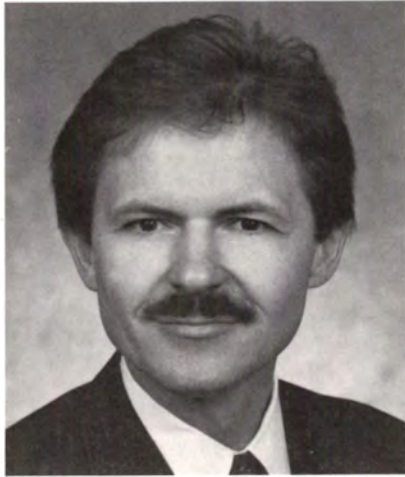




FEBRUARY, 1992
LOUISIANA

ENGINEER



Michael N. McGaugh, P.E.
Public Relations



Bobby E. Price, Ph.D., P.E.
Civic Activities



Arthur F. d'Aquin, Jr., P.E.
Engineer in Management



John E. Ritter, P.E.
Services to the Profession



Lindal Keith Hillman, P.E.
Young Engineer



D. Thomas Iseley, Ph.D., P.E.
Technological Accomplishment

LES Honors Six Engineers

On the Inside:

Be sure to see page 10 for special registration forms, general program, and meeting agendas.
LES Awards Meeting, March 11-14, 1992

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS



Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650

FEBRUARY, 1992



ABOUT THE COVER

LES Honors Six Outstanding Engineers.



IN THIS ISSUE

Presidential Privilege	4
Board of Direction Meeting Highlights	5
LES Honors Outstanding Engineers.	6
LES Awards Meeting Registration	10
LES Awards Meeting General Program	11
The Spec Sheet	12
Notre Metier	14
Calendar of Events	20

(Please note: Receipt of Louisiana Engineer Magazine does not necessarily mean that you are registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, or that you are a member of the Louisiana Engineering Society.)



STATE OF LOUISIANA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256

Office Hours
Monday thru Friday
8:00 am until 4:00 pm

Chairman
Malcolm L. Hurstall, P.E.

Vice Chairman
Albert J. Dunn, P.E./P.L.S.

Secretary
Randall F. Barron, P.E.

Other Members
Ara Arman, P.E./P.L.S.
Coan J. Bueche, P.E./P.L.S.
Robert D. Fenner, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Larry A. McKee, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenote, Jr., P.E.

Executive Secretary
Paul L. Landry, P.E.

PUBLICATIONS COMMITTEE

Chairman
H. L. Henry, Jr., P.E.
Managing Editor
Leta G. Bueto
Publishing Consultant
Printing Incorporated



LOUISIANA ENGINEERING SOCIETY

P.O. BOX 2683, BATON ROUGE, LA 70821 TELEPHONE (504) 344-4318
STREET ADDRESS: 1213 NICHOLSON DR., BATON ROUGE, LA

LES OFFICERS AND BOARD

President
Lloyd G. Hoover, P.E.
First Vice President
Glynn P. Gautreau, P.E.
Second Vice President
Dale T. Hunn, P.E.
Secretary-Treasurer
Edgar P. Benoit, P.E.
NSPE DIRECTORS
James L. Meyer, P.E.
Lloyd G. Hoover, P.E.
STATE DIRECTORS
Steven W. Brown, P.E.
Richard J. Primeaux, P.E.
Robert A. Brossette, P.E.
Richard P. Wright, P.E.
PAST PRESIDENT
Kerry J. LaBauve, P.E.
CHAPTER PRESIDENTS
Alexandria
Carol E. Fisher, P.E.
Baton Rouge
Lamy J. Chopin, P.E.
Bayou
John J. Plaisance, P.E.
Lafayette
Walter S. Comeaux, P.E.

Lake Charles
William H. Miller, P.E.
Monroe
Leslie K. Guice, P.E.
New Orleans
J. Madison Drake, P.E.
North Lake
Stanley P. Polivick, P.E.
Shreveport
Albert B. Tucker, P.E.

PRACTICE DIVISIONS
Construction
Roger D. Melancon, P.E.
Education
Bobby E. Price, P.E.
Government
Coan J. Bueche, P.E.
Industry
Edgar P. Benoit, P.E.
Private Practice
John S. Bruce, P.E.

COMMITTEE
CHAIRPERSONS
Constitution and Bylaws
Dale T. Hunn, P.E.
Engineering Education
Howard S. Minn, P.E.

Young Engineers
James A. Hagan, P.E.
Ethics and Professional Conduct
Ernest L. Kistler, P.E.
Honors and Awards
Blaise M. Carriere, P.E.
Inter-Society Relations
Steven W. Brown, P.E.
Legislative
John K. Laws, P.E.
Membership
John W. Moore, P.E.
Public Relations
Bruce Willson
Scholarship
Keith M. Warden, E.I.T.
MATHCOUNTS
Carol E. Fisher, P.E.
Long-Range Planning
Dale T. Hunn, P.E.
Publications
H. L. Henry, Jr., P.E.
Liaison Committee/State Board of Registration
James L. Meyer, P.E.
Louisiana Engineering Foundation
Robert P. Blanche, P.E.
EXECUTIVE DIRECTOR
Leta G. Bueto

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society. The LOUISIANA ENGINEER is the journal of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The magazine is published in February, April, June, August, October and December. Subscription \$2.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. Two dollars of each LES member's annual dues is set aside for six issues of the LOUISIANA ENGINEER. Second class postage paid at Baton Rouge, La. The Louisiana Engineering Society and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors do not guarantee the accuracy of statements made or necessarily concur with opinions expressed in this publication. ISSN: 0024-6794

Address LES Communications and Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318, FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Presidential Privilege

Change

The word **"change"** evokes fear in many people. Regardless of the reason, the idea of **"change"** is unsettling to a majority of the population. Now imagine how **"change"** must strike fear into the heart of the conservative professional engineer. Well, call your cardiac specialist because the engineers in the State of Louisiana may be looking at some **"changes"**.

The three major issues at hand are: (1) Continuing Professional Development (CPD), (2) increases in the number of engineering disciplines for registration, and (3) exemption for engineers in government and industry. I'll talk a little about all these issues, throw in some personal experiences, and try to avoid sounding biased for **"change"** just for the sake of **"change"**; because all changes should be studied and decisions based on clear thought and what's best for the "Protection of the Public".

Continuing Professional Development

The lead in CPD will be continuing professional technical education. With the world technology changing at such a rapid rate, it is imperative the engineer continue to acquire professional technical education. The most volatile part of this issue is whether it should be voluntary or mandatory.

Initially, the model for continuing education will probably be voluntary, but like most other professions, a law will be passed to make it mandatory. By beginning on a voluntary basis, your engineering society can develop a "working model". Thus, it will not be so hard to implement this voluntary model into the mandatory law that is sure to be passed in the future. Like good professional engineers, we will be prepared.

Another aspect of CPD is professional participation. Building more pride in the engineering profession can only be established when we're proud of the engineering profession as a whole. When plan stampers and ambulance chasers realize they're not only hurting themselves, but damaging the image of the engineering profession, these practices will be reduced. Only through participation in the engineering societies where ideas can be exchanged, can "professionalism" be acquired and appreciated.

Another step in the CPD process could be improvement in management skills, operational skills, and communication



Lloyd G. Hoover, P.E.
President
Louisiana Engineering Society

skills. The professional engineer needs to communicate not only with clients but with workers and contractors in order to produce the most economical and safest project feasible. Seminars in these skills could be a part of the "model".

The professional engineer should know the law; what the law expects of the engineer, the engineer's role, and how others anticipate the engineer's role. Some or all of the above could be a part of the CPD model; part of the **"change"**.

Engineering Disciplines

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors, presently registers engineers in the following disciplines: Chemical, Civil, Electrical, Mechanical, Agricultural, Industrial, Metallurgical, Mining, Petroleum, and just recently, Nuclear. Additionally, Louisiana engineers may take the NCEES examinations in aeronautical/aerospace engineering, fire protection, and/or manufacturing engineering for record purposes. The Board will also be studying environmental engineering as an additional discipline.

Again, as engineering needs continue to grow in different technological areas, there should be professional engineers in those areas for "The Protection of the Public". That is why the Registration Law exists. Thus, whether the State Board sees

fit to create subdivisions of disciplines, for example: under the Civil Engineering category, recognize the geotechnical engineer, materials engineer, structural engineer, environmental engineer, etc. . . , or have new separate disciplines, the requirement for a professional engineer in new fields of discipline is a **must**. Producers and suppliers of new technology must be competent. The professional engineer will "lead the way". So, I'll venture to say that new disciplines or subdivisions of disciplines will be recognized by the State Board of Registration for Professional Engineers and Land Surveyors. I believe the professional engineer will accept and encourage this **"change"**.

Exemptions

To some, exemption from registration is an inalienable right; to others, it's a cop out. This article is not to discuss the merit or lack of merit of exemptions.

The fact is, eventually, exemptions for industry and government, will not be allowed. There is nothing engineered that will not involve some segment of the "public". If "Protection of the Public" is the reason for the registration law, then exemptions are antiquated. All engineers will have to prove their competence. Required registration is the vehicle that causes the engineer to hone his tools to become a true professional engineer. His skills, when kept at their peaks, can only serve to better "Protect the Public".

When CPD becomes law for the registered professional, then those who hide behind the exemption, will have to cover. Yes, **"change"** will come to the existing exemption laws. It may only take an intelligent lawyer to investigate a lawsuit and find the engineer was exempt from proving he was competent; it may be industry itself wanting to improve its image; or it may be the pride of the graduate engineer working under the exemption status who sees his technician co-worker being classified as an "engineer". Whatever, whoever, whenever, the **"change"** is coming. However, I feel this **"change"** should be initiated by government and industry, and not by the non-exempt professional engineer.

"Change". When should it be made? **"Change"** in the engineering profession should be made when it clearly improves the intent of the registration law; that is when the **"change"** provides better "Protection of the Public".

LES Board of Direction Meeting Highlights

The October 1991 meeting was held in Shreveport, LA, with ten board members, and the LES staff in attendance.

1. The September year ending financial statement was accepted subject to the annual audit. Treasurer Benoit reported that the Society had ended its fiscal year with some reserves. A "margins" column will be added at the bottom of the first page on future financial statements.
2. The year ending Membership Report was submitted to the Board. The Alexandria Chapter is winner of the Membership Net Growth Contest and will receive their award in accordance with adopted guidelines. Quotas for the 1991-92 Membership Recruitment Contest have been established according to approved guidelines and will be submitted to each Chapter President and Membership Chairman.
3. Dr. Price, Chairman of the Task Force on Continuing Professional Development, reported that his Committee will meet on December 12, 1991. It is the intent of the Committee to present a plan to the Board in early 1992.
4. The MATHCOUNTS brochure as proposed at the September Board of Direction meeting will not be published this year but will be pursued for next year's fund raising program. Chapter Presidents were requested to submit a list of potential supporters in their area. Funds are sufficient for the 1992 state competition if disbursements are kept at a minimum.
5. A letter and resolution was approved by the Board for submittal to McDonnell-Douglas inviting them to locate in Louisiana.
6. The Board of Direction approved a letter for submittal to the State Board of Registration for Professional Engineers and Land Surveyors expressing concerns on a recent rule change to Title 46, Professional and Occupational Standards, Chapter 15, Examinations.
7. The Louisiana Engineering Society has registered the "LES" acronym as an official trade name of the Society with the Louisiana Secretary of State's office.
8. The Board perused proposed letterhead changes. Samples will be submitted at the December Board meeting.

9. The issue of a Control Systems Engineer Classification has come before the Board. Discussion ensued as to whether LES should review present Louisiana registration classifications and eventually make some recommendations to the State Board of Registration. President Hoover will appoint a committee to look into this issue.
10. DEQ's Underground Storage Tank Division criteria calls for a licensed contractor to be eligible for cost reimbursement pursuant to Louisiana's Motor Fuel Underground Tank Trust yet it outlines guides for "design" work. The guidelines need to be rewritten allowing for engineers to register with DEQ to do design work only and therefore be eligible for reimbursement without applying for a contractor's license. Bueto informed the Board that information on this subject has been received in the State Office and suggested that a meeting be arranged with DEQ. The Legislative Committee Chairman will be contacted concerning this issue.

The December 1991 meeting was held in Baton Rouge, LA, with nineteen board members, three guests, and the LES staff in attendance.

1. The October and November financial reports were accepted subject to the annual audit.
2. The Honors and Awards Committee met prior to the Board meeting. The Committee presented some language changes to the guidelines which were adopted by the Board. The Board accepted unanimously nominees recommended by the Committee. They are: Dr. Bobby E. Price, Andrew M. Lockett Medal for Civic Activities; Arthur F. d'Aquin, Jr., P.E., A.B. Paterson Medal for an Engineer in Management; Michael N. McGaugh, P.E., Charles M. Kerr Public Relations Award; Dr. Thomas Iseley, P.E., James M. Todd Technological Accomplishment Medal; L. Keith Hillman, P.E., F. Hugh Coughlin Award of Merit for a Young Engineer; and, John E. Ritter, P.E., Leo M. Odom Award for Service to the Profession. The recipients will be recognized at the Awards Banquet on March 13, 1992, in New Orleans.
3. Chapter Membership Recruitment allocations were approved by the Board.

4. LaBauve, Chairman of the MATHCOUNTS Steering Committee, submitted two letters for the Board's perusal; one for past contributors to the program and one to potential supporters of the MATHCOUNTS program. The LES staff will send out letters to past contributors and LaBauve is soliciting names of industries/businesses in each chapter area who might be interested in providing financial aid for this program.
5. The Legislative Committee met prior to the Board and reported that the Committee will remain in a defensive posture this year with no intentions at this time of filing any legislation. The Committee will be closely observing two items from last year: (1) to preserve the DOTD Selection Procedure; and (2) legislation filed last year by a "good government" group who attempted to secure across-the-board bidding on all government work. Laws will arrange a meeting with CEC/L and hopefully as a result of this meeting, a meeting can be arranged with the group to discuss the issue of competitive bidding. The issue of DEQ requiring engineers to apply for a contractor's license to be eligible for reimbursement from Louisiana's Motor Fuel Underground Tank Trust was addressed. A meeting with DEQ officials is proposed, but this will be arranged after the new regime takes over on January 13, 1992.
6. Dr. Price, PEE Chairman, reported that Tulane University and the University of Southwestern Louisiana each have a new engineering dean. He has written a congratulations letter to each and invited them to join LES.
7. Mr. Benoit, PEI Chairman, advised that the State PEI Division has submitted CLECO as a nominee for the 1992 NSPE Industry Professional Development Award.
8. The Board approved new letterhead utilizing both the LES and NSPE logos.
9. A committee was appointed by President Hoover to review state registration classifications and possible sub-categories.
10. The Society endorsed the nomination of William J. Harper, P.E., for

Continued on page 19

LES Honors Outstanding Engineers

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.



Michael N. McGaugh, P.E.

Since 1985, Mr. McGaugh has been a principal with ABMB Engineers, Incorporated, Baton Rouge, with duties that include project management, structural design and supervision of office administration. As a Project Manager, Mike has been vigorous in the completion of major bridge design projects and bridge inspections for structural ratings for the Louisiana Department of Transportation and Development and drainage and structural projects for the Corps of Engineers.

Michael N. McGaugh, P.E., began his professional career with Howard, Needles, Tammen & Bergendoff of Baton Rouge as a Structural Engineer and Operations Manager. During this tenure, Mike was involved in bridge design projects including major interchanges, stream crossings, and railroad bridges. He served as project coordinator for bridge design review of eleven miles of urban and two hundred miles of rural Interstate 49.

In 1989, realizing fundamental math skills were being missed in the elementary grades, Mr. McGaugh created the "Math Initiative" Program. Recognizing the value of the program, to challenge all students

Continued on page 8

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.



Bobby E. Price, Ph.D., P.E.

Bobby E. Price, Ph.D., P.E., Professor of Civil Engineering at Louisiana Tech University, Ruston, Louisiana, is a native of Henderson, Texas. He is married to the former Patsy Ruth Patrick, also of Henderson, and they have two children, Barry and Kami, and one granddaughter, Megan Anne. Bobby received his Bachelor's Degree from The University of Texas at Arlington, his Master's Degree from Oklahoma State University, and his Doctorate Degree from The University of Texas at Austin. He is a registered Professional Engineer in Louisiana and Texas and a registered Professional Land Surveyor in Louisiana.

Dr. Price has a long history in civic activities. He has provided considerable public service through Louisiana Tech University which is beyond the call of duty, but which is of great benefit to our society. Bobby has been very active in Cedar Creek School of Ruston, a K-12 private school, having served as President of the Booster Club, Member of the Executive Council, President of the Board of Directors, and Member of the Special Gifts Fund Drive Committee. He is a member of the Lincoln Parish Communications Commission (E-911). He is a member of

Continued on page 8

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.



