suite Open
DINNER - Barksdale Air Force Base Officers Club
Entertainment: 8th Air Force Silver Wings
George Hancock Quartet

Friday, April 26, 1991

8:00 a.m. - 12:00 Noon
8:30 a.m. - 10:00 a.m.
10:00 a.m.
12:00 Noon
1:30 p.m.
2:30 p.m. - 4:00 p.m.
6:30 p.m. - 7:30 p.m.
7:30 p.m.

Registration
Hospitality Suite Open
Tour of R. W. Norton Art Gallery & Gardens
Lunch at Evangeline Restaurant
Shopping Spree
Hospitality Suite Open
Cocktails (cash bar)
Awards Banquet

Saturday, April 27, 1991

8:30 a.m. - 12:00 Noon
9:30 a.m.

Hospitality Suite Open
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Meeting Information

The LES Awards Meeting will be held at the Holiday Inn Downtown, formerly the Radisson Hotel at 102 Lake Street, Shreveport. Hotel reservations must be received at the hotel on or before **March 24, 1991**.

Thursday Luncheon - Lunch will be a catered BBQ at McNeil Street Pumping Station, an ASCE Engineering Landmark.

Thursday Dinner - Dinner should be a real treat at Barksdale Air Force Base Officers Club with entertainment by the 8th Air Force Silver Wings and the George Hancock Quartet.

The Louisiana Engineering Foundation meeting is scheduled for Friday, April 26, 10:30 a.m. - 12:00 Noon.

The General Membership Meeting will be held at 4:15 p.m., Friday, April 26, 1991.

Spouses' Program

Historic Tour of Shreveport - Tour the Medjoy Home located in the South Highland Area of Shreveport. This home which is listed in the National Register of Historic Places was the President's Home of Dodd College. Mrs. Hubert L. Joyner, the owner, will be our hostess. Vinck Studio Tour - Visit the unique showroom and studio of crystal artist Minor L. Vinck. Mr. Vinck has brought his four generations of Belgium glass heritage to the pinnacle of artistry in the form of copper-wheel engraving. You will hear about the various processes involved in the art and marvel at the beauty he has created. The studio itself is one-of-a-kind environment of an artist who sees beauty and expresses creativity in every facet of his life. Tour of R. W. Norton Art Gallery and Gardens - R. W. Norton Art Gallery is situated in a wooded 40-acre landscaped garden, colored in the spring with white and pink azaleas. Special showing of artist Elton Louviere of Lake Charles, LA

**LES Awards Meeting
Registration
Holiday Inn Downtown, Shreveport, LA
April 24-27, 1991**

Name _____ P.E. YES _____ NO _____
Spouse's Name _____
Chapter: _____

		No. Tickets	Amount
*PREPAID Discount Registration Fee	\$35.00	_____	_____
Registration Without PREPAYMENT	\$50.00	_____	_____
**Daily Registration Fee	\$12.50	_____	_____
Wednesday Golf	\$40.00	_____	_____
Thursday Seminar	FREE***	_____	_____
Thursday Luncheon	\$ 5.50	_____	_____
Thursday Dinner	\$11.50	_____	_____
Friday Luncheon	\$10.50	_____	_____
Friday Awards Banquet	\$12.50	_____	_____
Spouses			
Thursday - Tour and Luncheon	\$18.00	_____	_____
Friday - Tour and Luncheon	\$12.00	_____	_____
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*Prepaid discount applies only if registration & payment is received one week prior to the convention

**Daily registration fee is applicable for one day attendees only

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Holiday Inn Downtown, Shreveport, LA
April 24-27, 1991**

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POTPOURRI

Continued from page 17

assign more and more warm bodies to confirm that the first PE was doing what he or she was ethically bound to do. The profession is doing this to itself. Every day, by our own actions we indicate that we don't feel we can be trusted.

Checking one's hypotheses, assumptions and calculations is a necessary part of producing a competent design. The amount of checking required is similarly part of what makes the professional engineer truly responsible.

If registered civil engineers, as a group, could return to a situation where society in general could be sure that we were demanding high ethical standards of ourselves, and crucifying those fellow members within our ranks who did not uphold them, perhaps we would recapture our status. We would also get rid of a good number of engineers who would not be needed to check other engineers' work.

We just might eliminate the "undersupply" of engineers.

We have it within ourselves to change the existing situation. I heartily agree with those who say that the profession has the power to control the quality of its graduates. Furthermore, it has the moral obligation to do so, and thereby ensure that only those whose ethical conduct is worthy of registration are provided with the opportunity.

Alan Macnab

(Reprinted from *Civil Engineering*, January 1991 with permission from ASCE)

JAMES L. RIKE, P.E.

Continued from page 10

field supervisors in the same room and have them all remark how well they understood and how much they learned. The underlying theme seems to be "practical and straightforward."

Jim is married to the former Carole

McClendon of Fort Worth, Texas and they are the parents of three children. His hobbies include bridge, billiards, and civic activities. He is of the Methodist faith.

Mr. Rike's outstanding achievements make him a worthy recipient of the James M. Todd Technological Accomplishment Medal. **LE**

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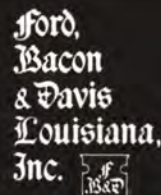
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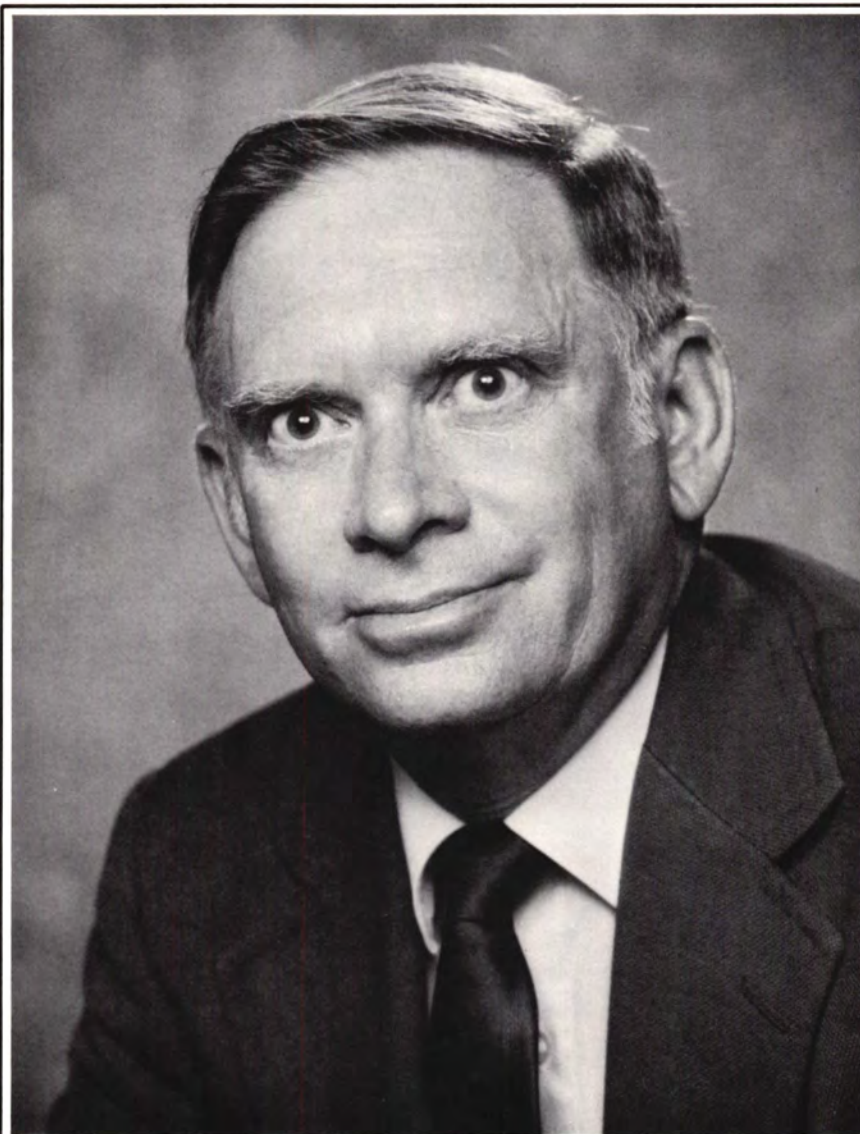
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Sam L. Sullivan, Jr., Ph.D., P.E. Chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, is pictured on this month's cover.



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Presidential Privilege

The opportunity to serve as the Chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors is available to very few. I will do my best to be worthy of the honor.

I have served on the Board for four years and have been impressed with the unity of purpose of the members who come from various disciplines and practice areas. The registration law is designed to prevent unqualified people from causing harm to the Public and the Board will to the best of its ability see that the law is implemented. In my tenure on the Board, I have found that as a chemical engineer in education I have about the same perspective as a civil engineer in government or a land surveyor in private practice when it comes to protecting the Public.

As one organizes an agenda, it very quickly becomes obvious that it is impossible to do everything that could be done. With that in mind, I will share some of my concerns realizing that some of you may have very different ones.

The first is the low percentage of engineers that are registered and who participate in professional societies. For engineering to have as much clout as medicine and law, we need to work very hard to involve a larger cross section of the practicing engineers. Admittedly, the industrial exemption in large part is to blame for the situation but we have not done a very good job of explaining the benefits of registration aside from the fact that the law requires it in some instances. If we contrast engineers with medical doctors and lawyers, it is easy to see why the general public looks at them as professionals and engineers simply as employees. Two organizations, the National Council of Examiners for Engineering and Surveying (NCEES) and the National Society of Professional Engineers (NSPE), are actively engaged in working with the universities to increase awareness of the students concerning registration. It is beginning to pay off since the ratio of Fundamentals Exams to engineering graduates has risen from 56 percent in 1987 to 70 percent in 1990. The next step is to convert those EIT's to PE's. This involves us all since it is so easy to become immersed in one's job after



Sam L. Sullivan Jr. Ph.D., P.E.
Chairman
Louisiana State
Board of Registration for
Professional Engineers and
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graduation and not take the time to prepare and take the 8-hour PE exam. These people need to be constantly reminded of the benefits of registration and also need to be told that it gets harder to prepare for the exam as time goes on and the job focuses on a rather narrow area of the field.

A concerted effort needs to be made to reach the nonregistrants in industry who have not even considered registration. Most companies are very interested in the professional development of their engineers and I can not think of anything better than registration and society participation. One big help would be review courses on site. There are a number of our universities who conduct such reviews and the cost to the company should be minimal. I plan to work along these lines and those of you in industry may have some ideas on how it may be done most effectively. Your input would be appreciated.

Another area of concern is environmental engineering. The Board began to look into this area last year and found that professionals in the field had a hard time delineating what was engineering and

what was biology or geology. With all the publicity recently, we must come to grips with this problem or a bunch of lawyers will do it for us. The Board will continue its study and I would welcome any input any of you can provide.

I am also concerned about the enforcement efforts of the Board. If the Board is to discharge its mandated responsibilities in this area, it must have the full support of the profession in identifying violations. The Board enforcement program is now more proactive than reactive but there is only one investigator who must cover the entire state. He must respond to an average of fifteen or twenty complaints that are either received or self generated each month. Consequently, his time in addressing complaints is limited and is usually dependent upon the nature of the complaint. Some of the complaints received are very informal and lacking in detail, yet the informer expects a conviction. Each complaint must be examined to determine first if it is within the Board's jurisdiction and, secondly to determine what additional information must be developed before the matter can be presented to the Board for a decision as to what action will be taken. More initial information would save considerable time and would allow more complaints to be addressed in a more timely fashion.

In cases where the Board takes no disciplinary action, it is usually because of a lack of hard evidence. However, in many of these cases there are indications of persons with firsthand knowledge who, for whatever reason, choose not to provide that information. It does no good if we are told that it is common knowledge that someone is violating the law if all we have is hearsay which will not stand up in court. There is not always sufficient documentary evidence available to support a finding of a violation of the law or rules and thus testimony of persons with firsthand knowledge is absolutely necessary. I am also appalled at the number of people in our profession who are aware of violations over a period of time who will not report them until they are directly affected, usually financially.

I ask that you work with the Board to address more effectively the problems which exist in the State. LE

The "LES FORUM" invites comments on matters of interest to the profession. Comments should be brief, courteous and timely, and will be edited by the Publications Committee for balance and pertinent content.

Dear Editor;

As Southwest Regional Vice President for NSPE, I receive and enjoy your magazine. The February 1991 edition of the *Louisiana Engineer* had a letter in the "LES Forum" stating the writer's opinion of qualifications-based selection procedures (QBS), which cause me to have to respond since many of the statements made in the article were misleading and erroneous.

Specifically, the author cites the United States Supreme Court's decision in the NSPE case and leaves the erroneous impression that the National Society of Professional Engineers (NSPE) and the Louisiana Engineering Society (LES) are somehow acting in bad faith by promoting QBS procedures by the federal, state or local governmental agencies. Nothing could be further from the truth.

In its decision of April 25, 1978 the United States Supreme Court unambiguously declared that nothing in the Sherman Act requires engineering firms to engage in competitive bidding. Moreover, as part of its opinion, the Court announced that:

(1) Engineers and firms may individually refuse to bid for engineering services;

(2) Clients are not required to seek bids for engineering services;

(3) Federal, state and local laws governing procedures to procure engineering services are not affected, and remain in full force and effect;

(4) State societies and local chapters are free to actively and aggressively seek legislation for professional selection and negotiation procedures by public agencies;

(5) State registration board rules of professional conduct, including rules prohibiting competitive bidding for engineering services, are not affected and remain in full force and effect. State registration boards with authority to adopt rules of professional conduct may adopt procedures to obtain engineering services.

(6) Nothing in the judgment prevents NSPE and its members from attempting to influence governmental action.

Items (4), (5) and (6) are particularly noteworthy in the context of the February Forum. There the Supreme Court acknowledged the propriety of the very conduct opposed by the author.

There are other glaring omissions in the author's comments and characterizations. However, none is greater than the author's utter failure to recognize that for almost twenty years it has been the stated policy of the United States government to mandate QBS procedures in the procurement of engineering/architectural services by federal agencies. That policy is embodied in the Brooks Law which was passed by Congress and signed by the President in 1971.

In further recognition of the benefits of QBS procedures, increasingly state and local governments are imposing QBS procedures in the procurement of engineering services by state and municipal agencies. To date, over 40 states have implemented QBS procedures to apply to state and local agencies either through legislation, administrative rule or court decision.

NSPE and its state societies have been open and forthright in their support of QBS. As noted in NSPE Professional Policy

131 — Principles for Securing of Engineering Services states (which complies with the U.S. Supreme Court decision):

"... NSPE supports legislation at the federal, state and local levels to prescribe a selection procedure for engineering services on the basis of qualifications, including technical competence and staff consistent with the requirements of the project. Such legislation should state the purpose of the procedure which recognizes that the interests of owners are best served when the engineering services reflect specialized knowledge and skill, experience in the type of project involved, assignment of qualified personnel, ability of the engineer to perform on a timely basis, recognition of the importance of total cost of the project within budgetary limitations, and such other areas of expertise as may be identified by the owner.

"NSPE recommends that legislation for procurement of engineering services recognize the desirability of the opportunity for engineers and firms to be considered on their merits in the selection process, and further recognize that a means be provided whereby professionally qualified engineers or firms be ranked on the basis of ability to provide the service, followed by negotiations with the best qualified engineer or firm to determine a mutually satisfactory agreement for the scope of services agreed upon."

I would hope that in the future, before making broad-sweeping characterizations and statements about NSPE, LES and the issue of QBS, the author would feel obligated to examine the issues in greater depth and detail. **LE**

Joe Paul Jones, P.E.

Vice President, Southwest Region NSPE

LEGISLATIVE UPDATE

By John K. Laws, Jr., P.E.

As your Legislative Chairman for the Louisiana Engineering Society (LES), I have been charged with representing our membership during the upcoming Legislative Sessions beginning in April. The bulk of our work at the beginning involves scanning the 3,000 plus legislative bills which are filed each year and selecting those bills which pertain to our profession (usually 150 to 200) for further review and monitoring. At that point, we may support or oppose several bills of

significant impact. Other bills are monitored for significant amendments which, in original form, may have no significant impact on our profession. Usually the LES, along with other professional societies, sponsors several legislative bills which we feel are in the best interests of our profession and which help protect the health, safety and welfare of the general public.

On this last issue, the LES Legislative Committee has recommended several pieces of legislation for the upcoming Legislative Session. One bill concerns the reduction of the preemptive period for

professional liability from ten (10) years to five (5) years or possibly three (3) years. This bill will be sponsored by a coalition of Architects, Surveyors, Engineers, etc. A second bill deals with the placement of Design Professionals, who are involved with a construction project, under the Workers' Compensation umbrella. This bill will be primarily sponsored by the Consulting Engineers Council of Louisiana and supported by LES. The third bill deals with the makeup and powers of the Louisiana State Board of Registration for Professional Engineers

Continued on page 14

AIA Joins Engineering Groups, EJCDC, in Endorsing Use of Limitation of Liability in Contracts

The American Institute of Architects (AIA) recently included a limitation of liability clause in its standard B-141 contract for the first time.

Although the concept has been accepted and widely used by engineering professionals for some time, the AIA previously had no approved format. The new clause will speed incorporation of the concept of limitation of liability into owner/architect agreements and make it easier for engineering and other sub-consultants to obtain similar liability limitations, observers say.

"This is significant new visibility for limitation of liability," said David Hatem, a Boston attorney who specializes in defending construction-related claims. "While the concept is still somewhat controversial and not universally embraced, it is being increasingly acknowledged, accepted and implemented by owners and design professionals as part of risk allocation to manage liability risks on design and construction projects."

"You have to realize," Hatem added, "that in most construction projects, the liability risks for the design professional are grossly disproportionate to the economic benefits and rewards (i.e., the fees). Limitation of liability realigns liability risks with rewards."

A leading proponent of limitation of liability for design professionals is Joe Worth, vice president and director of professional practice of CH2M Hill, one of the country's largest multidisciplinary engineering firms. Worth observes that "of those involved in a project, the owner stands to benefit much more; and for many more years, than either the contractor or design professional. Limiting the liability of the design professional is a fair and equitable way to apportion project risks to anticipated reward, and reflects the design professional's limited ability to control various risk factors during the design and construction process. Firms that continually accept unlimited risk will eventually suffer major losses and perhaps bankruptcy."

The AIA's support for limitation of liability was greeted with enthusiasm by Peter Hawes, president of DPIC Companies, a Monterey, California-based company which offers a leading insurance program for architects and consulting engineers.

"We've been encouraging limitation of liability for many years by offering large credits for using it," Hawes said. "But we're just an insurance company. The prestige and clout of the AIA and the other professional societies is really the key to convincing clients that it's acceptable for design professionals to use limitation of liability. Once design professionals believe that they have the right to refuse to accept unlimited liability, the battle will be won."

The new AIA clause reads, "12.2.1 Compensation. Neither the architect, the architect's consultants, nor their agents or employees shall be jointly, severally or individually liable to the owner in excess of the compensation to be paid pursuant to this agreement or of _____ dollars (\$ _____), whichever is greater, by reason of any act or omission, including breach of contract or negligence not amounting to a willful or intentional wrong."

In other words, Hatem says, "it means simply that if an architect makes a mistake, he or she is liable—but not for more than the fee or a specified dollar amount. The design professional has the opportunity here to negotiate with the owner about what an appropriate amount might be."

The AIA offers an alternate limitation of liability clause that limits liability to the "currently maintained professional liability insurance coverage carried by the Architect." This "fallback" position reflects the fact that insurance is usually the primary source of funds available to a designer facing liability.

Hatem cautions, however, that the face amount of coverage in effect at the time the owner/architect agreement is signed may not actually be the amount of coverage in existence and/or available at the time that a claim is actually made (due to depletion by other claims, failure to renew coverage, lower limits and other circumstances).

Hatem's recommendation for a precisely worded limitation of liability clause reads "The liability of the architect or engineer shall be limited to the amount of any

insurance coverage available to satisfy any claim made against the design professional within the scope of any such coverage in existence at the time that the claim is first made, or _____ dollars (\$ _____), whichever is greater."

DPIC's Hawes notes that experience in working with design professional's claims suggests that "any limitation is better than none. The important thing is to start the education process for both yourself and your clients."

Copies of the AIA's B-511 document, which amends the B-141 and contains the two limitation of liability clauses and information on the reasons for using limitation of liability, can be obtained from the American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. 20006. Copies of the Engineers Joint Contract Documents Committee (EJCDC) limitation of liability guide, No. 1910-9-F, are available from the American Consulting Engineers Council, 1015 15th Street, N.W., Washington, D.C. 20005. **LE**

Courtesy of DPIC Companies, Inc.
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(800) 227-4284

Where Are We Going?

Don Thompson

Every design firm has a leader. He or she is the president, chief executive officer or managing partner. The leader of the firm is responsible for drawing a road map, a vision for the company's future. Too often, this is either not explicit or never communicated to others. This is a costly mistake. People want to know where they are going. They want dreams, goals and challenges. They want to identify with a career path.

Would you want to get on an airplane if the pilot did not know where he was going? Why should we expect someone to trust their chosen lifetime career to a firm whose pilot does not know where he or she is going?

CEO's are so busy doing the urgent, they don't have time for the important. A vision of the company's future is important, but they are putting out fires or dancing to the latest crisis. In some cases, they really do



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



not know where to start or what questions they should be asking themselves.

What is our marketing niche? Where is our market? Is it changing? What will it be in five years? What changes will we have to make to stay on the cutting edge? How will our clients' needs change during that period?

Will our staff remain the same size or are we contemplating growth? How much and how fast? Growth for growth sake is ridiculous. Both fat and cancer are products of growth. A&E firms grow to give young professionals an opportunity to advance without waiting for someone to leave or die. Growth is both exciting and challenging.

To grow we must add new services or new clients. A direction decision must include a marketing plan and commitments to a time frame.

Analyze your operation in the light of your new vision. Are your systems and procedures adequate to handle any contemplated changes? Will your reporting systems parallel your work flow? Will the information allow you to control projects? Will your reporting system show individual accountability?

In looking forward, we need to focus on people, both quantity and quality. Do our people have the right skills and attitudes? Where will they fit in the future organization? Do we need to do some recruiting now for the future? What training programs are necessary?

Our pursuit of a chosen lifetime career is a trip. All trips need destinations or stop-over goals. The failure to set up these benchmarks shortchanges all travelers. No person should agree to follow someone that does not know where they are going.

(Don Thompson is a management consultant who specializes in working with architectural and engineering firms. He can be reached at 3247 Embury Hills Drive, Atlanta, GA 30341; 404/455-8414). LE

The American Consulting Engineers Council has supplied us with the following FACT sheets. Please read them and think about them!

Shortage of Engineers

The number of engineering baccalaureates in 1996 will fall short of demand. By the year 2010 the shortfall will be 700,000.

-National Science Foundation

Over the next five years, the college-age population will decline and the supply of engineers graduating from college will also decline, perhaps quite markedly. The demand for engineers may have to be met by non-traditional sources which may result in a diminution of quality and threaten the long-term international competitiveness of the United States

-National Science Foundation and the National Academy of Sciences

Over 5 percent of bachelor's degrees were granted to minority students in 1985-6. In 1986, over 11,000 were earned by women, 6300 by foreign nationals. By 1995, engineering baccalaureates earned by foreign citizens may increase to 9000, accounting for 13 percent of degrees awarded.

-National Science Foundation

The number of women graduates in mathematics and computer science fields could drop from a high of 22,400 in 1986 to only 9,000 in 1989.

-National Science Foundation

Japan trains 1000 engineers for every 100 lawyers. The United States trains 1000 lawyers for every 100 engineers. Two thirds of the world's lawyers practice in the United States.

Between 1,300 and 1,800 engineering faculty positions at U.S. colleges and universities are currently vacant.

-Council on Competitiveness

Employment of engineers rose substantially from 1972 to 1986, increasing from almost 900,000 to over 2.2 million (average growth rate of seven percent per year).

-National Science Foundation

Facts on Foreign Competition

America is graduating 1,000 lawyers for every 100 engineers. In Japan, that statistic is reversed.

-National Science Foundation, American Bar Association

America is graduating half as many Ph.D.s in the physical sciences as we did in the 1970s—and half of those graduates speak English as a second language.

The average starting salary for graduate engineers exceeds that of graduate attorneys.

-National Science Foundation

American women comprise 40 percent of the work force—but only four percent of America's engineers are women.

-National Science Foundation

The United States invests two percent of GNP in public facilities; Japan invests eight.

-Environmental Infrastructure Bond Act

Japanese 4th and 5th graders spend 890 hours per year in classrooms while U.S. 5th graders spend 710.

During 1986 in West Germany, France, United Kingdom and Japan, 13 to 26 percent of students obtained their first degree in engineering, while only 7 percent of U.S. students obtained first degrees in engineering.

On a world-wide basis, the U.S. interest in engineering and science is declining to about 18 percent of the world's total engineers and scientists while the Soviet Union has about 36 percent of the world's engineers and scientists.

Japan, with a population one-half of the United States, graduates twice as many engineers.

-Aerospace Education Foundation Study

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LES Board of Direction Meeting Highlights

December 1990 Meeting

The December meeting was held in Baton Rouge, LA with twenty-one board members, one guest, and the LES staff present.

1. The October and November 1990 financial statements were accepted subject to the annual audit.

2. The 1989-90 Financial Review prepared by the Society's Certified Public Accountant was distributed for discussion at the February Board meeting.

3. The Membership Report ending November 30, 1990, was presented to the Board. Less than 10% of the membership quota for the 1990-91 administrative year has been achieved. Chapter membership quotas for the 1990-91 administrative year was distributed and approved by the Board.

The Bayou Chapter won the 1989-90 Membership Net Growth Contest. The Membership Committee is discussing possible revisions to the contest guidelines.

4. Due to a request by the State Board of Registration, the Louisiana Engineering Society and the Louisiana Society of Professional Surveyors continue their discussions with the State Board to resolve issues concerning the engineer/land surveyor position on the State Board. Legislation proposed will change the number of board members from ten to eleven. The proposed changes will decrease the number of representatives from four of the practice divisions (education, government, private practice, and industry) to one from each of the five practice divisions, thereby adding representation from construction. This will leave four (4) at-large appointments to be selected by the LES Liaison Committee based on recommendations from the five LES practice divisions.

The LES Board of Direction and the Society of Professional Land Surveyors are in agreement with the proposed changes. The State Board of Registration members in attendance at meetings to discuss proposed changes has tentatively agreed to the changes and will advise LES of their position following their meeting in January.

5. A major rewrite of the Constitution and Bylaws is underway. A draft was distributed to the chapter presidents for distribution at their general membership meetings.

6. The Continuing Professional Development Committee is researching the concept of CPD. They are awaiting

guidelines from the State of Minnesota and possibly the State of Michigan. The Committee will report to the Board at a later date.

7. The Long Range Planning Committee is awaiting input from chapter presidents on the issue of changing the statewide meeting dates. The Committee has received meeting date requests from all chapters except the North Lake Chapter. A proposed schedule was presented to the Board.

8. A MATHCOUNTS Financial Profile was distributed to the Board. President LaBauve regretfully reported that a major MATHCOUNTS sponsor has reduced their annual contribution from \$15,000.00 to \$5,000.00 with no guarantee of continuing at that level. Other contributors have also reduced or indicated the possibility of reducing or discontinuing their contributions. The Board members pledged their support to continue this program and will initiate a solicitation program to finance this program.

9. The Honors and Awards Committee met prior to the Board meeting. The Board of Direction unanimously accepted the Committee's recommendations as follows: Charles M. Kerr Public Relations Award, Carl A. Jakob, P.E.; Andrew M. Lockett Medal for Civic Activities, James L. Meyer, P.E.; Leo M. Odom Award for Services to the Profession, H. L. Henry, Jr., P.E.; A. B. Paterson Medal for Engineer in Management, Neil L. Wagoner, P.E.; F. Hugh Coughlin Young Engineer Award, J. Andy Craig, P.E.; and James M. Todd Technological Award, James L. Rike, P.E.

The awards will be presented at the LES Awards Meeting in Shreveport on April 26, 1991.

10. The Government Engineer of the Year Award has been established by the PEG Division. A layout of this award will be presented at the February meeting.

11. The Board gave authorization to purchase a computer and laser printer.

February 1991 Meeting

The February meeting was held in Houma, LA with sixteen board members, three guests, and the LES staff present.

1. The December 1990 and January 1991 financial statements were accepted subject to the annual audit.

2. The 1989-90 Financial Review, distributed at the December meeting, was discussed. The Financial Review as presented by the CPA was accepted by the Board.

3. The Membership Report ending January 31, 1991, was distributed. With 33.33% of the membership recruitment year completed, 17.11% of quota has been achieved.

In future LES dues billings, a flyer will be included for members to update their address, telephone number, and place of employment.

4. The Legislative Committee met prior to the Board meeting. Topics of discussion included (1) reduction in prescriptive period for professional liability (statute of limitations), (2) the procurement procedures by the State of Louisiana, (3) LABI membership and their legislative program, and (4) proposed changes to the registration law.

Procurement of professional services by state agencies was discussed at length. The Committee does not feel that filing legislation is a remedy that is in the best interest of LES. The Legislative Committee suggested and the Board agreed that a delegation meet with the appropriate state agency or agencies to discuss our QBS policy and to determine with said agency or agencies how they decide whether a RFP is for a "consultant" or for "engineering" services. It was recommended that the delegation meet with the Office of Contractual Review since all selections for engineering services go through their office except for DOTD work and capital outlay projects which exceed \$200,000.00.

John K. Laws, P.E., Chairman of the LES Legislative Committee, informed the Board that the Louisiana Architects' Association is taking the lead role in the statute of limitations legislation. LES will be represented at a meeting on February 11 to discuss this legislation.

5. James L. Meyer, P.E., Chairman of the LES Liaison Committee, reported that the State Board of Registration elected to take no action on legislation proposed to resolve issues concerning the engineer/land surveyor position on the Board even though LES and LSPS acted on a request by them.

Meyer reported that the President of the Land Surveyors Association and he have been invited to address the issue at the Board's meeting scheduled for March 25-26, 1991. President LaBauve requested that the State Board of Registration call a "special meeting" to address this issue in order that the LES Legislative Committee has sufficient time to handle

1991 NSPE Winter Meeting Highlights

The NSPE Winter Meeting was held in New Orleans, Louisiana, January 12-19. Highlights of the week's events follow.

NSPE BOARD OF DIRECTORS' DISCUSSION OF THE U.S. ENGINEERING MODEL

A unique format was adopted for the NSPE Board of Directors meeting to explore a number of issues crucial to the future of U.S. engineering. In a day-and-a-half special session, discussions were held on engineering registration, education, and a unified engineering society. Formal pro and con presentations on change in each of the subject areas were followed by a day of floor debate in which Board members and guests expressed their views on the need for change or maintaining the status quo in each area. NSPE President Neil Norman noted how all three areas tie into one U.S. engineering model: "The notion of dealing with the profession as a system is not one we have used before. We tried to give a systems view of the whole profession. With a systems view, let's try to make improvement."

Registration

Addressing the need for change in the engineering registration process, NSPE past president Robert Gibson cited the existing exemptions for industrial, utility, and governmental engineers as an impediment to widespread registration among engineers. To make all true engineers "professional engineers," Gibson recommended that graduates of Accreditation Board for Engineering and Technology (ABET)-approved engineering schools receive a first level of registration. Passing a university-based exit exam would be a requirement for graduation, thus eliminating the EIT exam. After graduates acquired six years of appropriate experience, they would be granted a second level of registration that would allow them to seal drawings. Passage of the PE exam would no longer be required.

In favor of the status quo, Charles Kimberling, past chairman of the National Council of Examiners for Engineering and Surveying (NCEES) stressed that due to potential shortfalls in today's engineering education, a "third party" was necessary to administer a competence exam for registration. He also cited the rigorous preparation that goes into creating the Principles and Practice exam.

Education

Addressing the engineering education model, Joseph Bordogna, dean of engi-

neering emeritus at the University of Pennsylvania, called on engineering colleges to institute a more integrated, interdisciplinary approach that would allow students to experience more than just mathematics and physics courses early on. Creativity would be stressed through design and hands-on projects for students from the start. Learning the fundamentals would tie into the engineering projects and would not only keep students in engineering programs but would produce better engineers, he said.

In favor of maintaining the current approach to teaching engineering, Donald Rathbone, dean of engineering at Kansas State University, emphasized that the current ABET-recommended course work provides a strong foundation for any engineering student and stressed that downplaying specific engineering disciplines might sacrifice training in essential basic skills.

Representation

A proposed unified engineering society model, presented by Frank Notaro, past president of the New York State Society of Professional Engineers, cited registration exemptions as a roadblock to creating a society for all engineers. Notaro pointed to the NSPE 2000 Task Force, which had proposed an "American Engineering Society" that would encompass engineers of all disciplines, attract 500,000 members, and finally give engineers the clout that doctors and lawyers enjoy through the AMA and the ABA.

Marvin Specter, past president of NSPE, argued in favor of the status quo, stating that when NSPE established the "associate member" for nonregistered engineers, membership did not rise dramatically. Moreover, Specter believes that NSPE's founders wanted a society to represent professional engineers only and that the grass roots members of NSPE share that goal today.

A lively discussion from the Board and guests followed. Further details appear in the February Engineering Times.

A NEW GRAPHIC IMAGE FOR NSPE

To give a unified identity to all NSPE groups and divisions, the Board of Directors approved a newly designed NSPE logo that will act as the official insignia of the Society. This insignia will replace the current logo, the NSPE shield, and the national practice division logos. In addition, state societies and chapters

may wish to adopt the new insignia as well.

The new NSPE insignia will be inaugurated in July at the Annual Meeting in Grand Rapids, Michigan.

ACTIONS OF THE BOARD

Registration, Ethics, and Legal Issues

Several resolutions in the areas of registration, ethics, and legal issues were before the Board.

The Council for International Engineering Practices (CIEP), made up of representatives from ABET, the National Council of Examiners for Engineering and Surveying, and NSPE, has suggested that all registration exemptions for engineers be removed. A proposed NSPE action would have asked CIEP not to proceed with that intent. The Board referred the proposal to the International Relations and the Registration Committees for further study.

NSPE approved a resolution to reaffirm NSPE's support of faculty registration to ABET as part of the accreditation process.

The Board voted to express its concern over the direction of the Council on Engineering Specialty Boards (CESB) in regard to certifying nonlicensed professional engineers. NSPE will continue to review its participation in CESB.

Another proposal considered by the Board declared that inspection and examination of buildings can only be legally rendered by registered professional engineers with the exception of architects' inspections, routine inspections of new construction by designated municipal building inspectors, and the "identification of problems by visual inspection or normal operation of user controls, provided that professional engineering evaluations or conclusions are not made." The Board sent this proposed Professional Policy on Building Inspection Services back to committee for further review and until comment from the National Academy of Building Inspection Engineers (NABIE) and the American Society of Home Inspectors (ASHI) could be obtained.

NSPE has called on the National Council of Examiners for Engineering and Surveying (NCEES) to study a change in the NCEES Model Law. The change would incorporate a category entitled "Inactive Status," which would permit a retired or inactive engineer to discontinue active registration but would permit the indi-

vidual to use the title "P.E." and reactivate licensure upon reapplication.

The NSPE Board reaffirmed its support of the concept of registration of engineers only as "professional engineer" and opposed registration status by designated branches or specialties.

Government Relations

The Board of Directors amended the NSPE position on legislation to improve construction job-site safety. The new language calls for safety professionals on the job site to have construction experience, individual employees to be responsible for themselves and their conduct, and construction contractors to make thorough substance abuse programs available to all employees.

A policy urging all state societies of professional engineers to support legislative or regulatory measures designed to control substance abuse in the workplace when it affects professional services was approved by the Board of Directors. The policy also states that acceptable substance abuse programs must provide for proper due process and protection of privacy for those involved.

Society Development

The Board passed a constitutional amendment to allow international engineers who have similar status to U.S. professional engineers but whose countries do not present practice licenses or certificates to practice to become NSPE International Members. The provision states: "an International Member shall be defined as a person holding a valid license or certificate of registration or equivalent as a professional engineer issued under the laws in any country."

RESOLUTIONS

A resolution to endorse a wetland policy that balances social, economic, and environmental factors was introduced for Board consideration by the Mississippi Engineering Society. The resolution which also endorses continued regulation of dredging and filling by the U.S. Corps of Engineers, was referred to the NSPE Legislative and Government Affairs Committee for further study.

A proposal submitted by the New York Society of Professional Engineers intended to prohibit the use of calculators during the MATHCOUNTS competition was defeated.

The Michigan Society of Professional Engineers offered a resolution that would accelerate implementation of a guaranteed full-career pension program for engineers. It was referred to the NSPE Legislative and Government Affairs Committee for further study.

The Board approved a conflict of interest policy that prohibits NSPE from con-

tracting for services or products with a Society member who is in a "real or apparent position to influence the decision to contract for or render payment for such services or products."