Arthur F. d'Aquin, Jr., P.E.

Arthur F. d'Aquin, Jr., P.E., has a long and distinguished career with Freeport-McMoRan, Inc. He is currently Vice President-Director for Freeport Research and Engineering Company, an affiliate of Freeport-McMoRan. Mr. d'Aquin has held this position since 1987. In addition to thirty-two direct employees, Mr. d'Aquin and his staff manage the efforts of outside consulting firms wherein during the last five years, at any one time, two hundred to five hundred engineers/designers have been at work on Freeport-McMoRan related projects.

Prior to joining Freeport Minerals Company in 1973, Mr. d'Aquin was employed by Boeing Aero Space Company from 1963 through 1973 and was a key member of the NASA Boeing Launch Team for all Saturn V flights to the moon. While at Boeing, Mr. d'Aquin was responsible for the major telecommunications systems aboard the first stage of the Saturn V launch vehicle. Mr. d'Aquin was also extensively involved in the Lunar Rover project, particularly its video electronics.

Mr. d'Aquin's initial assignment with Freeport-McMoRan was the electrical and instrumentation design and construction related to a 1600 tpd sulfuric acid plant

Continued on page 9

LOUISIANA ENGINEER/FEBRUARY 1992

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.



John E. Ritter, P.E.

John E. "Skip" Ritter, P.E., retired from his position as a Senior Coordination Associate from Exxon Company, USA, and Exxon Chemical Company, Baton Rouge, in July of 1985 with fifty years of service. A native of Beaumont, Texas, he received his Bachelor of Science Degree in Electrical Engineering in 1935 from Louisiana State University and completed several graduate courses in Chemical Engineering. "Skip" is a registered Professional Engineer in Louisiana.

Mr. Ritter is a member of the Louisiana Engineering Society, the National Society of Professional Engineers, a charter member of the Louisiana State University Chapter of Tau Beta Pi, Engineering Honor Society, a member of Phi Kappa Phi Honor Society, and a member of the Louisiana State University Athletic Hall of Distinction.

"Skip" has been an active member of the Louisiana Engineering Society since 1951, and has served in virtually every elected office of the Society at both the Chapter and State levels. He was Baton Rouge Chapter President for 1976-77 and State Society President and NSPE National Director for 1981-82. Mr. Ritter's service to the Society has continued since that

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 the 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.



Lindal Keith Hillman, P.E.

Lindal Keith Hillman, P.E., received his Bachelor and Master of Science Degrees in Civil Engineering from Louisiana State University in 1980 and 1982, respectively. He is a registered Professional Engineer in Louisiana.

Keith has been continuously active in his professional career development. Since the beginning of his pursuit toward professional engineering registration and professional engineering practice, he has dedicated himself to personal professional growth and the advancement of the engineering profession.

Being very active in campus activities as early as 1976, Keith was involved in establishing the Louisiana Engineering Society/Louisiana State University at Alexandria Student Chapter. In 1982, he became a member of the Louisiana Engineering Society and has been very active in numerous committees and has held all elected offices of the LES/Alexandria Chapter having served as President in 1988-89. Keith has served as Chairman and Co-Chairman of the Chapter's Membership Committee; Coordinator for the Chapter's MATH-COUNTS Program; Chairman of the Chapter's Engineer's Week activities; and

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.



D. Thomas Iseley, Ph.D., P.E.

D. Thomas Iseley, Ph.D., P.E., is a J. T. Folk Assistant Professor of Civil Engineering at Louisiana Tech University, Ruston, Louisiana. A native of Burlington, North Carolina, Tom received his Bachelor and Master of Science Degrees in Civil Engineering from the University of Alabama in Birmingham and his Doctorate Degree from Purdue University. He is a registered Professional Engineer in Louisiana, Alabama, Georgia, Indiana, Mississippi, and Florida.

Dr. Iseley has been involved in utility design and construction since childhood when he worked with his father as a sewer contractor. All of this experience provided Tom outstanding insight into the benefits of trenchless placement of underground utilities which he studied during his Ph.D. program at Purdue University. For his dissertation, Tom developed specifications and a classification system for trenchless methods of construction. He has continued to do extensive research in this field at Louisiana Tech University. The classification system which Tom developed and his ability to relate to contractors, engineers, manufacturers and municipal authorities has enabled him to be perhaps the most identifiable person in the United

Continued on page 9

LOUISIANA ENGINEER/FEBRUARY 1992

Continued on page 17

Continued on page 17

MICHAEL N. MCGAUGH, P.E.

Continued from page 6

in the fourth and fifth grades in the area of mathematics, the project was undertaken by the LES/Baton Rouge Chapter that same year.

The "Math Initiative" Program contains lesson plans created by engineers and approved by the local school board. These lesson plans are presented by volunteer engineers, members of LES, to various schools throughout East Baton Rouge Parish. The lesson plans are designed to present very basic principles in mathematics with an application to engineering. The philosophy of the program is to demonstrate to all students that math is not boring and difficult, but exciting and fun. Mike teaches many of the lessons himself and remains in charge of distributing props.

In 1990, the program began with two lesson plans given to six schools. The program grew to four lesson plans being presented in approximately twelve to fifteen schools. Now, volunteer members of LES will visit over forty schools or approximately one hundred-twenty classes in East Baton Rouge Parish and two schools in Ascension Parish. Elementary teachers are now beginning to link their lesson plans to the program as one teacher has written pre- and post-lessons which will be available to other teachers whose classes the engineers attend.

In April 1991, Mike and other LES members presented the program to an annual meeting of the National Council of Teachers of Mathematics. Inquiries followed from several states wishing to institute a similar program. *Scholastic Magazine*, a national publication distributed to students across the United States, has made inquiries in order to publish an article on the program in 1992. More recently, Mike presented the program at the Louisiana Education Expo.

The program has been highly publicized in the Baton Rouge area with local television stations broadcasting actual classroom demonstrations. With this publicity, the "Math Initiative" Program has surpassed the MATHCOUNTS Program as a public relations tool for the LES/Baton Rouge Chapter. Mike, the driving force behind its success, envisions this program throughout the state.

Mike is very active in the Professional Partners Panel of the Louisiana Systemic Initiative Program (LASIP). LASIP is a program for the improvement of math and science around the state. LASIP has a five-year grant of \$10 million with an additional \$10 million from the Board of Elementary and Secondary Education and Louisiana State University's Board of Regents. LASIP hopes to model the "Math

Initiative" Program statewide. The Professional Partners Panel efforts are directed toward involvement by business and industry in math and science education.

Mike also serves on a panel for the Exxon K-3 Program. This panel, a select chosen group, oversees the \$753,000 four-year grant provided by Exxon to improve math education in Louisiana public schools.

He is a Member of the Louisiana Engineering Society, the American Society of Civil Engineers, the Society of American Military Engineers, and the Chi Epsilon Honorary Civil Engineering Society. Mike is active in his community having served as President of the University Acres Civic Association in 1987-88; is a past member of the Downtown Kiwanis Club; and is currently serving on the Magnolia Mound Historical Home Board of Directors.

Mike received a Bachelor of Science Degree in Civil Engineering from Louisiana Tech University and his Masters in Business Administration from Louisiana State University. He is a registered Professional Engineer in Louisiana, Arkansas, Mississippi and Maryland. He is married to the former Jane Moore of Kokomo, Indiana.

Mr. McGaugh 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 the youth of our state, our future leaders, to LES, and the profession are in keeping with the ideals of the Charles M. Kerr Public Relations Award.

BOBBY E. PRICE, Ph.D., P.E.

Continued from page 6

the Ruston/Lincoln Parish Chamber of Commerce where he serves on the Board of Direction, the Water 2000 Committee, the Ambassadors and Chairs the Robert E. Russ Community Service Award Committee. He has served as Chairman of the Ruston Scientific and Professional Review Committee and on the Ruston Advisory Committee on Water and Wastewater Master Plan. He has dedicated many hours to the Ruston Dixie Baseball Association having served as President, Vice President, Treasurer, and as a Coach for seven years.

Although Bobby has had significant impact on the community, parish and state through many activities, it is probably his leadership in the Ruston Sunrise Kiwanis Club which can be identified as having the broadest impact. Bobby joined the Sunrise Kiwanis Club of Ruston in 1982 and within only two years he had moved into the position of President. He has served on the Board for all except

approximately two years since 1983 and has been an active participant in many of the organization's functions, including working with children, the handicapped, and the underprivileged.

As President of the Sunrise Kiwanis Club, Bobby initiated the idea for a program which would recognize students who perform well in the math and science areas. At his urging, the Kiwanis Club started its Math/Science Program which has been highly acclaimed by teachers, parents and others. In this program, students in high school classes throughout the parish take exams which are prepared, disseminated and graded by Kiwanis Club volunteers. The top performers in each class are recognized in a special ceremony and given a certificate of achievement and either a college dictionary or a science reference book. The awards have typically been presented by the governor, a senator, the commissioner of higher education or others of like stature. Other projects which were initiated under Bobby's leadership were: a garden for the Louisiana Center for the Blind in which club members worked with the Center's students to prepare a garden every year; and, a scholarship for a deserving college student pursuing math education. More recently, Bobby has been actively involved in securing the Emergency 911 Communications System for Lincoln Parish.

Bobby and Patsy are very active in Temple Baptist Church where Bobby has served as a Sunday School Teacher and Outreach Leader in the adult departments and as a Deacon. He is past Vice-Chairman and Chairman of the Deacons Council, past Director of Church Training, and past Director of an Adult Sunday School Department.

Dr. Price's professional activities are extensive. He has maintained active memberships in the Louisiana Engineering Society, having served as State President in 1987-88, the National Society of Professional Engineers, the American Society of Civil Engineers, the American Society for Engineering Education, the American Water Works Association, and the Louisiana Engineering Foundation. Since 1970, he has served as a Delegate to the Universities Council on Water Resources, and in 1989, served as Faculty Member-in-Residence to the Washington Internships for Students of Engineering. He has served on the Program Committee and the Scholarship Committee of the Louisiana Conference on Water, Sewerage and Industrial Wastes, on the Advisory Research Council of the Louisiana State Department of Highways, the State Water Advisory Board of the Louisiana Water Resources Research Institute, and a Peer Reviewer for the Student-Oriented Studies Program and the Instrumentation and Laboratory Improvement Program for the National Science Foundation.

Bobby is recipient of the Louisiana Engineering Foundation Engineering Faculty Professionalism Award, the Louisiana Engineering Society Leo M.

Odom Award for Services to the Profession, the Louisiana Tech Alumni Foundation Professorship Award, the Louisiana Tech Faculty Senate Chair Nominee for the College of Engineering, Louisiana Tech Engineering Foundation's Distinguished Service Award, the Louisiana Tech Engineering Foundation Education Achievement Award, the Louisiana Tech Student Government Association Favorite Professor Award, the Louisiana Tech American Society of Civil Engineers Student Chapter Outstanding Teacher Award, the Louisiana Tech Tau Beta Pi Excellence in Teaching Award, the Louisiana Tech American Society of Civil Engineers Student Chapter Faculty Advisor Award, and the Louisiana Tech National Society of Black Engineers Student Chapter Outstanding Engineering Educator.

He has been recognized in American Men of Science, Dictionary of International Biography, International Scholars Directory, International Who's Who in Community Service, Outstanding Educator of America, Personalities of the South, Who's Who in Engineering, Who's Who in Frontiers of Science and Technology, Who's Who in the South and Southwest, and Who's Who in Technology Today. He is a Member of the National Society of Professional Engineers' Order of the Engineer and is a Kiwanis International Foundation Fellow.

Dr. Price'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.

ARTHUR F. d'AQUIN, JR., P.E.

Continued from page 6

at its Convent, Louisiana fertilizer facility.

In 1974-75, Mr. d'Aquin was a member of the management team responsible for the electrical/instrumentation design to pump and decant gypsum slurry to an impoundment area, also at Freeport's fertilizer plant in Convent, Louisiana. Freeport was the first company on the Mississippi River to impound gypsum.

From 1976-79, Mr. d'Aquin was a key member in construction of the Freeport Uranium Recovery Company plant, a \$32MM project in Convent, which implemented a new process to extract uranium from phosphate rock, a process which remains the most successful extractant procedure to date.

Mr. d'Aquin was assistant project manager for construction of Freeport-McMoRan's \$100MM Jerritt Canyon Gold Mine in northern Nevada from 1979-81. At the time, this was the largest gold mine in the United States, processing 3,000 tpd of oxide and carbonaceous ore using cyanide leaching and chlorination methods developed by Freeport's Research and Development group. Mr. d'Aquin returned to Freeport's Jerritt Canyon Gold Mine in 1982-83 as Project Manager for installation of an entire new crushing and

ball mill feed system necessary to enhance production because of an increasingly difficult ore body.

In 1981, Mr. d'Aquin was named Project Manager responsible for debottlenecking Freeport Indonesia's Copper operation and increasing ore capacity from 9,000 tpd to 12,000 tpd ore at 2% copper. He returned to Indonesia in 1983-84, responsible for design and construction to install material handling and copper concentrate process modifications.

In 1986, Mr. d'Aquin became Director of FM's Project Evaluation Department through which all promising projects and ideas were evaluated as to their technical and economic viability. While Director, his team was responsible for assessment, development, design and construction of a flash flotation system at FM's copper operation in Indonesia which resulted in increased recovery of the precious metals gold and silver by over 5% through physical cyclonic separation of these metals from their host materials.

Mr. d'Aquin became Vice President-Director of Freeport Research and Engineering Company in mid 1986. During the 1986-88 time period, he was responsible for many projects including five major projects valued at over \$180MM including expansion of Freeport Indonesia's Copper Mine from 15,000 tpd to 20,000 tpd at a cost of \$25MM; construction of Freeport's Geysers Geothermal 30MW, \$35MM Bear Canyon Power Plant in California; construction of Freeport's Geysers Geothermal 20MW, \$40MM West Ford Flat Geothermal Plant also in California; expansion of Freeport's Big Springs Nevada Gold Mine at a cost of \$25MM; and expansion of Freeport's Jerritt Canyon Gold Mine in northern Nevada at a cost of \$55MM. For the two gold mine expansions, Mr. d'Aquin's team was responsible for implementation of Company developed and patented gold ore roasting technology which oxidized highly carbonaceous ore ultimately allowing for conventional cyanide leaching, significant operating cost reduction and decreased environmental risks through reduced chlorination requirements.

In 1989, in addition to his regular workload as Vice President-Director, Engineering, he was assigned as Project Manager responsible for design and construction management of the Facilities portion of the \$600MM Main Pass Sulphur Mine in the Gulf of Mexico. This mine nears completion and is the largest offshore platform complex in the world, measuring 1.1 miles in length. This complex consists of six major platforms (two production platforms, one pressure control platform, a living quarters/shop/warehouse platform, the power plant platform, and the storage and loading platform) and nine minor platforms all of which are interconnected by thirteen bridges.

Included in this project is a \$100MM plus power plant module capable of producing 17MW of power. This platform was built entirely onshore weighing 6,000 tons and was set in place offshore using two of McDermott's largest derrick barges.

This was the largest, single offshore lift ever in the western hemisphere. The plant will heat 11,000,000 gallons per day of seawater to 325F with a plant efficiency of 93%. Additionally, the plant is capable of producing 6,000 scfm of high pressure air. \$600MM will be spent in 28 months on this project making it one of, if not the fastest track industrial project ever accomplished. When completed this mine will be the most highly automated Frasch mining operation in the world. At its peak, this project directly employed over six hundred construction workers and two hundred-fifty engineers/designers.

In his eighteen year career with Freeport-McMoRan, Mr. d'Aquin has been directly responsible for nearly \$600MM in design and construction, essentially all of which have come in on schedule at or near budget.

Mr. d'Aquin has also been active in community work having recently managed over \$400,000 in renovations to the Stallings Playground in the Gentilly area of New Orleans. This entire public facility, including the swimming pool and bathhouse, were upgraded to essentially as-new condition. Additionally, through Freeport's and Mr. d'Aquin's efforts, major physical improvements were made at the Dunn Elementary School in eastern New Orleans.

Mr. d'Aquin received his Bachelor of Science Degree in Electrical Engineering from Tulane University and completed graduate studies at Louisiana State University. He is a registered Professional Engineer in Louisiana and is a member of the Louisiana Engineering Society and the University of New Orleans Engineering School Advisory Council.

He is married to the former Deanna Dorvin of New Orleans and they are the parents of three children and one grandchild. Art and Deanna are active members of St. Elizabeth Seaton Church.

The accomplishments of Mr. d'Aquin as a manager and professional engineer make him a worthy recipient of the A.B. Paterson Medal for an Engineer in Management.

JOHN E. RITTER, P.E.

Continued from page 7

time, having served as Secretary-Treasurer of the Louisiana Engineering Society/Political Action Committee, since its inception; Chairman of the State Constitution and Bylaws Committee, 1986-87; Chairman and NSPE Governor of the Professional Engineers in Industry Practice Division, 1986-87-88; Chairman of the Baton Rouge Chapter and State Legislative Committee, 1988-89; and Chairman of the Chapter Legislative Committee, 1989-92.

During his term as Chairman of the State Legislative Committee, he helped to enact many bills favorable to the profession and the Society. From his past work as Chairman of the Constitution and

**LES AWARDS MEETING
REGISTRATION
HOLIDAY INN CROWNE PLAZA, NEW ORLEANS, LA
MARCH 11-14, 1992**

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**LES
P. O. Box 2683
Baton Rouge,
LA 70821**

		No. Tickets	Amount
PREPAID Discount Registration Fee ¹	\$50.00	_____	_____
Registration Without Prepayment	\$65.00	_____	_____
Daily Registration Fee ²	\$16.00	_____	_____
Wednesday Golf	\$50.00	_____	_____
Thursday Seminar	FREE ³	_____	_____
Thursday Dinner ⁴	\$20.00	_____	_____
Friday Luncheon	\$18.00	_____	_____
Friday Awards Banquet	\$30.00	_____	_____
Saturday Breakfast	\$11.00	_____	_____

Spouses

Thursday - Continental Breakfast			
Tailor Your Own Tour ⁵			
Friday - Continental Breakfast			
Tour and Luncheon ⁶	\$20.00	_____	_____
Saturday - Continental Breakfast			
"Good Mourning" ⁷			

TOTAL _____

1/Prepaid discount applies only if registration and payment is received one week prior to the convention

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

3/Seminar FREE with daily registration fee - "The American Disability Act and the Engineer"

4/Enjoy a night of terrific food and fun at the fabulous home of Mr. and Mrs. Ben Louviere, Jr. A visit to this magnificent home is reason enough to attend, but we promise the food and fun will rival the setting.

5/Simply let the New Orleans Auxiliary know what you really want to do or see while in New Orleans, and we will direct, deliver or accompany you to that choice.
6/Visit some of the most unusual and unique private homes in the world - the little known, but elegant homes of the Yacht Harbor. Enjoy the view of Lake Pontchartrain and dazzle at the decor of these novel "hideaways". Lunch at the Southern Yacht Club.

7/"Good Mourning" by Mrs. H. J. (Myrna) Bergeron, Jr. This articulate historian offers an amusing account of mourning customs of New Orleans and Louisiana from bygone eras.

☐ 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

**CLIP OR
REPRODUCE &
MAIL TO:**

**CROWNE PLAZA
333 Poydras St.
New Orleans,
LA 70130**

**1-504-525-9444
1-800-522-6963**

**Hotel Reservation Card
Louisiana Engineering Society
Holiday Inn Crowne Plaza, New Orleans, LA
March 11-14, 1992**

The block of rooms reserved for LES was released on February 11, 1992; however, the hotel may still have rooms available.

Name (print) _____

Address _____

City _____ State _____ Zip _____

Rates for single and doubles are \$105.00 plus 11% room tax and \$2.00 occupancy tax. Please check type of room requested.

☐ SINGLE

☐ DOUBLE

Check-in Time: 3:00 p.m.

Check-out Time: 12:00 Noon

Accommodations will not be confirmed without a check for the first night's deposit or use of a major credit card to guarantee your reservations. You will be charged for the first night if reservations are not canceled prior to 6:00 p.m.

Your Arrival Date _____ Your Departure Date _____

Credit Card and # _____ Expiration _____

Signature _____

LES Awards Meeting, March 11-14, 1992, New Orleans, Louisiana

General Program

Wednesday, March 11, 1992

11:00 a.m. - 5:00 p.m.
12:00 Noon

Registration
Golf Tournament
Colonial Country Club
Harahan, LA

Lunch: 12:00 Noon
Tee Off: 1:00 p.m.

DINNER

"On Your Own"

Thursday, March 12, 1992

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 12:00 Noon

Registration
Seminar: "The American Disability Act and the Engineer"
Speakers: Raymond G. Areaux, P.E.
Stacy Smith Brown
Wanda Greathouse Holloway
New Orleans Law Firm of Milling, Benson, Woodward, Hillyer, Pierson & Miller
"On Your Own"

LUNCH

1:30 p.m. - 3:00 p.m.

COMMITTEE MEETINGS

Membership
Constitution and Bylaws
Inter-Society Relations

3:00 p.m. - 3:30 p.m.

Break

3:30 p.m. - 5:00 p.m.

PRACTICE DIVISION MEETINGS

Construction
Education
Government
Industry
Private Practice

5:00 p.m. - 6:00 p.m.

Louisiana Engineering Foundation

7:00 p.m. - 10:00 p.m.

Dinner - Home of Mr. & Mrs. Ben Louviere, Jr.

Friday, March 13, 1992

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

Registration
COMMITTEE MEETINGS
Long Range Planning
Engineering Education

10:00 a.m. - 10:30 a.m.

Break

10:30 a.m. - 2:00 p.m.

COUNCIL OF DEANS MEETING

10:30 a.m. - 12:00 Noon

COMMITTEE MEETINGS

Executive Committee
Liaison/State Board of Registration
Legislative

12:15 p.m. - 1:45 p.m.

LUNCHEON

Speaker: Joe Paul Jones, P.E.
NSPE President-Elect
Student Paper Presentations
GENERAL MEMBERSHIP MEETING
Cocktails (cash bar)
AWARDS BANQUET

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, March 14, 1992

7:30 a.m. - 8:30 a.m.

BREAKFAST

8:30 a.m.

BOARD OF DIRECTION MEETING

Spouses' Program

Wednesday, March 11, 1992

11:00 a.m. - 5:00 p.m.
12:00 Noon

Registration
Golf Tournament
Colonial Country Club
Harahan, LA

Lunch: 12:00 Noon

Tee Off: 1:00 p.m.

DINNER

"On Your Own"

Thursday, March 12, 1992

8:00 a.m. - 5:00 p.m.

8:30 a.m. - 3:30 p.m.

8:30 a.m. - 10:00 a.m.

11:00 a.m.

7:00 p.m. - 10:00 p.m.

Registration
Hospitality Room Open
Continental Breakfast
Tailor Your Own Tour
Dinner - Home of Mr. & Mrs. Ben Louviere, Jr.

Friday, March 13, 1992

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

8:30 a.m. - 10:00 a.m.

8:30 a.m. - 10:00 a.m.

10:00 a.m. - 12:00 Noon

12:30 p.m.

6:30 p.m.

7:30 p.m.

Registration
Hospitality Room Open
Continental Breakfast
Tour of Yacht Harbor Homes
Luncheon - Southern Yacht Club
Cocktails
Awards Banquet

Saturday, March 14, 1992

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

8:30 a.m. - 10:00 a.m.

9:30 a.m.

Hospitality Room Open
Continental Breakfast
"Good Mourning"
Presented by: Mrs. Myrna Bergeron

Meeting Information

Agenda/Issues for all Committees and Practice Divisions scheduled to meet are published below for your information.

Seminar: The Americans with Disabilities Act and its impact on design and contracting professionals will be one of the topics addressed at the LES Awards Meeting in New Orleans next month. The authors of "Designing Facilities for Disabilities: A New Federal Mandate," published in the December issue of the *Louisiana Engineer*, will be speaking on Thursday, March 12th from 8:30 a.m. until 12:00 noon. The areas to be covered are the accessibility regulations for both private and public entities, the ADA Accessibility Guidelines, other applicable laws, ADA bankruptcy issues, ADA legal issues as well as the employment provisions of the ADA.

COMMITTEE MEETINGS

Membership Committee

Old Business

- Review of membership growth over past seven years
- Review of membership recruitment contest rules
- Review of net growth contest rules

New Business

- Ideas for continued recruitment of members

Constitution and Bylaws Committee

- Review Draft #6 of the proposed Constitution rewrite
- Review Draft #2 of the proposed Bylaws rewrite
- Discuss options for distribution of the proposed documents to the general membership
- Charter renewal
- Entertain suggestions for new committee chairman

Inter-Society Relations Committee

Old Business

- Public Relations

- Chapter Activities/Plans

- Contact Leaders of Other Design Professions

1. Directory of other societies' officers
2. Joint statewide meeting
3. Avoidance of scheduling conflicts
4. Legislative information dissemination
5. Engineer's Week activities
6. Guest forum in LE magazine

Long Range Planning Committee

- Organize a plan to advise all practice divisions, chapters and committees of the results of the membership survey. Formulate a plan of action for LES to respond to the membership's objectives.
- Discuss future state meeting sites
- Review results of meeting attendance and meeting site rotation trial
- Introduce NSPE suggestion that chapters incorporate
- Discuss LES dues structure

Profit is a Cost, Not a Reward

by: Don Thompson

Nine out of ten design firm executives do not understand the word profit. They think it is their reward for not spending all the money on the project or on overhead. When it grows, they want to decrease it by increasing their salary.

Profit is the "life blood" of any business enterprise. Without it, we die! The problem is our use of the word. When we invest in the stock market we look for a dividend. The company that is using our money considers this a cost. When we invest in a Certificate of Deposit, we expect to collect interest. The bank considers this a cost.

Ownership in an architectural or consulting engineering firm is an investment. An investment which continues to grow over the years to finance increased payroll, accounts receivable and company growth. Our dividends or interest on this money should be higher than low-risk insured CD's in the bank. We cannot label these as dividends or interest because the IRS would then tax it twice. Regardless of what we call it, it is a cost! This is true whether we use it for contingencies, future growth or fund our bonus program.

Today's overruns are a cost against yesterday's profit, again this is a cost!

Human resource compensation is constantly under review. Poor performers are overpaid, while outstanding performers are underpaid. In fairness, and to keep good people, we are establishing lucrative incentive programs. These programs need profits for funding, again another cost! Key personnel is short-changed when a company fails to meet these costs.

Financial people measure profit at three different levels. The first, and most important, is profit before distribution and taxes. The second is profit before taxes and the last is net profit.

Profit at the first level should be between 15% and 25% of net revenue. Net revenues do not include subs or direct project expenses, such as site travel expenses.

Some firms use formulas to decide distribution of these funds. A popular method is to divide by three:

1/3 to STOCKHOLDERS

This is the cost of using stockholder's money. It represents a portion of their bonus and not a dividend.

1/3 to fund BONUSES

This is the cost of incentive programs, 401Ks and any other types of bonus.

1/3 to RETAINED EARNINGS

The cost of future growth, contingencies and maintaining a healthy company represent the last third. This allows us to withstand the down cycles in the market place.

When profit is seen in this light, we will budget it correctly as a cost. Design firm executives spend too much time dealing with financial pressures. They are uncomfortable discussing dollars. In today's business economy they have to overcome this embarrassment. Future success is dependent on balancing the business side with the practice side of our profession.

If you're not making a profit, you do not have a business, only a hobby.

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

Certifications

We have become such a legalistic society, it seems the old motto "deeds not words" has been turned into "words not deeds." And of all the words that design professionals must contend with, few are more onerous than **certify** and its derivatives, such as **certified** and **certification**. The word is ambiguous. On the one hand, it can mean state or declare; on the other, guarantee or warrant. Ambiguity is the stuff that disputes are made of, and that can make it necessary for a judge or jury to create a definition after the fact; the stuff that risks are made of.

Can You Be Perfect?

Typically, you are asked to certify conditions based on observation or testing; e.g., that the structure as built conforms to applicable codes and ordinances. Supposing it doesn't and you certify nonetheless. Is that negligence? Probably not, because the reason for noncompliance likely has nothing to do with design, nor does it necessarily indicate that your

construction observation was lax. In fact, the *only* way you can guarantee compliance with applicable codes and ordinances is to monitor each worker on the project at *all* times, and to monitor the site during off-hours, to guard against "midnight changes." In other words, where common law requires you to uphold the standard of care *ordinarily* practiced by your peers, your certification could require you to be perfect. Where common law permits you to commit errors or omissions without being negligent, certifications could make you liable for even the smallest error, *no matter who commits it*.

Responsibility for Others' Mistakes

No matter who commits it? Correct. When you certify that conditions are so, you can be liable for whatever damages are incurred when the conditions are not so. If it is discovered after construction that a contractor committed an undetected error, e.g., half the rebar was not installed, the contractor may state, "We could have taken care of that problem during construction for a cost of \$250. We didn't, because you certified the work conformed to plans and specs. Now it'll cost \$250,000 to make the repair. As we see it, you should pay \$249,750 of that cost." And that assumes the contractor is still in business.

No E, No O, No Insurance

Now the other side of the coin; the side that has "**INSURANCE**" written on it. But in this instance, it's a one-sided coin! The problems that can result from a certification may not stem from professional negligence so your E&O policy doesn't cover the exposure. Clients need to understand that, because their risks are affected. And clients who call for certifications are likely to be interested, because they often are risk-averse; that's why they asked for the certification to begin with. They also need to understand that, if they insist on a certification, they could increase their risks still more by turning their own deep pockets into yours. In other words, if you do not have the coverage you need because a client has insisted on unwise wording that you made a good-faith effort to change, it's highly likely that such a client may become the plaintiff's target.



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



Avoidance by Contract

So, how do you go about preventing problems with certifications? One way is to include a clause in your contract that explains the situation, requires the client to refrain from requiring you to certify anything, and also restrains the client from making payment contingent upon your certifying something presented by another party. Exactly such a clause is provided in the *DPIC Companies' Guide to Better Contracts*. The benefit of this approach is the communications engendered before the work begins, so the client understands "what's what" should the situation arise later.

Another contractual approach involves a provision that says, in essence:

DESIGN PROFESSIONAL shall not knowingly take any action called for by this AGREEMENT or arising from the course of this project which shall cause loss of DESIGN PROFESSIONAL'S professional liability insurance coverage for this project or any aspect of it.

If this issue is not addressed in your agreement, it will have to be discussed when it arises. The client and other parties must be educated, particularly about the fact that any act they knowingly commit which strips you of your ability to pay damages could feasibly make them liable for the consequences.

Alternative Wording

When people agree to eliminate "certify", "state" or "declare" usually is the preferred substitute. In other words, the alternative to "I certify that..." would be, "I declare my professional opinion that...", or "I declare that, to the best of my professional knowledge and belief..."

EPA, Florida, California Definitions

When the word certify must be used for some reason, such as a government regulation, a compromise solution can be achieved by defining the term with care. The U.S. Environmental Protection

Agency (EPA) has done just this. Its definition reads, in part:

The terms "certification", "certify", and "certified" are used throughout the regulations...to refer to the rendering of a professional opinion concerning compliance with a requirement of the regulations...

Florida's Board of Professional Engineers has also adopted a definition specifically to prevent the loss of insurance coverage that certifications can create. The Florida definition reads as follows:

"Certification" shall mean a statement signed and/or sealed by a professional engineer representing that the engineering services...have been performed by the professional engineer, and based upon the professional engineer's knowledge, information and belief, and in accordance with commonly accepted procedures consistent with applicable standards of practice, and is not a guarantee or warranty, either expressed or implied.

California has adopted a similar definition of certification which indicates that the word comprises "an expression of professional opinion regarding those facts or findings which are the subject of the certification, and does not constitute a warranty or guarantee, either expressed or implied."

Just the Facts

Another approach is to certify facts and give an opinion about judgment issues, e.g.:

I hereby certify that I am a professional architect duly registered in State, and that plans and specifications for this project bearing my seal have been prepared by me or under my direct supervision. I further certify that I have been represented on site during the construction of this project on an occasional basis, as per our agreement, and I herewith certify that it is my professional opinion that, based upon the occasional site visits,

the structure involved has been constructed in accordance with my design intent.

Naturally, any such wording should be developed and/or approved by qualified legal counsel. But, even then, it may not be sufficient.

Respond to Coercion

Today, some lenders are absolutely insistent that certifications must be signed "as is", because they need the protection! You may be forced to sign because you otherwise will not be paid by your client. In such cases, your best alternative may be to sign, and immediately thereafter submit a letter of protest to the bank and to your client, possibly with a copy to your registration board. Such a letter could state, in part:

...You have used your disparate bargaining power to coerce me to sign a statement through which I guarantee conditions whose true state is impossible for any human to know. This act may reduce or eliminate our firm's insurance coverage for this project, jeopardizing any party who legitimately is damaged. Furthermore, it has placed me personally in the position of creating a false sense of security that ultimately could lead to jeopardization of public health, safety, or welfare, and thus place at risk my professional license to practice.

Such a letter should at least be reviewed by your attorney, of course, and you have to be aware of the potential consequences of issuing it. One of these might be the loss of a client. All things considered, that may not be nearly as unfortunate as the loss of your practice, which is one of the potential consequences of not issuing a letter.

From: A/E Risk Review, a publication of the Professional Liability Agents Network. The article was furnished by ALEXANDER & SANDERS INSURANCE AGENCY, INC., Baton Rouge, LA.