TQM PRESENTATION

Total Quality Management (TQM) "guru" Armand Feigenbaum spoke at the NSPE Joint Practice Division Awards Luncheon and addressed the issue of achieving engineering leadership in quality, which he believes is crucial for competition in global markets during the coming decade.

Feigenbaum, who was presented the first Distinguished Service Award from NSPE's National Institute for Engineering Management and Systems (NIEMS), said he expects the 1990s to be a "staggeringly different and much more demanding era for engineering—and for business in general—than what we experienced throughout the 1980s."

Feigenbaum's company, General Systems Co. in Massachusetts, designs and installs total quality systems for manufacturing and service organizations around the world.

AWARDS

Two awards luncheons were held to honor achievements in engineering.

NSPE New Product Awards

The NSPE New Product Awards paid tribute to three companies for their development of innovative new products. In the large company category, Beech Aircraft Corporation won an award for the Beech Starship, the first Federal Aviation Administration certified all-composite corporate airplane.

In the medium-size-company category, TPS Technologies took top honors for its soil remediation unit, which removes gasoline and other petroleum products from soil.

Isothermics, Inc., was recognized as the winner in the small company category for its thermal pest eradication system, which uses controlled heating to eliminate pests.

Outstanding Engineering Achievement Awards

Ten Outstanding Engineering Achievements were honored by NSPE at a separate luncheon. They were the Midland Cogeneration Venture in Michigan, which converted an unfinished nuclear power plant to a natural gas-fueled, combined-cycle cogeneration facility; the Rust Slough Flood Control Project in Alaska, in which engineers used on-site materials and air transportation to facilitate construction; the Offshore Petroleum Discharge System in Texas, which enables the military to supply diesel

fuel from ship to shore in a battlefield environment; the Bordentown Wetland Mitigation in New Jersey; the North-South Tollway Project in Illinois, which required the relocation and revegetation of wetlands; the Sidney A. Murray, Jr., Hydroelectric Station in Louisiana; the Downtown Seattle Transit Project in Washington; the Three Mile Island Unit 2 Recovery Program in Pennsylvania; and the South Dakota Cultural Heritage Center in Pierre, South Dakota, which featured energy-efficient construction for a large building.

NSPE STUDENT CONFERENCE

More than 80 engineering students came from around the country to attend the NSPE Student Conference. The three-day conference gave students the opportunity to exchange ideas about their own chapters, talk about their engineering curricula, participate in an ethics workshop with National Institute for Engineering Ethics (NIEE) Chairman Margaret Maxey, and attend the Board of Directors meeting.

SOCIETY DINNER

War broke out in the Persian Gulf just as the NSPE State of the Society Banquet was beginning. NSPE President Neil Norman suspended the evening's planned agenda and arranged for audio reception of President Bush's address to the nation to be played in the banquet hall during the evening.

PAC LUNCHEON

The PAC luncheon at the Winter Meeting took an unexpected turn as war broke out in the Persian Gulf. The scheduled speaker, Congressman Joe Barton (R-Texas), was unable to leave Washington as events in the Middle East unfolded. A special telephone hook-up allowed the Congressman to speak to the luncheon crowd about the latest developments in the Gulf War and answer questions from the audience. Barton is a member of the House Committee on Energy and Commerce, the Subcommittee on Energy and Power, the Subcommittee on Commerce, Consumer Protection, and Competitiveness, and the House Science Space and Technology Committee.

FUTURE MEETING SITES

The NSPE Board approved meeting sites for 1996. The Winter Meeting will be held in Portland, Oregon, and the Annual Meeting will be in Boston, Massachusetts. LE



Leta G. Bueto
Executive Director
Louisiana Engineering Society



Membership Recruitment Report Louisiana Engineering Society

As of February 28, membership in the Louisiana Engineering Society was down 3.21%. This figure now is a negative, the chapters have the rest of this year to provide for a positive growth in our Society. The Alexandria chapter has already achieved this positive growth as compared to last year at this time. The other chapter presidents and membership chairmen are encouraged to initiate and continue their membership drive. The quota of members to be recruited this year by all chapters is 187. To date, 43 members have been recruited. Based upon the total quota of members, the Alexandria chapter has achieved 50% of its quota. They are present-

ly in first place in the recruitment contest for the State. The Monroe chapter is in second place with 4 members recruited, followed by Baton Rouge, New Orleans and Lake Charles, all closely grouped together. On the tail end of the recruitment at this time are North Lake, Lafayette and Shreveport. Each engineer in this state receives benefits from the activities of the Louisiana Engineering Society. Only by becoming a dues-paying member can an engineer in this state assist those who are members in providing for all engineers. If you would like a membership packet for more information, please call our State Office at 504-344-4318.

Billy Moore
State LES Membership Chairman

National Council of Examiners for Engineering and Surveying Records Verification Program

The NCEES Records Verification Program provides and serves as a verifying agency for the Professional Engineer or Professional Land Surveyor who is seeking multiple state registration and who meets the requirement of holding a current registration with at least one registration board. Through this program, the Council verifies and houses the Record Holder's file which contains their college transcripts, registration information, professional engineer references and employment verifications. When registration in additional states is needed, a copy of the NCEES Council Record can be transmitted to other registration authorities with a written release.

The intent of the program is to reduce the amount of paperwork required by the registrant at such time as they choose to become registered in another state.

Licensure is not guaranteed based on the Council Record, as this is a distinctive function of the registration board. NCEES merely functions as a centralized record-keeping service for the convenience of the professional who seeks multiple state registration. The Council Record is designed to be a recognized and reliable source of information for review.

Further information concerning this Program can be obtained by contacting the NCEES Records Department at P.O. Box 1686, Clemson, SC 29633-1686, telephone (803) 654-6824.

Court Upholds Limitation of Liability

A California Court of Appeals has rejected an owner's contention that a design professional's limitation of liability clause must be negotiated separately and distinctly from the rest of the contract to be valid and enforceable. The court also held that the party proposing the limitation of liability clause need not discuss the potential risks of the project, as the owner had suggested.

Continued on page 12



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Upholding a \$67,640 limitation of liability clause contained in a contract between an engineer and a real estate developer, the California Fourth District Court of Appeals rejected a narrow construction of the way limitation of liability clauses must be negotiated and agreed to. In delivering its response to the plaintiff's appeal to the California superior court's ruling in *Markborough v. Glenn*, the appeals court said that as long as each party "is dealing in an arm's length transaction with an opportunity to accept, reject or modify the terms of the agreement," the clause will be valid even if the limitation of liability appears in the contract as standard boilerplate language and was not specifically discussed.

"Markborough agreed, whether knowingly or simply because it failed to read the contract, to assume the risk of most of the economic loss which might result from Glenn's negligence in exchange for a consulting fee acceptable to it. There is no justification for allowing Markborough to shift this loss to Glenn which neither agreed to assume it nor was compensated for such assumption," said the court.

"Markborough is a landmark case in construing limitation of liability language in contracts," said attorney Michael B.

Murphy of Severson & Werson (San Francisco), the firm that filed the amicus curiae (friend of the court) brief with financial assistance from DPIC Companies, American Consulting Engineers Council, Association of Engineering Firms Practicing in the Geosciences and ten other design professional entities and associations. "But design professionals must be mindful of the implications of the decision. There must be an opportunity to negotiate the limitation of liability clause. The design professional's client must be in a position to delete or amend the clause.

"And, looking down the road, it would also be prudent for design professionals to keep records of instances where the proposed limitation of liability clause was challenged by a client and eliminated for an appropriate additional fee. These records could arguably be relied upon as evidence that the design professional is receptive to negotiating the limitation of liability as part of his or her business practice."

Murphy also added that limitations of liability must be carefully drafted. For example, a cause of action such as breach of contract may not necessarily be covered in a typical limitation of liability. "Remember that any ambiguity in a contract will be construed against the drafting party."

Elliott Gleason, senior vice president of claims for DPIC Companies, the only insurance company amicus participant except for Terra Insurance Company, said "this is a very significant decision for DPIC and our many friends in the professional liability community. Since DPIC was founded, we have advocated the use of limitation of liability and encouraged its use through premium reduction credits."

But Gleason, like Murphy, said that *Markborough* offers lessons that should be carefully heeded. "The court's opinion leads me to the conclusion that limitation of liability clauses will maintain much greater credibility with the judiciary if the specific contractual clause is highlighted in the contract form and if the initials of the contracting parties appear near the clause," said Gleason.

One of the most important things about *Markborough*, said DPIC's Gleason, is that it sets down a procedure for the proper implementation of limitation of liability. "In California, the Civil Code makes limitations of liability legal, but there has been little discussion to date as to how to effectively draft clauses that will withstand judicial scrutiny. Now the court in California has given us something to work with, which can be used by other

Continued on page 14

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**Paul L. Landry, P.E.,
Executive Secretary**

**Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.**



THE BOARD

The Board of Registration for Professional Engineers and Land Surveyors for the State of Louisiana is a very unique entity. It is **bureaucratic** — federal, state, and local laws must be adhered to in its operation. Its employees are civil service employees of the State.

It is **independent** — once a governor appoints a board member (who serves for six years and cannot be reappointed) he cannot be removed except for cause. The Board does not use public funds. It does not receive any funds from the State but it gives the State money. The monies the Board receives from fines cannot be kept and must be handed over to the State. The fees received from registrants of the Board and applicants for registration pays for the Board's operation. Twenty thousand registrants and about three thousand applicants pay about \$600,000.00 each year.

WHAT DOES THE BOARD DO?

It protects the public. The law says so. If it does not do that, it is not doing its job. The Board is unique in that it makes rules (legislative), it administers the law (executive), and it enforces the law (judicial).

In the legislative process, it has the **legislative** power in that it can and does promulgate rules of the Board which are an extension of the law. It has **executive** powers in that it administers the Board's office operations which consist of enforcement, processing the applications, administering examinations, registering or certifying of individuals as Professional Engineers, Professional Land Surveyors, Engineers-In-Training, Land Surveyors-In-Training or Firms which offer engineering or land surveying services. It has **judicial** powers in that as a result of investigations it holds

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415 New Orleans, La. 70130 on the following dates.

1991

June 3-4	Sept. 23-24
July 22-23	Nov. 11-12

EXAMINATION SCHEDULE AND APPLICATION DEADLINE DATES

Examination	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Principles & Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum	NOT AVAILABLE		Aug. 1, 1991	Oct. 26, 1991
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Principles and Practice of Land Surveying (4 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Laws and Procedures of Land Surveying (3 hrs.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	
Louisiana Laws and Procedures of Land Surveying (1 hr.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination.

The applicant and the Board depends upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration** for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

hearings for registrants or anyone who fails to abide by the law and rules of the Board. It may fine, reprimand, suspend, or revoke a registrant's registration. It may also fine or order any person (not a registrant of the Board) to cease and desist from violating the law and rules of the Board.

The Board does have very broad powers but it has overseers. The overseers are the registrants of the Board and the public, YOU. The rules of the Board are promulgated only after being formally presented to you following the Administrative Procedures Act of the State. This means a formal presentation is published in the *Louisiana Register* the official journal of the State, and the *Louisiana Engineer*, the official journal of the Board, of its Notice of Intent of a proposed rule change. This

is followed by a time to receive comments and for you to have an audience with the Board. The Board then acts to adopt a rule which is formally announced in the *Louisiana Register* and the *Louisiana Engineer*. In this process, you have the opportunity to be heard and to present your views. I can assure you that the Board will listen — it may not agree with you — but it will listen.

WHAT THE BOARD DOES NOT DO!

What the Board will not do is protect you as a professional. This may sound rather harsh, but the Board does not exist to protect the engineer or the surveyor. The Board exists to protect the public. Registrants of the Board, all of whom are

Continued on page 19

LEGISLATIVE UPDATE

Continued from page 5

and Land Surveyors (Registration Board). The bill (or bills) will be sponsored by the Louisiana Engineering Society and the Louisiana Society of Professional Surveyors (LSPS).

There are three separate issues involved with this last piece of proposed legislation. The first issue involves removing the current ten (10) year time limit for maintaining a passed fundamentals exam (FE) (EIT) credit on your record. The second issue involves removal of the limitation of voting powers for the Land Surveyor Member(s) of the Registration Board and empowering him/her with the same voting powers as any other Registration Board Member. The third and most significant issue deals with adding one additional Land Surveyor Member to the Registration Board while deleting the requirement for a combined Engineer/Land Surveyor Member, requiring that at least one (1) but not more than three (3) Board Members being employed in Government, Education, Industry, Private Practice, and Construction. The end result of this change would be an eleven (11) member Registration Board made up of nine (9) Engineers and two (2) Land Surveyors, all with full and

equal voting powers. The engineer members will be employed in the five fields of engineering practice, Government, Education, Industry, Private Practice, and Construction, with a maximum of three (3) from any one functional area.

The Louisiana Engineering Society and the Louisiana Society of Professional Surveyors State Boards have endorsed this legislation, as well as the Louisiana State Board of Registration for Professional Engineers and Land Surveyors; however, the Legislative Committee invites your comments on this piece of legislation or any other legislation before actively pursuing these bills in the Legislature.

These legislative issues will be discussed at the Legislative Committee Meeting on April 26th, 10:30 a.m. at the Shreveport Downtown Holiday Inn during the LES Awards Meeting and at the General Membership Meeting scheduled for 4:15 p.m. that same day.

Your involvement in these and other activities of the Louisiana Engineering Society is not only encouraged but urgently needed. We cannot adequately represent your profession unless we have your active participation in the Louisiana Engineering Society. To those that do actively participate - THANKS! We appreciate it!

POTPOURRI

Continued from page 12

courts throughout the nation. It's a very promising development for design professionals."

In 1981, Markborough, a subsidiary of the real estate arm of the Hudson Bay Company, entered into a contract with J. Harlan Glenn & Associates, an engineering firm specializing in the design of manmade lakes, to design a manmade lake for Markborough's "Sunnymead Ranch" in Southern California. In February 1986, the lake liner failed, costing Markborough \$5 million to remedy the problem. Markborough brought suit against Glenn for breach of contract to recover its damages, but Glenn filed a motion for summary adjudication based on its limitation of liability for exposure to claims for professional negligent acts, errors and omissions in the amount of \$67,640 — the amount of the fees it received for its work.

It is not known as of this date whether Markborough will seek review in the California Supreme Court of the court of appeal's decision. (*Markborough v. Superior Court*) (1991)-Cal.-App. 3d; 91 Daily Journal D.A.R 1833. LE

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TOTAL JOB CAPABILITY

A Brief History of the Louisiana Engineering Foundation

The Louisiana Engineering Foundation was incorporated in 1978 by a group of Louisiana professional engineers, members of the Louisiana Engineering Society and other professional engineering groups. Mr. R. C. "Doc" Spears was appointed Executive Secretary. Its starting objectives were to promote charitable, educational and scientific objectives. More specifically, its goals were:

- (1) To grant scholarships.
- (2) To provide guidance and information to high school and college students who are interested in an engineering career.
- (3) To provide opportunities in the form of seminars, workshops and the like for practicing engineers to continue their education and professional development.
- (4) To disseminate engineering information beneficial to the interested public.
- (5) To establish and maintain an Engineering Center.

The original officers were: Vincent A. Forte, P.E., President; A. J. Szabo, P.E., Vice President; Guy W. Miller, P.E., Secretary; and James L. Meyer, P.E., Treasurer.

One of the first functions of LEF was to establish a base from which to operate. It was quickly and logically decided that this should be in the Baton Rouge area. Fortunately there was an existing office building available at 1213 Nicholson Drive. With a good location, 2,700 square feet of building on a 71 x 222 foot lot, this was close to ideal. The next problem was to finance the deal. This was greatly simplified when Mr. and Mrs. Leo M. Odom donated more than \$100,000.00. The remaining \$75,000.00 debt was met by loans and contributions by practicing engineers and corporations. As of today, all but \$17,000.00 of the building debt has been retired. The building is known as

the Louisiana Engineering Center. In addition to LEF, there are two rent-paying tenants; the Louisiana Engineering Society and the Consulting Engineers Council of Louisiana. Income from these rentals pro-

vides the recognition annually of an engineering faculty member in each of the accredited engineering schools in Louisiana who is selected by his peers.

The limited income of the Louisiana Engineering Foundation limits its activities. Among the potential sources of revenue that the Foundation hopes to develop are major contributions from large corporations, especially those that employ or do business with engineers. Since it is a professional non-profit organization, donations are tax deductible.

Another potential source is for memorials by survivors. These would receive recognition in the obituary notices in the *Louisiana Engineer Magazine* and on individual brass plates attached to a memorial plaque that is hanging in the Engineering Center Building. It is hoped that some engineers now practicing will remember LEF in their wills.

The Louisiana Engineering Foundation is answering a long time need for the engineers of this state. It deserves our support.



vide a continuing source of funds for scholarships and other foundation programs as well as maintenance and retirement of the debt on the building. Long-range plans for the Center include a library, seminar and conference rooms and office space for technical societies.

LEF is careful not to compete with or to impinge on the field or activities of LES or any other group but it does cooperate with them when feasible. For instance, it is a firm supporter of MATHCOUNTS, the program to encourage the knowledge of mathematics among junior high school students.

LEF gives an annual Graduate School Fellowship of \$1,500.00 to a full time graduate student who expresses an intention of entering the teaching profession at the college level. Another of its activities is

Past Presidents of the Louisiana Engineering Foundation are:

Vincent A. Forte, P.E. President	1979-84
A. J. Szabo, P.E. President	1985-87
James L. Meyer, P.E. President	1987-90
Robert P. Blanche, P.E. President	1990-Present



1991 Louisiana State Board of Registration for Professional Engineers and Land Surveyors

Front Row (left - right) - Paul L. Landry, P.E., Executive Secretary; Ara Arman, PE/PLS; Sam L. Sullivan, Jr., P.E., Chairman; Coan J. Bueche, PE/PLS **Middle Row** (left - right) - Malcolm L. Hurstell, P.E., Vice Chairman; Albert J. Dunn, PE/PLS, Secretary **Back Row** (left - right) - Benjamin S. Harrison, Board Investigator; William J. Thevenote, Jr., P.E.; Larry A. McKee, PE/PLS; Robert D. Fenner, PE/PLS; Morris P. Hebert, P.L.S. **Absent** - Randall F. Barron, P.E.

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New Orleans, LA
Ronald K. Mills
Baton Rouge, LA

Continued on page 20

HIGHLIGHTS

Continued from page 8

any legislation properly and in a timely manner. The Board of Registration will call a meeting during the first week of March.

6. The Chairman of the Constitution and Bylaws Committee reported that once the rewrite is completed, the present and proposed Constitution and Bylaws along with a commentary will be mailed to the general membership for vote.

7. A report from the Continuing Professional Development Committee will be given at a later date.

8. State MATHCOUNTS Competition is scheduled for March 23, 1991. The Director of Finance for the MATHCOUNTS program is actively approaching and communicating with industries and the Patrick Taylor Education Foundation for possible contributions.

9. A Scholarship Report was submitted to the Board.

10. The Board of Direction has recommended changes to the Administrative and Fiscal Years of the Society. In accordance with the Constitution, information for action on the Bylaws will be mailed to the Board prior to the next meeting.

11. President LaBauve was asked to

address a Board of Regents Public Hearing on March 1, 1991 to express his view on trends in the engineering profession as well as education's role in serving the profession. LaBauve will meet with the engineering deans for input.

12. James L. Meyer, P.E., Chairman of the Liaison Committee, notified each practice division chairman of an impending vacancy on the State Board of Registration. The Board is in need of a chemical or petroleum engineer. The Committee has requested that nominations be submitted by May 1, 1991. LE



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The Great Flood of 1927

By James S. Janssen, P.E.

Attempts to control the periodic floods or high waters in the Mississippi River began with the French engineer Andrien de Pauger in 1728 shortly after Bienville established the town of New Orleans. When the annual spring high water came down the river, the water level rose dangerously near to the top of the banks. So, Pauger was temporarily relieved of his job of laying out the city streets and erecting government buildings and put to work building a two-foot-high "terre levee" (raised land) ridge following the naturally high (about 10 feet above mean sea level) land along the river front. It apparently did the job for there is no record of flooding in the new city that year.

But, as time went on, communities and plantations up the river also erected levees protecting their land but confining the flow. This resulted in higher and higher river levels, not only at New Orleans but up and down the river. And, of course, as the river levels rose, it was necessary to further raise the levees. Traditionally, the building and raising of the levees was a local affair involving property owners,

towns, parishes or counties, states or their specialized departments, namely levee boards. The Federal Government, through its Corps of Engineers, came into the picture because of its role of aiding navigation. Insofar as levees, by confining flow and thus maintaining the channel, were concerned, to that extent could the Corps become involved. This also applied to closing crevasses. Thus was established the Corps' policy of "levees only", although this policy did allow a certain amount of setting back of rebuilt levees thus increasing the cross section of the discharge.

In those days, levees were built practically by hand, using shovels, and wheel barrows. Then came wheeled scrapers, followed by draglines, backhoes and dump trucks. High water emergencies were handled by sand bags and volunteers. A record flood in 1897 raised water levels several feet above previous heights but the flood was largely contained. So while there was concern, no policy changes were made.

However, later in 1926, there were ominous signs. Gauge readings were consid-

erably above normal and there was some minor local flooding in January of 1927. But this receded until the annual spring rise took an early start in March. It was recognized that this was to be an unusually high water year, especially when it was accompanied by exceptionally heavy spring rains melting the snow deposits in the upper Mississippi Valley. The river was rising to unprecedented heights from Lake Itasca in Minnesota to its mouth on the Gulf of Mexico.

Although it did not contribute to the river high water, there was severe street flooding in New Orleans on April 15 and 16 when 14 inches of rain fell in 24 hours. Older residents still recall this as the famous flood of Good Friday, 1927. Perhaps it was a warning of what was to come.

In April, levee breaks were occurring on the main stream and its tributaries. Refugees began arriving in cities along and back from the river. On April 20, the Carrollton gauge read 20.2 feet but this was temporarily relieved when levees crevassed above New Orleans. Major breaks occurred at Clarendon, Arkansas and Mound Landing, Mississippi. Older residents of Natchez still recall that they could stand on high land on their side of the Mississippi and see no land, only water on the Louisiana side. Most of Natchez-under-the-Hill was inundated.

By April 26, the water was almost to the crest of the levee at New Orleans and more was coming. The Orleans Levee Board was making frantic efforts to strengthen weak or low sections of the levees along the river and Lake Pontchartrain. It was feared that a major crevasse might occur, spill water into the lake and raise its level to flood heights. Acting on the advice of open channels hydrologists and civic leaders, Louisiana Governor O. H. Simpson authorized the cutting of the levee about 12 miles below the city. This was in a lightly populated area near the settlement of Caernarvon where the river is at its closest location to Lake Borgne, about five miles away. The local inhabitants were warned and moved out with New Orleans officials promising to recompense their losses.

On April 29, the levee was ruptured by successive charges of dynamite. The press and other observers, present in large numbers, were disappointed when the expected sudden gush failed to instantly materialize. But, with the passage of a few days coupled with a bit of applied manpower, the crevassed developed and accomplished its purpose. New Orleans was saved.

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the LOUISIANA ENGINEER to: Editor, P. O. Box 2683, Baton Rouge, LA 70821.

April 24-27, 1991

LES Awards Meeting
Holiday Inn
Shreveport, LA

April 25-27, 1991

LSPS Annual Convention
Hotel Acadiana
Lafayette, LA

April 27, 1991

LES Board of Direction Meeting
Shreveport, LA

May 3, 1991

National MATHCOUNTS
Competition
Washington, D.C.

May 19-23, 1991

ACEC Annual Convention
Baltimore, MD

June 3-4, 1991

State Board of Registration Meeting
New Orleans, LA

June 7, 1991

LES Board of Direction Meeting
Monroe, LA

July 12, 1991

LES Board of Direction Meeting
New Orleans, LA

July 21-27, 1991

NSPE Annual Meeting
Amway Grand Plaza Hotel
Grand Rapids, MI

July 22-23, 1991

State Board of Registration Meeting
New Orleans, LA

September 4-10, 1991

NSPE Committee Week
Alexandria, VA

September 11-14, 1991

LES Planning Conference/Annual
Meeting
Alexandria, LA

An unplanned crevasse at Junior Plantation about 40 miles below New Orleans helped lower the general level of the river. This rupture occurred when the steamship "Inspector" reeled out of control and rammed the west bank levee on April 23. It was weeks before the ship was released from the gap that it had made.

The toll extracted by the Great Flood of 1927 amounted to some 200 deaths, 700,000 residents evacuated and over \$2,000,000 in damages. The result was that the U.S. Corps of Engineers decided that it was time to reconsider its "levees only" policy.

A new Flood Control Act was enacted by Congress in May of 1928. Following the lines of the Jadwin Plan (Maj. Gen. Edgar Jadwin) the new concept was based on a "project flood" the maximum that was believed to be possible, 3 million cubic feet per second in the reaches below the mouth of the Red River, the last major tributary to the Mississippi. New approaches to a solution included floodways and spillways, cutoffs and greater levee setbacks. Most of the costs involved

were to be covered by the Federal government.

The Atchafalaya Floodway following the Atchafalaya River from the Mississippi via Old River to the Gulf of Mexico below Morgan City was improved to increase its capacity. The idea of a controlled spillway about 30 miles above New Orleans to discharge river water into Lake Pontchartrain was revived and activated. This was the site of several major crevasses. The spillway is comprised of parallel guide levees about five miles long and some two miles apart. Near its entrance or river end is a floodgate consisting of a multitude of vertical removable "needles" in 350 bays in a concrete structure. When required, the gate is opened by moving as many of these needles as required to control the water level in the river. Its maximum capacity is about 250,000 cubic feet per second. It was first put into operation in February of 1937 when the Carrollton gauge approximated a reading of 20 feet. It performed as planned and was kept open for about three weeks until the flood crest had

passed. The effect on Lake Pontchartrain was minimal.

In earlier days, great efforts were made to keep the Mississippi from making cutoffs across its many bends or loops. Early thinking was that if such cutoffs were to occur, the river level below the cutoffs would be greatly raised. When better engineering concepts were developed and verified at the Corps's Hydraulic Laboratory at Vicksburg, several cutoffs or chutes were made. This was accomplished by merely cutting (during low water) a narrow guide or pilot channel across the point or neck around which the river looped. The river rapidly widened and deepened this channel during successive high water and thus reduced river stages in diminishing amounts above the cutoff.

But even now as in earlier days the crest heights of high water in the lower Mississippi depend primarily on the height reached at Cairo where the Ohio River joins the main stream. Lesser influences are the stages in the lower reaches at the time that Cairo crests, and to lesser extent, the impact from the tributaries below Cairo.

Successive congressional acts have extended the authority and control of the U.S. Corps of Engineers. Coordination of flood control of the mighty Mississippi by the Federal government has brought peace of mind to communities, industries, and navigational interests up and down the river. The lower Mississippi River has successfully lived through the great high waters of 1937, 1945, 1950 and the record breaker of 1973 with a minimum amount of damage. LE

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NÔTRE MÉTIER

Continued from page 13

professionals, are registrants of the Board because a state law requires them to be registered and active with the Board in order to provide or offer to provide engineering and surveying services. A person may not present himself or herself to the public as an engineer (which means professional engineer, see LA R.S. 37:682 (4)) or a land surveyor (which means professional land surveyor, see LA R.S. 37:682 (6)) unless he or she is **first** a registrant of the Board. The law protects the public by insuring that engineers are in fact engineers and land surveyors are in fact land surveyors and not quacks. LE

NEW REGISTRANTS

Continued from page 16

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Ziad A. Shamma
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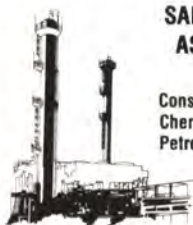


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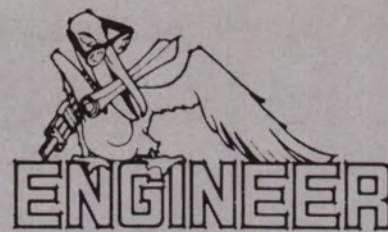
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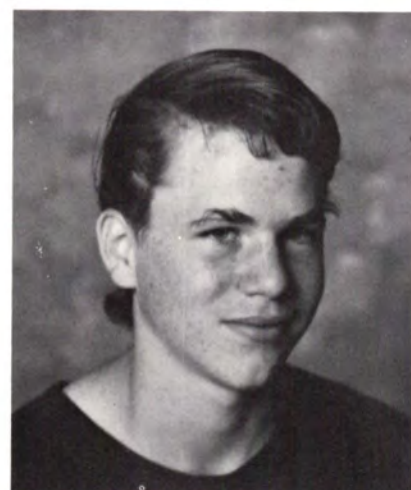
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Members of the Louisiana MATHCOUNTS Team are pictured on this month's cover. Story on page 5.



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Presidential Privilege

LES On The Move

Last October, we launched our LES ship manned with a new crew determined to sail to October, 1991, without running aground. Land Ho! It looks like we're gonna make it with a few dents, but no holes in the hull.

The orders given to the LES crew included; stimulate our regional chapters' activities and improve communications between the chapters, the Board of Direction, and the general membership.

We Have Some Good News and Some Bad News to Report

Our net membership growth is currently less than we expected. But we are still optimistic that we can achieve our goal of a +2% increase by the end of the administrative year. Our membership chairman persuaded the chapters to utilize funding made available by the LES Board of Direction for membership recruiting. Call a friend and ask him or her to join you at a regional meeting as a guest.

The MATHCOUNTS Program has suffered a significant setback. Funding for the competitions has been reduced by some 60% due to economic belt tightening by some of our sponsors. The Louisiana Engineering Society wishes to thank our past and continuing sponsors for their support of our "BEST EFFORT EVER". We cannot let this valuable program die on the vine. Business and industry will surely come to the rescue and preserve what has become a school tradition and household words, "MATHCOUNTS", "engineers", and "LES".

Many of our chapters have been very active, some have been less active, but all have moved forward trying to involve their members and enhance the quality of the programs and activities in their regions. If you did not get "Your Invitation to Participate", call your local officers listed in the front of the *Louisiana Engineer* and find out why!

The idea to improve communications in the Louisiana Engineering Society is taking positive shape. The newly formed Presidents Council has been active. The consensus is that we are learning by sharing and the exchange of ideas between the Chapter Presidents has helped to spark new activity.

The revised format of the *Louisiana Engineer* can certainly attest to our intent to improve communications and represent the voice of any and all engineers in Louisiana. The LES Forum has served



Kerry J. LaBauve, P. E.
President
Louisiana Engineering Society

our members and readers well. Several controversial issues have been debated rigorously in the column. The *Louisiana Engineer* format has also been revised to allow the Chairman of the State Board of Registration and the President of the Consulting Engineers Council of Louisiana to present their views and organizational philosophies as they take office each year. Both of these organizations along with LES utilize the *Louisiana Engineer* to regularly communicate with their constituents.

Practice Divisions and Committee Activities

The LES Practice Divisions and standing Committees have been active to varying degrees. The Legislative and Liaison Committees finalized proposed legislation, working jointly with the State Board of Registration and the Society of Professional Land Surveyors, which will revise existing state law. The proposed legislation would; revise the length of time the E.I.T. examination is valid in consideration for professional registration, revise the make-up of the State Board of Registration as to discipline and/or practice area of member representation and, revise the voting privileges of certain board members. This work represents a three year effort by the parties involved. Since the final draft has been released, several organizations and individuals have

offered their opinions regarding the intent, merit and language of the bills. The debates go on. This communication between members and associations is healthy. We must have a workable agreement with majority acceptance before we approach the State Legislature. Please speak your mind anytime.

The Engineers in Education have established a rigorous long-range agenda to reevaluate the ongoing studies of funding for Louisiana's Engineering Colleges, continuing professional development programs and registration of college faculty.

The Constitution and Bylaws Committee is finalizing the rewrite of the LES Constitution. This document will be presented to the general membership soon.

The Young Engineers Committee conducted a round table session this year seeking input from the new folks on the block. We want to know what the young engineers expect from LES and their profession.

The Long-Range Planning Committee has revised the LES fiscal year and officer terms back to a July to June basis. This will bring the state administrative calendar in line with NSPE activities and more important, with the regional chapters' administrative periods which for most, never did conform to the October to September scenario. The Long-Range Planning Committee has developed a concept of combining the Planning Conference with the Annual Installation Meeting in September in Alexandria. This year, all of the chapter officers, along with the state society officers, will be simultaneously installed in a grand meeting. This joint meeting if successful, will be rotated on a trial basis around the Alexandria, Baton Rouge, Lafayette triangle.

The Committee is scheduling various plenary sessions including a summer focus meeting to be held in July at Navarre Beach, Florida. All members are invited to attend and add any input you wish to the future of LES.

Other committees' activities are underway but will not culminate until our September meeting, at which time a final status report will be presented to the general membership.

We look forward to seeing all of you in July in Florida and in September in Alexandria. See details on the meetings in this issue of the magazine.

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MATHCOUNTS

New Challenges For The Program

By: Thomas R. Carroll, III, P.E.

Have you ever had the feeling that just when you had everything rolling smoothly, something goes awry that makes the trip a little harder. Such will be the case next year when the thirty dollar school registration fee voted upon by the MATHCOUNTS Foundation takes effect.

The MATHCOUNTS program has exhibited tremendous success and growth since its origination eight years ago but as with everything in today's society, added growth means added expenses and costs. The effect on this program which will be caused by the registration fee is yet to be seen and there is a wide range of opinions on this matter from the local and state coordinators, coaches, and national leadership. Our MATHCOUNTS program yearly provides avenues of opportunity to literally hundreds of thousands of young students to showcase their mathematical talents.

Those who have worked in this program for years could sit back and speculate on this issue but instead we should immediately direct our efforts toward assuring that this program continues to improve and successfully achieve our original intent to address the critical nationwide need for improved math education. It will be imperative that the engineering community, as the administrators of this program, makes every effort to see that no schools are circumvented from participating in our competitions due to the inability to pay a registration fee.

Hopefully, this issue will be similar to calculator usage in MATHCOUNTS competition which proved to be not nearly the obstacle and problem many thought they may create. Coordinators from throughout the nation confirmed that calculators did not cause problems in the different levels of competition that many, including this writer, anticipated. It should be pointed out that many of the changes that have been made to this program are a direct result of input from questionnaires returned by participating teachers.

Our engineering community must take a positive approach toward changes in this program and strive to insure our best effort to elevate our standards of excellence not only in mathematics but in our entire educational system.

National Competition

The 1990-91 Louisiana MATHCOUNTS team again turned in an outstanding

effort in the national competition held recently in Washington, D.C. Our team was headed by Coach Claudia Allums of McKinley Middle Magnet of Baton Rouge and consisted of Shamik Das and Emory Chan of McKinley Middle Magnet, Brian McMahon of Sherwood Middle School in Baton Rouge, and John Cassibry of Caddo Middle Magnet School in Shreveport. The national competition featured 56 teams representing the 50 United States, the District of Columbia, Puerto Rico, the Virgin Islands, the Department of Defense Schools, Guam, and the State Department School System.

The 224 national competitors at the finals represented an initial field of approximately 350,000 students from over 8,200 schools. With these kind of odds, just making the national finals is a remarkable feat. The top three teams this year represented the States of Alabama, Massachusetts, and Ohio. But again this year, the State of Louisiana had a shining star in Shamik Das of McKinley Middle Magnet. Shamik, who had finished in the top ten as a 7th grader last year, placed 8th overall in this year's competition. For those of us who have been fortunate enough to attend the national competition, we have witnessed amazing abilities under extreme stress and the second consecutive top ten finish for Shamik is remarkable. Shamik has been accepted as a concurrent student at LSU to major in computer science. In addition to his superior mathematics skills, Shamik is also an accomplished violinist.

This year's team, toured the sites of our nation's capital including Arlington National Cemetery, the National Air and Space Museum, the Museum of Natural History, the Lincoln Memorial, the Vietnam Memorial and one of the true wonders of Washington, the Hard Rock Cafe!

State Competition

The 1991 Louisiana MATHCOUNTS competition was held at the Holidome in Lafayette. The State Competition hosted 27 teams and two individual Mathletes from our nine regional chapters.

The mathletes, coaches, coordinators and guests were treated to a crawfish boil and fish fry on Friday evening at USL Blackham Coliseum. Again this year, we extend our sincere thanks to Warren "K-Paul" Boudreaux, P.E., who masterminded

ed this event and to the numerous other volunteers who made this meal a success.

The competition on Saturday morning was exciting and congratulations to the following top Louisiana teams and individuals:

TOP TEN SCHOOLS	COACH
McKinley Middle Magnet School	Claudia Allums
Sherwood Middle School	Glenna Gammon
Caddo Middle Magnet School	T. Willie Moore
Paul Breaux Middle School	Mona Bonar
Jesuit High School	John Brumfield
Episcopal High School (B.R.)	Andrew Wyly
Rusheon Junior High School	Genie Burkhalter
Judice Middle School	Pat Bouillion
Cedar Creek School	Marilyn Koepke
West Monroe Junior High School	Mildred Crawford

TOP TEN INDIVIDUALS	SCHOOL
Shamik Das	McKinley Middle Magnet School
Brian McMahon	Sherwood Middle School
Emory Chan	McKinley Middle Magnet School
John Cassibry	Caddo Middle Magnet School
Kelly Christy	Rusheon Junior High School
Michelle Hebert	Judice Middle School
Maik Flanagan	Judice Middle School
Jessica Fong	Sherwood Middle School
Diana Parker	Paul Breaux Middle School
Lindy Cox	Episcopal High School

Special thanks go to those people who make this program the success that it is and includes the following:

Leta G. Bueto	LES Executive Director
Cindy B. Forbes	LES Secretary
Thomas R. Carroll, III, P.E.	State Coordinator, Lafayette
Carol E. Fisher, P.E.	Alexandria
E. J. Moch, P.E.	Baton Rouge
James P. Ledet, P.E.	Bayou
Melissa R. Jensen, P.E.	Lake Charles
Foy B. Gadberry, P.E.	Monroe
Frederick J. Brown, P.E.	New Orleans
Laurence DeQuay, P.E.	North Lake
James A. Hagan, Jr., E.I.T.	Shreveport

Sincere thanks go to our state sponsors who make our program successful and help create opportunities for our bright young students:

- Louisiana Investor-Owned Electric Companies
 1. Central Louisiana Electric Company
 2. Gulf States Utilities
 3. Louisiana Power and Light Company
 4. New Orleans Public Service Inc.
 5. Southwestern Electric Power Company
- Louisiana Engineering Society
- Louisiana Engineering Foundation
- Louisiana Society of Professional Engineers in Civil Service
- Professional Engineers in Industry
- Professional Engineers in Private Practice
- Professional Engineers in Construction
- Southwestern Laboratories
- Lafayette Chapter/LES
- Carencro Jaycees

ACEC is Active on the Hill

April was an especially active month on Capitol Hill for the American Consulting Engineers Council (ACEC). Our members are now testifying at Congressional hearings on legislation that affects consulting engineers. The following are news releases on the Surface Transportation Act, the Clean Water Act, and OSHA Construction Site Safety hearings:

Consulting Engineers Tell Safety and Health Committee Dangers of Holding Design Professionals Responsible for Construction Site Safety

Experience bears out our contention that design professionals can and do take good care of themselves at construction sites. But as OSHA expands enforcement against a wider range of parties involved in construction site safety, we may be forced to distance ourselves to protect ourselves. Giving testimony representing the opinion of over 5,000 consulting engineering firms to the House Subcommittee on Health and Safety regarding construction site safety and responsibility, John H. Foster, 1991 president-elect for the American Consulting Engineers Council, stated that engineers on construction projects do not possess the authority to substantially supervise activities and therefore can not control, or be responsible, for overall safety at the site.

While ACEC is committed to the improvement of safety on the construction site, it believes that design professionals on the jobsite do not choose or control implementation and methods of the project nor do they control the laborers on a construction site.

The proposed OSHA alternative, using project safety coordinators, also poses some problems because the individuals may become the target of litigation due to their involvement in the safety process. To assure the protection of competent safety coordinators, ACEC recommends that the coordinators not be personally liable for the injuries of construction employees unless the coordinator performs duties in a reckless manner.

In addition, the proposal of extending power to the Advisory Committee on Construction and Health seems excessive, and ACEC suggests that OSHA instead strengthen its administration of the Committee as it now stands.

H.R. 1063 contains a provision which requires written notice of who is responsible for site safety. Consulting engineers strongly support this provision because it would help end the confusion and finger-pointing that often occurs after an accident.

Engineers are concerned that the bill does not address the failure of an employee on a construction site due to drug and alcohol use.

States Can't Afford Clean Water, Engineers Tell Congress Incentives Must be Returned

The federally mandated clean water standards under the Clean Water Act are putting states in the poor house, American Consulting Engineers Council (ACEC) President William D. Lewis said in testimony before the Water Resources Subcommittee of the House Public Works and Transportation Committee.

Lewis told Committee members deliberating over reauthorization of the clean water legislation that full funding of the State Revolving Funds (SRF), the centerpiece of the last reauthorization law in 1987, must be continued beyond 1994, the planned phase-out year. "When 1994 was targeted as the phase-out year, we did not know how much work was left for us to do... nor did we know how the SRF would perform under varying economic conditions. In addition, more restrictions have been placed on the use of these funds. Experience now tells us that 1994 will come too early for many of the state loan funds to regenerate themselves," Lewis said.

The first step, according to Lewis, is the enactment of the "Environmental Infrastructure Bond Act," which would amend the U.S. Tax Code definition of a "private activity bond," making "infrastructure bonds" equal to governmental bonds and freeing them from the constraints imposed on tax-exempt bonds by the 1986 Tax Reform Act, is the first step according to Lewis.

Step two is to revamp the SRF program. Explaining that the SRF provides one of the largest and lowest-cost sources of public funds available to municipalities to finance wastewater treatment facilities, Lewis said administrative burdens imposed by the federal government increase facility costs, discourage participation by small cities, delay construction projects and reduce the states' ability to set their own priorities.

Lewis offered the following suggestions for improving the effectiveness of the loan program:

- Give states the flexibility to allocate their funds according to a priority system tied to improving water quality and public health objectives.

- Require states to establish a marketing program to educate communities as to the benefits of the program. Well-informed communities are necessary to achieve the goals of the Act.

- Provide assistance to small and economically disadvantaged communities.

Lewis added that small communities could be helped through Administrative remedies such as:

- Easing 201 planning requirements for small cities;

- Simplifying and streamlining the application process;

- Exempting small cities outside of a Standard Metropolitan Statistical Area from federal regulations such as the Davis-Bacon Act;

- Allowing small communities to use alternative technologies instead of traditional secondary treatment facilities. For example, technologies involving constructed wetlands and natural ecosystems can be employed to provide a much higher level of wastewater treatment than currently exists at lower capital and operational costs.

Bad Roads Mean Bad Business, Consulting Engineers Tell Congress

The American economy is suffering due to deteriorating transportation systems, but the damage can be reversed if Congress puts some teeth into the Surface Transportation Act, Howard M. Messner, executive vice president of the American Consulting Engineers, said in testimony

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Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



before the House Public Works and Transportation Committee.

Messner said the expansion and revitalization of transportation networks is critical to local and national economic development, as well as to international competitiveness. "Nearly 2/3 of today's peak hour traffic on urban interstate highways moves at under 35 miles per hour. Urban highway congestion causes over two billion wasted hours annually — equivalent to 1 million idle workers per year," he said.

According to many studies, the country should be boosting its spending on roads, bridges, and other infrastructure by as much as 50 percent to keep the U.S. economy competitive. Yet, public works spending, adjusted for inflation, has risen by only 15 percent over the past five years. The Bush Administration is requesting \$105 billion over the next five years for highways and mass transit — only about \$5 billion a year over current spending levels.

"It is no accident that the U.S., with a public capital investment as a percentage of gross domestic product of only 0.4 percent, has seen recent productivity growth of one-half percent per year. Contrast this to Canada, the U.K. and France that are investing about two percent of gross domestic product in public infrastructure and enjoy productivity growth of between one-and-one-half percent and two percent annually. Japan, with an investment rate of five percent is enjoying productivity growth of over three percent," he said.

According to Messner, new highway and transit legislation should:

- Increase federal highway and transit spending beyond levels in the current Administration bill, fully utilizing the approximately \$16 billion of unobligated balances in the highway and transit accounts of the Highway Trust Fund;

- Return the 2.5 cents-per-gallon gas tax, now being used for deficit reduction, to the Highway Trust Fund for its intended use — to improve and maintain our highway and transit systems;

- Remove the Highway Trust Fund from the federal unified budget and make the trust fund, and its funding mechanisms, permanent to assure that all dedicated highway revenues are available now and in the future for improving our nation's infrastructure;

- Eliminate the gasohol exemption;
- Increase federal investment in transit with continued commitment of both general revenue funds and user fees;

- Increase funding for research and development, particularly in the field of Intelligent Vehicle-Highway Systems, to use our current roads more efficiently.

ACEC is the largest national organization of independent consulting engineering firms. Its membership represents more than 5,000 firms with some 175,000 employees, who annually design over \$100 billion in constructed public and private works. Member firms range in size from a single, experienced, registered professional engineer to corporations employing thousands of professionals who represent a diverse source of national and international engineering and scientific expertise.

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Critical Period for Land Surveyor-In-Training Applicants

The following letter was mailed to all Land Surveyor-In-Training applicants. Please give this letter wide dissemination in the event we missed someone.

"Dear Land Surveyor-In-Training Applicant:

I have reviewed the Board files and found that you are not a Land Surveyor-In-Training but did apply before December 31, 1990. This means that you could be given consideration for certification as a Land Surveyor-In-Training under the La. R.S. 37:693 B (3) (a) or Section 303 B, 1, 2, or 3 of the Board Rules.

The Board wants you to know that it will continue to give you consideration

for certification as a Land Surveyor-In-Training under Section 303 B 1, 2, or 3 up to and including consideration for the fall of 1994 examination. The latest date to apply for that examination is July 1, 1994. This means that if you fail to qualify to take the Fundamentals of Land Surveying Examination by that date, or fail that examination, the only avenue open to you to become a Land Surveyor-In-Training would be under La. R. S. 37:693 B (3) (b) or Section 303 B 4 of the Board Rules. Under that rule, one must have a baccalaureate degree from a curriculum of four (4) years or more who has completed at least thirty (30) semester credit hours, or the equivalent approved by the Board, in land surveying, mapping,

and real property courses approved by the Board.

Please call me if you have any questions about this because it is important for you to understand the changes in the law and rules of the Board taking place effecting your certification as a Land Surveyor-In-Training and later registration as a Land Surveyor.

I recommend you review your situation and reapply for Land Surveyor-In-Training Certification as soon as you qualify for reconsideration.

Very truly yours,

Paul L. Landry, P. E.
Executive Secretary

ENFORCEMENT CORNER

by Registration Board Investigator
Benjamin S. Harrison

Statistical Summary of Complaints/Investigation - 1990

The calendar year of 1990 was much like every year since 1983 when I became the Board's full-time investigator. It was busy from start to finish with not enough time to address everything that needed attention.

Case openings were down slightly from 1989, but still remained significantly above the 1987 and 1988 openings. There were more cases opened based upon complaints received from registrants than in any other year since I have been with the Board. The increased support and interest on the part of registrants is not only appreciated, but it helps the Board do a better job of protecting the public. With the entire state to be covered, it is very important to have your support and feedback about possible violations of the registration laws and Board rules.

A number of changes occurred in the Rules of the Board in 1990 in the areas of sealing and professional conduct, as well as an addition to the rules of a section titled "Minimum Standards for Property Boundary Surveys". Please familiarize yourself with these changes - avoid becoming a statistic!

The following is a statistical summary of complaints or investigations for calendar year 1990:

Complaint/Investigation files pending from 1989.....	26
Complaint/Investigation files opened in 1990.....	103
Complaint/Investigation files disposed of in 1990.....	92
Complaint/Investigation files carried over into 1991.....	37
Board Hearings held during 1990.....	2
Number of Board Disciplinary Actions from Hearings	2
Investigations/complaints resolved with cease and desist affidavits	5
Investigations/complaints resolved by consent order	2
Investigations/complaints referred to District Attorney	0
Fines paid in 1990	\$1,000.00
New Firms registered as result of Investigative Action	15

Notice of Intent

Department of Transportation and Development Board of Registration for Professional Engineers and Land Surveyors

In accordance with the Louisiana Revised Statutes 49:950, et seq, notice is hereby given that the Louisiana State Board of Registration for Professional Engineers and Land Surveyors intends to revise Louisiana Administrative Code 46:LXI as follows:

Title 46

PROFESSIONAL AND OCCUPATIONAL STANDARDS

Part LXI. Professional Engineers and Land Surveyors

Chapter 1. General Provisions §105. Definitions

B. ...

Teaching of engineering design and the responsible charge of the teaching of engineering design shall be considered as the practice of professional engineering. Associate professors and those of higher rank teaching engineering design courses who become employed by a college or university in the state of Louisiana on January 1, 1991, and thereafter, shall be registered professional engineers of the Louisiana board. Such professors who become employed on or after January 1, 1991, shall have a period of two years in which to become registered. The assistant professors and those of higher



Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers & Land Surveyors.



rank teaching engineering design courses in the employ of a college or university in the state of Louisiana prior to January 1, 1991, are exempt from professional engineering registration as long as they remain in continuous employment by a college or university in the state of Louisiana. Those persons who are exempt from professional engineering registration are exempt only for the purpose of the teaching of engineering design and they may not present themselves to the public as engineers or professional engineers or provide or offer to provide engineering services as defined by R.S. 37:682(8).

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:682.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 4:298 (August 1978), amended LR 5:110 (May 1979), LR 7:643 (December 1981), LR 14:449 (July 1988), LR 16:772 (September 1990), LR

Chapter 15. Examinations

§1503. Approval to Take the Fundamentals of Engineering Examinations

F. The board may allow the substitution of a written qualifying examination for the fundamentals of engineering examination for any applicant who has an earned doctorate from a college or university having an undergraduate curriculum accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:683.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 4:88 (March 1978), amended

EXAMINATION SCHEDULE AND APPLICATION DEADLINE DATES				
Examination	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Principles & Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum	NOT AVAILABLE		Aug. 1, 1991	Oct. 26, 1991
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Principles and Practice of Land Surveying (4 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Laws and Procedures of Land Surveying (3 hrs.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	
Louisiana Laws and Procedures of Land Surveying (1 hr.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	
Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination. The applicant and the Board depends upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.				
Application Deadline date means that an application must be postmarked prior to or on the date specified so as to be given consideration for the examination. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.				

LR 5:113 (May 1979), LR 6:735 (December 1980), LR 7:647 (December 1981), LR 10:805 (October 1984), LR 14:449 (July 1988), LR. Interested persons may submit written comments or offer amendments to the proposed rules to the Board Office at 1055 St. Charles Avenue, Suite 415, New Orleans, Louisiana 70130, at any time prior to May 29, 1991. The Board proposes to consider and take action on the adoption of this rule at a meeting in its office at 11:00 a.m. on June 3, 1991.

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415 New Orleans, La. 70130 on the following dates.

1991

July 22-23
Sept. 23-24

Nov. 11-12

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LES Planning Conference and Annual Meeting

September 11-14, 1991, Hotel Bentley, Alexandria, LA

The LES Planning Conference and Annual Meeting have been combined this year. *This meeting is for the entire membership of LES* not just committee members, chapter officers, and state officers. Committees will be meeting to plan their goals and objectives for 1991-92. Plan to attend the meeting. Let your voice be heard on what the Society should be doing for the profession.

General Program

Wednesday, September 11, 1991

11:00 a.m. - 5:00 p.m.
1:30 p.m.
1:30 p.m.
Registration
Golf Tournament
Alexandria Country Club
Tennis Tournament
Alexandria Aquatic
and Racquet Club
DINNER "On Your Own"

12:15 p.m. - 2:00 p.m.
2:00 p.m. - 3:30 p.m.

3:30 p.m. - 5:30 p.m.
6:30 p.m. - 7:30 p.m.
7:30 p.m.

LUNCHEON, Speaker TBA
COMMITTEE MEETINGS
Legislative
MATHCOUNTS
Constitution and Bylaws
GENERAL MEMBERSHIP MEETING
COCKTAILS
INSTALLATION BANQUET
Speaker, NSPE President,
Donald L. Hiatte, P.E.

Thursday, September 12, 1991

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 10:00 a.m.
10:00 a.m. - 10:30 a.m.
10:30 a.m. - 12:00 Noon
12:00 Noon - 2:00 p.m.
2:00 p.m. - 4:00 p.m.
5:30 p.m.
Registration
Seminar - Topic TBA
Break
COMMITTEE MEETINGS
Membership
Young Engineers
Public Relations
Intersociety Relations
Executive Committee
Liaison/State Board
LUNCH "On Your Own"*
PRACTICE DIVISION MEETINGS
Construction
Education
Government
Industry
Private Practice
SOCIAL OUTING
AT DRESSER INDUSTRIES
Couchon de lait
Plant Tour
Horseshoes
Volley Ball

Saturday, September 14, 1991

8:00 a.m. BOARD OF DIRECTION MEETING

Spouses' Program

Wednesday, September 11, 1991

11:00 a.m. - 5:00 p.m.
1:30 p.m.
1:30 p.m.
Registration
Golf Tournament
Alexandria Country Club
Tennis Tournament
Alexandria Aquatic
and Racquet Club
DINNER "On Your Own"

Thursday, September 12, 1991

8:30 a.m. - 10:30 a.m.
11:00 a.m. - 12:00 p.m.
12:00 p.m.
2:00 p.m. - 4:00 p.m.
5:30 p.m.
Hospitality Suite Open
Tour of Kent House Plantation
Lunch at the Plantation*
Local Shopping
Social Outing at
Dresser Industries

Friday, September 13, 1991

8:30 a.m. - 10:00 a.m.
10:30 a.m. - 12:00 p.m.
12:00 p.m.
1:30 p.m. - 3:30 p.m.
6:30 p.m. - 7:30 p.m.
7:30 p.m.
Hospitality Suite Open
Tour of Loyd's Hall
in Cheneyville
Lunch at Loyd's Hall
Shopping at Antique Shops
in Cheneyville
Cocktails
Installation Banquet

Saturday, September 14, 1991

8:30 a.m. - 12:00 Noon Hospitality Suite Open

*There is a two-hour luncheon break in the Engineers schedule on Thursday, September 12, if you would like to join your spouse for lunch at the Kent House. If so, please pre-register.

Meeting Information

The Planning Conference and Annual Meeting will be held at the Hotel Bentley in Alexandria. Hotel reservations must be received at the hotel on or before August 27, 1991. The installation banquet will be the highlight of the meeting with installation of both chapter and state officers, a first.

Seminars for this meeting have not been finalized. See the August issue of the *Louisiana Engineer* for more details.

The social outing planned for Thursday evening should be delightful. Come and participate in the activities the chapter has planned for YOU.

The Louisiana Engineering Foundation meeting is scheduled for Friday, September 13, 10:30 a.m. - 12:00 Noon.

The General Membership Meeting will be held on Friday, September 13, 3:30 p.m. - 5:30 p.m.

Officers will be installed by NSPE President, Donald L. Hiatte, P. E.

Spouses Program

There are lots of things to see in Alexandria. Joy Meyer and Barbara LaBauve invite you all to come revisit two old favorites.

On Thursday, we will see Kent House Plantation in Alexandria. Kent House Plantation (built in 1796) has added the Texada-Dunnam Barn to their grounds. This wonderful old structure was moved recently from a site on Bayou Rapides near Alexandria. There will be an open-hearth cooking demonstration during our tour. Lunch will be catered for us and served on the grounds.

Loyd's Hall (built in 1810) will be our destination for Friday's tour and luncheon. This beautiful old brick home sits on the banks of Bayou Boeuf and has a wonderful history. We visited the home back in 1988. We will go from Loyd's Hall to Cheneyville to browse in the antique shops. You may find a treasure!

**LES Planning Conference and Annual Meeting
Registration
Hotel Bentley, Alexandria, LA
September 11-14, 1991**

Name _____ P.E. YES _____ NO _____
Spouse's Name _____
Chapter: _____

		No. Tickets	Amount
*PREPAID Discount Registration Fee	\$40.00	_____	_____
Registration Without PREPAYMENT	\$55.00	_____	_____
**Daily Registration Fee	\$13.00	_____	_____
Wednesday Golf	\$40.00	_____	_____
Wednesday Tennis	\$10.00	_____	_____
Thursday Seminar	FREE***	_____	_____
Thursday Dinner	\$11.00	_____	_____
Friday Seminar	FREE***	_____	_____
Friday Luncheon	\$ 9.00	_____	_____
Friday Banquet	\$20.00	_____	_____
Spouses			
Thursday - Tour and Luncheon	\$15.00	_____	_____
Friday - Tour and Luncheon	\$16.00	_____	_____

TOTAL _____

*Prepaid discount applies only if registration & payment are received one week prior to the convention

**Daily registration fee is applicable for one day attendees only

***Seminars FREE with daily registration fee

☐ Payment Enclosed

☐ Registration Without Prepayment
Non-discount rate applies.

MAKE CHECKS PAYABLE TO LES

PLEASE NOTE: A PARTIAL REFUND WILL BE MADE IF CANCELLATION
IS RECEIVED FOUR DAYS PRIOR TO CONVENTION.

**Hotel Reservation Card
Louisiana Engineering Society
Hotel Bentley, Alexandria, LA
September 11-14, 1991**

THIS FORM MUST BE RECEIVED BY AUGUST 27, 1991

PLEASE RESERVE ACCOMMODATIONS AT HOTEL BENTLEY

Name _____
(Last) (First)

Address: _____

City: _____ State: _____ Zip: _____

Telephone : () _____

Date of Arrival _____ Date of Departure _____

Please check accommodations desired: Rate: \$54.00

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☐ King

Number of Persons _____

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LES Board of Direction Meeting Highlights

March 1991 Meeting

The March 1991 meeting was held in Mandeville, LA with fourteen board members, four guests, and the LES secretary in attendance.

1. The February 1991 financial statement was accepted subject to the annual audit.

2. After a complete audit by the Internal Revenue Service, LES was informed it is still eligible for tax exempt status under IRS Code 501 (c)(6).

3. The Membership Recruitment Report ending February 28 was distributed. With 41% of the membership year completed, 22.99% of quota has been achieved. The Alexandria Chapter is leading the contest.

4. The Legislative Committee met prior to the Board of Direction meeting. Recommendations from the committee are as follows:

a. Support CEC/L's worker's compensation bill - the Board of Direction voted to support.

b. Support of the Architect's bill for reduction in the prescriptive period for professional liability - the Board of Direction voted to support.

c. Support changes to the registration

law on "Organization and Meetings" - the Board of Direction voted to support.

d. Support changes to the registration law on "Examinations" - the LES Board of Direction voted to support.

e. Committee recommends LES move forward on changes to the registration law on "Board; Appointments; Terms" contingent on three items: (1) Legislative Chairman will publish an article in April issue of the Louisiana Engineer briefing the readers; (2) letters sent to all affiliated technical societies encouraging their support and involvement; and, (3) Legislative Chairman will encourage input at the General Membership Meeting in Shreveport. The Board of Direction voted to have legislation filed, but with the understanding that the legislation would not be moved until the General Membership has a chance to address the changes at its meeting on April 26th.

5. The Constitution and Bylaws Committee Chairman reported that the committee hopes to present drafts to the General Membership in the fall.

6. President LaBauve reported that the Louisiana Society of Professional Engineers in Civil Service has pledged \$500.00 to MATHCOUNTS and a contribution of \$1,000.00 has been received

from Southwestern Laboratories.

7. The Board of Direction voted unanimously to change the Administrative and Fiscal Years of the Society to a July-June time frame beginning July 1, 1992.

8. The Board of Direction voted unanimously to hold a combined Planning Conference and Annual Meeting on September 11-14, 1991, in Alexandria. A recommendation was made that all chapter officers as well as state officers be installed at this meeting.

9. PEE Chairman, Dr. Bobby E. Price, P.E., reported that a letter with attachments was sent to each of the engineering deans informing them of discussions held at the NSPE Winter Meeting regarding engineering education and registration.

10. PEG advised that the PEG Engineer of the Year Award will not be presented this year.

11. President LaBauve addressed the Board of Regents Public Hearing on March 1 on his views on trends in the engineering profession as well as education's role in serving the profession. The statement to the Board of Regents was formulated by the President, other officers of LES, and five of the seven Louisiana engineering deans.

April 1991 Meeting

The April 1991 meeting was held in Shreveport, LA, with nineteen board members, two guests, and the LES staff in attendance.

1. The March 1991 financial statement was accepted subject to the annual audit.

2. The Membership Recruitment Report ending March 31 was distributed. With 50% of the membership year completed, 26.74% of quota has been achieved. The Alexandria Chapter is leading the contest with 50% of quota attained. Some chapters are taking advantage of funds set aside by the Board for Membership Recruitment purposes.

3. The Nominating Committee presented its slate of officers for 1991-92. They are as follows: President, Glynn P. Gautreau, P.E.; Second Vice President, Dale T. Hunn, P.E.; Secretary-Treasurer, Edgar P. Benoit, P.E.; and National Director, James L. Meyer, P.E. There are two State Director vacancies for 1991-92. The Committee submitted six names to be placed on the ballot: J. Michael Bridges, P.E.; Robert A. Brossette, P.E.; Paul E. Colquette, P.E.; Carl A. Jakob, P.E.; Harold P. LeRay, P.E.; and Richard P. Wright, P.E. The slate of officers was accepted by the Board. A ballot will be mailed in early June.

4. The Legislative Committee presented its recommendations on legislation already filed by LES: HB#524, to remove the ten year credit on the EIT exam - The Board voted unanimously to proceed with moving HB#524; HB#525, would allow for land surveyor members to have equal voting rights with the engineers on the Board of Registration - The Board voted unanimously to proceed with moving HB#525; HB#523, changes the composition of the Board of Registration. The General Membership of LES was opposed to the language in HB#523 and the Board of Direction agreed. Amendments by the Board of Direction are as follows: The composition of the Board will be nine engineers and two land surveyors (two engineers from private practice, two engineers from industry, two engineers from government, two engineers from education, one engineer from construction, and two land surveyors). Jack Laws, P.E., Chairman of the LES Legislative Committee, will proceed with having amendments drafted.

The DOTD selection bill was discussed. The Board of Direction agreed to support this bill if all language concerning non-negotiated fees is extracted from the bill, terms of the members on the selection

committee are reduced from four year terms to two year terms, and if the DOTD Secretary documents, in writing, his reasons for selecting an engineering firm.

5. The Board of Direction accepted a proposal from the Long-Range Planning Committee to rotate the summer/fall meetings of LES around three chapters, Alexandria, Lafayette, and Baton Rouge, for a three year trial period. The Awards meeting will be rotated among the other six chapters of LES.

The Long-Range Planning Committee is hosting a meeting in Navarre Beach to address the future of LES. The General Membership of LES is invited to attend this meeting. The Board of Direction will also be meeting in conjunction with the meeting. (Information on this meeting appears elsewhere in this issue of the magazine.)

6. The President will appoint a committee to meet with DNR and DEQ to address the issue of "professional services" and "consulting services" as it relates to procurement of engineering services.

7. President LaBauve advised that NSPE will be charging schools a \$30.00

Continued on page 16

LOUISIANA ENGINEER/JUNE 1991

LES Board of Direction and Long Range Planning Committee Meetings (LRPC)

July 11-14, 1991 - Navarre Beach, Florida

PURPOSE OF MEETING

The Long Range Planning Committee is concerned about the future of LES. The General Membership of LES is invited to attend these focus meetings for their input. LES members not able to attend are requested to express their concerns in writing to State LES Office. Following these meetings, the LRPC will recommend to the LES Board of Direction, a proposed course of action for the Society.

Call or write to the LES Office of your anticipated attendance NOW! Fill in the attached Hotel Reservation Form and mail it to the hotel. A *\$10 per day room discount is available for 85 or more LES registrants. Bring your family, not only to work, but to have fun on the Coast! Spouse programs planned at nearby factory outlets!

GENERAL PROGRAM

Thursday, July 11, 1991 Early Arrivals, Registration, and Cocktails

Friday, July 12, 1991

9:00 a.m. - 12:00 Noon

General LRPC Meetings (Small focus groups)

12:00 Noon - 1:00 p.m.

Lunch

1:00 p.m. - 4:00 p.m.

LRPC Meeting

Friday p.m.

Leisure Time

Saturday, July 13, 1991

10:00 a.m. - 2:00 p.m.

LES State Board of Direction Meeting

Saturday, July 13, p.m.

Free Time (Golf, Tennis, Beach, etc.)

_____ Tee Time Desired

Sunday, July 14, 1991

Brunch and Summary Discussions

Name: _____

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LOUISIANA ENGINEERING SOCIETY

JULY 11-14, 1991

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ONE NIGHT'S ROOM AND TAX OR A CREDIT CARD REQUIRED ON ALL RESERVATIONS. CANCELLATION DEADLINE IS
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NAAG Documents Suspended; Some Provisions Still In Use

Although the National Association of Attorneys General (NAAG) has permanently suspended their Model Contract Documents, private practice engineers should be alert to the fact that certain controversial provisions from the shelved forms continue to appear in state, county and municipal contracts.

NAAG originally authored the Model Contract Documents as an alternative to existing standard forms used by state and local governments. Controversy developed after their introduction due to language changing A/E responsibilities and increasing their liability exposure.

Yielding to a growing swell of opposition from design professionals, insurers, contractors and even the American Bar Association, NAAG abandoned its efforts to produce an owner-professional designer agreement form.

However, copies of the proposed documents had already been distributed to hundreds of public entities. Many of these jurisdictions, ignoring NAAG's action, have incorporated selected sections of the proposed forms into their existing contracts. Included are sections dealing with such elements as: responsibility for shop drawings review and approval, job-site safety administration, contractual indemnification of project owners and other questionable obligations like "supervision" of construction.

State agencies reportedly using the NAAG languages include Arizona, Delaware, Maryland, Nebraska, Pennsylvania and Virginia. Engineers with information regarding similar actions by other state or local agencies are encouraged to contact Larry Spiller at NSPE (703) 684-2862.

Reprinted from Information on the Activities of the EJCDC

Rule Takes Aim At Competitive Bids in Texas

The Texas engineering registration board has proposed a disciplinary rule under which competitive bidding by professional engineers on federal, state, and local public works projects would be prohibited.

The proposed rule states that "a registrant shall not submit or request, orally or in writing, a competitive bid to perform engineering services, whether as a prime contractor, subcontractor, or consultant, under a contract subject to the provisions of the Texas Professional Services Procurement Act" or its federal counterpart, the Brooks Act. The Texas act covers, but is not limited to, any state agency, political subdivision, county, municipality, district, authority, and publicly owned utility in the state.

The proposed rule appears to follow the reasoning of a recent opinion on the

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Texas Professional Services Procurement Act, in which the state's attorney general said public entities could not award design-build contracts for the construction of public works on the basis of competitive bidding if A/E services comprise a component of that contract.

NSPE and its state societies have been active backers of measure to promote qualifications-based selection of engineering services.

Reprinted from Engineering Times

Total Quality Control
Originator Dr. A. V. Feigenbaum
Advises Engineers How to
Improve Quality with 10 TQC
Benchmarks

The originator of the term Total Quality Control (TQC), Dr. Armand V. Feigenbaum, advises engineers how to improve product and service quality through ten TQC benchmarks in a new audiobooklet package being released by the National Society of Professional Engineers.

In the two-audiobooklet package titled "Dr. Feigenbaum on Total Quality Control in the 1990's," Feigenbaum explains how each TQC benchmark can be applied to improve engineering quality. Feigenbaum's TQC benchmarks include: Quality is what the customer says it is; Quality is the most cost-effective, least capital-intensive route to productivity; and Quality requires continuous improvement. The package includes a concise reference of Dr. Feigenbaum's fundamental principles in a booklet titled "10 Benchmarks of Total Quality in the 1990's."

Total Quality Control is a system of implementing quality systems in every function of an organization to improve customer service and competitive advantage. Dr. Feigenbaum wrote a book in 1951 that predicted with remarkable accuracy how and why quality would determine leadership in world markets. Recently released in a 40th Anniversary Edition, *Total Quality Control* (McGraw-Hill, 1991) is regarded as the basic text on quality systems and improvement and is used the world over.

Dr. Feigenbaum is President and CEO of General Systems Company, Inc., the international leader in implementing

Total Quality Control. He serves on the Malcolm Baldrige Quality Award Board of Overseers.

The audiotapes include remarks by Dr. Feigenbaum on TQC to NSPE's leadership, including: how to prevent CADD/CAM technology from generating more defects faster, why a systematic methodology is required to make constant improvements, and how to identify the "hidden organization" in a company that exists to compensate for poor quality.

The "Feigenbaum on Total Quality in the 1990's" audiotapes with the "10 Benchmarks of Total Quality in the 1990's" booklet are available as a set from NSPE at a member price of \$18.95 and \$22.95 for non-members, plus \$5.00 shipping and handling. Orders may be placed by calling (703) 684-2882 or by writing the NSPE Orders Department, P. O. Box 96163, Washington, D.C. 20090-6163. Please reference product #3036.

Students Take Honors at
MATHCOUNTS National Finals

Students from around the nation took individual and team honors at the MATHCOUNTS National Finals on May 3, 1991. Jonathan Weinstein, a 14-year-old eighth-grade student from Lexington, Massachusetts, earned the title of the nation's number one "mathlete."

Weinstein competed with 223 other finalists in the eighth annual MATHCOUNTS National Finals in Washington, D.C. He is a student at Jonas Clarke Middle School. He won \$10,000 in scholarships, a personal computer, a gold medal and a trip to the U.S. Space Camp in Huntsville, Alabama.

The final question that Weinstein answered to win:

You have 63 one-dollar bills and six envelopes. You want to place the bills in the envelopes in such a way that any amount from \$1.00 to \$63.00 could be obtained by selecting a combination of envelopes. How many dollars would you place in the envelope with the greatest number of bills? Answer: 32 dollars.

Claiming second and third place respectively were Mathew Crawford, an eighth-grader from Pizitz Middle School, near Birmingham, Alabama, and seventh-grader Christopher Chang, representing

New Jersey. Chang now lives in Palo Alto, CA, and attends Jane Lathrop Stanford Middle School. Crawford won a silver medal and a \$6,000 scholarship. Chang won a bronze medal and a \$4,000 scholarship.

The top team was from the state of Alabama and included: Mark Erdberg and Lee Dicks Clark from Mountain Brook; and Tim Momenee, Mathew Crawford and Coach Cynthia D. Breckenridge from Vestavia Hills near Birmingham. The team won a trip to the U.S. Space Camp.

The top ten state teams at the National Finals were:

1. Alabama
2. Massachusetts
3. Ohio
4. Maryland
5. Virginia
6. Maine
7. North Carolina
8. Wisconsin
9. New Jersey
10. Iowa

MATHCOUNTS is a nationwide math coaching and competition program for seventh and eighth grade students. More than 350,000 students in 8,200 schools participated this year with 17,000 program volunteers.

Through MATHCOUNTS, sponsors work to increase student interest and ability in mathematics. The CNA Insurance Companies sponsored the national competition. The other sponsors of the year-long national program are: the National Society of Professional Engineers, Cray Research Foundation, General Motors Foundation, National Council of Teachers of Mathematics, and the National Aeronautics and Space Administration. MATHCOUNTS is endorsed by the U. S. Department of Education.

Forte and Tablada Announces
Promotions

Forte and Tablada, Inc., named new officers of the 30 year-old Baton Rouge engineering, architectural and planning firm.

Board Chairman, Vincent A. Forte, P.E., said that Lucien J. Virgillio, P.E., is the firm's new President and Richard M.

Continued on page 19

NEW REGISTRANTS Of State Board

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John J. Techman
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Lakeland, FL
Thomas F. Blazek
Monroeville, AL
Damon R. Burney
Monroe, LA
Timothy M. Conner
Lake Charles, LA
Robert P. Edelstein
Coral Springs, FL
Richard L. Elliott
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Stanley S. Fujimoto
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McLean, VA
Raymond E. Hess
Rocky River, OH
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Thomas D. Moreland
Tucker, GA
Ali M. Mustapha
Shreveport, LA

James J. Newton
Stone Mountain, GA
Mark A. Owen
Acworth, GA
Mark E. Ramm
Little Rock, AR
Thomas E. Roberts
Greenwood, IN
Ronald C. Roche
Kingwood, TX
Timothy P. Smirnoff
Leawood, KS
Paul E. Swain
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Nashville, TN
Wesley S. Watkins
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Peter D. Fletcher
Palm Harbor, FL
Eugene R. Fluharty
Baton Rouge, LA
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Tampa, FL

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Merlin D. Arable
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MEETING HIGHLIGHTS

Continued from page 12

registration fee for participation in the 1991-92 MATHCOUNTS program. Some coordinators have expressed concern over these charges and President LaBauve was directed to write NSPE advising of Louisiana's opposition to this fee.

A \$500.00 contribution was received from the Louisiana Society of Professional Engineers in Civil Service.

8. A report was heard on the LES/Political Action Committee. Chapter Presidents were encouraged to solicit contributions in their chapter area for this committee.

9. The New Orleans Chapter will attempt to set dates in early March for the 1992 Awards Meeting.

10. The Board of Direction unanimously accepted nominees to the Engineers Selection Board. For the term of July 1, 1991-June 30, 1992, Robert P. Blanche, P.E. For the term of January 1, 1992-December 31, 1992, Eric S. Duck, P.E.