See page 19

AS
INSURANCE
SPECIALISTS

SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION · RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE · BATON ROUGE · 70809 · 504/924-1371

Plan Stamping is Dangerous

Not only is plan stamping dangerous, it is forbidden by statutes or Board rules in most states. Louisiana Administrative Code Title 46, LXI Subpart 1, Section 1701.D states: "No registrants shall affix his seal or signature on reports, plats, sketches, working drawings, specifications, design calculations or other engineering and land surveying documents developed by others not under his complete direction and control and not subject to the authority of that registrant, except as stated in LAC 46:LXI.1701. H below."

The Louisiana Board is very concerned that some of its registrants may be continuing this illegal and dangerous practice. The following summary of Shaw versus Tennessee State Board of Architectural and Engineering Examiners is quoted so that all Louisiana registrants may benefit from others' mistakes.

"On September 25, 1991 the Court of Appeals of Tennessee affirmed an August 31, 1989 decision by the Tennessee State Board of Architectural and Engineering Examiners to revoke the engineering certificate of Nashville engineer, Clark L. Shaw. The Shaw case is significant in that a death and several injuries resulted, at least in part, from design failures reflected on mechanical and plumbing drawings for a three-story hotel which were plan-stamped by Shaw.

The Tennessee Board found that the mechanical, plumbing, and electrical drawings for the Ramada Inn-Music Valley Hotel in Nashville had been prepared by three unlicensed draftsmen working independently at the request of the project owner. The owner then approached Shaw, who was employed as an electrical engineer with the U.S. Army Corps of Engineers, to stamp the drawings so that a local building permit could be obtained.

On November 23, 1986 one hotel guest died and several others were seriously injured from inhaling carbon monoxide gas which had seeped into several guest rooms at the Ramada Inn-Music Valley Hotel. The Tennessee Board determined that the hotel's mechanical and plumbing drawings contained "design deficiencies and omissions relating to provisions for

air supply and ventilation of the atrium, laundry, water heaters, and hotel sleeping rooms that compromised the life safety of the building's occupants."

In appealing the Board's revocation of his certificate, Shaw argued that the Tennessee statute prohibiting a registrant's stamping of documents not prepared by that registrant "or under his responsibility" was unclear in meaning and, therefore, unconstitutionally vague. Shaw maintained that, although he had little or no contact with the draftsmen who actually prepared the drawings, he made alterations to the drawings and "assumed responsibility" for the plans when he stamped them.

The Court of Appeals of Tennessee rejected Shaw's argument and wrote:

"In short, none of the plans was prepared under any relationship of responsibility between plaintiff (Shaw) and any preparer...

The statute does not authorize assumed responsibility. It requires existing responsibility at the time of preparation...

(The) uncontradicted evidence shows conclusively that the plaintiff violated the plain meaning of the statute, and the conclusion of the Board that plaintiff violated the statute was correct.¹

As no permission to appeal the Court of Appeals decision was sought within the prescribed time period, the Tennessee Board's revocation of Shaw's engineering certificate is now final."

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.

1 *Shaw v. State of Tennessee Board of Architectural and Engineering Examiners*, slip op. at 4 (Tenn. Ct. App. September 25, 1991) (No permission to appeal filed).



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



ENFORCEMENT CORNER

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

Unincorporated Sole Proprietorships

In September, 1990 the Rules for Professional Engineers and Land Surveyors, Louisiana Administrative Code TITLE 46:LXI, were amended in several areas. One of the changes was in Section 501 (A) which now reads as follows: "Unless otherwise provided, unincorporated individual proprietorships which bear the full name of the owner who is a Louisiana registered professional are exempt from the application of this chapter." Such firms are not required to be registered as qualified engineering or surveying firms with the Board. Unincorporated individual proprietorships that do not bear the full name of the owner who is a Louisiana registered professional must be registered with the Board as a qualified engineering or surveying firm and must comply with all the provisions of this chapter.

The changes in Section 501 (A) were the additions of the words "unincorporated" prior to "individual" in the second line and "full" prior to the word "name" in the fourth line, and a clear statement that unincorporated individual proprietorships not bearing the full name of the registrant owner have to formally register the firm with the Board. This change created an abundance of controversy and resulted in a number of concerned letters to the Board from registrants with unincorporated individual proprietorships. This article is intended to address the reasons for this change, to identify the affected parties, and to clear up possible misconceptions regarding the change.

When the Rules for Professional Engineers and Land Surveyors were promulgated in 1981 and became a part of the Louisiana Administrative Code, Section 501 (A) was then Louisiana Administrative Code 19-3:4.1.2. and read as follows: "Unless otherwise provided, individual proprietorships which bear the name of the owner who is a registered professional are exempt from the application of LAC 19-3:4." Although the original wording of this section did not specify unincorporated individual proprietorships, research suggests that this rule was primarily intended to exempt unincorporated individual proprietorships bearing the name of the owner, who was a registered professional, from any of the sections registration, title, or identification requirements, as a statute requirement already existed requiring registration of all corporations. One immediate benefit to the individual proprietor was the avoidance of paying a fee to formally register the individual proprietorship which the Board required of all other corporations/firms. The requirement for the name of the registrant to be in the title of the individual proprietorship firm was the key ingredient in the exception. For, by the presence of the name of the registrant, it was easy for the Board and the public to determine who was the responsible registered professional engineer that enabled the firm to offer and provide engineering. Research also suggests that, since identity of the registrant in the firm title was of paramount importance, it was probably intended for "name" to mean full name since it is difficult to establish an accurate identity of a person based solely on a last name, i.e. John E. Doe Engineering rather than the less precise title of just Doe Engineering. There were also no written provisions in the rule exempting all individual proprietorship firms, in existence as of the effective date of the rule, from having to comply with the new rule. Between the years of 1981 and 1990 the Board received inquiries regarding whether certain firms were registered with the Board and who was the professional engineer associated with the firm. Many of these inquiries involved individual proprietorships who had only their last names in the title of the firm. Such did not provide for a quick and distinctive means of identification by the Board or the public. Therefore, the Board revised the rule to its current wording in hopes of making it easier for the public and the Board to identify with minimal effort who was the Doe of Doe Engineering.

The Board realized that some minor problems regarding advertising, letterhead, and business cards would probably be encountered by registrants due to the rule change, but it was of the opinion that the advantages outweighed the disadvantages. The Board subsequently advertised this proposed change in the *Louisiana Engineer* and the *L'Arpenteur Louisiane* looking for input from registrants. None came and the rule change was subsequently adopted. Upon contacting some individual proprietorship firms regarding the new rules, the Board suddenly had a tremendous amount of input as to why the rule was not considered to be practical, and also speculation that the rule was intended to harass the small firm, and be a revenue producer for the Board. Rest assured none of the above was remotely associated with the intent of this rule change.

To clarify whom this rule pertains to, the Board and the Board's counsel have agreed that the rule does not apply to those unincorporated individual proprietorships who are able to show proof that prior to September 1990 they were in business and used only their last names in the titles of their firms. Such firms may continue their practice without having to either change the firm title to reflect the owner registrants full name or to register the firm formally with the Board as is done with corporations. However, all individual proprietorships that have come into existence since September 1990 will have to comply with the full name requirement of the new rule or register the firm formally with the Board.

The Board recognizes that some of the same problems that prompted the rule change in 1990 will continue, but the Board will address those as they arise. Although it would be simpler to have all unincorporated individual proprietorship firms registered formally with the Board, formal registration of those unincorporated individual proprietorship in business prior to September, 1990 is completely voluntary.

Should any questions still remain regarding this issue, please contact either the writer or the Board Executive Secretary, Paul L. Landry. We will make every effort to answer your questions.

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 19.

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

1. The maximum fine the Board can levy against a registrant found guilty of violating the laws or rules is:
 - A. \$5,000.00
 - B. \$ 500.00
 - C. \$2,500.00
 - D. \$ 250.00
2. Which of the following are violations of the registration law for which engineers and land surveyors are subject to disciplinary action:
 - A. Practice of fraud, deceit, material misstatement or perjury in applying for a certificate of registration, in taking an examination, or applying for a renewal certificate
 - B. Entry of a plea of nolo contendere to a felony charge
 - C. Providing false testimony before the Board
 - D. Violation of Contract or misrepresentation in the practice of engineering or land surveying
 - E. All of the above
3. If a registrant realizes that a potential conflict of interest exists on a project:
 - A. The potential conflict of interest must be removed, even if it requires resignation
 - B. All parties must be informed of the potential conflict

- C. Adequate insurance must be secured and maintained to protect the registrant from possible lawsuit
 - D. None of the above
4. LAC 46: LXI, Chapter 21, establishes Rules of Professional Conduct as authorized by the Registration Act. These rules apply to:
 - A. Only those engineers and land surveyors who are in private practice
 - B. All professional engineers and professional land surveyors
 - C. Any person or firm that has been licensed or certified for practice in Louisiana
 - D. Foreign corporations
5. The practice of land surveying includes which of the following:
 - A. Measuring of areas and land surfaces
 - B. Plotting and monumenting of lands and subdivisions
 - C. Mapping
 - D. Topographical
 - E. All of the above
6. Registrants, as a third party, may under certain conditions complete, correct, revise, or add to the work of another registrant or related design professional.
 - A. True
 - B. False
7. The Board has the power to do which of the following:
 - A. Make, adopt, alter, amend and promulgate bylaws and rules not inconsistent with the constitution and laws of Louisiana
 - B. Select and appoint members to the Board
 - C. Make, amend and adopt registration laws
 - D. All of the above
8. Guidelines regarding the use of seals may be found in:
 - A. The Registration Law
 - B. The Board Rules
 - C. NCEES Publications
 - D. Louisiana Engineering Society - Standards of Practice
9. Industrial corporations such as Chevron, PPG, Melamine Chemical, Kaiser Aluminum, etc. within the State of Louisiana practicing engineering as defined in LA R.S. 37:682 (8) are required that such activities be under the supervision and charge of a professional engineer, duly registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.
 - A. True
 - B. False

10. Which of the following shall not be construed as being the "Practice of Land Surveying" when performed by employees of persons, firms, or corporations on property owned by, leased to, or under the control of their employer in the course and scope of the employer's business.
 - A. Determining lines within established boundaries and between established corners of property
 - B. Locating drilling sites
 - C. Locating lines of pipe
 - D. Locating improvements on such property
 - E. All of the above

JOHN E. RITTER, P.E.

Continued from page 9

Bylaws Committee, "Skip" has become the "unofficial" parliamentarian for State Society meetings.

Mr. Ritter is currently serving on the Louisiana Engineering Foundation Board of Directors. He has served on the Engineers Selection Board for both the State of Louisiana and East Baton Rouge Parish, the Governor's Water Resources Advisory Council, and the Organizational Committee for the Scottlandville High School for Engineering Professions. At present, he is serving on the Advisory Council for the institution.

In addition to "Skip's" outstanding service to his fellow engineers, his activities in the business and civic community exemplify the ideals of our profession and set a standard to which all engineers should strive. His active involvement and commitment to the Louisiana Association of Business and Industry, Kiwanis Club, United Way, Baton Rouge Recreation and Parks Association, and other organizations is such that few can equal. Because of his commitment to his community and fellow man, Mr. Ritter was awarded the 1985 LES Andrew M. Lockett Medal for Civic Activities.

Mr. Ritter is a member of Saint Thomas More Catholic Church. He is married to the former Beatrice Clair Lavigne of Baton Rouge, Louisiana. They are the parents of four sons, John, Jr., David, Wayne, and Stephen, and the proud grandparents of ten grandchildren.

"Skip" has distinguished himself throughout his long career as a professional engineer who has unselfishly given of his time and resources to the advancement of his profession and improvement of the community around him. He has maintained active participation and leadership in the profession, and is a model of the standard of conduct for professional engineers. His achievements exemplify the outstanding leadership recognized and honored through this award.

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

March 23-24
June 1-2
July 27-28

Sept. 21-22
Nov. 9-10

a member of the Chapter's MATH-COUNTS Competition Task Force.

During his tenure at Louisiana State University, Keith was recognized for his ability and achievements on many occasions. In 1978, he received the Louisiana Engineering Society/Louisiana State University at Alexandria Student Chapter Award for Service to the Society, the "Head Daddykins" Award in Appreciation for Service and Professional Guidance to the Circle-K, and the Colonel Middleton Memorial Scholarship for Outstanding Service to the Campus. Keith has been recognized by Louisiana State University, Baton Rouge, having been inducted into the Chi Epsilon Civil Engineering Honor Society, the Tau Beta Pi Engineering Honor Society, and the Phi Kappa Phi Honor Society.

In 1981-82, Keith held a Graduate Teaching Assistant position at Louisiana State University while pursuing a Master's Degree in Civil Engineering beginning his engineering practice in Alexandria, Louisiana, in 1982 with Pan American Engineers, Inc., as a Design Civil Engineer. He spent a brief period of time with C.E. McGuire, Inc., currently Ballard and Associates, as a Design and Project Civil Engineer. Since 1986, Keith has been with LaBauve and Company, Consulting Engineers. Keith has progressed from Design Engineer to Project Engineer and is a potential candidate for Project Manager as an associate of the firm.

Since beginning practice in 1982, Keith has been involved in a variety of civil and structural engineering projects. Typical projects which Keith has participated as Project Engineer include the design of concrete, steel and/or timber structures, transportation system geometrics and roadway, hydraulic drainage systems, sanitary sewer collection systems, and water distribution systems. To name only a few: Wardville Sanitary Sewer System, Wardville Water Distribution System, Louisiana Highway 13, Louisiana I-49 Roadway, City of Natchitoches Wastewater Treatment Plant, Egyptian Electrical Authority Power Substations, East Windsor Substation, Newman United Methodist Church, Martin Park Elementary School, Peabody Elementary School, Rapides Regional Medical Center, St. Frances Cabrini Hospital, Georgia Gulf-V.C.M. Plant, Sulzer Escher Wyss, Gabriel Chemicals, Georgia Gulf-Muriatic Acid, Georgia Gulf-Vapor Recovery, Port of Alexandria, Regency House Nursing Home, Pineville Medical Park, Parkway Subdivision Flood Control, Tulane Avenue Bridge, Louisiana Highway 28 West Bridge, and the Horseshoe Canal Bridge.

In 1985, Keith served as Project Engineer for an urban segment of I-49, a project which highlights some of his technical abilities. The project included the design of over 2,500 feet of concrete

retaining walls with extreme height ranges such that cantilever and counterfort wall type were used with shallow and pile supported foundations. Some wall sections were designed to incorporate overhead signs, catch basin structures, and sound barrier panels. Geometric control and drainage structures were also design responsibilities.

Keith is a member of the Twin Bridges Baptist Church serving as Children's Church Director, Sunday School teacher, Royal Ambassador Leader, and Chairman of the Deacons. He is actively involved in community service and has been associated with the Kiwanis International organization at every level. He was a Key Club member in senior high school, a Circle-K member at Louisiana State University in Alexandria and Baton Rouge, and joined the Alexandria Kiwanis Club in 1983, and has been an active member since then, with perfect meeting attendance for eight years. Keith is a participant in the Children's Miracle Network Telethon in conjunction with St. Frances Cabrini Hospital.

Keith is a member of the American Concrete Institute, the American Institute of Steel Construction, the American Institute of Timber Construction, the Post-Tension Concrete Institute, the Louisiana Engineering Society, and the National Society of Professional Engineers.

Keith is married to the former Anita Campbell of Alexandria, Louisiana, and they are the parents of one daughter, Kristy.

Keith Hillman 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.

D. THOMAS ISELEY, Ph.D., P.E.

Continued from page 7

States to spur the acceptance of trenchless technology.

In 1989, Tom became Director of a newly established center which had a primary purpose of supporting growth in the trenchless technology industry. In 1991, the Trenchless Technology Center received a \$1.2 million research project through the Corps of Engineers Construction Productivity Advancement Research program. This project which began in January will focus on the evaluation of materials, equipment and methods to install and rehabilitate underground utility infrastructure systems. As evidenced by the fact that all of the major microtunneling, horizontal directional drilling and pipe relining manufacturing firms have agreed to participate, this project has attracted a lot of national interest and should play a pivotal role in increasing utilization of this technology.

During the past two years, Tom has been a principal speaker in approximately

fifty seminars and workshops throughout the United States and abroad. He has coordinated and hosted five major symposia which were attended by over eight hundred engineers, contractors, material and equipment manufacturers from practically every state as well as many foreign countries. Among his other professional and technical activities, Tom serves on the Board of Directors for the American Underground-Space Association, Inc., the North American Society for Trenchless Technology, as Chairman of the Trenchless Excavation Committee for the National Utility Contractors Association, and the National Institute for Engineering Management Systems.

Dr. Iseley was recipient of the 1991 Louisiana Tech Engineering Foundation Research Award and been honored with membership in the Tau Beta Pi Engineering Honor Society. In addition to Tom's involvement on various boards, he is also a member of the Louisiana Engineering Society, the National Society of Professional Engineers, the Mississippi Engineering Society, the American Water Works Association, the American Arbitration Association, the American Society of Civil Engineers, Sigma XI, and the International Society for Trenchless Technology.