11. Blaise M. Carriere, P.E., Past President of LES, was directed to seek information on the Engineers Selection Board as to its effectiveness and if the procedures and guidelines are adequate.

12. President LaBauve was directed to write a letter to Col. Tim Beally, speaker at the Friday luncheon, expressing our heartfelt appreciation for him and other engineers throughout the world for their support to our nation during Desert Storm.

LOUISIANA ENGINEER/JUNE 1991

Ballot to Elect Louisiana Engineering Society Members To Engineers Selection Board

Act 721 passed in the 1975 Legislature amended Chapter 10 to Title 38 of the Louisiana Revised Statutes of 1950 by adding thereto a new Part VII, Selection of Professional Services for Public Contracts. Three Boards - Architect, Engineer and Landscape Architect Selection - are authorized under this Act. Each Board selects persons or firms to perform certain professional services for public contracts.

The Act refers to the Louisiana Engineering Society, specifying the following: The Louisiana Engineers Selection Board shall be composed of six members. Two members shall be named in an election conducted by the Louisiana Engineering Society at which all properly licensed engineers residing in the State of Louisiana may vote for positions to be filled. LES has two positions to fill this year, one with term ending June 30, 1992, and one ending December 31, 1992.

The LES Board of Direction nominates Robert P. Blanche, P.E., Baton Rouge, for the June 30 position and Eric S. Duck, P.E., Alexandria, for the December 31 position.

Each Louisiana Registered Professional Engineer working and living in the state is eligible and urged to vote.

Space on the ballot is provided for write-in candidates. A write-in candidate must be a Louisiana Registered Professional Engineer and must have agreed to serve if elected. No member or firm of which a member is an associate, employee, or stockholder shall be eligible to receive agency contracts during the term of his service, and for a period of six months thereafter.

LES ENGINEERS SELECTION BOARD

1. Mark and return to LES, P. O. Box 2683, Baton Rouge, LA, 70821, by July 19, 1991. LES is not responsible for late delivery of mail.

2. Make sure your name and address is on the envelope that forwards the ballot to LES. Ballot signature is not required.

Vote for One Candidate in Each Position

POSITION ONE (Term July 1, 1991 - June 30, 1992)

☐ Robert P. Blanche, P.E., Baton Rouge, LA

☐ _____
For write-in

POSITION TWO (Term January 1, 1992 - December 31, 1992)

☐ Eric S. Duck, P.E., Alexandria, LA

☐ _____
For write-in

PLEASE VOTE. RETURN TO LES, P.O. Box 2683, Baton Rouge, LA 70821 prior to July 19, 1991.

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Ballot to Elect Consulting Engineers Council of Louisiana Members to Engineers Selection Board

INDIVIDUAL PRINCIPAL'S BALLOT

Qualifications of voting eligibility.

Act 721, A (2) "The Louisiana Engineers Selection Board. It shall be composed of six members. Two members shall be named in an election conducted by the Consulting Engineers Council of Louisiana, Inc. at which all properly licensed engineers, who are principals of firms with offices in Louisiana, may vote for the same number of candidates as there are positions to be filled,"... One nominee will be elected to fill the position whose term begins July 1, 1991, and ends June 30, 1992.

One nominee will be elected to fill the position whose term begins January 1, 1992 and ends December 31, 1992.

The CEC/L Board of Governors has nominated the following engineers who have expressed a willingness to serve during the stated terms.

Vote for One Candidate in Each Position

Mark this ballot and return to CEC/L, P. O. Box 1549, Baton Rouge, LA 70821. Replies must be received by noon, July 19, 1991 to be counted.

POSITION ONE (Term beginning July 1, 1991 and ending June 30, 1992)

☐ Larry A. Talbert, P.E., New Orleans, LA

☐ _____
For write-in

POSITION TWO (Term beginning January 1, 1992 and ending December 31, 1992)

☐ Jose E. Lima, P.E., Baton Rouge, LA

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POTPOURRI

Continued from page 15

Gremillion, P.E., assumes Executive Vice President duties.

"These outstanding engineers bring over 60 years of engineering experience to these positions," said Forte. "With their wide and varied engineering expertise, our clients are assured that the superior quality of work for which Forte and Tablada has come to be known will continue."

Virgillio earned Bachelor's and Master's degrees in Electrical Engineering from Louisiana State University and brings over 40 years of engineering experience to the President's position. He has served as Forte and Tablada's chief electrical engineer and electrical engineering consultant for the past 15 years, leading the firm's electrical engineering design, project coordination and construction supervision units. Virgillio is a former Assistant Professor of Electrical Engineering for Louisiana State University.

Gremillion is an Instrument/Electrical Engineer with a Bachelor's degree in Industrial Technology from Louisiana State University. Fifteen of his twenty years of engineering experience are with Forte and Tablada. He has specialized in

supervising engineers, designers, operators and fabricators with a heavy emphasis on industrial project design, fabrication and construction. Gremillion has also led

the development of specialized Computer Assisted Drawing (CAD) graphics interactive programs for Forte and Tablada.

Memoriam George Louis Heller, P. E.

George L. Heller, P.E, a member of LES since 1963, expired on April 24, 1991. Mr. Heller was born in Albany, New York in 1908. He obtained his Chemical Engineering and Masters of Chemical Engineering degrees from Rensselaer Polytechnic Institute, Troy, New York, and his Professional Engineering License from the State of Louisiana.

Mr. Heller retired from Cities Service Company in 1973 and became a consulting engineer.

In WWII he served in the critical industries of special carbon black and synthetic rubber development. He held more than 40 USA and over 170 foreign patents at the time of this death. He was awarded the "Outstanding Creativity Award" by Cities Service Company and the "LES James M. Todd Technological Accomplishment Medal." He is an Emeritus member of the American Chemical Society and the American Institute of Chemical Engineers.

Mr. Heller is listed in: "American Men of Science", "Who's Who in Engineering", "Who's Who in the South and Southwest", and "Who's Who in International Intellectuals".

He is survived by five sons, five daughters-in-law, fifteen grandchildren, and one great grandchild.

Mr. Heller remained active in the Louisiana Engineering Society until his death. He will be sadly missed by the LES staff and members of the Louisiana Engineering Society.

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Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *LOUISIANA ENGINEER* to: Editor, P. O. Box 2683, Baton Rouge, LA 70821.

July 11-14, 1991

LES Long-Range Planning Committee/
LES Board of Direction Meeting
Navarre Beach, FL

July 21-27, 1991

NSPE Annual Meeting
Amway Grand Plaza Hotel
Grand Rapids, MI

July 22-23, 1991

State Board of Registration Meeting
New Orleans, LA

September 4-10, 1991

NSPE Committee Week
Alexandria, VA

September 11-14, 1991

LES Planning Conference/Annual
Meeting
Alexandria, LA

September 23-24, 1991

State Board of Registration Meeting
New Orleans, LA

October 26, 1991

NCEES Exams

January 19-25, 1992

NSPE Winter Meeting
Omni Hotel
Charleston, SC

"LES FORUM"

Remember, the "LES Forum", a feature section of the *Louisiana Engineer*, is available for your comments on matters of interest to the profession. Comments should be brief, courteous, and timely, and will be edited by the Publications Committee for balance and pertinent content.

The *Louisiana Engineer* is published six times annually in February, April, June, August, October and December. Comments to the "FORUM" should be mailed to the *Louisiana Engineer*, P. O. Box 2683, Baton Rouge LA 70821, no later than the 10th of the month preceding the month of publication.

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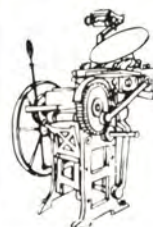
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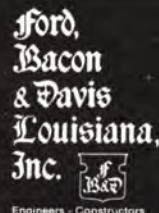
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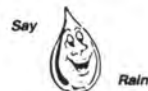
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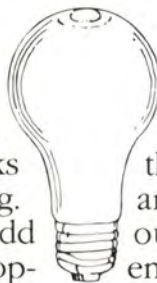


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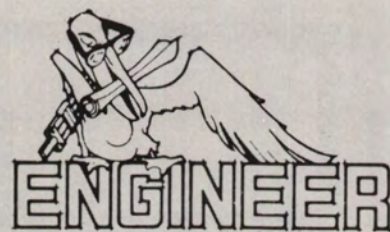
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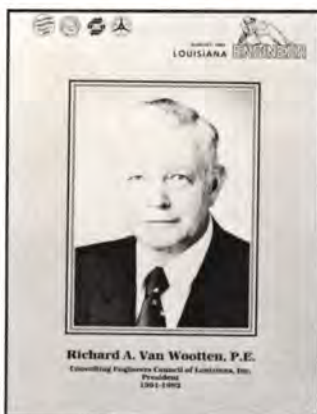
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Our cover this month features 1991-1992 CEC/L President Richard A. Van Wooten, P.E.



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Guest Forum

The President's Opinion

I believe that the greatest improvement in the status of engineers in our society will come about as a result of individual activism rather than reliance solely on representation by a large professional organization.

During my forty years in the engineering profession, engineers have been heard expressing concerns about gaining greater respect and influence in return for our contributions to the society. As we discuss this problem and envy the perceived strength of other professionals, the most common solution proposed is a universal "umbrella" engineering organization, i.e., a single organization representing all engineers that would provide greater influence, respect, and status. This idea has been approached generally in two ways: (1) form a superior engineering society that all other groups will join; (2) have a single common interest organization that all engineers will join as individual members.

For the myriad of reasons that this idea has failed in the past, it will fail in the future. Instead, I contend that the engineering profession should encourage the growth and development of all of the separate and independent organizations that make up and represent the engineering profession. They have, by their existence, proved that they provide a preferred service to their members. If there are groups of engineers that the existing societies cannot reach, then we should encourage development of organizations tailored to their interests and needs. It is only by identifying and meeting the active, as com-



Richard A. Van Wootten, P.E.
President
Consulting Engineers Council of
Louisiana, Inc.

pared to the passive, needs of the individual engineer that we can persuade them to both join and participate in a representative organization of engineers. However, if individual activism from within multiple groups is our best approach, but proves to be incompatible with using a large "umbrella" organization as spokesman for the profession, what can we do?

First, we **can achieve** greater influence, respect, and power within our society by getting involved at every level: individuals,

their separate organizations, and through coalitions (both formal and informal) of elements within the various organizations having same interests and objectives. To do this, the leadership of our organizations must encourage greater individual participation, organize and coordinate activities within their respective organizations, and reach out to cooperate with other organizations and groups in alliances and coalitions.

For example, many engineers recognize the need to be more influential in the legislative arena. This requires a dedicated group of engineers to become and remain active in the political system, getting candidates elected, making contributions to political campaigns, working on committees, testifying before legislative committees, lobbying or supporting lobbying efforts and knowing their legislators. These are the only influential engineers. This we know from experience! Let those within each organization who want to be active in the political process put their experience to work. Let us form an alliance of all of such groups and individuals in order to focus their actions on issues of concern to engineers and on issues on which engineers can be of special benefit, such as the environment and public works.

In short, if we as engineers want influence, respect, and improved status within our society, we, as individuals must become active within the society, and not expect to achieve it solely through larger engineering organizations. **LE**

LEF Fellowships Presented

David A. Bonar, Louisiana State University, and Annette B. Oertling, Tulane University, won the 1990-91 \$2,000.00 LEF Fellowships. The presentation to Bonar was made on June 24 by Robert P. Blanche, P.E., President of the Foundation, in the office of Dean E. McLaughlin, P.E, College of Engineering, Louisiana State University. Mrs. Oertling received her award at the LES New Orleans Chapter Meeting on June 14. Henry E. Markel, Jr., P.E., made the presentation.

Mr. Bonar was born in Pittsburgh, PA, the son of Mr. and Mrs. K. Mark Bonar. His father is employed at Harbison-Walker Corporation as a technical support engineer, and his mother is in sales at a computer software company in Pittsburgh. David graduated from Clearfield Area High School in Clearfield, PA. He obtained a Bachelor of Science Degree from Rice University and a Master of Science Degree from the University of Florida. Both degrees were in Materials Science. He is now pursuing his Ph.D. Degree at Louisiana State University.

David is married to the former Katherine Stone who is employed at Ethyl Corporation as a chemist.

Mr. Bonar has excellent academic records. He is a natural experimentalist who requires minimum supervision. He is a first rate student and communicates ideas well. Mr. Bonar is an intelligent, hard working, motivated individual who never fails to face and conquer the challenges of his graduate studies and beyond. His excellent job in the supervision of the undergraduates is in keeping with the goals of the Foundation's Fellowship.

Mrs. Oertling was born in New Orleans, the daughter of Mr. and Mrs. Hugh B. Bergeron. Her father is an independent insurance agent and her mother teaches Mathematics at St. Edward the Confessor Grammar School in Metairie. Annette attended St. Mary's Dominican High School in New Orleans and then went on to Tulane University where she attained a Bachelor of Science Degree in Mechanical Engineering. She was employed at Exxon Company, USA for eight years in New Orleans and returned to Tulane to obtain her Master of Arts Degree in Mathematics. She taught junior and senior classes at Louise McGehee School in New Orleans for two years. Mrs. Oertling is now a full-time student and research assistant in the engineering

graduate school at Tulane University. She is working toward her Ph.D Degree.

Annette is married to Michael D. Oertling. He has a Bachelor of Science Degree in Mechanical Engineering from Tulane University, and is employed as the Maintenance Manager at Shell Oil Company in Norco, LA.

Annette and Michael are the proud parents of two children, Matthew, age 5 and Sarah, age 2.

Mrs. Oertling has excellent academic records. She is a woman of strong personality and possesses an excellent sense of humor. Her strong desire to teach at the university level is in keeping with the goals of the Louisiana Engineering Foundation's Graduate School Fellowship.

The Louisiana Engineering Foundation is a tax exempt organization founded in 1978 by the Louisiana Engineering Society. Its goals are to provide opportunities to practicing engineering professionals for development programs; to provide fellowships to serve the educational needs of young men and women pursuing a career in engineering; and to maintain a Center to serve all the engineers. The Foundation is headquartered at 1213 Nicholson Drive, Baton Rouge, LA. **LE**

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Richard A. Van Wootten, P.E. - A Profile

Richard A. Van Wootten, P.E., New Orleans, was installed as the 1991-1992 President of Consulting Engineers Council of Louisiana, Inc. (CEC/L) at the organization's recent Annual Meeting in Lafayette, LA.

Van Wootten is Senior Vice President - Engineering Operations of Walk, Haydel & Associates, Inc., New Orleans, Louisiana, a multi-discipline consulting engineering firm specializing in industrial plant designs, and the design of deep water terminals, fertilizer facilities, docks, paper and pulp mills. Walk, Haydel & Associates, Inc. maintains branch offices in Baton Rouge, Louisiana and Mobile, Alabama. A registered Louisiana civil engineer, Van Wootten was graduated in 1957 from Rensselaer Polytechnic Institute, Troy, New York, with a Bachelor of Science

Degree in Civil Engineering. He holds membership in the Louisiana Engineering Society, the American Society of Civil Engineers and the National Society of Professional Engineers. Van Wootten is married to the former Linda McIlvain, and they have a son, Peter, and a daughter, Wendy. He has served on the Board of Governors as President-Elect, Vice President, Treasurer, New Orleans Chapter President, and two years as Member-at-Large.

Commenting on Van Wootten, CEC/L Executive Director, Warren Wilder, has said, "Dick is a tenaciously hard worker, precise in his approach. Last year, for example, he was responsible for a CEC/L position paper on the State Registration Board's proposal to prohibit competitive bidding for professional engineering ser-

vices. He worked and reworked the draft several times until he and the board were satisfied. He was also instrumental in drafting massive revisions to the CEC/L Bylaws.

Dick is very organized and a highly intelligent individual, typical of Walk, Haydel executives. We have had two other outstanding CEC/L presidents from that firm, and I have no reason to doubt that Dick will continue in that positive tradition. He has set several goals for the Council for this coming year which include a comprehensive membership development program. Dick Van Wootten strives for excellence in methodology and accomplishment, and he expects no less from his Board of Governors. This should be another great year of leadership for CEC/L."

Biographical Sketches of the Board Members

MORGAN M. WATSON, P.E., has assumed the office of President-Elect of CEC/L after serving seven years on the Board of Governors as Vice President, Treasurer, Secretary, two years as Member-at-Large, and two years as Baton Rouge Chapter President. He has served in various technical, academic and administrative capacities, including Associate Professor and Chairman of the Mechanical Engineering Department, and Assistant to the Dean of Engineering at Southern University, and President of MEL, Incorporated since its inception in 1972. His areas of technical expertise include design of HVAC systems, alternate fuels and energy sources, and energy management. MEL is a multidisciplinary firm offering civil and mechanical engineering, surveying and construction engineering services to government and private sector clients. Watson is a 1966 honor graduate of Southern University, and a 1971 graduate of Louisiana State University, receiving the Bachelor and Masters of Science Degrees respectively, both in Mechanical Engineering, and completed the coursework for the Ph.D. Degree but left without graduating to enter private practice on a full time basis. He has authored several technical papers, and is a registered professional engineer in four states, with membership in various professional soci-

eties including ASME, AEE, SAME, ASEE, and Pi Tau Sigma Honorary Mechanical Engineering Fraternity. He enjoys teaching, and is a part-time professor at both Southern University and LSU, teaching courses in Thermodynamics, Thermal Environmental Engineering, and Fluid Mechanics, to Engineering and Architecture students. Active in both the church and community, he is a Deacon at Mt. Pilgrim Baptist Church, where he served as Sunday School Superintendent for thirteen years, Vice-President of the Baton Rouge Private Industry Council, member of Early Risers Kiwanis, life member of Southern University Alumni Federation, and member of Omega Psi Phi Fraternity, to name a few. Both Watson and his wife, the former Helen Johnson, are natives of Tensas Parish, and they are the parents of three grown children.

JAMES M. POCHÉ, P.E., has been elected Vice President of the Council. Last year he served on the board as Treasurer after having served as Secretary, Lafayette Chapter President for two consecutive years and another term several years earlier. He received his BS in Mechanical Engineering from the University of Southwest Louisiana, Lafayette, Louisiana, in 1970. Poche' is president of Poche' Associates, Ltd., a Lafayette engineering

firm which offers services in energy management and mechanical and electrical engineering for private and public residential, commercial, educational, institutional and industrial buildings and complexes. He is also affiliated with ASHRAE, AEE, the Louisiana Engineering Society, National Society of Professional Engineers, and the Louisiana Architects Association. Poche' is on the Board of Directors of the Lafayette Chamber of Commerce, was United Givers Fund Section Chairman, and is an active member of the American Consulting Engineers Council's Energy Committee. Six years ago, he served as chairman of the Louisiana Engineers Selection Board, a board empowered to award state agency contracts to engineering firms. Poche' is married to the former Linda DeRouselle, and they have two teenage children.

JOE E. ROACH, P.E., is Vice President of BaLaR Associates, Inc., a Shreveport, Louisiana based consulting engineering firm offering general civil engineering services including structural and sanitary engineering. He has been elected Treasurer of CEC/L after having served as Secretary, two years as Member-at-Large and two years as Shreveport Chapter President. Roach is a graduate of Louisiana State University with a BS in Civil

Engineering. He is a Registered Professional Civil Engineer in Louisiana, Arkansas and Texas and has been practicing civil engineering since 1960. After graduation, his experience background included the United States Corps of Engineers and the American Oil Company prior to joining J.S. Boyd and Associates, Consulting Engineers in 1962. J.S. Boyd and Associates was later reorganized as BaLaR Associates, Inc. in 1968, and at that time he became a partner in the firm. His specialties include structural design, water and sanitary sewerage facilities design, and paving and drainage design. He is a registered land surveyor in the State of Louisiana and is a member of the American Society of Civil Engineers, Louisiana Engineering Society, National Society of Professional Engineers, Professional Engineers in Private Practice, American Water Works Association, Water Pollution Control Federation, Construction Specifications Institute, and the Louisiana Conference on Water Supply and Sewerage and Industrial Waste. He is currently one of two Louisiana representatives on the ACEC/EPA Region 6 Liaison Committee. Roach and his wife, Bea, have three children.

FRANK NICOLADIS, P.E., Metairie, Louisiana, has been elected Secretary of CEC/L this year. This follows a year as

New Orleans Chapter President. He is President of N-Y Associates, Inc., Metairie, a consulting firm offering services in civil, electrical, mechanical, and structural engineering, planning and surveying. He was graduated from Mississippi State University in 1957 with a B.S. in Civil Engineering and is licensed to practice in Louisiana, Mississippi, Texas, Arkansas, and Florida. Nicoladis is active in several other organizations including Water Pollution Control Federation, American Waterworks Association, the Society of American Military Engineers, American Public Works Association, Louisiana Engineering Society, National Society of Professional Engineers, American Society of Consulting Planners, American Planning Association, Louisiana Water Pollution Control Association. He is a Fellow of the American Society of Civil Engineers, a member of the Salvation Army Advisory Board of the Greater New Orleans Area, and is listed in *Who's Who in Engineering*. Nicoladis is married to the former Peggy Yemelos, and they have three children.

CHARLES G. COYLE, P.E., immediate Past President of CEC/L, will serve his final year on the board as National Director. Coyle is President of Coyle Engineering Co., Inc., Bossier City, Louisiana, an engineering firm offering services in the design of streets, roads, drainage, water and waste collection dis-

tribution and treatment facilities, surveying and foundation design and structural design. He has served on the board as President, President-Elect, Vice President, Secretary, and two years as Member-at-Large. He was graduated from Louisiana Tech University in 1968 with a Bachelor of Science degree in Civil Engineering and is licensed to practice engineering and land surveying in Louisiana and surveying in Texas. He is a member of the Louisiana Engineering Society, National Society of Professional Engineers, the Society of American Military Engineers, and the Louisiana Society of Professional Surveyors. He and his wife, the former Sheila Wells, have two children. Coyle is President of the Board of Directors of the Central Bossier Water System, Inc., Vice Chairman of the Greater Bossier Economic Development Foundation, and honor member of Chi Epsilon, National Civil Engineering Honor Society (Louisiana Tech Chapter). Active in his church, he is an elder in the Cottage Grove Memorial Presbyterian Church, Past Moderator of the Administrative Council, Presbytery of the Pines, and is an adult class Sunday school teacher.

JERRY G. LAZENBY, P.E. & R.L.S., has been elected Member-at-Large. He is a 1965 graduate of Louisiana Tech University with a B.S. in Civil Engineering. Lazenby is President of Lazenby & Associates, Inc., a West Monroe, LA consulting engineering firm offering civil engineering and land surveying services. He is Past Chairman, PEPP Section of the Louisiana Engineering Society, Monroe Chapter Chairman of LES, Past President of the CEC/L Monroe-West Monroe Chapter, and holds membership in ASCE, ITE, LSPS, and WPCF. He is married to the former Christine Wilson, and they have two sons and a daughter. Lazenby is Past President of the West Monroe Chamber of Commerce, Past Chairman of the Louisiana Tech Civil Engineering Advisory Committee, Past Chairman of Deacons, Edgewood Baptist Church, and enjoys deer hunting, fishing and swimming.

VINCENT C. PROVENZA, P.E., has been elected to serve CEC/L as Member-at-Large. He is Vice President, New Orleans Office Branch Manager of URS Consultants, Inc., a multi-office firm offering engineering services in regional water supplies, flood control and drainage facilities, highways, railroads, bridges, airports, water and sewage treatment facilities, environmental permitting including hazardous and solid waste, wastewater and air. Provenza was graduated from Tulane University with a B.S. in Chemical Engineering in 1971 and is licensed to practice in Louisiana and Texas. A member of the Louisiana Engineering Society and the Water Pollution Control Federation, he is Past Chairman of the

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East Jefferson Chamber Transportation Committee, a member of the Louisiana Wildlife Federation and Friends of City Park. He is concurrently serving as New Orleans Chapter Vice President after having served the Chapter as Secretary and Treasurer. He is married to the former Sheila Tubre, and they have two children.

W. CHELSAE KNIGHT, P.E., has been elected to serve CEC/L as Member-at-Large. He was graduated from Mississippi State University in 1971 with a B.S. in Electrical Engineering and is licensed to practice in Louisiana, Mississippi, Alabama, Texas, Florida, Tennessee and Illinois. He is President of Spectrum Engineering Corporation, Baton Rouge, LA, a multi-discipline engineering firm providing services in electrical, mechanical, instrumentation, process and structural engineering for industrial and manufacturing plants, including petrochemical and refineries. Knight is a member of the National Society of Professional Engineers, the Louisiana Engineering Society, and IEEE, and is listed in *Who's Who in U.S. Executives*. He is married to the former Billie Jean Springer, and they have four children.

F. BREN KRAMER, P.E., serves on the Board of Governors as Baton Rouge Chapter President after serving last year as Member-at-Large. He was graduated from Louisiana State University with a B.S. in Electrical Engineering in 1963 and a Master's degree in 1965. A member of the Louisiana Engineering Society, Kramer is licensed to practice engineering in Louisiana, Mississippi, Texas, and Maryland. He is Director of Project Management with Marrero, Couvillon & Associates, Inc., a Baton Rouge firm with branch offices in New Orleans and Lafayette providing a full complement of electrical engineering services for investigations, planning, studies, design and troubleshooting of electrical power generation and distribution systems, electronic controls and communication systems. He is married to the former Susan Curtis, and they have three children.

KENNETH H. McLAUGHLIN, P.E., serves on the Board of Governors this year as New Orleans Chapter President. This follows a term on the board last year as Member-at-Large. He was graduated from Louisiana State University in 1973 with a B.S. in Electrical Engineering and is licensed to practice engineering in Louisiana. McLaughlin is a member of

IES (Past Treasurer, 1986-1989), and IEEE. He is President of I.M.C. Consulting Engineers, Inc., a consulting engineering firm in New Orleans offering electrical and mechanical engineering services for all types of commercial, industrial, institutional and governmental facilities. He teaches Lighting Design at Tulane University, Continuing Education Program. McLaughlin is active in the community where he is Cub Master, Cub Scout Pack 491, St. Clement of Rome, and is baseball coach, Johnny Bright Playground (for children under 10 years old). He is married to the former Mary Sue Stipe, and they have two children.

DONALD W. CLAYTON, P.E., was reelected a third term as President of the Alexandria Chapter and will once again serve on the Board of Governors. He is Executive Vice President of Ballard & Associates, Inc., an Alexandria consulting firm offering services in civil and mechanical engineering, surveying, construction management, laboratory analysis, structural engineering and building design. Licensed to practice in Louisiana, Georgia and Oklahoma, Clayton was graduated from Georgia Tech in 1973 with a Bachelor of Science degree in Civil Engineering. He is a member of the Louisiana Engineering Society, National Society of Professional Engineers, and American Society of Civil Engineers. He is married to the former Kathryn Byrd, and they have two children.

ROBERT A. BASINGER, P.E., serves on the Board of Governors this year as Shreveport Chapter President. He is President of BBC Engineering, Inc., a Shreveport based firm offering consulting civil engineering services, land planning, and land surveying. Basinger was graduated from Louisiana Tech University in 1970 with a B.S. in Civil Engineering and is licensed to practice in Louisiana and Texas. He is a member of the Louisiana Engineering Society and the Shreveport Chapter of ASCE. He is married to the former Marcia Dolin, and they have three children. Basinger is a member of Sunset Acres Baptist Church where he is an ordained deacon and teaches an adult Sunday school class. He enjoys church activities and sports of all kinds with his wife and children. He serves on the Municipal Relations Committee, a CEC/Shreveport Chapter task force for

the Mayor regarding the structure of the Department of Public Works and Water & Sewerage. He is also a member of the Shreveport Chamber of Commerce, Greater Shreveport Economic Development Foundation, Downtown Shreveport Unlimited & Bossier Chamber.

JOHN W. "BILLY" MOORE, P.E., Ruston Louisiana, serves on the CEC/L Board a second term as President of the Monroe-West Monroe Chapter. He is manager of the branch office (Ruston) of Meyer, Meyer, LaCroix & Hixson, Inc., an Alexandria, LA based, multidiscipline firm specializing in energy audits, environmental studies, highways, railroads and bridges, industrial, solid waste and energy resource recovery. Licensed to practice in Louisiana, Moore was graduated from Louisiana Tech University with a B.S. in Civil Engineering. He is an active member of the Louisiana Engineering Society, National Society of Professional Engineers, Water Pollution Control Federation, and the American Waterworks Association. He is the recipient of the Edmund Friedman ASCE Young Engineer Award, Hugh Coughlin Young Engineer Award by the Louisiana Engineering Society. Moore is a member of Chi Epsilon Civil Engineering Honor Society at Louisiana Tech (Charter & Honor Member), National Eagle Scout Association, and a Senator of Jaycees International. He is married to the former Janet Miller, and they have two daughters, Monica (16) and Melanie (13).

DONALD L. RICHARD, P.E., serves on the Board of Governors this year as Lafayette Chapter President. A graduate of the University of Southwest Louisiana, he received his B.S. in Civil Engineering in 1960. He is President of Domingue, Szabo & Associates, Inc., a Lafayette firm providing services in civil, structural, and environmental engineering; including drainage, water supply, sewerage, water and wastewater treatment, land surveying and development. Richard is a member of the American Society of Civil Engineers, Louisiana Engineering Society, National Society of Professional Engineers, and Professional Engineers in Private Practice Division. He is married to the former Maxine Easley, and they have five children and five grandchildren. **LE**



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ENFORCEMENT CORNER **by Benjamin S. Harrison** **Registration Board Investigator**

How Do You File A Complaint?

Many times I am contacted by individuals who want to know both how to file a complaint and how the process generally proceeds. The following is a typical response letter to a potential complainant that says it all.

"Dear Mr. Dununtoo:

Pursuant to our telephone conversation of this date, you will find enclosed a sample affidavit of complaint, a copy of the Louisiana Revised Statutes 37:681 to 37:703, as amended, and a copy of the Rules for Professional Engineers and Land Surveyors. I have highlighted, in yellow, areas of possible interest in both the laws and rules with a written note on the front of each booklet as to appropriate page references.

Under La. Rev. stat. 37:698, pages 8 and 9 of the law booklet, the Board has the authority to suspend, refuse to renew, revoke the certificate, reprimand, or fine in an amount not to exceed five thousand dollars (\$5,000), any registrant or certificant, if the Board finds the holder guilty of any of the acts specified in this section. However, you will discover that such a finding can only be made by the Board following a formal administrative disciplinary hearing by the Board, conducted as set forth in La. Rev. Stat. 37:699 (see page 10 of the laws booklet). A formal disciplinary hearing may come about when the Board directs that an investigation of a formal complaint be conducted and the investigation substantiates that a violation of the laws and/or rules may have occurred. In situations where the Board determines that a formal complaint submitted is not within its jurisdiction or is unfounded, the Board will dismiss the complaint and notify the defendant and complainant in writing of its decision. The Board by law must also provide the defendant a copy of any formal complaint within ten (10) days of its receipt by the Board.

If you believe that a registrant or certificant of the Board is guilty of violating any of the acts specified in La. Rev. Stat. 37:698 A (1) through (13), you may file a formal affidavit of complaint against the registrant or certificant in which you must specify the particular violation that you believe to have occurred. Enclosed you will find a sample affidavit to use as a general guide. I would also suggest that you discuss the affidavit with your attorney, although that is not a requirement.

If you decide to file a formal complaint, please insure that your affidavit accurately reflects the facts of the allegation in sufficient detail so the Board may make a preliminary decision as to the matter being within the jurisdiction of the Board and also as to there being some indication that a violation may have occurred. Of particular importance is exactly what the registrant or certificant was requested to do and/or provide to the client. The affidavit should also be accompanied by any documentary evidence you may have, i.e. copies of plans, plats, contracts, letters, or other relative documents and should clearly identify persons who have direct knowledge or should reasonably be expected to have knowledge of the allegations.

Should you not desire to make a formal sworn affidavit of complaint, you may provide the pertinent information to the Board in a letter format and it will be evaluated to determine if it is a matter under Board jurisdiction. If it is, it will be investigated.

If you should have any additional questions regarding the complaint process, do not hesitate to call.

Very truly yours,

Benjamin S. Harrison, Sr.
Board Investigator

Board Rules Revised **March 20, 1991**

A complete updated legal copy of the Board Rules formally called **Title 46, Professional and Occupational Standard, Part LXI. Professional Engineers and Land Surveyors, Subpart 1. Rules** can be obtained from the Office of the State Registrar, P.O. Box 94095, Baton Rouge, Louisiana 70804-9095, telephone (504) 342-5015.

The Board is prohibited by law from publishing a legal document containing the Rules of the Board. The Board recognizes that it may not be necessary for you to obtain a legal document; therefore, it makes available to you a booklet of the rules **which is not a legal document**. If you wish to receive a copy of the rules, (not a legal document) write or call the Board office.

The latest significant change to the rules was the addition of **CHAPTER 25, The Minimum Standards for Property Boundary Surveying**.

SECTION 103 rule states, "Under the provisions of R.S. 37:688, the Board has the authority to make, adopt, alter, amend, and promulgate rules not inconsistent with the Constitution and Laws of this State. This is necessary for the proper performance of its duties and the regulation of the proceedings before it". Over simplifying your responsibilities as a registrant of the Board —, since the rules of the Board are an extension of the state Law, you, as a registrant of the Board, must adhere to the laws of this State in all of your actions including your actions as a Professional Engineer or Professional Land Surveyor. It is your responsibility to know the rules and the law which pertain to your professional activities. We all know that ignorance of the law is no excuse.

Know the law and the rules of your profession. It is your moral, ethical and legal obligation.

Order Your Biennial Report Now

The Board will publish a biennial report early next year. This report will include:

General information about the Board
Board Rules and the Registration Law
Roster of Engineering and Land Surveying Firms
Roster of Professional Engineers and Professional Land Surveyors



Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors



Roster of Engineers-In-Training and
Land Surveyors-In-Training
Addresses of all registration boards in
the United States

If you want to receive a free copy of
this report, please return the card included
in this issue of the *Louisiana Engineer* to
the Board office no later than January 15,
1992.

Check Your Registration

You receive a wallet size card indicating
the next expiration date each time you
renew your registration. Please check the
expiration date of your registration. You
are responsible to renew your license on
or before that date whether or not you
receive a renewal notice.

The Board mails out your registration
renewal notice about six (6) weeks before
the expiration date. The notice is mailed
to your last known address; however, you
are responsible for renewing your license,
whether or not you receive the notice.

Failure to renew your registration does
not deprive you of the right for renewal;
however, you cannot practice your pro-
fession unless your registration is current.
To do so subjects you to Board action. It
may also subject you to very serious legal
difficulties with your clients and regula-
tory agencies. Check your card or call the
Board office to determine your registra-
tion expiration date.

New NCEES Information Available

The National Council of Examiners for
Engineering and Surveying (NCEES) now
offers four books to assist candidates in
preparing for the NCEES Principles and
Practice of Engineering (PE) examinations
in the disciplines of Chemical, Civil,
Electrical, and Mechanical. The four vol-
umes of the "Principles and Practice of
Engineering (PE) Sample Problems and
Solutions (1991)" were prepared based
on current test specifications assessing
the knowledge and skills for the discipline
examinations.

Each book includes test specifications,
six sample morning and six sample after-
noon questions. Solutions are given for
each question. Also included are general
state/ jurisdictional licensing require-
ments, description of the examination pro-
cedures and examination development.

The cost of each volume is \$20, plus
a shipping and handling charge of \$3 per
volume ordered. For the convenience of
the candidates, the NCEES has instituted

a credit card system which allows ordering
via Visa, Mastercard, and American
Express.

These books supplant the previous
"Principles and Practice of Engineering
Sample Examination - Group I - 1984" vol-
ume. The 1984 edition is still available
for a limited time at the cost of \$20 per
book, plus \$3 shipping and handling.
Although the examination format has
changed since the publication of this book
in 1984, the sample problems are still
applicable to candidates who plan to sit
for the "combined" Group I PE exami-
nation.

Organized in 1920, the NCEES present-
ly serves all state/jurisdictional regulatory
boards for engineering and surveying reg-
istration by preparing uniform examina-
tions and encouraging uniform standards

of practice and qualifications for regis-
tration.

For Additional Information, Contact:
NCEES Publications Department
1820 Seneca Creek Rd.
P.O. Box 1686
Clemson, S.C., U.S.A. 29633-1686
Telephone 1-803-654-6824
Fax 1-803-654-6033

BOARD MEETING NOTICE

The Louisiana State Board of
Registration for Professional Engineers
and Land Surveyors will hold its regular
meetings at 1055 St. Charles Avenue
- Suite 415 New Orleans, La. 70130 on
the following dates.

1991

Sept. 23-24

Nov. 11-12

EXAMINATION SCHEDULE AND APPLICATION DEADLINE DATES

Examination	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Principles & Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1991	Oct. 26, 1991
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum	NOT AVAILABLE		Aug. 1, 1991	Oct. 26, 1991
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Principles and Practice of Land Surveying (4 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1991	Oct. 26, 1991
Laws and Procedures of Land Surveying (3 hrs.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	
Louisiana Laws and Procedures of Land Surveying (1 hr.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given
for anyone to be scheduled for an examination.

The applicant and the Board depends upon information provided by third parties in the processing
of an application, therefore no assurance can be given that one will be scheduled for a specific
examination.

Application Deadline date means that an application **must** be postmarked prior to or on
the date specified so as to be given **consideration** for the examination. The Board may schedule
an applicant for an examination later than that requested by the applicant. The Board cannot
guarantee that the applicant will be scheduled for the examination initially requested.

Retaking a failed examination is permitted anytime the examination is offered. Applications
to retake a failed examination must be received by the Board Office at least sixty (60) days
prior to the examination date.

Long-Range Planning Meeting Productive

The Long-Range Planning Committee Meeting held on July 12, 1991, in Navarre Beach, was very productive with fifteen committee members and guests present.

The Committee's outline includes a new mission statement and new objectives for the Louisiana Engineering Society. These new objectives address critical issues in the Society, such as, state and national membership; an improved public relations program and public awareness of the Society; improved state and chapter communications with Society members, Louisiana registered and non-registered engineers; improved membership activity; and, improved committee and practice division involvement.

As noted earlier, the meeting was productive, but it can only be proven successful if **YOU**, the general membership, attend the **Long-Range Planning Workshop and Committee Meeting scheduled for Friday, September 13, 1991, 8:30 a.m.**, in conjunction with the LES Annual Meeting, at the Hotel Bentley in Alexandria. The Long-Range Planning Committee can outline objectives, but the LES Board of Direction cannot adopt these new objectives or implement them without **YOUR** input, **YOUR** involvement, and **YOUR** approval.

The Louisiana Engineering Society has a rich heritage. The founders built well. From a small beginning the Society has gone steadily forward. Today, we are at the threshold of greater things to come. **If all our efforts are to count, whole-hearted cooperation of every member is needed. Your input is essential at the Workshop and Committee Meeting on September 13, 1991.**

Unified Visual Image Proposed

At its Annual Meeting on July 21-27, 1991, in Grand Rapids, MI, NSPE inaugurated a new national insignia. The unified graphic image was developed by a special task force and adopted by the National Society of Professional Engineers'

Board of Directors at its 1991 Winter Meeting for all NSPE publications and products.

The new national insignia will replace all previous national logos including practice division logos. NSPE believes that a single graphic image for all the National Society's component organizations will enhance the Society's effectiveness. The main goal is to gain recognition through consistency for all of NSPE's diverse activities and products and to project an image of a well-organized, dynamic organization.

The new insignia developed for the National Society is also appropriate for state society use and NSPE is urging each state to consider adopting the new insignia presenting a unified graphic image.

The present LES emblem has been in use by the Society prior to 1930. Additionally, Committees within the Society have discussed changing the name of the Louisiana Engineering Society to the Louisiana Society of Professional Engineers to be consistent with other NSPE state affiliated societies and to convey the message that the Society represents all Louisiana engineers. The Louisiana Engineering Society has a rich heritage and the name and emblem are parts of this heritage. What is **your** opinion? Do you want the name and emblem of **your** professional society changed?

A special committee has been appointed by the President to present diversified designs of a graphic image, consistent with NSPE's recommendations, for use on all LES publications and products for the members' perusal at the General Membership Meeting.

These issues, along with others, will be on the General Membership Meeting agenda scheduled for Friday, September 13, 1991, 3:30 p.m., at the Hotel Bentley.

THE LES BOARD OF DIRECTION NEEDS GUIDANCE FROM YOU, OUR MEMBERS, TO ACT ON MATTERS OF THIS MAGNITUDE. BE PRESENT AT THE GENERAL MEMBERSHIP MEETING TO EXPRESS YOUR OPINIONS.

Gubernatorial Candidates Interviews Scheduled

September 19, 1991, has been set to interview the gubernatorial candidates. This is a joint effort by the Louisiana Engineering Society, the Consulting Engineers Council of Louisiana, Inc., the Louisiana Architects Association, the Institute of Facility Managers Association, the American Society of Interior Designers, and the American Society of Landscape Architects.

All viable candidates, based on an independent poll to be taken in late August, will be invited to attend the session.

Each sponsoring organization is requested to submit a list of not more than five questions or topics to which they would like to have each candidate respond. The Louisiana Engineering Society Executive Committee needs your input! Please submit to the LES State Office **no later than August 25, 1991**, a list of five questions or topics you deem important to engineers or the engineering profession. The Executive Committee will prioritize the topics which will be submitted to the panel moderator.

Additionally, each participating candidate will be given five to ten minutes to address what he believes is the single most important issue facing Louisiana.

An invitation is extended to members of the engineering profession and others to attend. The scheduled hour to begin and the location for the session have not been determined. Confirmed arrangements will appear in your chapter newsletter.

LES Planning Conference and Annual Meeting

The LES Planning Conference and Annual Meeting will be held September 11-14, 1991, at the Hotel Bentley in Alexandria. This meeting is for the entire membership of LES not just committee members, chapter officers, and state officers. Committees will be meeting to plan their goals and objectives for 1991-92. Plan to attend the meeting. Let your voice be heard on what the Society should be doing for engineers and the engineering profession.

LOUISIANA ENGINEER/AUGUST 1991



Leta G. Bueto
Executive Director
Louisiana Engineering Society



A presentation on the "Red River Navigation Project" will be conducted by the U. S. Army Corps of Engineers at the 8:30 a.m. session on Thursday morning, September 12. A slide presentation on the project and an up-date on current developments should be very interesting to all engineers.

The 8:30 a.m. session on Friday morning, September 13, will be a Long-Range Planning Workshop immediately followed by a scheduled committee meeting. Your attendance at this workshop is critical if we are to address the needs of the Society.

Congressman Clyde Holloway, a gubernatorial candidate, will be the Friday luncheon speaker. Perhaps Congressman Holloway will address the future of Louisiana from a candidate's view point. This should be most interesting!

Hotel Reservation and Meeting Registration forms were published in the June issue of the Louisiana Engineer. Should you need copies of the agenda or the registration forms, please call the State Office at (504) 344-4318. The State Office has been informed that the correct telephone number for the Bentley Hotel is 1-800-356-6835.

Legislative Wrap-up

The regular session of the 1991 Legislature adjourned on July 8, 1991. The LES Legislative Chairman, John K. Laws, P.E., and your Executive Director were very active during the session supporting advantageous legislation and opposing deleterious legislation.

The Louisiana Engineering Society, along with other professional societies, sponsored several legislative bills which the Society felt were in the best interests of our profession and which help protect the health, safety and welfare of the general public.

The following is a wrap-up on LES's involvement in this session:

Senate Bill #127 (Senator Bankston) - This bill provided for a reduction in the preemptive period for professional liability from ten (10) years to five (5) years. This bill was sponsored by a coalition of architects, surveyors, and engineers. **The bill did not receive a favorable vote out of committee.**

Senate Bill #785 (Senator Bankston) - This bill provides for procurement of consultants by the Department of Transportation and Development. All of the language in Senate Bill #785 is new and attempts to place selection procedures for consultants into law. Consultants are currently selected in accordance with Procedure #22 outlined in the Secretary's Policies and Procedures Manual. The Louisiana Engineering Society supported this bill with some amendments. **Received Governor's signature. Act # 784**

Senate Bill #890 (Senator Ewing) - This bill changes the composition of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The bill increases the total membership of the Board to eleven (11) members and provides that on or before January 24, 1993, nine (9) members shall be registered professional engineers and two (2) members shall be registered professional land surveyors who are actively engaged in the field of land surveying. The nine (9) engineer members are as follows: one engineer from construction, two engineers from education, two engineers from government, two engineers from industry, and two engineers from private practice. The bill deletes the requirement

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the LOUISIANA ENGINEER to: Editor, P. O. Box 2683, Baton Rouge, LA 70821.

September 4-10, 1991

NSPE Committee Week
Alexandria, VA

September 11-14, 1991

LES Planning Conference/Annual Meeting
Hotel Bentley, Alexandria, LA

September 14, 1991

LES Board of Direction Meeting
Hotel Bentley, Alexandria, LA

September 19, 1991

Lafayette Section/IEEE
Membership, Gulf States Utilities

September 23-24, 1991

State Board of Registration Meeting
New Orleans, LA

October 17, 1991

Lafayette Section/IEEE
Student Night, Teche Lodge

October 17-19, 1991

ACEC Fall Conference
Albuquerque, NM

October 18, 1991

LSPS Board of Directors Meeting
Baton Rouge, LA

October 25, 1991

LES Board of Direction Meeting
Shreveport, LA

October 26, 1991

NCEES Exams

November 11-12, 1991

State Board of Registration Meeting
New Orleans, LA

November 21, 1991

Lafayette Section/IEEE
Technical Meeting

December 6, 1991

LSPS Board of Directors Meeting
Baton Rouge, LA

December 7-9, 1991

State President-Elects' Conference
Alexandria, VA

December 12, 1991

Lafayette Section/IEEE
Christmas Meeting,
Don's Seafood/Steakhouse

December 13, 1991

Honors and Awards Selection Meeting
State Office, Baton Rouge, LA

December 13, 1991

LES Board of Direction Meeting
State Office, Baton Rouge, LA

January 19-24, 1992

NSPE Winter Meeting
Omni Hotel
Charleston, SC

that no less than one (1) member be a registered professional engineer who is also a registered professional land surveyor. This bill was sponsored by the Louisiana Engineering Society, the Louisiana Society of Professional Surveyors, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and supported by the Consulting Engineers Council of Louisiana, Inc., and the American Society of Civil Engineers. **Received Governor's signature. Act #435**

House Bill #524 (Representative Orr) - Relative to examinations given by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors - The bill removes the ten-year limitation and places no time limit on the credit an applicant receives for successful passage of an examination. This bill was sponsored by the Louisiana Engineering Society, the Louisiana Society of Professional Surveyors, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and supported by the Consulting Engineers Council of Louisiana, Inc., and the American Society of Civil Engineers. **Received Governor's signature. Act #471**

House Bill #525 (Representative Orr) - This bill allows the surveyor member on the Louisiana State Board of Registration for Professional Engineers and Land Surveyors to vote on all matters. This bill was sponsored by the Louisiana

Engineering Society, the Louisiana Society of Professional Surveyors, and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and supported by the Consulting Engineers Council of Louisiana, Inc., and the American Society of Civil Engineers. **Received Governor's signature. Act #472**

House Bill #1359 (Representative Gee) - This bill attempted to place design professionals under the Workers' Compensation umbrella. The bill was sponsored by the Consulting Engineers Council of Louisiana, Inc., and supported by the Louisiana Engineering Society and the Louisiana Architects Association. **The bill was not moved from the calendar.**

The Louisiana Engineering Society extends our appreciation to Representative Virgil Orr and Senator Randy Ewing for authoring the bills sponsored by the Society. They are to be commended for their untiring efforts in getting these bills through the process.

Your PAC Elections '91

Statewide elections for the Louisiana Senate and the House of Representatives will be held in October (primary) and November (general election). The opportunity to assist favored legislative representatives only occurs once every four years. **THIS IS THE YEAR!**

BUT - your **LES/PAC** does not have

sufficient dollars (\$) to effectively assist candidates. In fact, unless there is more interest and participation by engineers, the **PAC** might as well fold its tent and go away.

Contributions of \$25.00 or more per year assures an individual of voting rights in the PAC. Any and all contributions (from \$1 up) adds to the funds which could be given to and mean much to a candidate struggling to finance his campaign.

Members and contributors are needed from all over the State - from each Chapter area. These interested and concerned engineers can also help to guide the PAC in its selection of candidates to endorse and support.

NOW, while you are remembering the 1991 Legislative session(s) and the support (or lack thereof) of issues critical to our State - and engineers, sit down and write a check for at least \$25.00 and send it to LES/PAC, P. O. Box 2683, Baton Rouge, LA 70821.

Southwestern Regional Conference Scheduled

The NSPE 1991 Southwestern Regional Conference is scheduled for October 3-5, 1991, at the Holiday Inn Airport West in Bedford, Texas. The NSPE Southwestern

Continued on page 20

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To: All readers of the *Louisiana Engineer*:

The LES Long Range Planning Committee seeks your help in evaluating the effectiveness of the organization in addressing the needs of its members. Your views regarding what is important and not important, what is effective and what is ineffective, will be used to help the Committee provide the LES Board of Direction with valuable information concerning the future direction of LES. The following survey is offered for you to express your views. All readers of the *Louisiana Engineer*, whether members of LES or not, are invited to respond. Please return the completed survey to LES, P.O. Box 2683, Baton Rouge, LA 70821 by August 23, 1991.

The results of this survey and the opinions expressed will be the basis for important discussions at the LES State Meeting in Alexandria in September.

1991 Louisiana Engineering Society Membership Survey

PART 1: PRIORITIES OF LES

Instructions: Please check the blank that best reflects YOUR views.

1. STATE MEETINGS

The LES Annual meeting is. . .	The LES Awards meeting is...
☐ Very important	☐ Very important
☐ Moderately important	☐ Moderately important
☐ Not important	☐ Not important

2. CONTINUING EDUCATION

The development of a LES sponsored continuing education program is. . .

☐ Very important
☐ Moderately important
☐ Not important

3. LEGISLATIVE LOBBYING

A. Using the LES staff to promote or oppose legislation affecting the practice of engineering is. . .

☐ Very important
☐ Moderately important
☐ Not important

B. Improving our lobbying ability, even if a dues increase is required, is. . .

☐ Very important
☐ Moderately important
☐ Not important

4. PUBLIC RELATIONS

A. The development of a statewide major media (TV, print, radio) effort by the LES to promote the value of quality engineering services to the public is. . .

☐ Very important
☐ Moderately important
☐ Not important

B. This media effort by the LES, even if a dues increase is required, is. . .

☐ Very important
☐ Moderately important
☐ Not important

5. PROFESSIONAL LIABILITY

Development of a LES sponsored alternative professional liability coverage is. . .

☐ Very important
☐ Moderately important
☐ Not important

6. RELATIONS WITH GOVERNMENT AGENCIES

Promoting the interest of engineers with the Corps of Engineers, LaDOTD, LaDEQ, Facility Planning and Control, etc. is. . .

☐ Very important
☐ Moderately important
☐ Not important

7. LOUISIANA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Working with the Board of Registration to promote the safety, health and welfare of the general public through the registration law is. . .

☐ Very important
☐ Moderately important
☐ Not important

8. ENGINEERS SELECTION BOARD

Support of the State Engineers Selection Board and notifying LES members of upcoming projects is. . .

☐ Very important
☐ Moderately important
☐ Not important

9. LOCAL GOVERNMENTS

Promotion of a qualification-based engineer selection system that could be adopted by local government bodies is. . .

☐ Very important
☐ Moderately important
☐ Not important

10. LOUISIANA ENGINEER MAGAZINE

An increase in the frequency and quality of the LE magazine is. . .

☐ Very important
☐ Moderately important
☐ Not important

11. SCHOOLS OF ENGINEERING

The development of a membership position on the issue of Louisiana's multiple public schools of engineering is. . .

☐ Very important
☐ Moderately important
☐ Not important

12. PROFESSIONAL COOPERATION

To expand collaborative efforts with allied design professions in Louisiana is. . .

☐ Very important
☐ Moderately important
☐ Not important

PART 2: GENERAL EVALUATION OF LES PROGRAMS AND SERVICES

Instructions: Please check the blank that best reflects YOUR evaluations.

13. LEGISLATIVE LOBBYING:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

14. REPRESENTATION ON ISSUES WITH THE REGISTRATION BOARD:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

19. CONVENTION SERVICES:

A. SOCIAL/NETWORKING:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

B. EDUCATION/SEMINARS:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

15. REPRESENTATION ON ISSUES WITH THE SELECTION BOARD:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

16. LES OFFICE STAFF RESPONSE TO MEMBERS:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

20. HOW EFFECTIVELY DOES THE LES COMMUNICATE ITS PURPOSE?:

A. TO THE MEMBERSHIP:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

B. TO THE PUBLIC:

- ☐ Very effective
☐ Adequately effective
☐ Not effective

17. CONTINUING EDUCATION SERVICES:

A. QUALITY:

- ☐ High
☐ Moderate
☐ Poor

B. COST:

- ☐ High
☐ Moderate
☐ Poor

C. AVAILABILITY:

- ☐ High
☐ Moderate
☐ Poor

18. COMMUNICATIONS:

A. LOUISIANA ENGINEER MAGAZINE

- ☐ Very effective
☐ Adequately effective
☐ Not effective

B. CHAPTER NEWSLETTER

- ☐ Very effective
☐ Adequately effective
☐ Not effective

21. PLEASE INDICATE THE VALUE OF LES MEMBERSHIP AT THE FOLLOWING LEVELS:

	LOCAL LEVEL	STATE LEVEL	NATIONAL LEVEL
Excellent	☐	☐	☐
Fair	☐	☐	☐
Poor	☐	☐	☐

PART 3: MEMBERSHIP PROFILE

22. I AM AN:

- ☐ LES & NSPE Member
☐ LES Member only
☐ LES & NSPE Assoc. Member
☐ LES Associate Member
☐ LES Affiliate Member
☐ LES Privileged Member
☐ LES Life Member
☐ LES Honorary Member
☐ LES Student Member
☐ Not an LES Member
☐ Not sure

23. MY CHAPTER IS:

- ☐ Alexandria
☐ Baton Rouge
☐ Bayou
☐ Lafayette
☐ Lake Charles
☐ Monroe
☐ New Orleans
☐ North Lake
☐ Shreveport

27. THE NUMBER OF PEOPLE IN MY FIRM/AGENCY IS:

- ☐ 10 or less
☐ 11-50
☐ More than 50

28. MY LES AND/OR NSPE DUES ARE PAID BY:

- ☐ Me
☐ My employer

29. I HAVE BEEN EMPLOYED IN THE ENGINEERING PROFESSION FOR:

- ☐ 3 years or less
☐ 4 - 10 years
☐ 11 - 20 years
☐ 21 years or more

30. MY ROLE IN THE PROFESSION IS:

- ☐ Employed engineer
☐ Principal/Owner of a firm
☐ Educator

31. I AM AN ENGINEERING GRADUATE OF A:

- ☐ Louisiana School
☐ Out of State School

32. ANY OTHER COMMENTS?

24. MY PRACTICE DIVISION IS:

- ☐ Construction
☐ Education
☐ Government
☐ Industry
☐ Private Practice

25. MY ATTENDANCE AT CHAPTER MEETINGS IS APPROXIMATELY:

- ☐ 30% or less
☐ 30% - 60%
☐ 60% - 90%
☐ Over 90%

26. I ATTENDED THE FOLLOWING LES STATE MEETINGS:

- ☐ 1991 Awards/Shreveport
☐ 1990 Annual/Lafayette
☐ 1990 Awards/Lake Charles
☐ 1989 Annual/Baton Rouge
☐ 1989 Awards/Covington
☐ 1988 Annual/Alexandria
☐ 1988 Awards/Houma

Notice Availability of Proposed ASCE Standards for Review and Public Ballot

ASCE 3, Standard for the Structural Design of Composite Slabs and ASCE 9, Standard Practice for the Construction and Inspection of Composite Slabs have been revised by the ASCE Standards Committee on Steel Deck with Concrete in response to negative votes received during the public review and ballot conducted in 1990. The standards will be available on July 15, 1991 for another round of public review and ballot. Together, the two standards will replace the standard ANSI/ASCE 3-84, Specifications for the Design and Construction of Composite Slabs.

To obtain a copy of the standards and a ballot, write to: Mr. Edwin Jones, Director, Codes and Standards, ASCE, 345 East 47th St., New York, NY 10017.

All persons submitting a ballot with a negative vote accompanied by an explanation and a suggested change will receive a response to their ballot. Closing date for the receipt of ballots is Friday, September 6, 1991. **LE**

NSPE Education Foundation Offers \$1.2 Million in Engineering Scholarships Nationwide

The National Society of Professional Engineers Education Foundation has offered \$1.2 million in scholarships to 172 high school seniors around the nation wanting to pursue an engineering career. The scholarships are funded by NSPE, forty-nine universities and twelve corporations and independent organizations. Contributions for scholarships this year to the NSPE Education Foundation were up significantly, for a recession year, compared to last year's fund of \$887,000. Recipients for the scholarships were selected from over 1,190 qualified applicants nation-wide. One hundred-twenty-eight students have accepted the scholarships. The recipients were selected by the NSPE National Scholarship Selection Committee that consists of prominent engineers, educators and industry executives.

Nearly a third of the scholarship recipients have participated in MATHCOUNTS, the national seventh and eighth grade math coaching and competition program founded by NSPE to promote math achievement. Thirty-two percent of those offered scholarships were female and 12% were minorities.

The members of NSPE sponsored 48 regional scholarships and six minority grants. A female engineer scholarship was funded by the NSPE Auxiliaries Board and three scholarships were presented in memory of prominent professional engineers. To be eligible for a scholarship, a student must: achieve a 3.0 grade point average in their sophomore, junior and senior years; rank in the upper one-fourth of their class or be recommended by their Principal; meet a minimum test score requirement on the SAT or ACT; plan to enroll in an engineering program at a college or university accredited by the Accreditation Board for Engineering and Technology; be a U.S. citizen.

Information on NSPE Education Foundation scholarships to be awarded for Fall 1992 will be available in September 1991. Contact high school counselors, NSPE local chapters or state societies or write the NSPE Education Foundation, 1420 King Street, Alexandria, VA 22314-2715. **LE**

Women Catch Men in 1991 NSPE Engineers' Salary Survey Cost of Living Beats Both

The salary levels of female engineers have nearly caught up those of male engineers, according to the 1991 Engineers' Income and Salary Survey published by the National Society of Professional Engineers. But the median pay increases for engineers in 1991 did not match the increases in the Consumer Price Index. The survey reports female engineers with 5 to 9 or 10 to 14 years' experience earn 97% as much as male engineers. "When the data are analyzed...by length of experience, female engineers have a higher median income than male engineers for the first two years of experience; thereafter, male engineers have a slight advantage," the report stated.

The survey reports a median income of \$57,000 for engineers for all disciplines as of January 1, 1991, up 2.7% from the previous year's \$55,500. Most of the 13,000 NSPE members participating in the survey found the modest salary increase dwarfed by the Consumer Price Index (CPI), which rose 5.7% during the same period. By contrast, the 1990 NSPE Salary Survey reported a median 4.7% gain in income balanced by a 5.2% CPI increase.

The survey found individual incomes vary greatly according to an engineer's discipline, certification, education, industry and geographical area. Engineers in



Memoriam Vincent A. Forte, P.E.

On May 26, 1991, the Louisiana Engineering Society and the Louisiana Engineering Foundation lost one of its best. Vincent A. Forte was one of the founding fathers of the Foundation. He was a former President of the Louisiana Engineering Society and the first President of the Foundation and served as President from 1978 until 1984. His untiring efforts to establish LEF and see it grow to an effective vehicle for the receipt and disbursement of tax exempt donations

that are used for fellowships, the MATHCOUNTS program, awards to outstanding engineers and for ownership of the Engineering Center.

Vince was a dreamer who got things done. Among his many dreams, he wanted to build a hydro-electric plant in Louisiana and this came to pass with the completion of the Vidalia, LA project. He wanted an Engineering Center in Louisiana for all engineers. It will come to pass because of his involvement and our success thus far. The Louisiana Engineering Foundation will someday see his dream come true.

Kind, sympathetic, just, able in his profession, he lived and the friendships which embrace all walks of life are many.

In his passing, the Society and the Foundation have lost a valued engineer, and for all who knew him, a friend. But greater than this is the loss sustained by his loved ones, Florence, his bereaved wife, and his family. To them, the members and Boards of the Louisiana Engineering Society and the Louisiana Engineering Foundation convey their heartfelt sympathy.

The family requested that memoriams in Vince's name be made to the Louisiana Engineering Foundation.

the top 10% salary range earned \$102,000 while those in the bottom 10% earned \$36,900. The survey documented a wide range of 1991 median incomes according to engineering disciplines:

Petroleum \$71,000

Nuclear \$63,000

Geotechnical \$61,000

Chemical & Mining \$60,000

Manufacturing \$53,310

Agricultural \$50,000

Aerospace & Aeronautical \$48,150

NSPE members in the electrical and electronics, mechanical, environmental, civil, industrial and sanitary disciplines were in the \$55,000 to \$59,000 median salary range. Engineers employed in executive/administrative positions earned the highest wages. Professionally registered and certified engineers command higher median incomes. Professional engineers certified in forensic engineering earned \$79,150 while "Unregistered-Uncertified individuals have a median income of \$44,466," the survey noted. Engineers with a Ph.D. in engineering had a median income of \$77,917 and earned 46.7% more than those with a B.S. in engineering, the survey found. Master's-degree-holding engineers earned a median income of \$60,000 while those with Bachelor's degrees earned \$53,100. "NSPE members holding the M.B.A. degree have higher median incomes than those holding the M.S. in engineering or other Master's degrees," the report found.

Respondents from areas of practice with the highest median incomes of the 30 groups studied were employed in: petroleum, natural gas and coal products, colleges and universities, construction, real estate development and private practice.

Geographically, engineers in the nation's northeast region again reported the highest median income of \$61,327. The lowest median was for engineers in the Great Plains states at \$51,780.

NSPE members offered two reasons to expect a brighter economic picture next year. First, more than 45% forecast an improved condition for their employers by 1992. Second, nearly as many predict engineering employment levels will be higher in their organizations next January than they were in January 1991.

A copy of the NSPE 1991 Salary Survey may be obtained by contacting: NSPE Orders Department, 1420 King Street, Alexandria, VA 22314; (703) 684-2882. Request publication #0091; \$45 per copy for NSPE members; non-members \$110. LE

Senate Approves Surface Transportation Legislation

The U.S. Senate passed a five-year surface transportation bill that significantly changes federal highway policy. S.1204, The Surface Transportation Efficiency Act

of 1991, authorizes an estimated \$123 billion in appropriations for highway and mass transit programs over the next five years, placing greater emphasis on state flexibility, urban planning, and environmental concerns. As originally introduced, the bill would have reduced the federal government's role primarily to the maintenance of the Interstate System, and would have given states complete freedom to spend highway funds on surface transportation programs of their choice, including roads, mass transit, rail, and even bicycle paths. Veto threats from the Bush Administration for the failure to include its new "national highway system" proposal into the bill prompted the Senate to agree to a minimal commitment of funds to the President's system. As a result, states will be required to spend at least 17.5 percent of the funds available under a new \$45 billion "surface transportation program" on the Interstate roads and primary highways to be included in this "national highway system". States, in consultation with local and regional officials, will be responsible for designating eligible roads for the system. The federal matching share for maintenance projects under this program will be at the 80 percent/20 percent level.

Considerable debate centered around the allocation and apportionment formulas used to determine the amount of federal money directed to the states. A compromise was reached which leaves the current formulas intact, but adds an additional \$8.2 billion of funds to be evenly divided between the so-called "donor" states and states that have lower per capita incomes and higher than national average gasoline taxes. The compromise ensures that at least 42 states will receive almost a dollar for dollar return on money paid into the Highway Trust fund.

In other provisions, over the next five years, S. 1204 will: authorize \$21 billion for mass transit programs; authorize \$13 billion in funding for bridges; allow federal funds to be used for the construction of toll facilities; authorize \$750 million for work on a prototype magnetic levitation (MAGLEV) train system; create an "intelligent vehicle highway system" program, and; restrict the use of trucks with two or more trailers or semitrailers with gross vehicle weight of more than 80,000 pounds on Interstate roads to those states where they are currently allowed.

The House Public Works Committee is expected to introduce its comprehensive legislation following the 4th of July Congressional recess. The House bill is likely to differ in the manner in which it allocates and apportions funds, and is expected to call for a five cent increase in the federal gas tax to help fund the legislation. LE

Walk Honored by Junior Achievement

Frank H. Walk, P.E., of Walk, Haydel & Associates, Inc., was selected for Junior Achievement's 1991 Business Hall of Fame. Walk, one of five 1991 inductees, was honored at the annual Junior Achievement Hall of Fame Dinner-Dance in May at the Fairmont Hotel. Inductees are selected for their exemplary business ethics and excellence in entrepreneurship.

Walk, along with Gerald Haydel, heads a New Orleans-based consulting engineering firm, employing over 500 engineers and technicians. An LSU graduate, he now serves on the board of the Louisiana State University Foundation.

Among his many accomplishments and awards, Walk has been listed in Who's Who in Engineering, Who's Who in America, Personalities of the South, and The Biographical Honor Roll. President Reagan appointed Walk to a nine-year term on the Mississippi River Commission. He is currently a member of the Committee of "50" (an organization which encourages businesses to locate in the New Orleans area). He also serves on the Board of Directors and the Executive Committee of the World Trade Center. LE

Promotions Announced at Domingue, Szabo & Associates

Domingue, Szabo & Associates, which has been providing professional engineering services since 1957, has announced new officers for the firm.

Founders Emery Domingue and A. J. Szabo announced the promotion of Calvin Courville to Chairman of the Board of Directors; Donald L. Richard to President and Chief Executive Officer; George G. Glaubrecht to Chief Engineer; Michael R. Bergeron to Secretary; and Kevin D. Domingue to Treasurer.

Domingue, Szabo has a staff of thirty professionals, including more than ten engineers, whose expertise ranges from general civil engineering to structural engineering and from environmental/sanitary to hydraulic engineering. The firm is Lafayette-based and has an office in Baton Rouge. LE

Louisiana Ambient Water Quality Monitoring System

The Louisiana Water Resources Information Center (LAWRIC) has taken over the task of producing and updating the *Louisiana Ambient Water Quality Monitoring System* catalog and atlas for the Water Data Coordinating Committee of Louisiana. The Water Data Coordinating Committee did an excellent

Continued on page 20



Fall 1991 Engineering Management Courses

Objectives

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One required course (Principles of Engineering Economy) and seven elective courses are included in the program. The courses may be taken in any order. There must be at least 10 participants for a course to be held. There is a one-time application fee of \$25. Tuition for each course is \$550, including required textbooks.

Schedule and Locations

Classes begin during the week of August 26, 1991, and meet from 7:00 to 10:00 p.m., one night per week. Courses meet in the CEBA building at LSU Baton Rouge, and at the LSU Medical Center in New Orleans. For Shreveport location, schedule, and registration information, call Dr. Marsala.

Registration

To reserve your space, send a \$50 deposit with the pre-registration form below (deposit is applied toward tuition). Registration and payment of fees may take place at the organizational meetings listed below or at the first class meeting.

Baton Rouge: August 14, 7:30 p.m.

Room 3133 CEBA, LSU campus

New Orleans: August 13, 7:30 p.m.

Room 503, LSU Medical Center

For More Information

Program: Charles M. Parks, Ph.D., P.E.

504/388-5364

NO/BR Registration: Extramural Teaching

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Shreveport Courses: Dr. Vince Marsala

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EngiNEWS

Continued from page 18

job of gathering the initial information and formatting it in a useable publication. LAWRIC has now computerized the catalog for easier updating. The catalog computer file also has search capabilities.

This catalog and atlas were originally compiled to assist the exchange of information and the coordination of activities related to water data acquisition and dissemination. They contain mapped locations and a descriptive listing of all water quality monitoring stations of the participating agencies and should provide assistance towards improving coordination and cooperation among the participating agencies as well as providing an important research tool to anyone involved in water quality studies.

The Louisiana Water Resources Information Center (LAWRIC) was created by the Legislature in 1983 "to implement an indexing and data accessing system which will contain, in part, all informa-

tion, past, present and future for water and water related resource data so collected by federal, state and local agencies in the State of Louisiana . . . so as to serve as a central access point for all Louisiana water data, making said water data more available, thereby reducing duplication of collection of said water data and increasing its use."

Call LAWRIC at (504) 379-1478 for water information.LE

BUETO'S COLUMN

Continued from page 14

Region includes the states of Louisiana, Arkansas, Texas, Oklahoma, Colorado, Wyoming and New Mexico.

Thursday's program includes registration, golf, a reception and a chapter officers dinner. Friday's and Saturday's schedule includes a conference and NSPE and State Society Activities.

For more information on this meeting, contact the LES State Office at (504) 344-4318.

"LES FORUM"

Remember, the "LES Forum", a feature section of the *Louisiana Engineer*, is available for your comments on matters of interest to the profession. Comments should be brief, courteous, and timely, and will be edited by the Publications Committee for balance and pertinent content.

The *Louisiana Engineer* is published six times annually in February, April, June, August, October and December. Comments to the "FORUM" should be mailed to the *Louisiana Engineer*, P. O. Box 2683, Baton Rouge LA 70821, no later than the 10th of the month preceding the month of publication.

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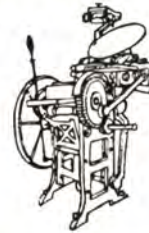
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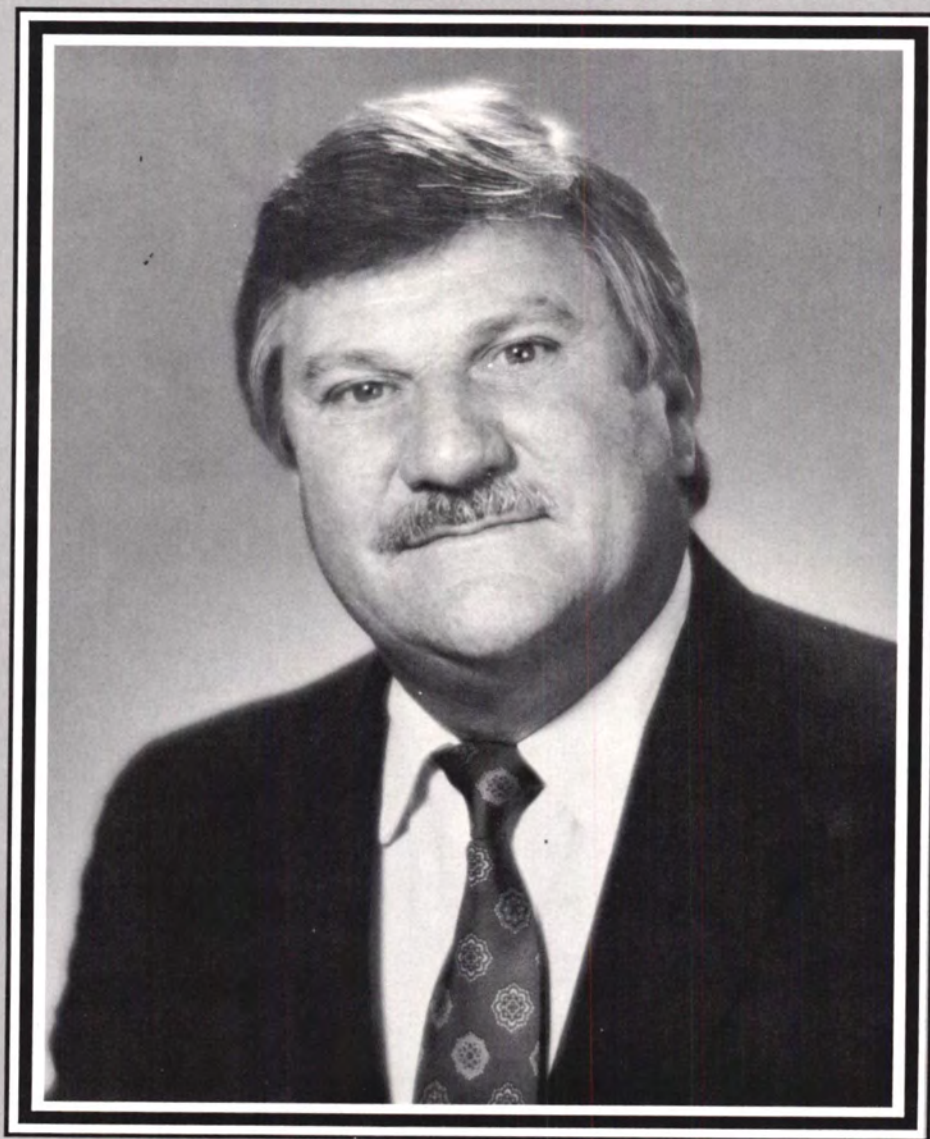
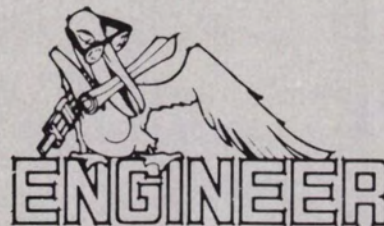
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ABOUT THE COVER

Our cover this month features 1991-1992 LES President Lloyd G. Hoover, P.E.