Tom has been active in the research field which projects include: Feasibility of Utilizing Inmate Labor for the Construction of Prison Facilities at the Mississippi State Penitentiary at Parchman, Mississippi; Development of Guidelines and Specifications for Highway Projects Requiring Horizontal Earth Boring and/or Pipe Jacking Techniques; An Evaluation of the Placement of Utilities Utilizing Trenchless Excavation Techniques, (conducted for Ph.D. Dissertation); Conducted performance and productivity evaluations for the BYONIC BLAYDE, an innovative road grading device, invented and manufactured by Seal Manufacturing Company, Picayune, Mississippi; Conducted performance and productivity evaluation for microtunneling equipment manufactured in Japan and Germany on the River Oaks Sanitary Sewer Project, Houston, Texas, the largest microtunneling project in the United States; Load Carrying Capacity of Vitrified Clay Pipe Assembly; and U.S. Market for Trenchless Technology. Tom has authored or co-authored numerous technical publications on his research in trenchless technology and microtunneling and has reviewed professional books and textbooks for publishers and editors on request prior to publication.

Tom is married to the former Carol Taboleski of Jackson, Mississippi, and they have four children, Mark, Michael, Mindy, and Mary. They attend First Baptist Church of Ruston.

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

COMMITTEE MEETINGS

Continued from page 11

Engineering Education Committee

Old Business

Reports and Updates on Previous Activities

- a. Review definition and mission of EEC
- b. Minority/Women Recruiting
- c. LES Student Paper Presentations
- d. Review and 1986 LES report "A Proposal for Maintaining Quality Engineering Education in the State, The Key to Future Economic Development"

New Business

- a. Enhancing interactions between university faculty
- b. Increasing engineering awareness with students

Liaison/State Board of Registration

- a. Review of a proposed revision to the "Guidelines for Selecting Nominees for Filling Vacancies on the State Board of Registration for Professional Engineers and Land Surveyors".
 1. The guidelines, which appear in Appendix 5 of the Orientation Handbook, September, 1991, should be amended to incorporate the 1991 amendments to the Registration Act.
- b. Review of the progress of developing a list of candidates for the vacancy on the Board of Registration which will occur when the term of Robert D. Fenner, P.E., expires on July 31, 1992.
- c. Review of future Board Member terms and expiration dates, and consideration of a policy for appointment delays.
- d. Review of State Board of Registration policy concerning substitution of a qualifying examination in lieu of the fundamentals examination for Ph.D degreed engineers.

Legislative Committee

- a. Worker's Compensation
- b. Professional Liability Limitations
- c. Tax Assessment of Profession Service Companies*
- d. Procurement of Professional Services*
- e. 1992 Legislative Session

*Please note that items "c" and "d" are **major issues** in the upcoming 1992 legislative session. It is therefore very important that each committee member or his proxy attend this meeting.

PRACTICE DIVISION MEETINGS

Construction

New Business

- a. Candidates for the Engineers Selection Board
- b. Report on NSPE Winter Meeting

Education

Old Business

- a. Future directions of the Louisiana Engineering Society
- b. Meaningful activities of the PEE Practice Division
- c. NSPE Education Professional Development Award (no submissions were made by universities for 1991)
- d. Sponsor seminar at 1992 LES Annual Meeting
- e. Report on legislative matters
- f. Other

New Business

- a. Contribution to MATHCOUNTS Program
- b. Leta Bueto travel to NSPE 1992 Annual Meeting
- c. More involvement of deans and faculty members in LES and PEE
- d. Student Paper Presentations Program
- e. Report on 1992 NSPE Winter Meeting
- f. Other

Government

Old Business

- a. Committee Reports
- b. Other

New Business

- a. State Department of Civil Service's job evaluation of non-licensed engineering job series in DEQ and DNR
- b. PEG Engineer of the Year Award
- c. Membership development
- d. Other

See next page

Michael L. Hebert

Attorney At Law

524 France St. - Baton Rouge, LA

504-383-7716

Construction Law Commercial Litigation

Professional Civil Engineer

Professional Liability Environmental Law

Member: American Society of Civil Engineers
Louisiana Engineering Society
Louisiana Trial Lawyers Association
American Bar Association

Admitted: Louisiana, Texas and Washington



**Draw on our over 60 years of
construction knowledge**

- | | |
|--------------------|-------------------|
| • SITE PREPARATION | • BUILDINGS |
| • EARTH MOVING | • MECHANICAL |
| • DREDGING | • RAILROADS |
| • DOCKS | • LEVEES & DAMS |
| • PAVING | • ROADS & BRIDGES |
| • FOUNDATIONS | • DRAINAGE |
| • ENVIRONMENTAL | • MAINTENANCE |



T. L. JAMES & CO., INC.

Baton Rouge (504) 293-0274

Ruston (318) 255-7912

New Orleans (504) 467-6000

Stephen Spohrer, PE

Thomas Folk, PE

William Westbrook, PE

TOTAL JOB CAPABILITY

LOUISIANA ENGINEER/FEBRUARY 1992

TOTAL QUALITY MANAGEMENT The Competitive Edge.

Richard M. Miller, P.E.

The National Institute of Engineering Management and Systems (NIEMS) and the Design and Construction Quality Institute (DCQI) bring to the States this program titled, "Total Quality Management - For the Engineer, Architect, Planner, Surveyor and Contractor. It is designed to help any professional in any part of the design or construction company understand what all the fervor about quality improvement and TQM means to the designer and contractor.

On the scheduled dates this TQM seminar will be presented in hotels to be selected at a future date. Information regarding the arrangements will be available at PQ Systems. Hotel location and reservation information can be acquired by calling the 800 number below.

This comprehensive seminar presented by the two people with the most experience in TQM in the A/E/P/C industry. They are Richard M. Miller, P.E., retired President of a full service Engineering, Architecture, Planning and Surveying firm, and Craig Tickel, Ex-Vice President of P.Q. Systems, one of the most widely recognized providers of training in the country. Together they present the only total picture of the impact of TQM in the design office and construction environment.

There is confusion about TQM everywhere, especially for the designer and contractor, because the experts and the books present the material in the manufacturing environment. Few have ever seen or heard of the impact in an A/E/P/C office. They don't understand what we do, how we do it, or the demands on our time and resources.

The problem facing A/E/P/C managers is how to design their organization to maximize the effectiveness of their people, empower them to utilize their competence and capability, and focus them to improve what they do and how they do it. Many have tried, at great expense and considerable invested time, to reinvent a way to do this with good intentions, hard work and creativity. The truly remarkable, world class companies in this country and elsewhere have been at this for decades. Experts have been perfecting and teaching what is needed and how to do it. What they have learned and now teach is relevant and valuable to the design and construction industry.

The purpose of this seminar is to give the attendee, employee or manager a background in the concept, knowledge and awareness of the way, means and methods of quality improvement, and some experience in using the tools.

The first one day session is a program for the A/E/P/C to evaluate adaptation of the process into their company. This session is a prerequisite to understanding the material of the following two day session. A company must take careful specific steps prior to leaping into a program they may not be prepared to adapt. Non-managers can increase their professional development, and learn how to increase their value in their office as well as in the market place.

The second session, held on the second and third day, presents the methods and tools of improvement, and provides the attendee with experience at "hands-on" activities, helpful in adapting TQM into their company. Those who have attended previous "two day awareness" programs presented by NSPE will benefit from the first day session, but could attend the second and third days only.

The agenda is in direct response to requests for this material from attendees at programs given over the past two years.

Attendance will have substantial value to any professional, architect, engineer, planner, contractor, accountant, financial officer, human resources or marketing professional, etc., at any level in the organization. One or preferably two people from a company will gain valuable insight into the quality improvement process, the need to proceed with such a program, and the commitment required to go further.

The material is equally relevant to companies of all sizes. The smaller the company, the easier it is to progress. The larger the company, the more complex the problem and the more critical the need. As clients become more knowledgeable and sensitive to quality they will not hire the company without proof of a valid TQM program.

This seminar presents that material, interprets it to the A/E/P/C culture, and demonstrates in familiar terms how it applies, what does and doesn't work, and provides first hand information about the experiences and state of the art of improving your business.

Learning takes place over time, and as a result of thorough research of various resources. Resources will be identified for the attendees to learn more about TQM and the environment necessary to develop a program of ongoing improvement.

Many think what got them where they are today will suffice for the years to come. Others have learned the hard way. It is time to start working smart, we tried hard.

The growing liability crisis alone warrants quality improvement. What has been done in the past is no longer adequate - our liability experience proves that.

You may not feel you need TQM, but you don't want to compete against someone else who has it.

FOR INFORMATION AND RESERVATIONS
CALL 800-944 5459.

1992 PROGRAM SCHEDULE

San Antonio	Feb. 10-12	Orlando	Feb. 12-14
Charleston, SC	Mar. 9-11	Philadelphia	Mar. 11-13
Chicago	Apr. 6-8	Kansas City	Apr. 8-10
Portland, OR	May 4-6	San Francisco	May 6-8

1993-94 NSPE Southwest Regional Vice President.

11. The Society endorsed the nomination of M. Dean Parsons, P.E., for 1993-94 NSPE President-Elect.
12. Proposed changes to Bylaw 6(p) were presented to the Board. The proposed changes will be considered by the Board at its January meeting.
13. President Hoover appointed the Board's representatives to the LES Nominating Committee. The Chapter Presidents complete the committee.
14. The Board approved a contribution to the Executive Director's retirement fund. LE

Answers to Laws and Rules of the Board test (on page 16)

10.E
1.A; 2.E; 3.B; 4.C; 5.E; 6.A; 7.A; 8.B; 9.A

"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.

Industry

- a. Industry "exemption" from registration law
- b. New Engineering Model
 1. No longer requiring exam?
 2. Engineering curriculum
- c. PE Review Courses
- d. New category called "Control Engineer"
- e. Industry representative on State Registration Board
- f. Increase in PE license renewal fee
- g. NSPE-PEI programs
- h. Louisiana engineering manpower survey
- i. Continued education requirements for engineers

Private Practice

Old Business

- a. Environmental site assessment update
- b. Consideration of amending 1991-92 budget

New Business

- a. Election of Officers for 1992-93
- b. Legislative needs
- c. Board of Registration nominations
- d. NSPE-PEPP 1992 NSPE Winter Meeting report

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.

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 Crown 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 15, 1992

CEC/L Board of Governors Meeting
Location TBA

April 26-30, 1992

ACEC Annual Convention
Chicago, IL

April 24, 1992

LES Board of Direction Meeting
Lafayette, LA

April 29-30 and May 1-2, 1992

Louisiana Society of Professional
Surveyors, Annual Convention
Holiday Inn
Houma, LA

May 14-17, 1992

National MATHCOUNTS Competition
Washington, DC

May 8, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

May 20, 1992

CEC/L Annual Meeting
Location TBA

GULLY & PHELPS, INC. REALTORS

SHEP PERRIN, P.E.

HOME 504-925-0747

OFFICE 504-925-2300

FAX 504-925-2696

Commercial Realtor • Industrial Sites

7915 WRENWOOD • BATON ROUGE, LA 70809

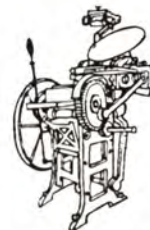
ADVANCED TECHNICAL APPLICATIONS CENTER, INC.

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"

3200 Ridgeway Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



FAX 355-2178

PRINTING INCORPORATED

3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department

Ed's ep
PRINTING
COMPANY, INC.

925-0991

9366 Greenwell Springs Rd.
at Monterrey

Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax: (318) 981-7922

USL (318) 231-6846

BUDDY VERNON
"DOES THINGS DIFFERENTLY"

2'YDDUB PROMOTIONAL ADVERTISING

11920 Industriplex Blvd. B. R., La.
(504) 923-0000 FAX: 504-293-7544

LEAK LOCATING



- ☐ LEAKS IN UNDERGROUND PIPES
- ☐ BLOCKED OR BROKEN SEWERS
- ☐ LOCATION OF UNDERGROUND PIPES

TOLL FREE: 1-800-673-5726
NEW ORLEANS: 392-7545

PRO-AM, INC.
RT. 2, BOX 414
PICAYUNE, MS 39466

FRANK A. ZIMBELMAN, P.E.
Owner & President

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123

Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts



Programmable Controllers

- SHARK / AutoMate / Automax
- ReSource ScreenWare 2 graphics

authorized stocking distributor
RELIANCE ELECTRIC



A. J. (AL) ADOUE, P.E.

Gregory-Salisbury & Co., Inc.

Manufacturers' Representatives
"Electrical Equipment & Apparatus"

2233 DECATUR STREET • P.O. BOX 8726
NEW ORLEANS, LA 70182
504-945-5207 • FAX 504-945-7492



WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 584351 NELSNG

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
45 YEARS OF EXPERIENCE SERVING INDUSTRY

- | | |
|---|--|
| ☐ SITE PLANNING / PERMITTING | ☐ MONITORING / MODELING |
| ☐ CHEMICAL / PROCESS / PETROLEUM | ☐ MECHANICAL |
| ☐ CIVIL / STRUCTURAL | ☐ PIPELINE |
| ☐ ELECTRICAL / ELECTRONIC | ☐ MINING |
| ☐ ENVIRONMENTAL / SANITARY | ☐ HVAC |
| ☐ INSTRUMENTATION / CONTROLS | ☐ ARCHITECTURE |
| ☐ CONSTRUCTION MANAGEMENT | ☐ ASBESTOS |

Parsons Brinckerhoff

- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1460
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 • FAX

BALAR

CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 615
SHREVEPORT, LA 71101
(318) 221-8312
FAX (318) 424-8508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL

Simons-Eastern Consultants, Inc.

P. O. Box 1286 • Atlanta, GA 30301-1286



**STRATEGIC
PLANNING
DESIGN**

**CONSTRUCTION
MANAGEMENT**

Atlanta, GA (404) 370-3200
Monroe, LA (318) 387-6216



McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

Serving the World's Environmental Needs

JMM James M. Montgomery
Consulting Engineers Inc.

3501 N. Causeway Blvd.
Suite 300
Metairie, LA 70002
(504) 835-4252



Offices located throughout the United States

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477



ATCHLEY & ATCHLEY, INC.

Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821
Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.

HALLIBURTON NUS Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX



Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.

Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3666 Government St.
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.

CONSULTING ENGINEERS



pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

6178 GSRI AVENUE • BATON ROUGE, LA 70820-7405 • (504) 766-6330

FORTE AND TABLADA, INC.

CONSULTING ENGINEERS



OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA. 70896
9107 INTERLINE AVE. • BATON ROUGE, LA. 70809



professional engineering consultants corporation

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Public Works and Airports, Waterfront Development,
Environmental Services, Highways and Bridges,
Industrial Facilities, Energy Studies

(504) 488-7711

4747 EARHART BLVD. NEW ORLEANS, LA. 70125

RPM ENGINEERING, INC.

A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC.

Consulting Engineers and Land Surveying

General Civil Engineering & Land Surveying

1225 NICHOLSON DRIVE BATON ROUGE, LA. 70821
P. O. Box 711 Ph. 504/344-3782



THE MEYER GROUP



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND - OFFSHORE HYDROGRAPHIC

550 South Van Ave.
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 77396

Call: SAM BROWN, Ph.D., P.E.

(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

• Project Managers
• Engineers
• Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBauve and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST.
ALEXANDRIA, LA 71302

318-445-8910

NBR
Nance
Brown
Roach

Architects • Engineers • Planners

401 Edwards Street
Suite 815
Shreveport, Louisiana 71101
318-424-3274

COYLE ENGINEERING
CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71171 6177

3925 BENTON RD
PHONE (318) 746-8987

DAVID
VOLKERT
& ASSOCIATES, INC.
ENGINEERS • ARCHITECTS • PLANNERS
3500 N. CAUSEWAY BLVD. • SUITE 1240
METAIRIE, LA 70002 • (504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, Miami, Tampa

Office (504) 632-5596

Res. (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.

Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction
1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437

**BUCHART
HORN, INC.**
Engineers, Architects
and Planners

RBA ENGINEERS • PLANNERS
Group

TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

• Aviation • Construction Management
• Bridges and Structures • Environmental Services
• Civil Engineering • Transportation and Planning

CATFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504.346.0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182

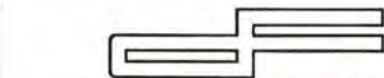
1200 SO. ACADIAN THRUWAY
SUITE 106
BATON ROUGE, LA 70806
(504) 387-0745

SWL SOUTHWESTERN
LABORATORIES

Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

Burk-Kleinpeter, Inc.