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LES/NSPE

First, a "thank you" to the members of the Society for the honor of serving as the Society's President for 1991-92. Congratulations to all Chapter and State Officers elected to serve this year. A big "thank you" to Kerry J. LaBauve, P.E., for leading the Society into the 90's in such a professional manner and to the outgoing Chapter Presidents for their efforts. Congratulations, also, to T. Dudley Hixson, P.E., for his nomination as President-Elect of the National Society of Professional Engineers and to Leta G. Bueto, Louisiana Executive Director, for her election as President-Elect of the State Societies Executive Council. The Council is composed of Executive Directors of all NSPE state affiliated societies.

The continuing question. What does LES/NSPE do? A simple question - sometimes hard to answer, but let's try; keeping in mind only a few functions and duties of LES/NSPE will be covered.

Community

MATHCOUNTS - Would MATHCOUNTS have been conceived without the engineering societies? MATHCOUNTS is the most visible activity of the engineers in the community. Established in 1983, to help answer the nation's cry for improved math education, MATHCOUNTS is a coordinated program of coaching and competitions designed to improve math skills.

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But what if you never know a winner! The extra coaching and studying will produce better math educated students, the main objective of the program.

ENGINEERS WEEK - Would there be an Engineers Week without LES/NSPE? Maybe not! One week a year the emphasis is on the engineer.

ENGINEERS DAY - This is another function of the Societies, now known as "E" Day. Professional engineers volunteer their time to explain the field of engineering to high school students. The time they take may make the difference in a career decision for some bright student.



Lloyd G. Hoover, P.E.
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Louisiana Engineering Society

ELEMENTARY SCHOOLS - Some local chapters in Louisiana and other states have an engineering program for the elementary schools. This introduces the student to engineering and engineering principles at an early age, the formative years.

None of the above programs would be successful, regardless of the sponsor, without the engineer volunteers. But remember, your societies are there to coordinate the efforts.

Profession

LES AWARDS - Six awards are presented by LES to outstanding members of the engineering profession. These awards are given for:

- Services to the Profession (Leo M. Odom Award)
- Engineer in Management (A. B. Paterson Medal)
- Civic Activities (Andrew M. Lockett Award)
- Young Engineer (F. Hugh Coughlin Award)
- Technological Accomplishment (James M. Todd Medal)
- Public Relations (Charles M. Kerr Award)

PEG AWARD - An award for an outstanding engineer in government has recently been established by the LES Professional Engineers in Government Practice Division. Selection of this award is made the PEG Division.

ENGINEERS SELECTION BOARD

LES is involved in the screening and selection process for the members of this Board.

LOUISIANA LAND ADVISORY BOARD - The LES President appoints a member to this Board.

SCHOLARSHIPS

- Louisiana Engineering Society
- National Society of Professional Engineers
- Local LES Auxiliary Chapters
- Louisiana Engineering Foundation Graduate Fellowship
- Others

Your Society is involved in the screening and selection of many scholarship recipients. This work is performed by you and your co-workers.

Legislation

The following are only a few of the legislative matters your Society has been involved in for the protection of the health, safety, and welfare of the public and the protection of people in the professions of engineering and land surveying.

- Standardized registration for land surveyors, such as requiring Baccalaureate Degrees, thirty-seven hours of land surveying, mapping and real property courses, and four years experience in land surveying.
- Increased flexibility and investigating authority of the State Board of Registration for Professional Engineers and Land Surveyors to help prevent unqualified persons from practicing engineering or land surveying.
- Provided for the State Board of Registration to establish, adopt, promulgate and publish rules concerning the procurement of professional engineering and land surveying services.
- Provided the State Board of Registration power to take disciplinary action against registered engineers and land surveyors who violate the Louisiana Campaign Finance Disclosure Act and other financial campaign laws.
- Empowered the State Board of Registration to hold public meetings

Continued on next page

LES Awards Program

**Blaise M. Carriere, P.E., Chairman
Honors and Awards Committee**

Recognition of fellow engineers has always been an important program of the Louisiana Engineering Society. It is the Society's feeling that honors and awards should be given deserving members so that public recognition of their attainments will inspire others.

The Society has six basic awards:

- The Andrew M. Lockett Medal for Civic Activities
- The A. B. Paterson Medal for an Engineer in Management
- The Charles M. Kerr Public Relations Award
- The James M. Todd Technological Accomplishment Medal
- The F. Hugh Coughlin Young Engineer Award
- The Leo M. Odom Award for Services to the Profession

Nominations for recipients of the awards may be made by:

- Any elected officer of the State Society or one of the Chapters.
- The Board of Direction of the Society.
- The Executive Committee or equivalent body of the Chapter.
- Three or more members of the Society.
- The individual Chapter Honors and Awards Committee.

Nominations may be submitted to a member of the Honors and Awards Committee, or to the Honors and Awards Committee in care of the State Office, no later than November 8, 1991. Nominations for the awards must be submitted on the appropriate form. These forms were delivered or mailed to each Chapter on September 13. The nomination forms should be supported by:

1. A full statement of the formal academic training, experience, progress, and notable technical or engineering contributions made by the nominee.
2. A statement of the basic reasons for submitting the nomination, and for believing that the nominee is eligible for the honor.
3. Such other information and references as may be of assistance to the Board of Direction in considering and acting upon the case.
4. It is essential that such documentation carry the present title and company connection of the nominee, and set forth clearly and concisely why he should be named for the award recommended.
5. A photograph of the nominee.

It is time for the Chapters to screen and select worthy candidates. Nominations for the awards must be in the hands of the Executive Director by November 8, 1991.

Awards will be presented during the Society's spring meeting in New Orleans. **LE**

and to collect fines against persons or firms that attempt to practice engineering or land surveying without a license.

- Louisiana Private Works Act adds protection for registered or certified engineers, surveyors and architects or their professional consultants employed by a contractor or a subcontractor. This law adds these professionals to the list of persons having a claim against an owner or contractor.
- Included registered engineers/surveyors under definition of claimants.
- Provided for a Statute of Limitations for Louisiana architects, consulting engineers, land surveyors, and contractors.

Future Goals

CONTINUED PROFESSIONAL DEVELOPMENT - This has been stated as one

of the goals this President would like to pursue and has the support of the Board of Direction. To all engineers, I invite you to get involved in the process in its infancy stage. You, the engineers, should be the people developing the plan.

PROFESSIONAL REGISTRATION FOR ALL ENGINEERS - LES must provide a vehicle to aid all engineers to become registered. LES must work with the State Board of Registration, Industry, Government Legislative Branches, and others to accomplish this goal. I stress the importance of helping people in industry and government become registered, not by diluting the registration law, but by helping them prepare for registration. Technical societies should become involved and can aid tremendously in this endeavor.

PROMOTE PROFESSIONAL ENGINEERING - Surveys indicate the public trust engineers more than the other professions. Let's continue to deserve this trust.

Closing Remarks

This is your Society whether you elect to pay dues or not. State officers, committee chairmen, practice division officers and society members are all working for the engineering profession on a volunteer basis. Support them!

To all LES and/or NSPE members, thank you! To others! We need your support and welcome your ideas. Better yet, become involved in the betterment of the Engineering Profession.

I extend a welcome to all Professional Engineers to find out about your Society. Remember, LES represents you! The Professional Engineer! **LE**

ACEC President Sets Theme for the Year . . .

When Andrew J. Parker, Jr., P.E. was inducted as president of the American Consulting Engineers Council, he set the theme for his term. This was expressed in an open letter to all ACEC members which is printed below:

Dear Colleague:

"Back to Business Basics." This is the philosophy I will stress in my term as president of ACEC. It means a focus on helping ACEC firms to compete and be profitable. Let me give you a solid example of how ACEC is working to protect your bottom line. Right now, the U.S. Congress is finalizing legislation to reauthorize the Federal-aid highway program. ACEC has actively pursued this issue and is representing your firm's interest.

No more redundant audits . . . no more ridiculous salary caps . . . no more losing jobs to less qualified firms because your overhead is not below an arbitrary rate. ACEC led a coalition, including the Design Professional Coalition and American Road & Transportation Builders Association (ARTBA), which worked to submit a provision in the House bill that will save engineering firms time and money. The provision requires state Departments of Transportation to accept each other's audits to abolish wasted time from redundant auditing; and, to eliminate overhead and salary caps to preserve the Qualifications-Based Selection (QBS) process. If ACEC's provision survives the House and Senate conference debate, ACEC firms will have scored a significant legislative victory!

There is much to celebrate in the Surface Transportation Reauthorization Bill, even beyond the ACEC provision:

- Increased funding for transportation projects. Many of us who work for state DOTs are looking for new markets to diversify and boost business during these recessionary times.
- Newly funded project areas ranging from magnetic levitation and intelligent vehicle highway systems to high occupancy vehicle lanes.

- A commitment from Congress to make rebuilding the nation's infrastructure a priority.

Reflecting back on the initiative, I was impressed with the way Congress listened to the engineering community. I was amazed at how the House Surface Subcommittee Members responded to our letters and visits. Many Members of Congress rely on consulting engineers for technical expertise and look to us to provide it. Developing credible relationships is the best way we can be heard on Capitol Hill. I cannot tell you how important it is to our profession and you that we continue to voice our views.

Educate Members of Congress in these three ways: 1) Write to them; 2) Meet with them in their district office during the August recess; 3) Participate in Consulting Congress Day on April 15, 1992 to help show Congress that ACEC members demand to be heard. Your Members want to hear your views on issues like the Highway Bill, OSHA and small business issues. Contact ACEC's Governmental Affairs staff for up-to-date information and to receive materials for visits with Members.

Why not take a step forward by helping legislate a better business practice environment for consulting engineers? Remember, if we are not actively involved in the process, the bottom line of your firm and mine cannot be guaranteed or improved.

Thanks,

Signed by: Andrew J. Parker, Jr., P.E.,
President

Some "Do's" in the Legislative Arena . . .

There are times when a meeting with a Member of Congress, or their staff, is the most appropriate action an individual or group can take in relation to a specific issue. Below are suggestions for how to make the most of a personal visit to a Congressional office. The same holds true for visits with State Legislators!

Plan Your Visit Carefully. Determine who, among the Members, you need or want to visit and exactly what it is you are seeking, protesting or sharing. What do you want to achieve?

Make an Appointment. Telephone the Member's scheduler to arrange a specific time for a meeting. It will be easier for the Member's staff to make a decision about a meeting with you if they know in advance what it is you want; who you represent; and the specific nature of your visit.

Be Prompt and Patient. After arranging a meeting time, be prompt. Because of certain congressional activities (roll calls, caucuses), some Members of Congress unexpectedly have more in their schedules than will comfortably fit. The Member may be late or your meeting might be interrupted. When interruptions occur, be flexible. You may: wait, reschedule the meeting, or agree to meet with key staff.

Be Prepared. Not only do Members of Congress have hectic schedules, they often try to keep abreast of more issues than it is possible for one person to handle. Most members depend heavily on staff assistance. Members are not likely to know all the details of every issue, therefore, they value succinct statements or personal examples that demonstrate the particular contributions or negative impacts associated with a specific issue or piece of legislation. Many times, it can be more effective to speak with a staff member, so don't be discouraged if you do not talk to the Member of Congress.

Be Political. Members of Congress are elected by a defined constituency and want to be known for representing the best interests of their district or state. Wherever possible, demonstrate the connection between your position or what you are requesting and the interests of the Member's constituency. Describe to the Member how you or your group can assist with the issue now or in the future. Reliable information and your expertise on an issue is often the best service you can provide to a Member or the staff, and can lay the foundation for an ongoing relationship with them. When offering your services, also ask for a commitment on the issue, but be prepared to accept



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



that it will not always be possible to get this right away.

Be Responsive. Try to answer every question posed by the Member or the staff. If more information is requested, promise to send it. Always follow up the meeting with a letter of thanks that outlines the different points covered at the meeting, items of agreement, next steps, additional information required, and any materials you promised to send.

The Role of Congressional Staffers

The complexity of the legislative process, combined with the sheer volume of constituent business that crosses each legislator's desk, requires the services of a sizeable staff. In order to obtain prompt and thoughtful attention to your request, or to register your views on a specific subject, it is helpful to know how Congressional offices are organized and the roles of specific staff specialists.

Administrative Assistant (A.A.) or Chief of Staff: This position is usually the most important in a Congressional office. The A.A. reports directly to the Member of Congress and he or she is the person most likely to be able to weigh the importance and evaluate the political ramifications of various legislative proposals and constituents requests. The A.A. is usually responsible for assigning and supervising the work of other professional staff and may be in charge of the overall office operations. Many A.A.s also maintain liaisons with the political leadership in their Member's state or district.

Legislative Director (L.D.) or Legislative Assistant (L.A.): The L.D. or L.A. is responsible for analyzing, tracking, and recommending actions in relation to legislative issues important to the Member of Congress. (In

some Congressional offices, there are several L.A.s and legislative responsibilities assigned to staff with particular expertise in specific areas.)

Press Secretary or Communications

Secretary: This staff person is responsible for helping the Member of Congress build and maintain open lines of communication with constituents and various public segments. The Press Secretary is familiar with the benefits, demands, and special requirements of both print and electronic media, and decides on the best media to use to promote the Member's views on specific issues.

Appointments Secretary or Personal Secretary (A/K/A "scheduler"):

To ensure that the Member will accomplish assigned responsibilities and still find time to meet with as many individuals and groups as possible during very long work days, most Congressional offices designate a senior staff person as Appointments Secretary. This person has the responsibility of seeking out the information required to screen and evaluate the numerous invitations and requests a Member receives.

Other Staff Titles: Other key staff in a Congressional office may be called: Executive Assistant, Executive Secretary, Office Manager, Case Worker, Legislative Correspondent, Receptionist.

It is very important to get to know these individuals as they will be helpful when you want to work with your Members of Congress. It can mean the difference between being on the inside or on the outside.

Taking Care of Business

Few engineers are born with all the skills they need to run a business. Courses

in human resources, financial management and marketing are not often found in engineering school catalogs. That's why ACEC's Business Management Committee — 17 of ACEC's brightest minds from firms of all sizes — is charged with developing and promoting programs and products to assist member firms in the improvement of their business management practices.

At its July 15 meeting in Washington, the Committee set forth an ambitious program of activities for 1991-2. These include developing a clearinghouse of information on CADD programs on the market (especially useful for small firms) and completing a book on CADD Risk Management/Contracting. The marketplace subcommittee will work to promote the meeting of design needs by hiring consulting engineers; research ways to contract for services based on value and risk rather than cost; and develop an ongoing research program to spot marketplace trends (such as design/build) and report them to the membership.

The committee also anticipates updating ACEC's basic financial management manual; monitoring government audits of firms doing public work and their effect on the bottom line; preparing a publication on potential legislation that would mandate employee benefits; producing new video training kits in human resources; and running a national resources exchange whereby firms can balance their staff and other needs.

Much of this work will require coordination with one or more of ACEC's 38 other national committees, each undertaking tasks on behalf of the membership that no one firm could hope to achieve alone. Collectively, ACEC national committees comprise over 400 members who annually donate thousands of billable hours to help the Council "take care of business". LE

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LES 1991 Annual Meeting

The LES Annual Meeting was held on September 11-14, 1991 at the Hotel Bentley in Alexandria, LA, with a total of one-hundred six engineers and spouses registered.

The meeting got underway with recreation on Wednesday afternoon. The golf tournament, held at the Alexandria Country Club and chaired by Arthur E. Meyer, P.E. and Neil H. Klock, P.E., had twelve participants. The Calloway Handicap System was utilized and the winners were: Low Gross, Lloyd G. Hoover, P.E.; Low Net, Steven W. Brown, P.E.; Closest to the hole on hole 12, Joe Estes. Two ladies competed in the tournament with Merleane Spears taking Low Gross and Low Net.

Thursday morning, participants enjoyed a very educational presentation by the U.S. Corps of Engineers on the "Red River Navigation Project". Our appreciation is extended to the Corps of Engineers for this presentation.

Dresser Industries was the setting for the Thursday evening event with seventy-one participants. All enjoyed the Couchon de lait and many enjoyed the horseshoes and volley ball games planned by the Alexandria Chapter. Prior to dinner, Dresser Industries conducted a tour of the plant. Our thanks to Dresser Industries for the time and efforts arranging the tour and for use of the picnic area on property. It was a delightful event.

The Long-Range Planning Workshop was planned and implemented by the Long-Range Planning Committee.

Utilizing the Membership Survey results (survey was included in the August issue of the Louisiana Engineer), the Committee was able to reach some conclusions on pertinent issues, i.e., legislative, public relations, the magazine, newsletters, etc., and what the Society should be doing for its members and non-members of the State.

The Society was very fortunate to have Governor hopeful, Congressman Clyde W. Holloway, as our luncheon speaker. Congressman Holloway addressed many issues including the state budget, the highway trust fund, unemployment, and the gas and oil industry.

The General Membership Meeting was held on Friday afternoon. An agenda item which prompted much discussion, was NSPE's proposal for each state society to

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Leta G. Bueto
Executive Director
Louisiana Engineering Society



adopt a unified visual image. NSPE believes that a single graphic image for all National Society's component organizations will enhance the Society's effectiveness. NSPE inaugurated the new national insignia at its Annual Meeting in July at Grand Rapids, MI. After much discussion, the General Membership recommended that the Board of Direction adopt the new NSPE insignia for use on all LES publications and products. Because of the historical significance of the present logo, the LES logo will still appear on all publications, etc.

The Installation Banquet was attended by seventy-five engineers, spouses, and guests. NSPE 1992-93 President-Elect, T. Dudley Hixson, P.E., a Past President of LES, was the Society's guest speaker and installing officer. We were very honored to have he and Mrs. Hixson in attendance. A first for Louisiana, Mr. Hixson will be installed as President of NSPE in July, 1993. We are all looking forward to this great event.

The LES Board of Direction Meeting was held on Saturday morning. The Board adopted the unified visual image as recommended by the General Membership. The Board will continue to pursue Continuing Professional Development and this committee will remain active. A draft of a MATHCOUNTS brochure was distributed for the Board's perusal and funding for the 1992 competition was addressed at length. MATHCOUNTS is facing a financial crisis and ways to promote and fund this very important program were discussed by the Board.

LEF News

The engineers listed below were renominated and elected to lead the Louisiana Engineering Foundation in 1991-92:

Robert P. Blanche, P.E.	President
Charles L. Eustis, P.E.	Vice President
Waldemar S. Nelson, P.E.	Secretary
James D. Mohr, P.E.	Treasurer

The Foundation owns the building at 1213 Nicholson Drive in Baton Rouge. The only indebtedness is \$13,000.00 owed to "Plan A" participants, those that loaned \$1,000.00 interest free loans to LEF. Five

will be repaid in 1992 and eight in 1993. In lieu of repayment by LEF, participants are requested to contribute their \$1,000.00 loan.

The LEF Board approved the presentation of two \$2,000.00 Vincent A. Forte Graduate School Fellowships in 1992. The Foundation awards a Fellowship to a full-time student who is presently attending, or who is applying to enter, a graduate program in engineering at a recognized Louisiana college or university. Eleven awards have been presented since 1982. The name of the award was changed this year to honor Vincent A. Forte, a founder and first president of the Foundation. Application forms were mailed in September to the seven accredited Louisiana colleges.

All engineers should financially support the Louisiana Engineering Foundation. It is doing outstanding things for the profession and will do more with your support. Send a contribution today! LEF, P. O. Box 2683, Baton Rouge, LA 70821.

Keeping the Membership Informed

Is LES keeping you informed? Maybe not! There are many hot issues addressed at state meetings such as continuing professional development, registration exemption, MATHCOUNTS, engineering education, qualification-based-selection, ethics, legislation affecting all engineers, professional liability, and the list could go on. These issues are addressed by the Society at many different levels; Committee Meetings, Practice Division Meetings, General Membership Meetings, and Board of Direction Meetings. But because you are not present at LES state meetings, a few members are making the decisions for the masses. Is this what you want? I think not!

In an attempt to keep you informed and an active participant at LES state meetings, State Committee Chairpersons and Practice Division Chairmen will be required to publish issues they intend to address at state meetings in the Louisiana Engineer prior to any meeting in the future.

The LES Awards Meeting is scheduled for March 11-14, 1992, at the Holiday Inn

Crown Plaza in New Orleans. The February issue of the Louisiana Engineer will publish the issues. Issues that effect you and the engineering profession. Don't be guilty of letting a few determine the direction LES will take. Be present! Your opinion counts!

Louisiana MATHCOUNTS

Where do we go from here?

MATHCOUNTS, the first nationwide program of its kind, is considered by most to be the finest effort undertaken by the National Society of Professional Engineers and its state affiliated societies. The program combines the efforts of education, business, government and the technological community to promote math excellence among junior high school students.

MATHCOUNTS is really two programs in one. It's a coaching program, complete with monthly instruction syllabuses, to help the teachers elevate the students' interests and accomplishments in math. It's also a series of math competitions, which follow the accelerated coaching and which spur the students into thinking of math as an exciting, challenging endeavor.

Nationally, some 350,000 seventh and eighth grade students will participate in some phase of the program. For students at this age, math can be presented as an exciting and challenging subject. With this concept firmly implanted, the students will be more receptive to taking three or four years of math in high school, and to considering math-oriented careers.

The engineering profession has a great need for students with math and science backgrounds to increase the population of the profession and to meet the growing technological needs of the country. If students are going to be taking more engineering courses in college, it is mandatory that they have strong math instruction at the junior and high school levels. There is no doubt that the need for engineers will be even greater in the 21st century.

Today's technological revolution has made mathematics a universal language necessary for success. Yet a recent survey of the world's leading industrial nations ranked American students eleventh in

Continued on page 15

NÔTRE MÉTIER (Our Profession)

This by-line was selected over ten years ago when Dr. Vliet (my predecessor) told me that one of the chores I had as Executive Secretary for the Board of Registration for Professional Engineers and Land Surveyors was to publish an article every other month. I chose **NÔTRE MÉTIER (Our Profession)** as my by-line because I believe that the profession is ours and we must accept responsibility for it rather than leave it to non-professionals.

The choice is simple — either we as professionals take care of matters regarding our destiny or others outside of the profession will do it for us.

I am frankly very saddened to see so few professionals who seem to care. What I see is disunity. I see professionals who have blinders on — interested in "what's in it for me" rather than protection of the public.

The Board exists for the sole purpose of protecting the public, it does not exist to protect the professionals. The Board needs informed professionals which brings me to the key question.

Why are you receiving this publication?

Twenty thousand of you are receiving it because the Board of Registration for Professional Engineers and Land Surveyors (the Board) has chosen the *Louisiana Engineer* as its official journal to communicate with you. The Board "in its wisdom" considers it necessary to be in touch with you so that you know what's going on. In the August issue of the *Louisiana Engineer*, a post card was inserted giving you, all registrants of the Board, and recipients of the magazine an opportunity to order the Board's Biennial Report which will be published early next year. About three thousand of you have placed an order for the Biennial Report. The Biennial Report will only be mailed to those registrants and others who placed the order. Following this initial mail out next year, the Board will have available

on a first call basis additional copies of the report.

Gentlemen, ladies, professionals such as you have in my view two choices:

1. Get with it and do what needs to be done to protect the public — this means unity.
- or 2. Continue to have disunity and pass up the opportunity to protect the public. The public will then step in and do it for us, the professionals.

Some of the items you have an opportunity to participate in the not to distant future are:

1. Procurement of Professional Services
2. Interstate and International Professional Recognition
3. Certification of Professionals by the Professional Societies
4. Professional Education
5. Professionalism and Ethics
6. Continued Professional Development
7. Mandatory Continued Education for Professionals
8. Privatization of Professional Services
9. European Community (EC) '92

The world's economy and politics are on a fast track.

Professionals, worldwide, have the opportunity to take part in the decision making process or let non-professionals do it for us. Please take a close look at what you're doing and give some serious consideration to giving some of your valuable time to your profession. The public will best be served by you being a participant and player rather than an observer.

How does one get involved?

Become an active participant in your technical and professional society — don't leave it up to others.

Registrants Test Your Knowledge of the Law and Rules of the Board

As a registrant of the Louisiana Board of Registration for Professional Engineers and Land Surveyors, you are responsible for abiding by the law and rules of the Board. Answer these questions to test your knowledge:

Answers to the Law and Rules of the Board Quiz to be Found on Page 18.

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

1. Performing an engineering assignment characterized by a lack of reasonable care, precaution, or attention to the safety or welfare of others which could cause injury or damage is known as:
 - A. Gross incompetence
 - B. Misrepresentation
 - C. Gross negligence
 - D. Fraud
2. Applicants applying for registration as a land surveyor must be of good character and reputation and be recommended by five (5) personal references. How many of these references must be registered land surveyors?



**Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors**



- A. One
B. Two
C. Three
D. All five
3. Any firm in Louisiana that has in its title the word engineering or surveying shall be construed to be offering such services and must be registered with the Board unless it has in its title modifying or explanatory words which negate the inference of the practice of such services.
A. True
B. False
4. Accepting benefits of any substantial nature or significant gratuities, from material or equipment suppliers, clients, contractors, their agents, or other parties dealing with the registrant's client, or employers in connection with any project on which the registrant is performing or has contracted to perform:
A. Is permitted by Louisiana Statutes if less than one hundred dollars (\$100.00) in value
B. Is permitted by Board rules regardless of value
C. Is not permitted by Board Rules
D. None of the above
5. The practice of engineering or land surveying by a corporation or partnership is:
A. Permitted if the firm is qualified and registered with the Board
B. Permitted only if all employees, agents, or officers are registered
C. Prohibited if the corporation or partnership provides engineering or land surveying to the public
D. Both A & B
6. Which of the following statements is not true?
A. The file of each applicant is public information and thus available to anyone who wants to see it
B. Each applicant has the right to review any examination and answer sheet that he has taken
C. An applicant does not have the right to examine a document in his file if the document was not used by the Board in any action by the Board
D. A transcript of an applicant's file is admissible as prima facie of the proceedings of the Board
7. The Board shall register or certify, as the case may be, each applicant:
A. When all application papers and references are received and reviewed in the Board Office
B. At the next regularly scheduled meeting of the Board following the receipt of all application papers and references
C. When, in the opinion of the Board, the applicant has met all of the requirements of the Law and is proficient and qualified to practice in the field for which the applicant has applied
D. When, in the opinion of the Board, the applicant has sufficient education
8. The Louisiana Registration Law defines an "engineer or Professional Engineer" as one and the same:
A. True
B. False
9. Engineering or land surveying documents shall be considered to have been prepared under the personal supervision and complete direction and control of a registrant when:
A. The client requesting such work makes his request directly to the registrant or the registrant's employee
B. The registrant supervises preparation and has input into plan preparation prior to the plans completion
C. The registrant reviews the final documents and has the authority to, and does, make any necessary changes
D. All of the above
10. A person is qualified to practice engineering and/or land surveying within the State of Louisiana when:
A. He/she has graduated from an accredited university with a degree in engineering or land surveying
B. He/she has received his/her engineer or land surveyor-in-training certificate from the Board
C. The person has complied with all the current laws of Louisiana and is properly registered in that branch of engineering or in surveying for which he/she may be qualified
D. None of the above

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415 New Orleans, La. 70130 on the following dates.

1991

Nov. 11-12

1992

Jan. 20-21
March 23-24
June 1-2

July 27-28
Sept. 21-22
Nov. 9-10

Louisiana Engineering Society 1991-92 Board of Direction



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Letters to the Editor

The "LES FORUM" invites comments on matters of interest to the profession. Comments should be brief, courteous and timely, and will be edited by the Publications Committee for balance and pertinent content.

Dear Editor:

Bringing Professional Development to Professional Engineers in Louisiana

Our societies have diverse (normal) memberships that seem typically at cross-purposes more than they are allied in the many activities they pursue. I believe it is time we take a lesson from successful business enterprises and choose a single mission. A mission that is so basic, understandable and acceptable that nearly all our members will buy into it. Such a mission will allow the many directions that

our individual interests take us to ultimately lead to a viable resultant that is our destiny.

The recently authored mission statement developed by the Long-Range Planning Committee for consideration by the LES is an example of what I believe is needed.

Service to Louisiana's engineers and **elevation** of the engineering profession.

It has a clarity, brevity and completeness difficult to pervert and easy to accept. The resulting goals read like our hackneyed list of things to do that are seldom done. They have been discussed in every LES Membership Committee Meeting for more than twenty years. This list and the title of every standing committee and sub-committee of our Society scream out - at least to me - one dominant mission that is valid to the LES and perhaps to all its sister engineering societies as well. This mission is **the enhancement of the engi-**

neering profession. Every single initiative we undertake begins with this hope and ends with some sense of its fulfillment or the lack thereof.

I believe the following: A participative forum can be created in the *Louisiana Engineer* for registered engineers in Louisiana to become effectively involved in their own destiny through LES initiatives. The inherent value of the LES heretofore not effectively communicated to the engineering profession will be demonstrated. Ultimately, the value of the LES will become apparent to the entire profession.

Can anything but growth - professional development - of the entire profession occur if the proposed mission statement is adopted in **principle** and **deeds**? **LE**

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TOTAL JOB CAPABILITY

LES Board of Direction Meeting Highlights

The July 1991 meeting was held in Navarre Beach, FL, with twelve board members, one guest, and the LES staff in attendance.

1. The May and June 1991 financial statements were accepted subject to the annual audit. Secretary-Treasurer Hunn encouraged Chapter Presidents to contact the delinquent members in their chapters.
2. Executive Director Bueto reported that the three bills sponsored by the Louisiana Engineering Society are awaiting the Governor's signature. The LES Legislative Committee believes that the Governor will sign all three. (For a quick reference, a Legislative Wrap-up was published in the August issue of the Louisiana Engineer magazine.)
3. The Board of Direction reviewed a letter from an LES member concerned with the time frame of the General Membership receiving information on LES proposed legislation. This letter was addressed at length at both the Long-Range Planning Committee Meeting and the Board Meeting. Plans are underway to establish guidelines

to prevent this from happening in the future.

4. The Constitution and Bylaws Committee is continuing its efforts to revise the Constitution. Hopefully, it will be mailed later this year to the General Membership.
5. Chairman Gautreau advised the Board that a Long-Range Planning Workshop will be held in conjunction with the Annual Meeting in September.
6. The dates of March 11-14, 1992, were approved for the 1992 Awards Meeting. The meeting will be held at the Holiday Inn Crown Plaza in New Orleans.
7. Election procedures for candidates on the Engineers Selection Board and voting privileges by state registrants were discussed. Additional information will be procured for the September Board Meeting and presented at that time.
8. A copy of NSPE's new insignia was distributed to the Board. NSPE is urging State Societies to adopt the insignia to present a unified graphic image. Opinions differed in adopting the new insignia. This matter will be brought before the General Membership Meeting to be held in conjunction with

the Annual Meeting on September 13, 1991.

9. The Louisiana Engineering Society will co-sponsor an activity to Interview the Gubernatorial Candidates along with a number of other professional and technical organizations in Baton Rouge on September 19.
10. The City of Shreveport along with the Shreveport Chapter of LES would like to invite McDonnell-Douglas to establish a location in the Shreveport area. A letter will be drafted for the Board's perusal.
11. President LaBauve was directed to request a copy of the letter that the State Board of Registration is currently circulating to industries within the State.
12. As directed by the Board, President LaBauve corresponded with NSPE/MATHCOUNTS expressing Louisiana opposition to the \$30.00 school registration fee.
13. A list of candidates for the vacancy which will occur when the term of Dr. Sam L. Sullivan, P.E., ends on August 21, 1991, was submitted to the Governor on June 10, 1991, in accordance with the registration law. **LE**

BUETO'S COLUMN

Continued from page 9

basic math skills. With the MATHCOUNTS program firmly in place, the Louisiana Engineering Society is attempting to do its part to fulfill the nation's need to reverse the current problem of math illiteracy and is committed to continue this most worthwhile program.

With this commitment, the Society must maintain sponsors to assist in financing the program. A major fund raising effort is underway. We solicit your input on any major businesses or industries in your area that may want to assist in sponsoring this program. Contact the State Office at (504) 344-4318.

Appointment Made to Land Information Advisory Board

Michael B. Songy, P.E./P.L.S., of Rodi & Songy Consulting Engineers, Baton Rouge, as been appointed by President Hoover to serve a three year term on the Land Information Advisory Board.

Act 955 of the 1991 Legislative Session enacted R.S. 50:172 through 174 establishing the Land Information Advisory Board. The board will consist of nine members as follows: the Public Lands Administrator; a representative of the State Assessor's Association; a representative of the Louisiana Police Jury Association; a representative of the Louisiana Clerks of Court Association; a representative of the Private Practice Division of the Louisiana Engineering Society; a representative of the Louisiana Municipal Association; a representative of a major state university selected by the governor; a parish or municipal employee, active in land information systems, selected by the Director of State Lands; and a representative of state agencies selected by the governor.

The Advisory Board will assist and advise the Office of State Lands by: making a periodic review and recommending revisions necessary to maintain the currency of state standards for land information mapping and records systems;

develop the evaluation criteria and guidelines for state financial aid to parish governments or assessors for the purpose of implementing land information mapping and records systems in accordance with the state standards; reviewing and recommending approval of parish implementation plans for the development of a land information mapping and records systems; reviewing annually, project applications received for state financial assistance, when available, and recommending the projects, their priority, and the amount of state assistance to be approved; identifying and studying possible program revenue sources or other revenue sources for the purpose of funding the development of land information mapping and records systems undertaken pursuant to the provisions of R.S. 50:171; and informing the Office of State Lands of the need to develop additional standards for public user agencies to ensure compatibility, uniformity, and cost-effectiveness. **LE**

Cairo Datum and Whence it Came

By Waldemar S. Nelson, P.E.

Confusion

During Hurricane Juan in 1985, a radio news reporter, evidently not a native of New Orleans, was interviewing an official of a local government agency about the potential flooding of the city by hurricane-driven waters. The official stated that the level of water in Lake Pontchartrain, which borders the city to the north, was at Elevation 27.00. The reporter was alarmed since he knew the levees along the lakefront were only twelve to fifteen feet above the normal water level of the lake. The official, of course, was referring the water level to Cairo Datum, a reference plane for elevations where zero (0.00) is at Elevation 20.434 feet below mean sea level. Thus, the lake elevation to which the official was referring was 27.00 minus 20.434 or 6.566 feet above mean sea level, well below the crown of the levees along the lakefront. New Orleans is now well protected by its levee system from any ordinary high water from Lake Pontchartrain or the Mississippi River, whether from hurricane or flood stage of the river.

The radio announcer's confusion was understandable since most of the general public, and many engineers not familiar with the city, do not know about Cairo Datum and the implications of its use. The writer has known of Cairo Datum since youth because his father and mother were engineers engaged in the design of drainage pumping stations; but only recently has he sought the origin of the term and the reference plane to which it refers.

What is a Datum Plane?

A datum plane is a reference from which vertical distances, or elevations, may be measured. We use datum planes instinctively in everyday life. Thus, when we tell a cabinetmaker we want our kitchen counters 36 inches high, we automatically refer to the kitchen floor as a reference plane; and when we say the flagpole is 80 feet tall, we are unconsciously

referencing it to the elevation of the parade ground in which it stands.

It is convenient then in ordinary life, and essential in the life and practice of an engineer, to have a vertical reference, or datum plane, from which to measure vertical distances or elevations. For instance, when we say Mount McKinley is 20,300 feet high, we are referring the elevation of its peak to sea level. Sea Level, or Mean Sea Level, since the level fluctuates daily or diurnally with the tides, is a convenient datum used throughout the world; although Mount McKinley, Pike's Peak, and other notable elevations are far removed from the sea. Mean Sea Level, then, is a convenient "Datum Plane" for land elevations, particularly lands near a seacoast where the relationship of land and water are critical.

Is Mean Sea Level Always Used as the Datum Plane?

Mean Sea Level is a convenient datum plane for land elevations, particularly near a seacoast. However, mariners are more interested in water than land and are particularly interested in whether they have enough water under the keels of their boats to safely keep them afloat. So, on navigation charts, the depths are frequently given in feet, fathoms (6 feet), or meters below Mean Low Water. This is particularly important in regions having a substantial tidal range.

Also, on industrial site plans, yard layouts, or landscaping plans, an arbitrary datum may often be used, such as "Pavement at entrance = Elevation 100.00," for a convenient reference for planning yard grading and drainage. The writer worked for some time on a 65,000-man Army cantonment where a datum plane had been established which was later reported to differ by many feet from the Mean Sea Level reference from which it was supposed to have been established.

As can be seen, Mean Sea Level is not always used as the datum plane to which elevations are referred.

Cairo Datum: What is it?

Cairo Datum is an arbitrary datum plane used in New Orleans as a reference for elevations by the Sewerage and Water Board, the Department of Streets, and to some extent by other agencies and interests. The base datum for Elevation 0.00 of Cairo Datum is 20.434 feet BELOW Mean Sea Level, and elevations referred to Cairo Datum are actually 20.434 feet lower, with respect to Mean Sea Level, than the reference number would seem to indicate. Thus, if a developer tells you the floor slab of the house you are considering buying is at Elevation 22.00 Cairo Datum, the floor is actually only approximately 1-1/2 feet above Mean Sea Level.