Engineers, Architects, Planners, Environmental Scientists

CIVIL • STRUCTURAL • MECHANICAL • ARCHITECTURAL
PLANNING • DESIGN • CONSTRUCTION MANAGEMENT
HIGHWAYS • STRUCTURES • DRAINAGE • FLOOD CONTROL
WATER AND WASTEWATER • SOLID WASTE
PORT AND MARINE FACILITIES • LANDSCAPE ARCHITECTURE
CADD • GRAPHIC DESIGN • AERIAL PHOTOGRAPHY

4176 Canal Street, New Orleans, Louisiana 70119
Tel. (504) 486-5901 Fax (504) 488-1714



**GERAGHTY
& MILLER, INC.**
Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide



MITCH ORTEGO, P.E.
MARKETING REPRESENTATIVE

OFFICE (504) 835-2577
FAX (504) 837-5924

3330 WEST ESPLANADE AVE. • SUITE 300 • METAIRIE, LOUISIANA 70002

CDM

environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

3445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272

236 Riverside Mall, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822

offices nationwide

gregory c. rigamer & associates, inc.

professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Muria, P.E.
Lawrence J. Ringel, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS

BERGER, BARNARD & THOMAS, INC.

ENGINEERS, ECONOMISTS, and PLANNERS

MUNICIPAL AND INDUSTRIAL ENGINEERING COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504/927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504/364-1637

JN JONES AND NEUSE, INC.

Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

8126 ONE CALAIS, SUITE 1A
BATON ROUGE, LOUISIANA 70809

PHONE: 504-767-5296
FAX: 504-767-5299

MOHR & ASSOCIATES, INC.

Consulting Civil Engineers & Land Surveyors

6025 Buncomb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS

GULF SOUTH ENGINEERS, INC.

ENGINEERING CONSULTANTS

1700 GRAND CAILLOU RD
HOUMA, LA 70363
(504) 876-6380
FAX 876-0521

1000 LEONIDAS ST.
NEW ORLEANS, LA 70178
(504) 866-1821
FAX 866-1781

SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS

GEOTECHNICAL
SOIL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS

ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION

QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS

316 HIGHLANDIA DR.
4100 LOUISIANA AVE.

BATON ROUGE, LA
LAKE CHARLES

504-752-4790
318-474-1340

DMJM

ENGINEERING

- Highways/Bridges
- Mass Transit
- Water Supply/Sewerage
- Dams/Water Resources

ARCHITECTURE

- Hotels
- Commercial Buildings
- Institutional Facilities
- Industrial Buildings

DANIEL, MANN, JOHNSON & MENDENHALL
Lykes Center
300 Poydras St. Suite 2115
New Orleans, Louisiana 70130
(504) 522-DMJM

- Transportation • Industrial
& Defense Facilities
- Civil Systems
- Management & Operations

PETROLEUM ENGINEERS INTERNATIONAL, INC.

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management - Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588

Lafayette, Louisiana 70505

(318) 233-5346

Numerical Modeling of Mechanical Systems



- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

- Mechanical Troubleshooting
- Failure Analysis
- Vibration Analysis
- Machine Design
- Stress Analysis
- Pressure Vessel/Heat Exchanger Design
- Heat Transfer
- Risk Assessment

8126 One Calais Ave., Suite 1B • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765

EUSTIS ENGINEERING

GEOTECHNICAL ENGINEERS

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET

METairie, LA 70002



A DIVERSIFIED ENVIRONMENTAL/EARTH SCIENCE CONSULTING AND DESIGN FIRM

4949 ESSEN LANE, SUITE 900
BATON ROUGE, LOUISIANA 70809
(504) 769-2600
FAX (504) 769-3695



LANIER & ASSOCIATES

Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

WOODWARD-CLYDE CONSULTANTS

engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



CHARLES R. FURLOW, P.E.
President

VICTOR R. DONALD, P.E.
Vice President

12021 Lakeland Park Blvd. • Baton Rouge, LA 70809
(504) 756-2555 FAX: (504) 756-2562

LANKFORD ENGINEERING, INC.

CONTROL SYSTEMS

DESIGN, MANUFACTURE, INSTALL, AND SERVICE
PLC-COMPUTER-ELECTRONIC
PNEUMATIC-ELECTROMECHANICAL

P.O. BOX 53931
LAFAYETTE, LA. 70505

NO. 6 FLAGG PLACE
PH. (318) 981-0532

Poché Associates

L I M I T E D

CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 • Lafayette, LA 70508 • (318) 237-6517

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

2000 North 7th
P. O. Box 728
West Monroe, La. 71291
JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E. Phone 318/387-2710

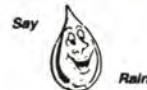
JACKIE W. D. ROBBINS: Ph.D., C.I.D., P.E.
Engineer (Agricultural) and C.E.O.

The Robbins Association/IRRIGATION-MART, Inc.

Rt. 6, Box 1241
Ruston, LA 71270
FAX & Ph (318) 255-7572

1-800-SAY-rain • 1-800-729-7246

Irrigation Sales & Engineering/Design



we SAVVY irrigation

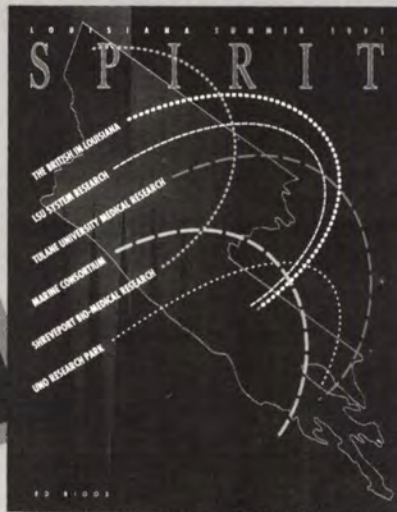
BADEAUX & ASSOCIATES INCORPORATED

CONSULTING ENGINEERS
STRUCTURAL/CIVIL

115 EAST SIXTH STREET (504) 447-2317
P.O. BOX 1056 THIBODAUX, LA 70302

J. Alvin Badeaux, P.E.
President

New Business Prospects Are Really Up On Louisiana Issues.



Education, Transportation, Research & Development—three key subjects affecting Louisiana's potential to attract new businesses have been brought to light in the first three issues of *Louisiana Spirit* magazine, published by your Louisiana Investor-Owned Electric Companies.

Every issue contains thorough and unbiased reporting of the state we're in and where we're going. This is meaty information that

many companies outside of Louisiana must have in selecting new sites for business expansion. And because the news looks good, we're making sure they get it.

If you would like to be on our mailing list for future issues, or receive any back issues, mail the coupon below. We'll add your name

to the growing list of site selection managers and CEOs in targeted industries who are really up on Louisiana issues —with *Louisiana Spirit* magazine.

Investing in your energy future



Central Louisiana Electric Company/Gulf States Utilities Company
Louisiana Power & Light Company/New Orleans Public Service Inc.
Southwestern Electric Power Company

☐ Please put me on your mailing list to receive *Louisiana Spirit* magazine. I would also like to receive the following back issues:

- ☐ Education
- ☐ Transportation
- ☐ Research & Development

Name _____

Address _____

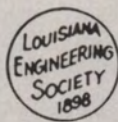
City _____ State _____ Zip _____

Business / Civic Affiliation _____

Title _____

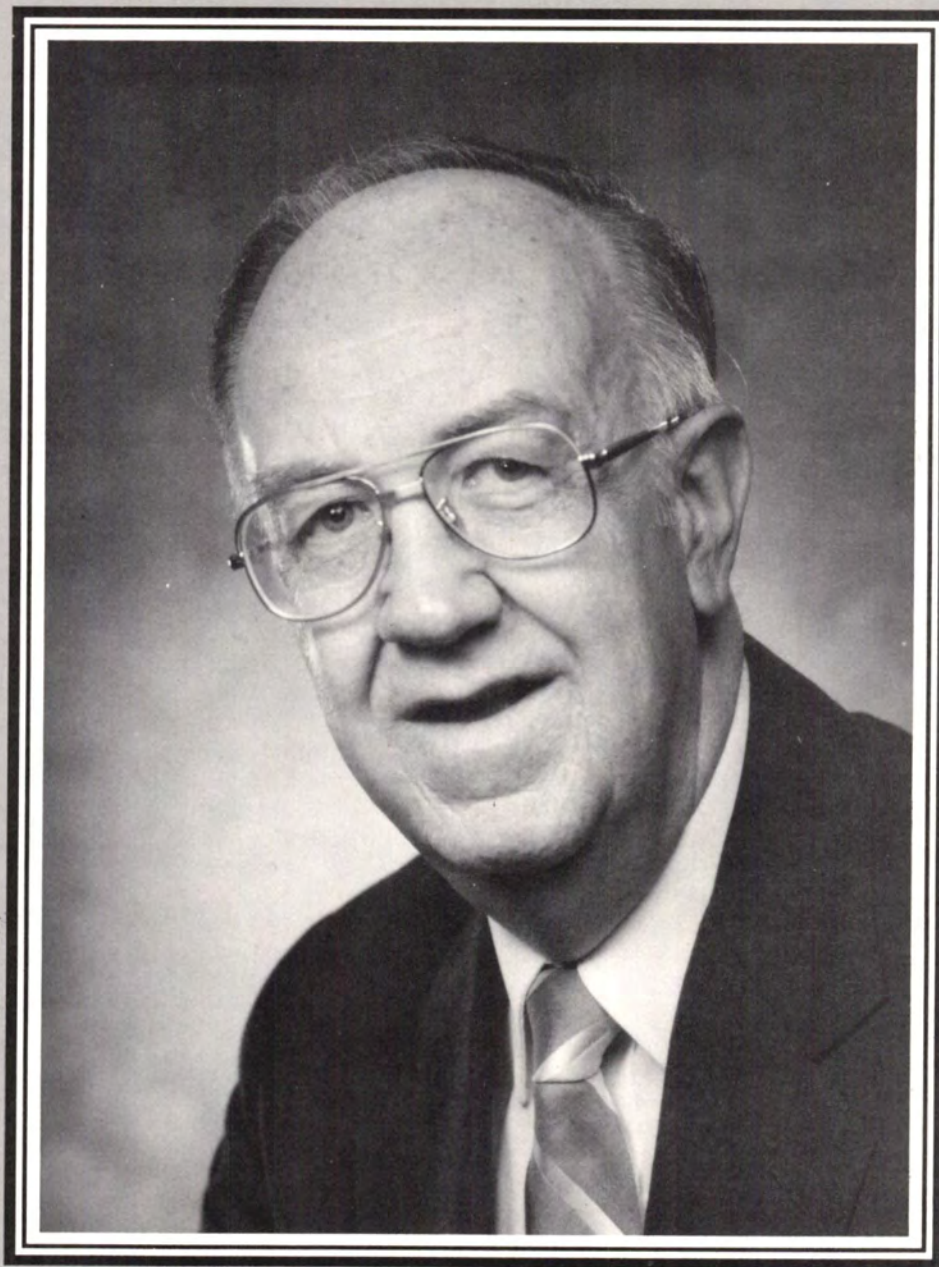
Day Phone _____

Send to: *Louisiana Spirit*, 1055 St. Charles Ave., Suite 615, New Orleans, LA 70130



APRIL, 1992
LOUISIANA

ENGINEER



Malcolm L. Hurstell, P.E.

Chairman 1992

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

On the Inside:

***Be sure to see page 10 for special registration forms, general program, and meeting agendas.
LES Annual Meeting, June 17-20, 1992***

What You Get for Your NSPE Dues Dollars

Membership in the National Society of Professional Engineers provides numerous benefits. NSPE continues to expand its services to members each year, and the following listing is just a sampling of professional and personal opportunities that accompany membership.

- **Information**—Your monthly publication, *Engineering Times*, keeps you up to date with the issues that affect the entire profession.
- **Networking**—Meet and get to know engineers from all disciplines and all management levels.
- **Contacts**—Friendships made through chapter and state meetings result in professional contacts that will help you reach your career goals.
- **Image**—Improve the public image of your profession through public-service programs like MATHCOUNTS and National Engineers Week.
- **Lobbying**—Your views on the critical issues facing your profession are presented to your elected officials in Congress and your state legislature.
- **Continuing Education**—Seminars on management, marketing, professional liability, and many other subjects keep you up to date with a rapidly changing profession.
- **Ethics**—NSPE developed and adheres to a strong Engineer's Code of Ethics. We established the standards of professionalism that will set you apart from the crowd.
- **MATHCOUNTS**—NSPE's mathematics competition encourages and rewards math excellence in more than 7500 junior high schools across the country. NSPE members reach over half a million young people each year.
- **Scholarships**—NSPE members counsel thousands of aspiring engineers and the Society awards some \$1,000,000 in scholarship aid and grants annually.
- **Practice Divisions**—Five practice divisions define and implement standards for a professional employment environment for government, private practice, construction, industry, and education.
- **GEICO Preferred**—You are eligible for preferred auto and home insurance. Call 1-800-368-2734 to compare rates 24 hours a day. In Maryland and Alaska, call collect 301-986-3500.
- **Gold and Silver MasterCard**—These prestigious credit cards offer you low interest rates, no annual fee in the first year, and customized credit limits up to \$15,000. For more information, call 1-800-847-7378, Monday-Thursday 9 a.m.-9 p.m., Friday 9 a.m.-5 p.m. (Eastern).
- **Insurance**—NSPE insurance offers some of the best rates on life and major medical. Call Kirke-Van Orsdel at 1-800-247-7988. In Alaska and Iowa, call 515-243-1776.
- **FAX Machines**—Purchase or lease Ricoh, Murata, or Panafax facsimile machines at a discount of 30-35%. Call 1-800-289-2776, Monday-Friday, 9 a.m.-8 p.m., Saturday, noon-5 p.m. (Eastern).
- **Rental Car Discounts**—5-10% discounts for business or vacation travel.
 AVIS discount AWD# A622400,
 call 1-800-331-1212.
 HERTZ discount CDP-ID# 88096,
 call 1-800-654-2200.
 ALAMO discount #BY211623,
 call 1-800-732-3232.
- **Vantage Travel**—Deluxe cruises and vacation packages are available at discount prices to exotic locales including the Caribbean, Russia, South America, the Orient, and more. Call 1-800-322-6677 for reservations or information Monday-Friday, 9 a.m.-9 p.m. (Eastern). In Massachusetts, call 617-734-8000.

Be sure to identify yourself as an NSPE member when calling the above numbers about NSPE-endorsed member benefits.



**1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256**

Other Members
Ara Arman, P.E./P.L.S.
Coan J. Bueche, P.E./P.L.S.
Robert D. Fenner, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Charles L. McDonald, P.L.S.
Larry A. McKee, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenet, Jr., P.E.

Managing Editor
Leta G. Bueto
Publishing Consultant
Printing Incorporated

Leta G. Bueto

Address LES Communications and Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318. FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Guest Forum

I sincerely appreciate the opportunity to serve as the Chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, and I look forward to working with each of you on the critical issues facing our profession.

The Louisiana Board is a "working Board" in that both the staff and Board Members have a responsibility for the function of the Board. This is true for examinations, processing of applicants, registering of applicants, renewal of registration, enforcement activities, and the financial management of the Board. There's no Board action that takes place without both the Board Members and staff working together. The Board is truly a "we and us" organization.

I would like to tell you about some significant activities of the Board in the past two years, give you some information about developing activities and briefly touch on some future possibilities. However, before discussing this information with you, I would like to comment on the subjects of pride, professionalism and responsibility.

Over the past several years, with increasing frequency, I have heard engineers and land surveyors say that they don't have the time or money to waste being a member of their own professional society, or other professional associations, or to be aware of what the Board of Registration is doing. That alarms me because through participation and support of professional societies and associations, professionals are more likely to keep abreast of changes whether technical, scientific, or legal, which may have impact upon them and upon the public that depends upon their services. Such participation also allows the engineer or land surveyor to have a means to communicate his concerns no matter how large or small. It is also important to keep abreast of what the Board is doing by being an active member of the Louisiana Engineering Society. To me it just appears to be good common sense and a matter of professionalism and pride to be more than a knot on a log. We are living in a time when our country is plagued with problems of poverty, hunger, homelessness, joblessness, lack of strong will and moral convictions, and so many people who are in a position to make even a small difference have instead chose apathy and retreated into their own shells. I would encourage each of you today to be a giver and a doer not a taker nor just a reactor.

With regard to the Board's significant activities in the past two years, we have had changes in both the law and rules and have considered other changes which were not acted upon.

1. In December 1989, the Board prepared to adopt a new rule regarding the selection of engineers and land surveyors based upon competency and qualification, not solely cost. After many let-



Malcolm L. Hurstell, P.E.
Chairman 1992
Louisiana State Board of
Registration for Professional
Engineers and Land Surveyors

ters, phone calls, an open forum in Baton Rouge, and much discussion among Board Members a decision was made to let the notice of intent expire and continue to study the matter for wording which would be effective and acceptable.

2. In September 1990, the Board adopted rules which
 - A. More clearly defined who is a bonafide employee and what is a bonafide established marketing agency.
 - B. Detailed requirements for Certification and Registration as a LSIT and PLS, as required by the new four (4) year degree provisions.
 - C. Required the full name of the registered professional to be in a firm title of an unincorporated individual proprietorship.
3. In December 1990, the Board adopted the Minimum Standards for Property Boundary Surveys.
4. The Board added Nuclear Engineering as a branch of registration effective March 1991.
5. LES and LSPS sponsored a bill which was adopted in 1991 which changed the Board to eleven (11) members - nine (9) professional engineers and two (2) land surveyors.

With regard to some developing activities, the Board has underway the following:

1. During 1990 and 1991 the Board sent letters to approximately 400 industrial firms in Louisiana in an attempt to clarify the industrial exemption aspect of the registration law.
2. Both the laws and rules are being reviewed to determine if any additional changes are necessary. The definition

of engineering in our law is not a good one and needs to be updated.

3. The Board has initiated action which would lead to adding Environmental Engineering as a branch of registration.
4. Established a goal to have one year operating funds in reserve for unforeseen contingencies (legal fees). We are in a negative cash flow situation (have been since 1987), exam cost going up, etc. We expect to have to work together with LES and LSPS in the near future to develop the required legislation to request an increase in our limit on renewals and initial registration.

Looking to the future, I am concerned about the enforcement efforts of the Board. If the Board is to discharge its mandated responsibilities in enforcement it must have the full support of the profession in identifying violations. The Board enforcement program is now structured to be more proactive than reactive. However, the Board still has only one full time investigator and one part-time investigator who must cover the entire state. On an average they must respond to fifteen or twenty complaints that are either received or self generated each month. Consequently, their time in addressing each complaint is limited. If initial complaints submitted to the Board were provided in sufficient detail much time could be saved.

In cases where the Board takes no disciplinary action, it is usually because there is a lack of hard evidence. However, in many of these cases there are indications of people with firsthand knowledge who, for whatever reason, choose not to provide information. It does no good if we are told that someone is doing something wrong, and everyone seems to know it, but people with firsthand knowledge, not hearsay, will not stand up and testify under oath of their knowledge. There is not always sufficient documentary evidence available to support a finding of a violation of the law or rules, making the testimony of individuals with firsthand knowledge absolutely necessary. I am also surprised at the number of persons in the engineering profession who are aware of violations of the laws and rules taking place by other engineers or land surveyors and unlicensed persons over extended periods of time, but who will not report these violations until they are directly affected, usually financially, by the violators actions. It is almost as if they forget that ethically and by the rules of professional conduct their primary obligation is to protect the safety, health and welfare of the public. In fact, one of the rules of professional conduct states that registrants having knowledge of a violation of the laws or rules **shall** report such knowledge to the Board and assist the Board as required. If we work together, perhaps we can address more effectively the problems which exist in Louisiana. **LE**

Automating Wastewater Collection Management in East Baton Rouge Parish

by John Stinson, P.E.
Computer Consulting and Programming

The Wastewater Collection Division (WWC) of the East Baton Rouge Parish Department of Public Works (DPW) uses computer local area networks, software application generators, digital picture capture technology and multi-media presentation technology to organize its diverse list of responsibilities. To comply fully and quickly with massive construction and operational requirements placed on the Department of Public Works by the U.S. Environmental Protection Agency, this division chose to computerize across a wide spectrum. Upon his appointment two years ago to head this effort, Casey M. Smith, Wastewater Systems Manager, inherited a division that used literally no automated equipment or procedures in managing Baton Rouge's wastewater collection network. The approach he took was to use computer technology to help organize both staff and contractors, based on the following four steps:

- Establish a local area network within DPW/WWC linking all units together
- Use application generators to develop systems quickly, and with the capability of supporting the daily operations of the division
- Invest in technology, such as digital picture capture and flow monitoring, that results in fewer office personnel needed to support field activities
- Implement multi-media technology for presentations to neighborhood groups, city council members and others.

The effective integration of all these technologies over the past two years has not only contained the need to hire more staff, but has provided databases that can be queried when responding to questions from citizens, the Mayor, print and electronic media and others. Furthermore, the system builds upon industry standard hardware and software, and can easily be networked with other divisions of the Department of Public Works.

Local Area Networks (LANs) Used as Cornerstone

Before beginning to build the other components of this Wastewater Collection Management System, a nucleus of headquarters office personnel working together

on a local area network needed to be trained. This phase of the plan called for PC workstations for each area of the wastewater collection operation, with each workstation connected to a fast, high-end PC file server. An in-house computer coordinator began working with professional computer consultants to select and implement each network component. This in-house coordinator was critical to the success of the project, since it was this person who provided the day-to-day continuity that kept progress on track. This coordinator not only was the link between in-house staff and professional consultants/programmers, but also insured that office personnel were adequately trained once hardware was installed and software was developed.

Affordability and the availability of DOS software make LANs attractive for just about any office environment. Systems can start out small, then grow without fear of obsolescence. Also, since most LANs are either Token-Ring or Ethernet, larger Public Works organizations can increase capacity and reduce response time by utilizing UNIX workstations as file servers instead of Intel-based PC file servers. Also, electronic "bridges" can be used to link the local network to larger mainframes for those applications that cannot or should not be performed locally.

Application Generator Quickly Develops Key Systems

Keeping track of sewer complaints, stoppages, barricade placement and all of the other operational requirements of a city the size of Baton Rouge meant that either packages needed to be selected, purchased and installed; or, application systems needed to be developed and installed quickly. Developing these systems in-house with the help of consultants was selected as the best approach, after reviewing the capabilities of state-of-the-art application generators and database management systems. By using programming/database packages, the following applications were developed quickly to meet the exact specifications of DPW/WWC:

- Cave-in Complaint Tracking — tracks work order from time of complaint through completion

- Personnel Costs — keeps track of DPW/WWC personnel costs, specifically overtime and leave
- Stoppage Tracking — tracks costs from stoppage through repair completion
- Barricade Placement — keeps track of barricade inventory and cost
- Sewer Point Job Costs — monitors sewer point job costs
- Stoppage Job Costs — controls stoppage repair job costs
- Concrete Job Costs — monitors usage and cost of concrete in job repairs
- Manhole Rehabilitation Job Costs — tracks manhole rehabilitation costs
- Purchase Requisition Management — controls use of purchase requisitions
- Street Cut Tracking — keeps track of blocked streets.

Each of these systems was developed in-house, complete with menus, add/edit/delete and browse capabilities, table look-up for verification and other features. Not only are they used daily, keeping track of the business of the wastewater collection division, but they quietly accumulate data that can be aggregated on a monthly, quarterly or annual basis.

The large databases that have developed over the past two years are a valuable asset of this division. They provide the raw data that can be used by management to respond to questions from city/parish management, metro council members, news media and the public at large. Presentations to neighborhood groups can be developed using data that is reliable, accurate and current. To an agency that faces the public regularly, this can be very important.

Infrastructure Analysis Technology Results in Fewer Office Personnel Needed to Support Field Activities

Faced with an extensive, deteriorating infrastructure, limited manpower and rigid schedules, Smith focused on avail-

Continued on page 19

Total Quality Management Is a way of life. ... not a program, or simply a process.

Richard M. Miller, P.E.

In fact, Total Quality Management is not the point. Everyone wants high quality. People get satisfaction from doing something well, or creating something of high quality. People want to receive high quality in the products or services they purchase.

In that regard, management is the issue. All businesses have management. It can be good or bad. Good management is often perceived as one that is successful. Yet there are many poorly managed firms that get by, "successfully." Unfortunately, there is no definition of what constitutes success. However, we are not interested in getting by, we are interested in "good management".

To understand management that achieves high quality, consider the totality of what gets done, who does it, and how it gets done. Clearly, management cannot be effective piece meal, a little good management over here - not so good over there - and bad in one area or another. Likewise, it is ineffective to make parts of the product good, some parts poor, and the remainder bad - and that goes for service as well. A surly confrontation can overshadow all the prior good service a customer had during an engagement. As it relates to the quality of management or product/service, either could be said to be as good as the weakest link.

The point is - what we do requires that we do it "totally" with a relentless regard for high quality of product or service, having a high quality of management throughout the enterprise. A high quality of management - managing the quality of what is done.

Dr. W. Edwards Deming makes it very clear that good intentions, hard work, positive mental attitude, highly motivated people, having high tech equipment, in the finest working environment, all doing their best is far from adequate to produce the quality of product or service needed to survive. He goes to great lengths to demonstrate the need for leadership from people with substantial knowledge - of people, systems, philosophy and variation

- emphasizing the dignity of the individual.

Dr. Joseph M. Juran goes into finite detail to spell out the mechanics and technical details required of the leaders, and the organization, to improve the quality of output needed to survive.

Even Philip B. Crosby presses the need to change the way business does things, management's responsibility and integrity, and the need to focus on perfection with various requirements and axioms that must be addressed - or else.

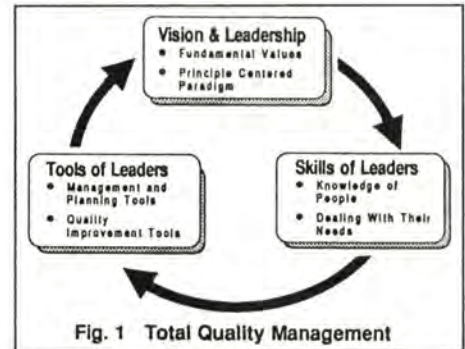
Given an inclination to want to do better and trying to succeed, managers endeavor to make an effort to respond to all this expertise and demonstrated excellence - only to find these dogmatic solutions are unclear, and alien to their lifelong experience. Furthermore, taken at face value they seem to cause confusion, frustration and cynicism. Each program flashes, burns and fades out, leaving the participants weary of one more program imposed upon them - knowing full well there will be yet another fad in the future.

The problem is we try to perfect one or two elements of management and expect success. We are "sold" the parts and expect the whole. Consider all the elements of management.

Consider the most tangible element of the quality cycle, the product or service. Is it good or bad? How good/bad is it? It is never as good as it could be, even though it may meet the customer's needs. After all isn't that all the customer asked for? There will always be a better way to do something - easier, with less waste, less time, and less cost. Someone will find it and take the customer. Good enough is no longer good enough.

How do we know quality? If we cannot measure it - we cannot compare it to anything else, or determine how good it is. We must learn scientific methods of analysis, measuring what we do, and tracking how we do it, to determine what to fix, where, and how. Deming, Juran and many of their students have developed the "seven tools" of quality improvement. See Fig. 1, "Tools of Leaders", "Quality Improvement Tools." This has proven, time and again in countless numbers of businesses and industries, to be very effective in creating dramatic improvements in the quality of the product and/or service, cutting waste and costs, and increas-

ing customer satisfaction. To make significant, sustainable improvements, every business and industry must have a high capability in the use of scientific tools of quality improvement. The ability to do things right. But, there is more.....



Often there is so much attention on basic processes and the use of the Q.I. tools, that management is at a loss to determine what needs to be improved, why, and by who. Without an effective scientific methodology of issues identification, prioritization, client needs, and management decision making, action takes place either autocratically, or chaotically. In either case considerable energy is mis-spent. The random analysis of many activities frustrates senior managers, who have trouble determining the value of what is going on. This also conflicts with middle managers efforts to control their units so they can execute their perceived responsibilities. The solution is to have the ability to use the "Tools of Management and Planning"(Fig. 1) to determine where to effectively apply the Q.I tools. The ability to determine the right things to do. But, there is more.....

People make quality. That fundamental has not been challenged. What is controversial is how to make people make quality. People make quality when they want to, assuming they have the management support, knowledge, empowerment and resources necessary - and every one of these pieces must be in place - all the time. All the tools and processes in the world will never take the place of leadership skills and knowledge. "Management" must learn the difference between leading and managing. People must be lead - not managed. People hear and see what leaders say, and do and don't do. When these are out of "sync", or any one is missing, nothing will make or



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



inspire people to do well. People see and hear not only what management does, but they "read" what is not seen and not heard, and interpret it by its worst implication. Fear, in its many forms, is present in every person in every work place - at all levels. Every leader and manager must develop substantial knowledge and capability with the "Skills of Leaders" (Fig. 1) in the area of communicating and dealing with people. They must have a better understanding of why people (don't) do what they (don't) do. But, there is more.....

At all levels, regarding all things, everyone must consider why they are doing what they are doing. Furthermore, their "how" is based on their own belief system of principles and values. Significant conflict arises in this area, which is critical to creating a quality organization. Would anyone "give 110%" if what they were doing "might be OK", but they don't believe it is right? Does the end justify the means? Eventually, we learn the flaw in this thinking, every time we try it. People must feel good - be proud of what they are doing to be able to do it well. Every leader must spend the time to look inward and determine their own principles and beliefs. From this foundation they develop the values from which they lead. To effectively lead and develop a successful enterprise, they must facilitate the people in the organization to look at their collective "Foundational Values" based upon a "Principle Centered Paradigm" (Fig. 1). Regardless the time spent - developing this issue, this is the basis upon which all decisions are made. In an organization as in an individual there is stress and sickness that results from conflicts at this level, appropriately labeled dis...ease. Some of the most obvious symptoms are conflict, distrust, hypocrisy, insecurity, and fear. And, finally.....

The fundamental "tools" used to establish the "why" are the vision and mission statements. It is preposterous to believe that anyone can have "the" vision of the company. A good leader is responsible to develop a "Vision with Leadership" (Fig. 1), but never in a vacuum, or involving only a few people. To energize a company and "enroll" the people requires great skill in developing a vision that captures the visions of the employees. People that focus on their vision become inspired, empowered and committed to the enterprise that represents it. They feel, "this is where my

vision will become a reality". Considerable effort must be expended to draw out the collective vision of the participants - and to make it relevant to the enterprise where they contribute their skills. Additionally, it is through a well articulated realistic, courageous mission that the vision can be applied or adapted. An exciting, ethical vision will enroll people to make the mission theirs so the company can succeed. Everyone must understand "what we do around here". There may or may not be a good reason to change how things get done. But there must be a consensus of what and why, with a commitment to engage the effort and resources for the long haul to make it happen.

The above cannot be done over night, and does not have to be. People get inspired by the challenge and the "journey" if it is sincere, supported by all of management, and the culture is created to support it. It must start at the top of the organization and be worked down through the ranks. Integrity, trust, honesty and openness must come first. Then education, knowledge and wisdom.

What does a company that has TQM look like? It is a company that has a constancy of purpose, with clearly demonstrated principles and values, having an exciting shared vision, a specific capable mission, with leaders and managers that have well developed leadership skills and a knowledge of people, trained and capable in the use of the tools of management, planning and quality improvement. Regardless of the level of attainment of all of this, it is a learning company, that places a high priority on training and continual improvement.

Richard M. Miller, P.E., retired president of Gee & Jenson, Engineers, Architects, Planners, Inc., is a principal in the management consulting firm of Compass Consulting Group. Compass Consulting Group provides consultation and training to attain Total Quality Management. (407/747 1233)

"....there must be a consensus of what and why, with a commitment to engage the effort and resources for the long haul to make it happen."

Review and Outlook Sued If You Do . . .

It's not taught in law school yet, but the headlines teach a new doctrine in the very uncommon law of the U.S. This principle is: Sued If You Do-and Especially If You Don't.

Consider poor Exxon, which can't get a legal break for all the oil in Alaska. The captain of the ill-fated Exxon Valdez, Joseph Hazelwood, was accused of being drunk when the oil spill occurred, which cost the firm a \$1 billion legal settlement. Exxon decided to ban employees with histories of alcoholism from key posts aboard tankers.

This might sound like a perfectly sensible new policy, but not to the law. Theodore Ellenwood, who had been the chief engineer on the oil tanker Exxon Wilmington, had no trouble finding a lawyer to sue Exxon when he was taken off the ship because of his history of alcohol problems. Exxon offered Mr. Ellenwood a job at the same pay on land, explaining, "You can't put people with alcohol problems in safety-sensitive jobs."

To no avail. A federal judge in Maine, where Mr. Ellenwood lives, sent the case to a jury, which in January decided Exxon must pay more than \$750,000 in damages, \$680,000 in lost pay to Mr. Ellenwood plus \$50,000 for "negligent infliction of emotional distress" plus \$25,000 for his wife's emotional distress.

So Exxon is liable because it didn't remove an officer with a drinking problem and also because it did. Only in America.

What passes for legal reasoning in this nation's courts does not bode well for the cigarette industry. We have no special brief for coffin nails, but the Supreme Court is apparently divided on whether tobacco companies should also be sued because they complied with the law. Federal laws since 1965 has mandated Surgeon General's warnings on the risks from smoking, requiring tobacco companies to print specified warnings on every pack. Now plaintiff lawyers want to argue in state courts that tobacco companies should have printed some other warnings; the Justices have to decide whether the

companies will be liable for doing what federal law required them to do.