The street system, curb grades, lot elevations, drainage system, sanitary sewers, water mains, and other underground utilities in New Orleans are drawn, planned, recorded, and calculated on Cairo Datum. This can be confusing to outsiders, as in the case of the radio announcer, and in the case of railroad or highway engineers plotting the grades of their track or roadway through the area. It can also be confusing, and costly, to the purchasers of property unfamiliar with this reference system and its implications. It is advisable to ask questions, and have a clear comprehension of where one stands (literally) when buying property.

Cairo Datum: Why is it used?

This is the first question a newcomer to the system asks, and there is no single or simple answer. The first answer is, "It has always been used in New Orleans," and in a city which honors its history and esteems antiquity, this may suffice. Another answer also given is that in an area as close to sea level as New Orleans, it is convenient for surveyors and draftsmen to use this system because it usually avoids having negative elevations in surveys, drawings, and calculations and makes errors less likely. Real estate agents and land developers love Cairo Datum, since it is easier to tell a prospective buyer

that the land he is looking at is at Elevation 19, than to say it is 1-1/2 feet below sea level. (New Orleans is surrounded by levees which protect it from high water from the Mississippi River and Lake Pontchartrain; and like Holland, much of the city is below sea level.)

Perhaps the first answer is the best one; that most of the working records of the city's utilities, streets, and property grades are based on Cairo Datum and it would be difficult, costly, and tedious to change.

Cairo Datum: Where Did it Come From?

This is a question that has puzzled the writer for many years. It was common knowledge that the Cairo Datum originated in Cairo, Illinois, and that a line of levels had been carried down the Mississippi River to New Orleans and the waters of the Gulf of Mexico where the datum was found to be 20.434 feet off of Mean Sea Level. There was rumor that engineers had begun on the east coast with Atlantic sea level and ran a line of levels over the mountains to the headwaters of the Ohio River, then down that river valley to its confluence with the Mississippi River where Cairo is located—but this was rumor only, with no substantiation.

The origin of Cairo Datum was still a mystery to the writer. Then, a few years ago, clarification came in the form of a letter from a faithful reader of *The Consultant*, a newsletter published by Waldemar S. Nelson & Company, Inc., Mr. Alton K. Hansen. He enclosed pages 360 through 366 of an issue of *Proceedings of the Louisiana Engineering Society* (forerunner of the *Louisiana Engineer*) which explains the origin. Copies of this article may be obtained by phoning the Louisiana Engineering Society.

Mr. Hansen also sent a copy of a memorandum dated January 1, 1944 prepared by J. G. Frost, Associate Engineer, evidently in the United States Army Corps of Engineers New Orleans District office entitled, "Notes on the Relationship Between Various Datum Planes That Have Been

Used by the New Orleans District". This memorandum is produced below:

Notes on the Relationship Between Various Datum Planes That Have Been Used in the New Orleans District

By J. G. Frost, Associate Engineer
Elevation of Mean Gulf Level.

One June 21, 1899 a value of 6.083 feet on the staff gage at Biloxi, MI, was adopted by the Mississippi River Commission as "mean level of the Gulf of Mexico at Biloxi, MS." This value is the mean of gage readings for the five years 1882, 1884, 1896, 1897 and 1898. See *Stages of Mississippi River for 1937*, p.LXXIII, and *Annual Report of Mississippi River Commission for 1899*, p.3296.

The elevations of Mean Gulf Level and Mean Sea Level at Biloxi, MS, are the same, as shown by the 1929 General Adjustment of the First Order Level Net by the U.S.C.&G.S., which gives the elevation of P.B.M. Keenor (bolt) as 18.097 feet above Mean Sea Level. (See U.S. Coast & Geodetic Survey Report of 1903.)

The M.R.C. stage pamphlets show that the elevation of P.B.M. Keenor (bolt) is 24.181 feet above the zero of the gage, or 18.098 feet above Mean Gulf Level, a difference of 0.001 foot, which is negligible. See *Report of Chief of Engineers, U.S. Army, 1900 Party 7*, p.4726.

The 1941 Alluvial Valley Adjustment gives the elevation of P.B.M. Keenor (bolt) as 18.146 feet, or 0.049 foot higher than the 1929 General Adjustment.

The elevation of Mean Low Gulf datum as established by the former First New Orleans District, is 0.78 foot below Mean Gulf Level.

New Memphis Datum is 6.63 feet below Mean Gulf Level.

Old Memphis Datum is 8.13 feet below Mean Gulf Level.

New Cairo Datum is 20.434 feet below Mean Gulf Level.

Delta Survey Datum is 0.86 foot above Mean Gulf Level. See description of the

Baton Rouge, LA., gage in the Mississippi River Commission stage Pamphlets.

Mississippi River Commission

The Mississippi River Commission is the government agency responsible for coordinating flood protection and channel maintenance work along the Mississippi River. In determining water depths, flood stages, levee heights, and channel capacities along the river, its tributaries and distributaries, it is important to have a common plane of reference, or datum, to which natural features and engineering efforts can be referred. The Commission undertook a Herculean task in coordinating flood protection in so large an area, and as noted in the article, began work in the vicinity of Cairo and Memphis before extending its operations and surveys to the mouth of the river at the Gulf of Mexico. That it succeeded in establishing a common datum, Cairo Datum, for the length of the river from Cairo to the Gulf of Mexico was an accomplishment useful not only to the Commission but also to engineers all along the course of the stream. Presumably, it was for this reason that Cairo Datum was adopted by agencies of the City of New Orleans for their engineering works, which depended on the protection of the levees from flooding by the river. In any case, Cairo Datum is firmly engraved in the civil works of New Orleans.

Ky-Roh or Kay-Roh

In closing, it is interesting to speculate on the correct pronunciation of the name Cairo. One encyclopedia consulted gives Ky-roh for the capital of Egypt and Kay-roh for the city in Illinois. Webster's New Collegiate Dictionary concurs in the pronunciation of the capital of Egypt and notes that the second syllable is sometimes accented but does not mention the city in Illinois. New Orleanians, who have their own pronunciations for some classic names like Melpomene and Terpsichore, seem to follow the class or Egyptian pronunciation of Ky-roh.

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Answers to Laws and Rules of the Board test
(on page 10).

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Uncompensated Overtime Rule Addresses NSPE Concerns

The Department of Defense (DOD) has issued an interim rule (*Federal Register*, September 5, 1991) designed to discourage the use of uncompensated overtime in contracts for services. The interim rule implements a provision in the fiscal 1991 Defense Authorization Act that requires DOD, to the maximum extent practicable, to acquire services on the basis of the task to be performed rather than on the basis of the number of hours to be provided. This provision is expected to address the problem encountered by contractors of

employees in professional and technical services, such as engineers, who are exempt from the 40-hour work week provisions of the Fair Labor Standards Act. NSPE supported efforts to end the practice by which contractors, in an effort to obtain defense contracts, bid fewer hours than are required to complete the job, thereby requiring their employees to work overtime without compensation. The interim rule, retroactive to August 19, 1991, will be used in formulation of a final rule.

Management Fellowships Available to Engineers Through Engineering Society

The National Society of Professional engineers (NSPE) practice divisions, Professional Engineers in Private Practice (NSPE-PEPP) and Professional Engineers in Government (NSPE-PEG) are sponsoring management study fellowships through the Society's Education Foundation. These fellowships in the

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We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P. O. Box 2683, Baton Rouge, LA 70821.

October 17, 1991

Lafayette Section/IEEE
Student Night, Teche Lodge

October 17-19, 1991

ACEC Fall Conference
Albuquerque, NM

October 18, 1991

LSPS Board of Directors Meeting
Baton Rouge, LA

October 25, 1991

LES Board of Direction Meeting
Shreveport, LA

October 26, 1991

NCEES Exams

November 7, 1991

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

November 8, 1991

Return Deadline/LES Award
Nominations
LES State Office

November 11-12, 1991

State Board of Registration Meeting
New Orleans, LA

November 20, 1991

CEC/L Board of Governors Meeting
Location TBA

November 21, 1991

Lafayette Section/IEEE
Technical Meeting

December 6, 1991

LSPS Board of Directors Meeting
Baton Rouge, LA

December 7-8, 1991

State President-Elects' Conference
Alexandria, VA

December 12, 1991

Lafayette Section/IEEE
Christmas Meeting, Don's
Seafood/Steakhouse

December 13, 1991

Honors and Awards Selection Meeting
State Office
Baton Rouge, LA

December 13, 1991

LES Board of Direction Meeting
State Office
Baton Rouge, LA

December 18, 1991

CEC/L Board of Governors Meeting
Location TBA

January 9, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

January 19-24, 1992

NSPE Winter Meeting
Omni Hotel
Charleston, SC

January 20-21, 1992

State Board of Registration Meeting
New Orleans, LA

February 6, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

February 17-21, 1992

Engineers Week

March 28, 1992

MATHCOUNTS State Competition
Alexandria, LA

MANAGEMENT FELLOWSHIPS

Continued from page 18

amounts of \$2,000 and \$3,000 are designed for the professional engineer (PE) or engineer-in-training (EIT) who would like to pursue master's studies in business or engineering management on either a full- or part-time basis.

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Remember, the "LES Forum", a feature section of the *Louisiana Engineer*, is available for your comments on matters of interest to the profession. Comments should be brief, courteous, and timely, and will be edited by the Publications Committee for balance and pertinent content.

The *Louisiana Engineer* is published six times annually in February, April, June, August, October and December. Comments to the "FORUM" should be mailed to the *Louisiana Engineer*, P. O. Box 2683, Baton Rouge LA 70821, no later than the 10th of the month preceding the month of publication.

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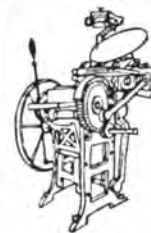
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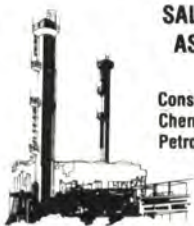
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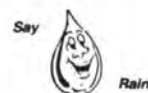
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On the Inside:

Be sure to see page 11 for special registration form.

Registration form for LES Awards Meeting, March 11-14, 1992

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Season's Greetings! Be sure to see page 11 for the registration form for the LES Awards Meeting, March 11-14, 1992.

LOUISIANA ENGINEER

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Presidential Privilege

The Materials Engineering Laboratory

For many years, the engineering profession has recognized the Civil Engineer practicing Geotechnical Engineering. The service is recognized as falling under the professional engineer registration act. However, the same status has not been given to the Materials Engineer or "Commercial Testing Laboratory".

In recent years, through the efforts of interested Materials Engineers, this profession has been recognized by the American Society of Civil Engineers (ASCE) as a separate discipline of civil engineering. The American Society for Testing and Materials (ASTM) standard ASTM D-329 requires the testing laboratory and technicians performing the work be supervised by a registered professional engineer. The National Society of Professional Engineers (NSPE) sponsors the National Institute for the Certification of Engineering Technicians (NICET). To become certified in Soils, Asphalt or Concrete, one of the requirements is to have a registered professional engineer verify the qualifications of the technician.

Besides ASCE, ASTM and NSPE, neighboring states and laboratory accreditation boards recognize that materials engineering testing laboratories must have a registered professional engineer.

If there is confusion as to what types of services are considered "engineering services" look at U.S. Public Law 100-656. Commonly referred to as the "Brooks Bill", the law was passed as the Business Opportunity Development Reform Act of 1988 by the Senate and House of Representatives of the U.S. Congress. Section 742(3) of that Act states:

"(C) Such other professional services of an architectural or engineering nature, or incidental services, which members of the architectural and



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engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, TESTS, evaluations, consultations, comprehensive planning, program management, conceptual design, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services". **Clearly this includes the traditional geotechnical and materials engineering services.**

The engineering registration law clearly covers the interpretation of engineering data. The only way to make the interpretation useful is to insure the data is col-

lected in a professional manner. Qualified engineering technicians under the supervision of a registered professional engineer specializing in Materials Engineering can perform their duties such that the "safety of the public" is insured. The professional engineer through education in the fields of concrete, soils, and asphalt (available in the civil engineering curriculum) can determine when incorrect data is being collected or presented.

The best engineering designs can be rendered useless and dangerous if the materials utilized do not meet specifications. All engineers and/or architects designs should not be subject to less than professional quality data collection or testing.

Quality Assurance and Quality Control are the mainstay of the materials engineering laboratory. To "protect the public" as the law requires, all commercial testing laboratories in Louisiana should be required to be under the supervision of a registered professional engineer. Anything less does not meet the requirement of the engineering registration law. In fact, it encourages "plan stamping" and illegal practice performed by less than "professional" engineers.

The Board of Direction of the Louisiana Society has asked the State Board of Registration to look into persons other than professional engineers performing environmental consulting; especially when engineering design is involved. I suggest the Louisiana Board of Registration for Professional Engineers and Land Surveyors require all "commercial materials testing laboratories" be registered as required by state law under the definition of "engineering". This, of course, would take care of the problem of testing being performed under the supervision of a registered professional engineer.

Designing Facilities for Disabilities A New Federal Mandate*

Raymond G. Areaux**
Stacy Smith Brown
Wanda Greathouse Holloway

* This article highlights some important aspects of the ADA including those aspects that have a direct impact on design and contracting professionals. It is not offered or intended as legal advice or counsel, nor is it a thorough discussion of the ADA and its requirements. Legal advice and counsel are necessarily dependent on the specific facts and circumstances of any given situation. You should consult with your lawyer or other advisor as to your specific facts and circumstances to determine your rights and responsibilities under the ADA.

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DESIGNING FACILITIES FOR DISABILITIES: A NEW FEDERAL MANDATE*

Under recently enacted federal legislation, design and contracting professionals now have a mandate to design and construct facilities that are accessible to individuals with disabilities. The definition of "disabilities" and certain other terms are so broad, that the ADA can only be characterized as sweeping legislation impacting both design and contracting professionals. This legislation, the Americans with Disabilities Act (the "ADA"), creates new legal obligations for engineers, architects, contractors and developers, among others. Pursuant to Title III of the ADA, it is now discriminatory, and therefore illegal, to design and construct certain new facilities that are not readily accessible to and usable by individuals with disabilities. It is also discriminatory to make alterations to certain existing facilities that are not made so as to ensure that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities. Title III contemplates a very high degree of convenient access. Not only the owner and operator of, but the entire design and contracting team for new construction and alterations is responsible for compliance with the Act. In addition to monetary damages, penalties for noncompliance include up to \$50,000 for a first violation, up to \$100,000 for subsequent violations, and injunctive relief which may require costly retrofitting or remodeling.

FACILITIES COVERED

The facilities covered by Title III of the ADA are those facilities that are "Places of Public Accommodation" and "Commercial Facilities." These facilities are defined very broadly. A **Place of Public Accommodation** is a facility operated by a private entity (including an individual) whose operations affect commerce and which fall within at least one of the following twelve categories: (1) place of lodging, (2) establishment serving food or drink, (3) place of exhibition or entertainment, (4) place of public gathering, (5) sales or rental establishment, (6) professional office, hospital or other service establishment, (7) station used for specified public transportation, (8) place of public display or collection, (9) place of recreation, (10) place of education, (11) social service cen-

ter and (12) place of exercise or recreation. The broad definition of **Commercial Facilities** is the net that catches most facilities that do not fall within the definition of Places of Public Accommodation. A Commercial Facility is a facility whose operations affect commerce and that is intended for nonresidential use by a private entity (including an individual). Examples of Commercial Facilities provided by the regulatory authority include factories, warehouses, office buildings and airports. A literal reading of the definition of Commercial Facilities would also include both chemical plants and offshore drilling or production facilities.

While the ADA covers a legion of facilities, the definition of "facility" itself is very broad and covers more than buildings. Also included are roads, walkways, passageways and parking lots (where the private entity exercises control over these areas), as well as structures, sites, complexes, equipment and mobile facilities such as mobile health units, cruise ships, boats and floating restaurants.

Title III of the ADA also covers temporary buildings and facilities as well as permanent facilities. Temporary buildings and facilities are buildings and facilities that are not of permanent construction but are extensively used or are essential for public use for a period of time. Examples of temporary buildings or facilities covered by these guidelines include, but are not limited to: reviewing stands, temporary classrooms, bleacher areas, exhibit areas, temporary banking facilities, temporary health screening services or temporary safe pedestrian passageways around a construction site. Structures, sites and equipment directly associated with the actual processes of construction, such as scaffolding, bridging materials, hoists or construction trailers are not included.

EXEMPT FACILITIES

Although the scope of coverage is extremely broad, not all facilities are covered by the ADA. Specifically exempt from Title III coverage are **private clubs, aircraft, railroad cars and facilities owned and operated by religious entities.** Therefore, to the extent accessibility for individuals with disabilities is desired in these exempt facilities, the ADA regulations and technical guidelines may be used as guidance, but are in no way mandatory.

Public entities are also exempt from Title III coverage, but are expressly covered under Title II of the ADA, which has separate regulations and technical guidelines similar to those set out in Title III. While this article primarily addresses the mandates of Title III, Title II is discussed under a separate subheading later in this article.

Private housing is also exempted from ADA coverage. Apartment buildings, however, are covered by the Fair Housing Act. Both the Fair Housing Act and the ANSI guidelines accompanying it should be consulted by design and contracting professionals who are involved in the design and construction of apartment buildings.

The categories of facilities exempt from coverage are limited and, therefore, most facilities are covered and must now be designed and constructed in compliance with the accessibility standards established by the ADA Title III regulations.

IMPORTANT DATES

New Construction: Title III applies to the design and construction of certain new facilities for first occupancy after January 26, 1993. However, this January, 1993 date should provide no comfort where projects are large and will, therefore, be fairly long term. A facility is "designed and constructed for first occupancy after January 26, 1993" where the last application for a building permit or permit extension is received by the state or local government after January 26, 1992, and where the first certificate of occupancy for the facility is issued after January 26, 1993. The date the final permit is granted and the date of actual occupancy are not considered.

The date of January 26, 1992, is relevant only with respect to the last application for a permit or permit extension for a facility. Thus, if an entity has applied for only a foundation permit, the date of that permit application has no effect, because the entity must also apply for and receive a permit at a later date for the actual superstructure. In this case, it is the date of the later application that would control, unless construction is not completed within the time allowed by the permit, in which case a third permit would be issued and the date of the application for that permit would be determinative for purposes of the rule. Therefore, if the final application for a permit is completed before January 26, 1992, delays in obtaining the permit

are of no moment and redesign for accessibility will not be required. However, if the facility must be redesigned for other reasons, such as a change in density or environmental preservation, and the final permit is based on a new or amended application, the rule would require accessibility compliance if that application was certified complete after January 26, 1992.

Alterations: Alterations covered by Title III are those alterations that are undertaken after January 26, 1992. Alterations are deemed to be undertaken after this date if the physical alteration of the property begins after that date. Therefore, alterations that were planned before January 26, 1992, but which begin after that date are covered by the regulations and redesign of those facilities will be necessary to the extent that the ADA was not considered.

COVERED DISABILITIES

The term "disability" has been interpreted broadly to cover a broad spectrum of conditions ranging from more commonly known disabilities such as visual or hearing impairment and mobility impairment requiring use of a wheelchair, to back problems, heart conditions, unusual skin conditions, and epilepsy. Although many of the conditions which have been found to constitute disabilities will not affect accessibility, because the Title III regulations contemplate a high degree of convenient access, it is important to consider the variety of barriers which might affect accessibility for individuals with various disabilities.

RULE FOR NEW CONSTRUCTION

Most new construction must now be planned with the disabled in mind. The rule is that facilities must be "readily accessible to and usable by individuals with disabilities" meaning that the facility can be approached, entered and used by individuals with disabilities (including those individuals with mobility, sensory and cognitive impairments) easily and conveniently. The Architectural and Transportation Barriers Compliance Board has provided detailed technical guidelines which must be followed in order to comply with the Act and its regulations. These guidelines are the ADA Accessibility Guidelines ("ADAAG") and are discussed later in the article.

EXCEPTION TO THE RULE

Although an exception to this broad rule requiring a high level of accessibility in new construction exists, it is a narrow exception and is intended to be of limited applicability. Full compliance with the new construction requirements is not required where an entity can demonstrate that it is **structurally impracticable** to meet the requirements. However, full compliance will be considered structurally impracticable only in those "rare circumstances" when the unique characteristics of terrain make accessibility unusually difficult. The comments to the regulations give as an example of one of the few situations in which the exception for structural impracticability would apply, a situation in which a building must be built on stilts because of its location in marshlands or over water.

While the structural impracticability exception is generally intended to be of limited applicability, the example chosen to further define the exception is obviously quite significant for Louisiana design and contracting professionals. Many facilities and structures are designed and constructed in Louisiana for use in marshlands or in offshore waters. Unfortunately, the comments do not further discuss the example, except to remind us that where full compliance with the new construction requirements would be structurally impracticable, compliance is still required to the extent that it is structurally practicable. Thus, the accessibility requirement should not be viewed as an all-or-nothing proposition. For example, a facility that is of necessity built on stilts and cannot be made accessible to persons who use wheelchairs because it is structurally impracticable to do so, may nonetheless be susceptible of being made accessible for individuals with vision or hearing impairments or other kinds of disabilities. Again, unfortunately, the regulations provide little guidance on these issues.

ALTERATIONS VS. NEW CONSTRUCTION

Engineers, architects, contractors and developers are also independently liable for compliance with the ADA's accessibility mandate for alterations.^{1/} The rule with respect to alterations is that any alteration to a facility covered by Title III of the ADA, after January 26, 1992, shall be made so as to ensure that to the maximum extent feasible the altered portions of the facility are readily accessible to and usable

1/ There is an argument to be made that design and construction teams are not liable for compliance with the ADA's accessibility mandate for alterations and that they are, instead, only liable for compliance in new construction. This distinction is made based on a discussion in the preamble to the regulations which occurs only under the heading "new construction" and not "alterations." This discussion emphasizes that because the proposed regulations addressing the general requirement for accessible new construction did not clearly address liability on the part of architects, contractors, developers, tenants, owners, and other like entities, the rule was revised and the language of the ADA itself was used in the final regulations to make this point clear. The writers contacted the Department of Justice which promulgated the regulations, and their informal response to this suggestion was that they do not believe that the Department of Justice intended to exempt design and construction teams from liability for non-compliance with the alterations regulations. However, the opportunity for argument still exists.

by individuals with disabilities, including individuals who use wheelchairs. As with new construction, the ADAAG provides detailed technical guidelines on how to comply with the alterations requirements of the ADA.

An "alteration" is a change to a facility that affects or could affect the usability of the building or facility or any part thereof. "Usability" is read broadly and is not limited to changes that relate to access by individuals with disabilities. Examples of alterations include remodeling, renovation, rehabilitation, reconstruction, historic restoration, changes or rearrangement in structural parts or elements, and changes or rearrangement in the planned configuration of walls and full-height partitions. Moving an electrical outlet is considered an alteration for purposes of the ADA. The following are not alterations unless they affect the usability of the building or facility: normal maintenance, reroofing, painting, wallpapering, asbestos removal or changes to mechanical or electrical systems.

EXCEPTION TO THE RULE FOR ALTERATIONS:

Alterations do not need to be in compliance with the accessibility regulations where compliance would be **technically infeasible**. Technically infeasible applies to the occasional case where the nature of an existing facility makes it virtually impossible to comply fully with applicable accessibility standards through a planned alteration.

Where it is impossible to fully comply with the regulations, the alterations must still provide the maximum physical accessibility feasible. Any altered feature of the facility that can be made accessible must be made accessible.

ALTERATIONS TO A PRIMARY FUNCTION AREA

Although a private entity may be altering only a portion of its facility, the ADA provides that if the altered area is a "primary function area," then the path of travel to the altered area must also be made accessible. The rule is that an alteration that affects or could affect the usability of or access to an area of a facility that contains a primary function, shall be made so as to ensure that to the maximum extent feasible, the path of travel to the altered area and the restrooms, telephones and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities.

A primary function is a major activity for which the facility is intended. Examples of areas that contain a primary function include, but are not limited to: the customer services lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other employee work areas

in which the activities of the public accommodation or other private entity using the facility are carried out. Examples of areas that do not contain a primary function include: mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors and restrooms.

The **exception** to the path of travel requirement is where the cost and scope of such alterations is **disproportionate** to the cost of the overall alteration. Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the cost exceeds 20% of the cost of the alteration to the area containing the primary function. Still, when the costs are deemed disproportionate, the path of travel shall be made accessible, to the extent that it can be made accessible, without incurring disproportionate costs.

Subterfuge: This obligation to provide an accessible path of travel may not be evaded by performing a series of small alterations to an area served by a single path of travel if those alterations could have been performed as a single undertaking. If an area containing a primary function has been altered without providing an accessible path of travel to serve that area, and subsequent alterations of that area, or a different area on the same path of travel, are undertaken within three years of the original alteration, the total cost of alterations to the primary function areas on that path of travel during the preceding three-year period shall be considered in determining whether the cost of making that path of travel accessible is disproportionate.

COMPLIANCE

The ADA Accessibility Guidelines ("ADAAG") are the technical guidelines to be applied during the design, construction, and alteration of buildings and facilities to the extent required by the ADA regulations. Departures from particular technical and scoping requirements of the ADAAG by the use of other designs and technologies are permitted where the alternative designs and technologies used will provide substantially equivalent or greater access to and usability of the facility.

The ADAAG provides that accessibility is not required: (1) to observation galleries used primarily for security purposes; or (2) in non-occupiable spaces accessed only by ladders, catwalks, crawl spaces, very narrow passageways, or freight (non-passenger) elevators, and frequented only by service personnel for repair purposes (such spaces include, but are not limited to, elevator pits, elevator penthouses, piping or equipment catwalks).

Some examples of the portions of facilities that are addressed in the ADAAG are

automated teller machines in banks, public telephones, light switches, building signage, protruding objects, ramps, stairs and handrails, to name a few. Some specific examples of the technical and scoping requirements are provided below, although there are exceptions for many of the ADAAG provisions: **(1) Elevators** - where a facility meets the elevator exemption (discussed below) but nonetheless installs a full passenger elevator, the elevator must meet the technical requirements of the ADAAG; **(2) Public Entrances** - At least 50% of all public entrances must be accessible. More specifically, accessible entrances must be provided in a number at least equivalent to the number of exits required by the applicable building and fire codes; **(3) Drinking Fountains** - 50% of the drinking fountain locations on each floor must comply with the requirement that one drinking fountain must be accessible to individuals who use wheelchairs and one must be accessible to those who have difficulty bending or stooping; **(4) Toilet Rooms** - Accessible toilet rooms shall be on an accessible route; **(5) Alarms** - If emergency warning systems are provided, they must include both audible alarms and visual alarms.

The ADAAG also includes a special application section which contains additional requirements directed specifically for restaurants and cafeterias, medical care facilities, business and mercantile facilities, libraries and transient lodging.

It is important to note that while mobil facilities are facilities subject to the ADA accessibility requirements, standards for new construction and alterations of mobil facilities are not yet included in the ADAAG. Therefore, the new construction and alterations requirements of the ADA are not applicable to mobil facilities until specific requirements have been developed.

ELEVATORS

To determine whether the installation of an elevator is required in a facility, one must follow the framework of the rule, which includes a series of exceptions which must be followed seriatim. The **general rule** is that installation of an elevator is required in a newly constructed or altered facility. The **exception** is that installation of an elevator in a newly constructed or altered facility is not required where the facility is less than three stories or has less than 3,000 square feet per story **unless** the facility houses one or more of the following: a shopping center or shopping mall; professional office of a health care provider; a terminal, depot or other station used for specified public transportation; or an airport passenger terminal. If under the above analysis

Continued on page 17

Land Surveyor Examinations

Effective in the Fall of 1992, the examination for land surveyors will change. The Principles and Practice of Land Surveying Examination will be a six hour closed book examination in lieu of a four hour Principles and Practice of Land Surveying and a three hour examination Part II (A) Public Domain states examination.

The Task Analysis for Professional Surveying (TAPS) completed in August of 1991 by the National Council of Examiners for Engineering and Surveying revealed that the examination for Public Domain states and Meets and Bounds states could be combined into one examination. Therefore in the future, commencing with the Fall of 1992 examination, the same Principles and Practice of

Land Surveying Examination (6 hours) will be used by all states.

Examinees who have failed either the Principles and Practice four hour examination or the Part II (A) Public Domain three hour examination before the Fall of 1992 examination will be required to take and pass the new six hour Principles and Practice of Land Surveying Examination.

The one hour Laws of Land Surveying Examination will be offered for the last time on April 11, 1992. Thereafter, that examination will be a two hour examination on the Louisiana Laws of Land Surveying. Examinees who failed the one hour Louisiana Law of Surveying Examination will be required to take and pass this new two hour examination.

This change should mean that it will be somewhat easier for land surveyors

to obtain reciprocity registration in other states. The new six hour Principles and Practice of Land Surveying Examination will be accepted by most of the states.

Board Examination Results

The Board recently authorized the Executive Secretary to release for publication the results of all examinations administered by the Board, limited to the number of examinees, number passing or failing, and the percent passing or failing. **(No additional statistical information will be released by the Board.)**

The top numbers are the numbers nation-wide who took the examination and the percent passing. The lower numbers are the numbers in Louisiana.

A few years ago, Chris Demopoulos, P.E., (a former member of the Board) was asked at a national meeting of the National Council of Examiners for Engineering and Surveying (NCEES) --- "Chris, why do people in Louisiana always do better than the rest of us on these examinations?" Chris, without a blink of the eye, responded --- "We're smarter than you are." I would like to come up with a better answer. The answer may be that, because of our statute, the Board has to be more selective as to who is permitted to take the examinations.

I'm certain the release of this information will generate many questions. Let me give you some questions and answers to save you the time from calling the Board Office or writing a letter to the Board.

Question

How can the Board justify a passing rate of 17 percent for one examination and over 60 percent for an examination in the same discipline at a later date?

Answer

A justification cannot be offered. I can say that the examinations are not graded on a curve; all examinees can pass an examination or all can fail. The specifications for the examinations are derived from the analysis of professional activities, what engineers do. These are very extensive and costly surveys conducted by the NCEES to justify what must be on the examinations.

EXAMINATION SCHEDULE AND APPLICATION DEADLINE DATES

Examination	SPRING		FALL	
	Application Deadline Date	Examination Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1992	Oct. 31, 1992
Principles & Practice Engineering (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical	Jan. 15, 1992	Apr. 11, 1992	Aug. 1, 1992	Oct. 31, 1992
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum	NOT AVAILABLE		Aug. 1, 1992	Oct. 31, 1992
Fundamentals of Land Surveying Examination (8 hrs.)	Oct. 15, 1991	Apr. 11, 1992	May 1, 1992	Oct. 31, 1992
Principles and Practice of Land Surveying (4 hrs.) *	Oct. 15, 1991	Apr. 11, 1992	May 1, 1992	* Oct. 31, 1992
Laws and Procedures of Land Surveying (3 hrs.) *	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	
Louisiana Laws and Procedures of Land Surveying (1 hr.)	Oct. 15, 1991	Apr. 11, 1992	NOT AVAILABLE	

Apply at least six to eight months prior to an examination. Board approval must be given for anyone to be scheduled for an examination. The applicant and the Board depend upon information provided by third parties in the processing of an application, therefore no assurance can be given that one will be scheduled for a specific examination.

Application Deadline date means that an application **must** be postmarked prior to or on the date specified so as to be given **consideration for the examination**. The Board may schedule an applicant for an examination later than that requested by the applicant. The Board cannot guarantee that the applicant will be scheduled for the examination initially requested.

*These two examinations will be combined into a 6 hour examination beginning October 31, 1992.



**Paul L. Landry, P.E.,
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors**



Question

Why do Mechanical Engineers do better than that most other Engineers?

Answer

We're smarter (I like Chris' answer). That's not an acceptable answer, but I don't have a better one.

Question

In the recent 9104 (April, 1991) Examination, why did Chemical Engineer Examinees do much better in Louisiana? (Louisiana 67 percent versus U.S. 44 percent)

Answer

My guess is that the nine who took this examination in Louisiana had a more serious approach to this examination than the other four hundred ninety-three nation-wide. Also, the number "9" is too small to make statistical inferences with 493. For various reasons, some industrial employers in

Louisiana are now requiring that engineering employees become registered.

Question

How soon after failing an examination may an applicant retake the same examination?

Answer

The next time the examination is offered if an application is received by the Board before the deadline date. The deadline date at this time is sixty (60) days before an examination date for someone who is retaking an examination. The normal deadline date is ninety (90) days for Engineers and Engineers-In-Training applicants and one hundred eighty (180) days for Land Surveyors and Land Surveyors-In-Training applicants.

Question

How many times may an examination be retaken?

Answer

There is no limit, however Section 1515.B of the Board Rules states "Before an applicant is given approval to retake an examination, he may be required to appear before the Board or a Committee of the Board for an oral interview examination".

Continued on page 10

BOARD MEETING NOTICE

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors will hold its regular meetings at 1055 St. Charles Avenue - Suite 415 New Orleans, La. 70130 on the following dates.

1992

Jan. 20-21
March 23-24
June 1-2

July 27-28
Sept. 21-22
Nov. 9-10

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Louisiana State Board of Registration For Professional Engineers and Land Surveyors

NCEES Engineering Examination - Candidate Volume/Passrate (%)

Discipline	8604 *	8610 *	8704 *	8710 *	8804 *	8810 *	8904 *	8910 *	9004 *	9010 *	9104 *
Fundamental LA Seniors	27, 536/69% 421/74% 344/75%	16, 088/64% 428/76% 355/77%	26, 268/68% 409/76% 318/80%	16, 606/59% 445/75% 370/73%	25, 775/67% 332/73% 272/74%	17, 487/55% 383/67% 318/70%	26, 880/65% 315/70% 229/68%	18, 167/57% 295/73% 218/76%	27, 400/69% 284/75% 187/78%	19, 028/46% 304/68% 215/66%	28, 306/56% 243/64% 148/70%
Agricultural LA	No Exam No Exam	71/63% 3/67%	No Exam No Exam	74/66% 1/0%	No Exam No Exam	70/49% -0-	No Exam No Exam	78/26% -0-	No Exam No Exam	91/68% 2/50%	No Exam No Exam
Chemical LA	324/12% 10/20%	429/11% 10/20%	322/28% 14/57%	427/24% 12/17%	322/42% 17/41%	485/31% 13/62%	356/32% 19/58%	503/37% 25/48%	443/28% 13/31%	576/30% 21/48%	502/44% 9/67%
Civil LA	5, 070/36% 40/48%	2, 935/16% 78/23%	5, 942/72% 61/90%	3, 160/49% 75/75%	5, 403/50% 69/52%	3, 778/49% 70/53%	6, 167/61% 72/78%	3, 751/58% 67/72%	6, 504/54% 63/57%	3, 934/53% 52/63%	6, 889/41% 42/52%
Electrical LA	1, 188/34% 33/40%	1, 427/47% 22/36%	1, 193/42% 20/50%	1, 504/32% 29/41%	1, 158/36% 18/39%	1, 638/45% 22/59%	1, 258/26% 31/26%	1, 709/42% 26/50%	1, 387/37% 22/41%	1, 980/26% 28/46%	1, 732/29% 27/41%
Industrial LA	No Exam No Exam	330/32% 1/100%	No Exam No Exam	345/37% 3/67%	No Exam No Exam	392/32% 3/33%	No Exam No Exam	392/44% 3/100%	No Exam No Exam	264/52% 1/100%	No Exam No Exam
Mechanical LA	1, 297/65% 25/84%	1, 858/52% 61/66%	1, 435/51% 36/58%	1, 827/63% 39/72%	1, 424/45% 29/66%	2, 052/77% 27/85%	1, 505/57% 31/74%	1, 991/61% 35/69%	1, 757/46% 32/56%	2, 355/63% 37/78%	1, 937/34% 19/42%
Metallurgical LA	No Exam No Exam	47/89% -0-	No Exam No Exam	72/96% 2/100%	No Exam No Exam	52/71% 4/75%	No Exam No Exam	55/86% 1/100%	No Exam No Exam	51/29% 2/0%	No Exam No Exam
Mining/Mineral LA - Mining	No Exam No Exam	138/45% 1/100%	No Exam No Exam	141/70% -0-	No Exam No Exam	142/70% -0-	No Exam No Exam	112/52% -0-	No Exam No Exam	147/67% 1/0%	No Exam No Exam
Petroleum LA	No Exam No Exam	305/55% 71/65%	No Exam No Exam	274/56% 53/66%	No Exam No Exam	265/28% 55/35%	No Exam No Exam	305/35% 55/42%	No Exam No Exam	283/33% 54/41%	No Exam No Exam

NCEES Land Surveying Examination - Candidate Volume/Passrate (%)

Fundamental LA	1, 620/47% 17/47%	1, 410/45% 11/73%	1, 658/48% 14/57%	1, 583/42% 19/59%	1, 992/47% 16/63%	1, 797/45% 11/73%	2, 013/57% 25/68%	1, 867/51% 24/67%	1, 888/49% 23/52%	1, 798/49% 37/65%	1, 911/55% 35/74%
PE&LSPI LA	925/57% 6/83%	775/55% 6/100%	952/53% 11/79%	987/60% 7/71%	1, 068/61% 17/71%	896/41% 5/100%	1, 015/56% 14/79%	987/56% 7/86%	1, 136/58 14/93%	1, 048/61% 10/60%	1, 047/53% 18/67%
PE&LSPIA LA	No Exam Regional*	314/66% No Exam	376/65% Regional**	327/73% No Exam	486/68% 26/73%	354/72% No Exam	489/48% 21/67%	421/49% No Exam	521/54% 26/69%	443/52% No Exam	482/52% 31/65%
LA Law	19/79%	No Exam	29/72%	No Exam	31/97%	No Exam	22/27%	No Exam	36/61%	No Exam	44/23%

** Regional Exam was combined with the LA Law Exam for a total pass/fail score.
 * - Represents year and month - Example: 8604 (April, 1986)
 No other statistical information will be released by the State Board of Registration.

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Saturday Breakfast	\$11.00	_____	_____

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Tailor Your Own Tour ⁵			
Friday - Continental Breakfast			
Tour and Luncheon ⁶	\$20.00	_____	_____
Saturday - Continental Breakfast			
"Good Mourning" ⁷			

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ACEC Committees: Working For You

The lifeblood of every membership organization is its committee members. They are the often unrecognized volunteer laborers who develop association policy and, contributing hours and hours of billable time, often do much of the work involved with implementing those policies as well. If you have ever served on a national or CEC/Louisiana committee, you know what we mean.

Here are just a few examples of recent accomplishments by a handful of ACEC's thirty-five committees that deal with everything from the all-important organizational issues of budget or planning, to public policy issues that affect inter-professional relations, environmental concerns, or transportation.

For example, ACEC's Energy Committee has been particularly active, with most attention focused on the U.S. Department of Energy's National Energy Strategy and pending legislation in Congress. The committee is the driving force behind ACEC's support of Senator Johnston's (D-LA) energy bill, and despite a recent setback for this legislation in Congress, 1992 will see a renewed effort to forge a consensus policy.

The Interpro Committee, charged with developing programs to improve professional practice both among ACEC member firms and with other design professionals, has developed and published a new brochure titled "All Engineers Don't Drive Trains." The brochure gives a brief overview, with plenty of light-hearted cartoon illustrations, of what consulting engineers do and appropriate steps for choosing a firm. The committee expects the brochure to be popular for use with general public and students as well as clients.

At its October meeting, ACEC's Professional Risk Management Committee reviewed indemnification offers by manufacturers for engineering firms that recommend their products. The committee is also planning a seminar on risk management techniques to avoid litigation in the construction process; and communicating with member firms regarding the importance of reading and understanding their professional liability insurance policies.

The International Engineering Committee (IEC) is pursuing two programs this year designed to increase the presence of ACEC's small firms in the international market. Working with the Small Firm Coalition, IEC is promoting the use of small firms by IEC members when the larger firms need to supplement in-house capabilities on both domestic and international projects. The committee and coalition are also working together with ACEC's Research and Management Foundation to develop a program that will actively promote the use of American consulting services in the developing countries of the world, and are seeking funding from the U.S. Trade and Development Program for a series of briefings on U.S. firm capabilities.

These committee projects represent just the tip of the iceberg. Members of these and other ACEC committees, as well as those of CEC/Louisiana, are the unsung heroes who keep the association moving forward for the benefit of all consulting engineers. Next time you meet one, say "Thanks!"

A Case of Good Business Practice

The Coalition of American Structural Engineers (CASE) is the ACEC coalition dedicated to improving the quality of technical services and business practices of America's consulting structural engineering firms. Founded in 1987, CASE now represents 220 firms in 45 states and has established local chapters in six Member Organizations. While the vast majority of CASE members are already members of their MO and ACEC, a few are participating by virtue of a grace period, which is designed to encourage their eventual affiliation.

By focusing on the unique needs of one segment of ACEC's membership, CASE has developed a number of valuable services. For example, its Technical Peer Review program has already resulted in the review of 78 firms, with another seven recently scheduled. CASE's national practice guidelines for the structural engineer of record have received widespread acceptance and served as a model for similar guidelines being developed by other organizations and committees. CASE's

Education Committee is developing a guideline for production of "checklists" within individual firms.

The CASE Contracts Committee is currently drafting three new documents: an engineer/architect agreement, a project peer review agreement, and a special inspections agreement. In addition, the CASE committee on separate contracts is working to promote direct, separate contracting between owners and each design professional.

State and local CASE organizations are providing a forum for member firms to discuss issues related to their business and technical practices. These groups are establishing relationships with corresponding AIA chapters and working to implement use of contracts and to reduce liability exposure.

While CASE exists primarily to address the specific interests of structural engineers, and does so with the support of its members, it is clear that many byproducts of CASE activity benefit a much broader spectrum of consulting engineers.

Survey Reports on Design Firm Financial Performance

The **1991 PSMJ Financial Statistics Survey** compiles and analyzes financial information on Canadian design firms.

"With the support of the Association of Consulting Engineers of Canada and the Royal Architectural Institute of Canada, this important management tool now includes data specifically for Canadian firms", says Frank Stasiowski, publisher of survey sponsor **Professional Services Management Journal (PSMJ)**.

"Canadian design firms will be able to compare their firm performance to other Canadian firms, as well as to U.S.", adds Bill Fanning, director of research for **PSMJ**.

The survey shows Canadian A/E's had a median operating profit (income before bonus/incentive payments and taxes) of 9.4%, based on net revenues.

Net revenues per technical staff were a median of \$70,403 and net revenues per total staff were \$59,375.

Overhead rates were a median of 104.7%.



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



"Canadian firm financial performance last year was well above the levels in the United States, although the survey results show Canada also has some recession problems, particularly in the Atlantic Provinces", comments Stasiowski.

"Canadian firms are not that different from their U.S. counterparts", contends Fanning. "The biggest differences affect payroll burden where the Canadian health care system changes costs for payroll taxes and medical insurance costs."

Canadian firms reported it takes a median of 64 days to collect accounts receivable and they have a median of 24 days billings in work in process.

The survey also includes information on computer automation. Ninety-five percent of the participants reported they use word processing, 89% use computers for accounting/financial management, 75% have technical (design calculation) applications, 41% use computers for marketing and 86% reported they have computer aided design and drafting (CADD).

Firms reported spending an average of \$3,935 per staff to acquire computer hardware and software and an average of \$1,550 per staff per year in computer expense.

The **PSMJ Financial Statistics Survey** was begun in 1980, and it has become "the Bible" for design firm performance in the

United States. Supported by the major professional societies, both design firms and clients rely on its information for cost and trend information on the design profession. The survey contains the most extensive analysis of design firms costs and the largest accumulation of data.

The survey contains 220 pages of information, including revenues, costs, balance sheet data, staff ratios, information on computerization, and spending per staff type. Information is presented by size, type of firm, region and client type.

The complete survey is available from PSMJ, 10 Midland Avenue, Newton, MA 02158, (617) 965-0055. The cost for the full report is \$195 (U.S. funds).

LES Board of Direction Meeting Highlights

The September 1991 meeting was held in Alexandria, LA, with fifteen board members, two guests, and the LES staff in attendance.

1. The July and August financial statements were accepted subject to the annual audit.
2. Due to a change in the fiscal year of LES, effective July 1, 1992, the Board adopted a nine month budget.
3. A membership report ending August 31 was distributed. The Alexandria Chapter leads in the Membership Recruitment Contest with 80% of quota achieved.
4. Dr. Price reiterated the recommendations adopted by the Board of Direction from the task force on Continuing Professional Development: (1) not to push for required continuing professional development for renewal of licenses, and (2) continue its work. Dr. Price and his committee hopes to

have a "model plan" ready for presentation to the Board by next year.

5. The LES Secretary-Treasurer has been directed by the Board to communicate with all state committee chairpersons to determine if a committee meeting needs to be scheduled at the state meetings, and if so, a list of issues at hand must be published in the Louisiana Engineer or their respective chapter newsletter prior to the meeting.
6. A MATHCOUNTS financial statement was distributed to the Board. The Steering Committee and task force has met and discussed the financial condition of the MATHCOUNTS program. The program will suffer a scarcity of funds for the 1992 competition. The Steering Committee proposes that a hard-hitting brochure be prepared and a solicitation program initiated. Initiatives will continue in this area.
7. The Board adopted recommenda-

tions by the General Membership to maintain its present "1898" emblem and adding the new NSPE insignia for use on all publications and products. Sample letterhead will be prepared for the October meeting for Board approval.

8. President Hoover assured the Board that he and the Shreveport Chapter will draft a letter for approval by the Board encouraging McDonnell-Douglas to locate in the Shreveport area by the next Board of Direction meeting.
9. The Executive Director attended an informational meeting at the State Land Office to determine the purpose of the Land Information Advisory Board. A legislative act of 1991 provided for the Advisory Board. The Advisory Board will attempt to draft legislation on financing the geographic information system, grant applications, etc.,

Continued on page 19

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Letters to the Editor

The "LES FORUM" invites comments on matters of interest to the profession. Comments should be brief, courteous and timely, and will be edited by the Publications Committee for balance and pertinent content.

Dear Editor:

The Niche Market in Engineering Education

Anybody familiar with the trends in higher education for the past 25 years would not have been surprised by the article that appeared in *U.S. News and World Report* (10/15/90, pp. 104-109) that was directed toward prospective students, and their parents, intending to enter college that fall. It encourages them to be wary customers by discussing the ever increasing emphasis the higher education community has placed on research to the detriment of teaching. It notes that universities now hire and require the most talented of their faculty to create rather than to impart knowledge.

It is a losing proposition for smaller universities with more limited resources to chase after research funding and activities in competition with the larger, better endowed and more politically connected universities. Astute business people continuously probe their markets to seek whatever advantage there is for success and survival. Those who do not will more likely fail. It is no exception for the astute college administrations that have benefited and can continue to benefit from this trend. This can be particularly true for curricula devoted to experience based professions such as engineering. The success of the existing student from these curricula is to a great degree contingent on their orientation and development by a faculty with experience in the profession. This has historically been the earmark of the best undergraduate programs.

Successful research universities typically hire PhD types with a very narrow technical knowledge of the engineering profession that is entirely education based. They have typically gone to school straight through from kindergarten to PhD with

little or no practical experience outside of academia. They are then expected to successfully cultivate and accomplish extensive research and publish to keep their jobs. This requires that they devote little or no effort to teaching (particularly undergraduate courses).

Simply put - Why compete for research in an essentially saturated market that the larger universities dominate? Why not compete for the niche (the undergraduate student customers) neglected by the larger research oriented universities? Develop and advertise a top notch undergraduate, teaching faculty. Hire instructors with years of valuable and continuing practical experience that know what it is and what it takes to be a successful engineer. Develop a faculty devoted to serving the undergraduate student rather than the university and itself - one interested in the success of its students as professional engineers. Such a faculty will become a magnet for prospective undergraduate students assuring increased enrollments by those who wisely choose to not seek

Continued on page 20

Michael L. Hebert

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LOUISIANA ENGINEER/DECEMBER 1991

1991 NSPE Annual Meeting Highlights

The 1991 NSPE Annual Meeting was held in Grand Rapids, Michigan, July 20-27. Highlights of the week's events follow.

Actions of the Board

Engineering Unity

The NSPE Board voted to rejoin the American Association of Engineering Societies (AAES) under the condition that AAES accept revisions that would admit individual members into the umbrella organization and simplify its structure and governance.

Proponents of the move said NSPE could work with other AAES members on common goals such as precollege guidance, Engineers Week, and legislative and regulatory issues, among others. In joining AAES, said proponents, the Society could cut expenses on profession-wide programs that overlap the efforts of other engineering societies.

Conditions for rejoining AAES were agreed upon by President Don Hiatte and Immediate Past-President Neil Norman in meetings with presidents and presidents-elect of several engineering societies and of AAES. The conditions for NSPE's rejoining include:

- Individual engineers would become members of AAES, provided they belong to a society that is an AAES member;
- All qualifying engineering societies would be eligible and would be encouraged to join AAES;
- Governance would be carried out through the following structure:
 - A volunteer board consisting of the presidents and presidents-elect of AAES member societies; executive directors would be ex-officio without a vote;
 - An executive committee composed of a president; president-elect; immediate past president; secretary/treasurer; program vice presidents in needed areas such as guidance, international practice, and public affairs; and at least three at-large members from among the sitting board;
 - Vote by consensus; when consensus fails, by weighted vote of U.S. members;
- At least two board meetings would be held every year, one largely business and a second combined with a general convention presenting prominent speakers dealing with critical engineering issues;

- Work would be carried out through action committees/task forces that would be sunsetted periodically. Each society would determine whether it wishes to participate in an action committee and would appoint its representatives, as appropriate;
- A newsletter and a membership card are examples of individual member services that could be provided initially, with additional services to evolve over time.

2000 Task Force

The Board approved distribution to state societies of the NSPE 2000 Task Force's final report. The Task Force was created to examine the needs of the engineering profession in the 21st century and to recommend an appropriate role for NSPE in meeting those needs. The final report concluded that a broad-based individual membership society was needed in engineering to give the profession the prestige and influence it deserves. The Task Force suggested that such a broad-based organization could be achieved by NSPE expanding its membership base, by AAES being restructured, or by creating a new individual membership society.

Registration Issues

Among proposals from the Registration and Qualifications for Practice Committee, the NSPE Board of Directors approved:

- An invitation to the National Council of Examiners for Engineering and Surveying (NCEES) to participate in a joint NSPE/NCEES task force to explore the issue of illegal practice of engineering;
- An NSPE Building Inspection Policy stating that "those aspects of building inspections which require the application of engineering principles constitute the practice of engineering and should only be performed by registered professional engineers." The policy is not intended to prevent or affect, among other areas, the practice of architecture, the normal routine inspection of buildings by designated municipal building inspectors, or the identification and reporting of evidence of apparent system failure, defects, or improper performance through observation or normal operation of controls;
- New policy language stating that the public is best served by the registration of all qualified individuals

within the engineering profession and urging qualified engineers to become registered under the laws of their state;

- A revised policy regarding engineering education requirements. Earlier policy urged that taking and passing the Fundamentals of Engineering exam be *required* for graduation from an undergraduate or graduate level engineering program, a policy that had been controversial with educators. The new wording now reads, "It is the policy of NSPE to encourage the taking and passing of the NCEES Fundamentals of Engineering examination prior to graduation from any undergraduate or graduate engineering program";
- New language that states that applied engineering research constitutes the practice of engineering and, rather than demanding new laws, encourages qualified individuals to become registered professional engineers;
- Revised policy language that urges engineering educators to be PEs and to make that a condition for becoming a full professor in some areas, a department chairman, or a dean. Language stating that such a policy should be mandatory in engineering school administration and a part of the Accreditation Board for Engineering and Technology's *Criteria for Accrediting Programs in Engineering in the United States* was stricken;
- Written contacts with engineering state registration board chairmen to express the Society's concern over an apparent trend toward specialized PE examinations. This communication would restate NSPE's position that engineers should be registered only as "professional engineers" and that the Society opposes registration status by designated branches or specialties;
- Continued participation in the Council of Engineering Specialty Boards (CESB) to influence development of distinctions between the specialty certification programs for registered professional engineers and programs for others;
- A reaffirmation of NSPE's stand that voluntary specialty certification of engineers should come only after professional registration has been achieved. According to the revised

policy, "such certification, however, should not be construed to imply that other registered professional engineers are less qualified for practice in a particular area of specialty." It also approved new language that vows to oppose any legislation or regulation that will mandate requirements beyond professional engineer registration for the performance of engineering services.

The Board joined the American Society of Mechanical Engineers (ASME) in urging states not to use license renewal fees to raise general fund tax revenues.

The final recommendation requesting that NSPE ask NCEES to include a "self-regulatory" registration board law in the NCEES "Model Law" as a viable alternative to the conventional registration board law was referred back to the committee for further consideration.

Responsibility of Engineers During Construction

NSPE's Task Force on Defining Responsibilities of Engineers During Construction published the *Professional Policy: Responsibility of Engineers During Construction* statement, which received the NSPE Board's approval. The statement stresses that "professional engineering services during construction are necessary to assure that the constructed project is faithful to the intent of the design," and that "construction site safety is implicitly and importantly served by engineers during construction."

However, the document also notes: "It is an important point of distinction that no engineer should be held legally responsible for actions of those who are not under his or her direct supervision and control. It is not the engineer's duty to ferret out, investigate, or manage safety issues that are specifically the duty and responsibility of the contractor." The statement also outlines eleven (11) ways to support and advance construction site safety.

Wetlands Proposal

The Legislative & Government Affairs Committee offered a policy statement on wetlands protection to the Board of Directors that addressed the widespread belief that current definitions of wetlands may be too restrictive. While recognizing the importance of protecting much of the country's wetlands, the statement asserts that many of the government's protection efforts have "imposed cumbersome burdens on private and public parties seeking permits." The statement focuses on the "no net loss" concept, which calls for no net loss of the value of wetlands while balancing important economic factors. Another key feature of the policy statement is the call for a shift of authority to state and local governments to issue permits: "It is at the local level that wetlands protection can be ensured...."

Finally, the L&GA policy statement supports an inventory, classification, and indexing system that identifies the most valued wetlands even before any development is proposed. A resolution by the Mississippi Society that had addressed the wetlands issue was withdrawn from consideration by the Board in favor of the L&GA statement, which was approved.

Transportation

The Board approved a position on highway legislation urging that all federal gas tax revenues be used for transportation purposes. A five-cent gas tax increase included in last year's federal budget act uses two and one-half cents for deficit reduction. Such a diversion, says the position, "cripples state road programs," making it hard for states to raise their own motor-fuel taxes. House highway legislation may propose an additional five-cent increase.

NSPE has closely followed reauthorization of the federal five-year surface transportation program. In addition to a dedicated transportation gas tax, the NSPE position recommends that highway legislation should take "off budget" the highway trust fund, give states sole discretion for highway project design approval, and continue 90% federal funding for the interstate system. The statement also calls for improvements in capital planning, research and development, and more efficient use of transportation funds.

Dues Increase

The Board approved a national dues increase of seven dollars. The increase, the first one in four years, will help offset rising operating costs such as postage and travel.

Resolutions

The Public Advocacy Review Panel expressed its concern over potential legal exposure to NSPE due to the Society's inability to provide promised services. For this reason the panel recommended terminating the Public Advocacy Review Board in its present form. The report pointed to the Legal Review Committee as the appropriate body to consider cases involving engineering principles affecting public health, safety, and welfare. In matters of overriding engineering judgement, a Public Advocacy Review Task Force report stated that NSPE, under the appropriate circumstances, will undertake a public advocacy role in legal matters where individuals improperly override engineering judgment. The Virginia Society withdrew its resolution that sought to hold accountable managers and legislators who overlook or ignore sound engineering judgment in light of the task force report.

Action on the California Society resolution that would establish a nationwide 800 telephone number to increase communication with the members was deferred until proper equipment and staff resources are available.

The New York Society resolution concerning the use of calculators in MATHCOUNTS competitions and expanding participation was withdrawn on the basis of reported actions by MATHCOUNTS to increase the number of students reached by the program.

A Michigan Society resolution that would require NSPE to investigate ways to accelerate implementation of a guaranteed full career pension program for professional engineers and allow for portable pensions was referred to the Professional Employment Committee for further study.

The Board turned down a Delaware Society resolution to reinstate the NSPE student conference at the 1992 NSPE Winter Meeting. The Board also rejected a second Delaware resolution to discontinue the NSPE Winter Meeting.

PAC Luncheon

Members and guests at the NSPE-PAC luncheon got firsthand news on the latest legislative developments from Congressman Paul Henry (R-Mich.) who had been supported by the NSPE-PAC throughout his congressional career. Henry noted that earlier versions of pending job-site safety legislation—the Construction Safety, Health, and Education Improvement Act of 1990—created too much bureaucracy and liability. Henry wants the bill to change again to require more responsibility for safety from the individual employee.

In his luncheon speech, the congressman gave his opinion on the viability and direction of such issues as the Surface Transportation Act, the Clean Water Act, the National Institute of Standards and Technology, and engineering education in the U.S. Henry pointed to the current enrollment figures for the engineering school at the University of Michigan, which show that more foreign-born individuals are working toward a degree than U.S. citizens. He noted that "math and science education is hurting in this country" and that finding good teachers is increasingly difficult.

Joint PEPP - PEG Session

The Professional Engineers in Private Practice and the Professional Engineers in Government joined a lively debate on "The Government Owner and the Private Consultant: An Airing of Views."

During the 90-minute debate, a panel of PEPP and PEG members, moderated by Past President Walt LeFevre, heard sce-

Continued on page 20

DESIGNING FACILITIES

Continued from page 7

installation of an elevator is required, there may still be an **exception** under the last tier of the analysis. For **new construction**, an elevator is never required where it would be structurally impracticable. Structural impracticability was discussed above as encompassing those rare circumstances when the unique characteristics of terrain make accessibility unusually difficult. For **alterations**, an elevator will not be required where it is technically infeasible or where the cost and scope of installing an elevator is disproportionate to the cost of the overall alteration.

Keep in mind that the ADA does not require that a facility be altered for the purpose of providing elevator access. It is only when alterations or new construction are undertaken for other purposes that the installation of an elevator may be required.

ROLE OF STATE AND LOCAL CODES

The ADA itself establishes procedures for the certification of state or local building accessibility ordinances that meet or exceed the new construction and alteration requirements of the ADA. At any time after January 26, 1992, upon the application of a state or local government, the U. S. Assistant Attorney General may certify that a code meets or exceeds the minimum requirements of the Act for the accessibility and usability of covered facilities by issuing a certificate of equivalency. At any enforcement proceeding under Title III of the Act, this certification will constitute rebuttable evidence that the law or code meets or exceeds the ADA requirements.

ROLE OF MODEL CODES

Upon application by an authorized representative of a private entity responsible for developing a model code, the Assistant Attorney General may review the relevant code and issue guidance concerning whether and in what respects the model code is consistent with the minimum requirements of the Act for the accessibility and usability of places of public accommodation and commercial facilities. The review process will be informal and the guidance issued by the Assistant Attorney General will not be binding on any entity. This guidance is also not intended to create an evidentiary presumption at any enforcement proceedings under Title III. The redactors of the regulations had in mind here the codes devel-

oped by ANSI, BOCA, CABO, BCMC and SBCCI. As of this writing, SBCCI has not submitted anything to the Attorney General (as no application will be accepted until January 26, 1992). SBCCI plans to coordinate its efforts through CABO. The CABO board will be meeting in the near future to discuss how submission by the model code organizations will be coordinated.

PENALTIES FOR NONCOMPLIANCE

Violations of the new construction and alteration requirements of Title III of the ADA may result in civil actions brought by individuals who have been subjected to discrimination or who have reasonable grounds for believing that he/she is "about to be subjected to" discrimination, as well as civil actions commenced by the U. S. Attorney General. The ADA and its regulations do not provide for criminal penalties.

The ADA permits private suits by individuals who have reasonable grounds for believing that he or she is, or is "about to be," subjected to discrimination, in violation of the new construction and alterations accessibility requirements, to prevent the construction of facilities with architectural barriers. The ADA contemplates that this will avoid the necessity of costly retrofitting that might be required if suits were not permitted until after the facilities were completed. The relief available to individuals who bring civil actions under this part of the ADA is limited to injunctive relief. However, this injunctive relief shall include an order to alter facilities and may result in expenditures greater than the fines that may be assessed where the civil action is brought by the Attorney General.

If there is a silver lining in the ADA for design and contracting professionals, it is the absence of any express language creating a direct cause of action in favor of the individual with the disability for monetary damages against the design or contracting professional. However, as expressed hereafter, monetary damages may be awarded to the individual with a disability where the ADA claim is brought by the U. S. Attorney General.

Where the Attorney General commences a civil action against a private entity responsible for compliance with the ADA accessibility requirements for new construction and alterations, the court may grant injunctive relief, award monetary damages to the person aggrieved, as well as assess civil penalties. While "punitive damages" are not available under the ADA, the civil penalties may

be as high as \$50,000 for the first violation and \$100,000 for any subsequent violation. It is important to keep in mind that when considering civil penalties, the court "shall give consideration to any good faith effort or attempt to comply" with the Act. Therefore, knowledge of the Act and its requirements is imperative. An entity's attempts to comply with the ADA will help shield it from litigation and the costly retrofitting as a result of injunctions, as well as help show good faith and possibly shield it from fines if litigation does become a reality.

An important aspect of the fines that may be assessed for noncompliance is the allocation, if any, of these fines among the parties liable. For example, if the architect, engineer and contractor are all found liable for noncompliance, can they each be assessed the \$50,000 fine, is it to be divided equally among the three, or is it to be divided among the three based on relative fault? Unfortunately, this question is left unanswered by the ADA and its regulations.

OFFSHORE FACILITIES:

For Louisiana design and contracting professionals involved in the design and construction of facilities to be placed on the outer continental shelf, one of the most uncertain issues is whether the ADA applies (and, if so, to what extent) to offshore drilling or production facilities. Unfortunately, the ADA and its regulations are void of any direct reference to or discussion of these unique structures. Thus, a determination of the applicability of the ADA must necessarily depend on an analysis of the general definitions and terms.

The definition of Commercial Facilities can certainly be read to encompass most any offshore facility. Further, the definition of Place of Public Accommodation could likewise be read to include the housing quarters of offshore facilities. Thus, without an express exception for offshore facilities, these facilities would appear to be literally subject to the ADA.

On the other hand, the ADA's focus on building permit applications and certificates of occupancy as the triggering date for applicability of the ADA new construction requirements do not easily translate into well defined events in the process of designing and constructing offshore facilities.^{2/} For example, the submission and approval process with the MMS is difficult to characterize as an "application for a building permit" or a "certificate of occupancy." Neither "building permit" nor "certificate of occupancy" are defined terms under the ADA. Therefore, an argument can certainly be made that the ADA

2/ This discussion applies to offshore facilities located in federal waters and not those which are located in state waters, because those would presumably be subject to the permitting and certification requirements of the adjacent state and/or local governmental authority.

new construction requirements are never triggered for certain offshore facilities.

In some respects, offshore facilities might be analogized to mobil facilities (a category of facilities recognized under the ADA). As with most mobil facilities, the efficient use of space is a most important design and operating objective for an offshore facility. This analogy may, in the short term, prove important in that the technical guidelines for mobil facilities have not yet been defined. This lack of definition has led the regulatory authority to state that new construction and alterations requirements under the ADA are not applicable to mobil facilities until specific guidelines have been developed.

Although there is no express exception for offshore facilities, the previously discussed "structurally impracticable" exception for new construction and the "technically infeasible" exception for alterations are certainly fertile exceptions for offshore facilities. The comments accompanying the regulations discuss an arguably analogous example of one of the few situations in which the exception for structural impracticability would apply. That comment is as follows:

The limited structural impracticability exception means that it is acceptable to deviate from accessibility requirements only where unique characteristics of terrain prevent the incorporation of accessibility features and where providing accessibility would destroy the physical integrity of a facility. A situation in which a building must be built on stilts because of its location in marshlands or over water is an example of one of the few situations in which the exception for structural impracticability would apply.

However, noting that the accessibility requirements should not be viewed as an all-or-nothing proposition, the comments further provide that:

If it is structurally impracticable for a facility in its entirety to be readily accessible to and usable by people with disabilities, then those portions that can be made accessible should be made accessible. If a building cannot be constructed in compliance with the full range of accessibility requirements because of structural impracticability, then it should still incorporate those features that are structurally practicable. If it is structurally impracticable to make a particular facility accessible to persons who have particular types of disabilities, it is still appropriate to require it to be made accessible to persons with other types of disabilities. For example, a facility that is of necessity built on stilts and cannot be made accessible to persons who use wheelchairs because it is structurally

impracticable to do so, must be made accessible for individuals with vision or hearing impairments or other kinds of disabilities.

It also seems obvious that for some disabilities, the hazards inherent in offshore operations make the presence on an offshore platform of those individuals with disabilities an extremely dangerous situation. An example is an individual in a wheelchair that would be unable to reach a swing line or might be unable to swim in the event of an emergency requiring evacuation. This raises the question of the need for compliance with the ADA accessibility regulations where the facility will never be occupied by individuals with certain disabilities. While it seems that the answer to this question could be that where there is no need for compliance, there should be no requirement for compliance, there is a caveat. The ADA has not exempted any facility from coverage simply because of the possibility that individuals with some disabilities will never occupy that facility. In fact, the purpose of the ADA is to eventually provide convenient access for individuals with disabilities to all covered facilities.

It is possible, however, that a situation as uncommon as this was not considered simply because it is so uncommon. However, even if one were to assume that an exception could be made for disabilities that would never be encountered on an offshore platform because of inherent safety problems, the ADA does require compliance to the extent possible, even where exemptions do exist, and for that reason, compliance to a certain degree may still be required. An example of this may be where an offshore platform would not have to comply with the ADA's technical requirements for individuals in wheelchairs (e.g., wide door frames) but would have to comply with the requirements for other disabilities such as hearing impairments (e.g., audio emergency warning systems). A similar situation mentioned in the ADAAG is that accessibility is not required to observation galleries used primarily for security purposes (eg. elevator) but accessibility requirements applicable to the gallery itself (eg. audio emergency warning systems) would be required. It is, therefore, fair to conclude that if offshore platforms are facilities initially covered by the Act, they would not be fully exempt based on a theory that no individuals with disabilities will occupy offshore facilities. This is because the definition of disability covers such a broad spectrum of conditions that it would be impossible to say that there are hazards inherent in offshore operations for all disabilities. However, for some disabilities this statement may be true and it is for those disabilities that an exemption should be made.

TITLE II: PUBLIC ENTITIES

Title II of the ADA mandates accessibility requirements for **public** entities — state and local governments and their instrumentalities — which are somewhat similar to those set out in Title III for private entities. As in Title III, the term "facility" is broadly defined.

The general rule for new construction under Title II is that facilities constructed by, on behalf of, or for use by public entities must be readily accessible to and usable by persons with disabilities where construction begins after January 26, 1992. This rule for new construction of public facilities is not dependent upon the dates of applications for building permits or certificates of occupancy; and, the red letter day is January 26, 1992 and not 1993. To this extent Title II is very different from Title III. However, the general rule for alterations is the same under both Title II and Title III. The rule under Title II states that alterations to facilities which are begun after January 26, 1992, and which affect or could affect the usability of the facility or a part of the facility must, to the maximum extent feasible, be altered in such a way as to make the altered portion accessible to persons with disabilities.

Title II mandates that public entities comply with either the Uniform Federal Accessibility Standards ("UFAS") or the Americans with Disabilities Act Accessibility Guidelines ("ADAAG") in order to obtain the required level of access. However, one exception is that the elevator exemptions allowed under Title III and specifically addressed in the ADAAG are not applicable to public entities under Title II.

CONCLUSION

Title III of the ADA will have a huge impact on engineers, architects, contractors, and other like professionals. The scope of the Act and its regulations is intended to be broad and far reaching, not only in terms of the facilities covered, but also in terms of the actual technical requirements necessary for making the facility accessible and the entities and persons liable for noncompliance. All entities responsible for compliance should make plans now to become intimately familiar with these ADA requirements.

ADA ACCESSIBILITY SEMINAR

The authors of the article "Designing Facilities for Disabilities: A New Federal Mandate" will present a seminar on this topic in March at the LES Awards meeting in New Orleans. The issues to be discussed include the technical measures required to satisfy the accessibility mandate of the ADA, both for Title II and Title III, as well as the issues of allocation of responsibility for compliance and contract negotiations.

Calendar of Events

We invite all technical and professional organizations to submit their meeting dates for publication in the *Louisiana Engineer* to: Editor, P. O. Box 2683, Baton Rouge, LA 70821.

December 18, 1991

CEC/L Board of Governors Meeting
Location TBA

January 9, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

January 15, 1992

CEC/L Board of Governors Meeting
Location TBA

January 19-24, 1992

NSPE Winter Meeting
Omni Hotel
Charleston, SC

January 20-21, 1992

State Board of Registration Meeting
New Orleans, LA

January 31, 1992

LES Board of Direction Meeting
Lake Charles, LA

February 6, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

February 17-21, 1992

Engineers Week

February 19, 1992

CEC/L Board of Governors Meeting
Location TBA

March 5, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

March 11-14, 1992

LES Awards Meeting
Holiday Inn Crowne Plaza
New Orleans, LA

March 14, 1992

LES Board of Direction Meeting
New Orleans, LA

March 18, 1992

CEC/L Board of Governors Meeting
Location TBA

March 23-24, 1992

State Board of Registration Meeting
New Orleans, LA

March 28, 1992

MATHCOUNTS State Competition
Alexandria, LA

April 2, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

April 2-4, 1992

NCEES Southern Zone Meeting
Hot Springs, AR

April 11, 1992

NCEES Exams

April 29-30 and May 1-2, 1992

Louisiana Society of Professional
Surveyors, Annual Convention
Holiday Inn
Houma, LA

LES MEETING HIGHLIGHTS

Continued from page 13

- for the 1992 session. The Advisory Board will consist of nine members, with one being a member from the PEPP division of LES, appointed by the LES President. President Hoover will appoint someone from LES to serve on the Advisory Board.
10. Concern was expressed over recent newspaper articles referring to the Louisiana Energy Services, Homer, LA, as "LES". President Hoover is to write a letter to Louisiana Energy Services expressing our concerns and to review the rights of the LES logo.
 11. Chapter 15, Examinations, of Title 46, Professional and Occupational Standards, State Board of Registration was addressed by the Board. The recent rule change by the Board exempts PhDs from taking the EIT exam and this concerns the Board. President Hoover was directed to correspond with the State Board of Registration clarifying

that LES is opposed in principle and that it is a method by which we think will continue to dilute the registration process in Louisiana. A letter will be drafted for the Board's perusal.

12. It was announced that T. Dudley Hixson, P.E., with Meyer, Meyer, LaCroix & Hixson, Alexandria, LA, has been nominated as the 1992-93 NSPE President-Elect.
13. Sam L. Sullivan, PhD., P.E., was appointed by Governor Roemer to a six-year term on the State Board of Registration.
14. The Executive Director has been nominated as President-Elect of the State Societies Executive Council. The Council is composed of NSPE State Executive Directors.

"LES FORUM"

Remember, the "LES Forum", a feature section of the *Louisiana Engineer*, is available for your comments on matters of interest to the profession. Comments should be brief, courteous, and timely, and will be edited by the Publications Committee for balance and pertinent content.

The *Louisiana Engineer* is published six times annually in February, April, June, August, October and December. Comments to the "FORUM" should be mailed to the *Louisiana Engineer*, P. O. Box 2683, Baton Rouge LA 70821, no later than the 10th of the month preceding the month of publication.

a lower quality undergraduate education in a large, research oriented university.

There will be sacrifices for the smaller university to pursue this niche market: (1) Loss of the supplemental income from research funds; (2) Loss of prestige in the academic community devoted to research; (3) Loss of graduate enrollment and a possible loss of the traditional graduate programs. There will also be gains: (1) The reputation for excellence in graduates - students who are more successful in engineering (business and graduate schools) - and students who are more competitive in the job market than those who endure and survive the neglect in an undergraduate program in a research oriented university; (2) The big winner will be the public that will be better served by an engineering profession better prepared by a better university.

Over the last 25 years, small liberal arts colleges have been able to step into this niche left by the increasing research orientation of universities. Colleges of engineering have not had this latitude. They are typically part of - and caught up in the policies of - the research oriented universities where the smaller universities feel obligated to compete - even if poorly. This has resulted in a significant vacuum in the undergraduate engineering education market that awaits the astute university administration that can identify this niche and have the insight and courage to pursue it.

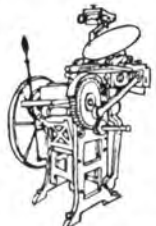
James C. Porter, P.E.

narios and discussed several topics including qualifications-based selection vs. competitive bidding, consultant contracts vs. government contracts, continuing contracts vs. project by project, and subcontractor compliance.

New NSPE Graphic Image

NSPE's new insignia was inaugurated at the Annual Meeting. The unifying logo will replace all other NSPE logos and may be adopted by state and local chapters. To date 22 state societies have adopted the new logo design. The Society hopes to enhance the effectiveness of its many component organizations through a single graphic image. In addition, the unified image will bring recognition through consistency for all NSPE's diverse activities and products and project the image of a well-organized, dynamic association.

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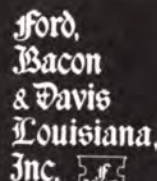
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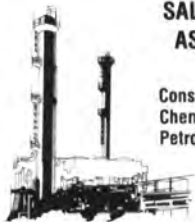


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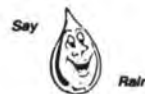
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