Not that federal law is any paragon of consistency. For example, there's the Americans With Disabilities Act. As soon as this law went into effect recently, a wheelchair-bound Harvard-trained lawyer in Washington filed against the Capital Hilton and Raleighs, Woodward & Lothrop, and the movie theater at Union Station. Marc Fieldler had access to each place, but complained of inconvenience from using special entryways and being denied movie seating "for optimal viewing pleasure." He might just win since Congress wrote the ADA as vaguely as it could, leaving it to juries to work out.

Making buildings user friendly for the handicapped will mean big investments in new technologies, which naturally means litigation. It's no coincidence that the Association of Trial Lawyers of America recently formed the Automatic Door Litigation Group to spot contingency-fee opportunities arising from these new federal requirements.

The good news is that Dan Quayle is back on the warpath against the organized bar. On February 4, 1992, the Vice President outlined to the American Tort Reform Association the federal and state legislation he's proposing to limit punitive damages and otherwise make our civil justice system worthy of the name.

U.S. law can now be classified as dysfunctional. In too many cases, people have little idea how to comply with the law, and when they manage to comply with one law often find that they've violated another. At least it's still legal to tell lawyer jokes.

The President's Council of Competitiveness "An Agenda for Civil Justice Reform in America" Fact Sheet Model State Punitive Damages Act

Punitive damages are punishments in the nature of fines awarded in civil cases after the injured party has been fully compensated. While the award of noncompensatory, punitive damages can serve a useful purpose in deterring and punishing extreme or egregious misconduct, the current methods of awarding punitive damages often impose punishment in a random and capricious manner. Unfortunately, the specter of unlimited punitive damages encourages parties to try cases needlessly and frustrates early

settlement, thereby delaying justice and impeding the swift award of compensatory damages to injured victims.

This type of inordinate cost and delay in the civil justice system was one subject of an extensive study by the President's Council on Competitiveness, chaired by Vice President Dan Quayle. As a result, the Council developed 50 recommendations for improving the civil justice system. Reported in the "Agenda for Civil Justice Reform in America," the recommendations will make the justice system more fair and accessible for all citizens. Among the Council's recommendations is the reform of unlimited punitive damages.

The current common law approach of unlimited punitive damages leads to indiscriminate awards. If punitive damages are to be an effective deterrent, they must be imposed in a rational and predictable manner. The Council's recommendations for punitive damages reform are now embodied in a **Model State Punitive Damages Act**. The **Model Act** establishes reasonable and fair standards that will promote predictability while insuring that punitive damages remain an effective deterrent.

The **Model Act** presents a six-part proposal for state legislative action for punitive damages reform. Each component has been proven effective in one or more states, but no state has enacted a comprehensive reform package containing all suggested measures. The **Model State Punitive Damages Act** is a rational and consistent approach to punitive damages that includes:

Pre-Litigation Notice of Claims - In order to provide parties with the opportunity to settle their disputes at the earliest stages, the **Model Act** requires pre-complaint notice when punitive damages may be requested.

Pleading Punitive Damages - To prevent inclusion of punitive damages merely for publicity and to ensure that punitive damages remain as an issue at trial only if there is sufficient evidence, the **Model Act** eliminates from the complaint requests for specific dollar amounts.

Standard of Proof - Before an award of punitive damages, the plaintiff must establish, by clear and convincing evidence, that the defendant acted with malice - specific intent to cause serious injury or a flagrant indifference to the potential harm.

Bifurcated Trials - The jury would award punitive damages in a separate proceeding after liability has been determined. This insures that punitive damages are measured decisions, not the product of passion.

Judicial Determination of Amount - After the jury finds that punitive damages are appropriate, the judge draws upon his or her experience with such cases and determines the amount of punitive damages to be awarded.

Ceiling for Punitive Damages - No award of punitive damages would exceed the amount of total compensatory damages award to the plaintiff. Capping the amount of punitive damages at one times the actual damages serves as a deterrent while insuring that the injured party is fully compensated for his or her injuries.

The Administration is committed to the fair, efficient and early resolution of disputes. In addition to the **Model State Punitive Damages Act**, the Administration has made available **Civil Justice Reform Model State Amendments** for additional reform at the state level. On the Federal level, the Administration has applied the civil justice reform recommendations through Executive Order 12778 and has transmitted to Congress the "Access to Justice Act of 1992." The Administration is also proposing amendments to the Federal Rules of Procedure and Evidence through the Supreme Court's rule-making process. **LE**

EJCDC Revises Owner-Engineer Agreement

A revised *Standard Form of Agreement Between Owner and Engineer for Professional Services* (EJCDC 1910-1, 1992 edition) has been published. The Engineers Joint Contract Documents Committee has completely reformatted the agreement and has included new language on insurance requirements, indemnification, and standard of care. Copies are \$14 for NSPE members. To order via credit call, 703/684-2882.

LOUISIANA ENGINEER/APRIL 1992

Membership Invitation

Indicate type or print in ink and check preferred address: ☐ Home ☐ Work
Name (Mr./Ms./Mrs.): _____

Home Address: _____

City: _____ State: _____ Zip: _____

Phone: () _____ Date of Birth: _____

Employer

Employer's Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Job Title: _____ Phone: () _____

Education

University: _____ Mo./Yr. Graduated: _____

Degree(s): _____ Major: _____

Registration/Certification (If applicable)

PE State License# Year Registered: _____

EI/EIT State Certificate# Year Certified: _____

LS State License# Year Registered: _____

NSPE USE ONLY

State CHP GRADE

ORIG NSTA SLVL SSCH

N PAY S PAY C PAY PRAC PAY

MM

Dues Schedule

Amount
Enclosed

- ☐ Introductory Fee: \$154*
☐ I graduated within the past 12 months from an ABET** accredited engineering program. Introductory Fee: \$77
☐ I am an engineering student. Introductory Fee: \$10 \$ _____
☐ I previously held NSPE membership in _____ (yr). Introductory rates do not apply. You will be invoiced.

From Jan. 1-June 30, full payment provides membership for the current calendar year. From July 1-Dec. 31, full payment provides membership for the balance of the current calendar year plus the entire following year. Student dues provide membership only for the current calendar year.

Practice Division(s)

Practice Division services are provided without cost in your first year of membership.

- ☐ Construction (PEC)—\$30 ☐ Government (PEG)—\$25
☐ Education (PEE)—\$25 ☐ Industry (PEI)—\$20
☐ Private Practice (PEPP)—\$60

Payment

Membership services will begin upon approval of application and receipt of payment.

- ☐ Check Enclosed ☐ VISA ☐ MasterCard ☐ Please bill me.

Credit Card # _____

Signature: _____ Exp. Date: _____

Sponsor (Optional)

Member name and number must be included for a sponsor to receive credit.

Sponsor's Name _____

Sponsor's Member # _____

Chapter (Optional)

Preferred Chapter _____ State _____

Contributions or gifts to NSPE are not deductible as charitable contributions for federal income tax purposes. However, they may be deductible as ordinary and necessary business expenses.

*The new member rates listed cover national, state, and chapter society dues for your first year only. These rates do not apply in Alaska, Florida, Guam, Kansas, Maine, Puerto Rico, Vermont and Wyoming. If you live in one of these states, simply mail in the application and you will be invoiced. Membership is open to all registered PEs and EITs, and graduates of engineering programs accredited by the Engineering Accreditation Commission (EAC) of ABET**. Membership rates and requirements are subject to change. Mail to: NSPE, P.O. Box 96107, Washington, DC 20077-4611. Dues include subscriptions to Engineering Times (\$10) and the applicable practice division newsletter (\$1)—PEC Reporter, PEEReview, PEG Times, PEI Industry Forum, or Private Practice News.

**Accreditation Board for Engineering and Technology

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, 1992

LES Board of Direction Meeting
Lafayette, LA

April 24-25, 1992

Louisiana Section ASCE
Spring Meeting
Holiday Inn Downtown
Shreveport, LA

April 26-30, 1992

ACEC Annual Convention
Chicago, IL

April 29-30 and May 1-2, 1992

Louisiana Society of Professional
Surveyors, Annual Convention
Holiday Inn
Houma, LA

May 8, 1992

Illuminating Engineering Society
Baton Rouge Chapter
Fairwood Country Club
Baton Rouge, LA

May 14-17, 1992

National MATHCOUNTS Competition
Washington, DC

May 20, 1992

CEC/L Annual Meeting
Location TBA

June 1-2, 1992

State Board of Registration Meeting
New Orleans, LA

June 5, 1992

LSPS Board of Directors Meeting
Baton Rouge, LA

June 17-20, 1992

LES Annual Meeting and
Installation of Officers
Ramada Inn
Baton Rouge, LA

June 20, 1992

LES Board of Direction Meeting
Baton Rouge, LA

July 19-25, 1992

NSPE Annual Meeting
Oak Brook Hills Hotel
Oak Brook, IL

**LES ANNUAL MEETING
REGISTRATION
RAMADA HOTEL, BATON ROUGE, LA
JUNE 17-20, 1992**

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**LES
P. O. Box 2683
Baton Rouge,
LA 70821**

		No. Tickets	Amount
PREPAID Discount Registration Fee ¹	\$45.00	_____	_____
Registration Without Prepayment	\$60.00	_____	_____
Daily Registration Fee ²	\$15.00	_____	_____
Wednesday Golf	\$50.00	_____	_____
Thursday/Joint Practice Division Session ³	FREE ³	_____	_____
Thursday Dinner ⁴	\$15.00	_____	_____
Friday Luncheon ⁵	\$12.50	_____	_____
Friday Awards Banquet	\$20.00	_____	_____
Spouses			
Thursday - Lunch at Mansur's ⁶	\$10.00	_____	_____
Friday - Lunch at hotel in St. Francisville ⁷		_____	_____
Order From Menu			

TOTAL _____

1/Prepaid discount applies only if registration and payment is received one week prior to the convention.

2/Daily registration fee is applicable for one day attendees only.

3/Please register. Limited seating available. FREE with payment of daily registration fee. Joint Practice Division Session - Guest Speaker General Jude Patin, Secretary of the Louisiana Department of Transportation and Development.

4/The Thursday evening social will be a casual dinner/dance featuring fried catfish and live music at the beautiful LSU Burden Research Plantation.

5/Kevin P. Reilly, Sr., Secretary of Louisiana's Economic Development.

6/"On your own" Antique shopping from 9:30 a.m. - 12:00 p.m. Lunch at Mansur's.

7/Trip to St. Francisville. Choice of shopping or touring Rosedown (If you choose to tour Rosedown the cost is \$8.00 per person). Lunch at local hotel. Individual checks.

☐ 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
Ramada Hotel, Baton Rouge, LA
June 17-20, 1992**

Please register early. Reservations must be received by the hotel no later than May 29, 1992. If reservations are not received by this date, a rack rate will be charged. Rack rate is presently \$52.00 nightly for a single plus \$7.00 for additional occupants.

Name (print) _____

Address _____

City _____ State _____ Zip _____

Rates for single and doubles are \$40.00 plus appropriate taxes.

Please check type of room requested.

☐ SINGLE

☐ DOUBLE

Check-in Time: 3:00 p.m.

Check-out Time: 12:00 Noon

Accommodations will not be confirmed without a check for the first night's deposit or use of a major credit card to guarantee your reservations. You will be charged for the first night if reservations are not canceled prior to 6:00 p.m.

Your Arrival Date _____ Your Departure Date _____

Credit Card and # _____ Expiration _____

Signature _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**RAMADA HOTEL
1480 Nicholson Dr.
Baton Rouge,
LA 70802**

1-504-387-1111

LES Annual Meeting, June 17-20, 1992, Baton Rouge, Louisiana

General Program

Wednesday, June 17, 1992

11:00 a.m. - 5:00 p.m. Registration
12:30 a.m. Golf Tournament*
The Bluffs
St. Francisville

*Transportation will be available from hotel at 11:00 a.m. Please advise state office when you register if transportation desired! (See additional information on tournament printed in "Meeting Information".

6:00 p.m. - 7:00 p.m. Hospitality Suite Open
DINNER "On Your Own"

Thursday, June 18, 1992

8:00 a.m. - 5:00 p.m. Registration
8:30 a.m. - 10:00 a.m. COMMITTEE MEETINGS

Inter-Society Relations
Public Relations
Constitution and Bylaws
BREAK
10:00 a.m. - 10:30 a.m.
10:30 a.m. - 12:00 Noon COMMITTEE MEETINGS

Long-Range Planning
LUNCH "On Your Own"
Joint Practice Division Session
Guest Speaker: General Jude Patin,
Secretary, Department of Transportation and Development

3:00 p.m. - 3:15 p.m. BREAK
3:15 p.m. - 4:45 p.m. PRACTICE DIVISION MEETINGS

Construction
Education
Government
Industry
Private Practice
6:30 p.m. CASUAL DINNER/DANCE - LSU Burden
Research Plantation

Friday, June 19, 1992

8:00 a.m. - 12:00 Noon Registration
8:30 a.m. - 10:00 a.m. COMMITTEE MEETINGS
Executive Committee
Liaison/State Board

10:00 a.m. - 10:30 a.m. BREAK
10:30 a.m. - 2:00 p.m. COUNCIL OF DEANS MEETING

Meeting Information

Agenda/Issues for all Committees and Practice Divisions scheduled to meet are published below for your information.

Golf Tournament - The golf tournament will be at "The Bluffs", the number two rated course in the state as rated by Golf Digest. The championship course was designed by Arnold Palmer. 534 beautiful wooded acres in the rolling hills of Feliciana. Chef Yarbrow will prepare hor d'oeuvres afterwards in the restaurant during the awards presentation.

Wednesday Evening Hospitality - A hosted cocktail party will be held from 6:00 p.m. - 7:00 p.m.

Joint Practice Division Session - General Jude Patin, newly appointed Secretary of the Louisiana Department of Transportation and Development. Time will be reserved for a question and answer period. Limited seating is available. Please register!

Thursday Evening Social - The social outing Thursday evening includes casual dancing and dining. All to be held at LSU Agriculture Center's Research Plantation, Ione E. Burden Conference Center, off Essen Lane in Baton Rouge. Burden Research Plantation's 450 acres, once the Windrush Plantation owned by the Burden family since before the civil war, is now a Horticulture Research Experiment Station. Come enjoy all the fun, surrounded by the 1,200 rose bushes at the station's National Test Garden.

Friday Luncheon - Kevin P. Reilly, Sr., Louisiana Secretary of Economic Development, will be the featured guest speaker. As Secretary of Economic Development, Mr. Reilly directs the state's domestic and international programs to attract new investment as well as the state's efforts to spur small business growth and to assist resident industry.

Friday Installation Banquet - The highlight of the convention will be the installation of officers to lead the Society for 1992-93.

COMMITTEE MEETINGS

Membership Committee

- Orientation Chapter Committee Chairmen
 - State office assistance/procedures
 - Membership Recruitment Contest Rules
 - Net Growth Contest Rules
- Review of Membership Growth
- Discussion on Recruitment Strategies
- Chapter plan of action/activities

Constitution and Bylaws Committee

- Board approved Life Time Achievement Award addition to Draft #6 of Constitution.

10:30 a.m. - 12:00 Noon

12:15 p.m. - 1:45 p.m.

2:00 p.m. - 3:30 p.m.
2:00 p.m. - 4:00 p.m.
4:00 p.m. - 5:15 p.m.
6:30 p.m. - 7:30 p.m.
7:30 p.m.

Saturday, June 20, 1992

8:00 a.m. - 12:00 Noon BOARD OF DIRECTION MEETING

Spouses' Program

Wednesday, June 17, 1992

11:00 a.m. - 5:00 p.m. Registration
12:30 p.m. Golf Tournament
The Bluffs
St. Francisville
Hospitality Suite Open
"On Your Own"

Thursday, June 18, 1992

8:00 a.m. - 5:00 p.m. Registration
8:30 a.m. - 9:30 a.m. Hospitality Room Open
9:30 a.m. - 12:00 p.m. Antique Shopping
12:00 Noon Lunch at Mansur's
6:30 p.m. Casual Dinner/Dance

Friday, June 19, 1992

8:00 a.m. - 12:00 Noon Registration
8:30 a.m. - 9:30 a.m. Hospitality Room Open
9:30 a.m. - 12:00 p.m. Trip to St. Francisville
Choice of Shopping or
Tour of Rosedown
Lunch at Local Hotel

6:30 p.m. - 7:30 p.m. COCKTAILS
7:30 p.m. INSTALLATION BANQUET

Saturday, June 20, 1992

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

- Review Draft #3 of the proposed Bylaws rewrite
- Discuss criteria for distribution of assets
- Develop an amendment to provide a mechanism of abolishment of old and adoption of new Constitution and Bylaws.

Inter-Society Relations Committee

Old Business

- Public Relations
- Chapter Activities/Plans
- Contact Leaders of Other Design Professions
 - Directory of other societies' officers
 - Joint statewide meeting

Continued on page 18

Special Notice to All Registrants

The Board directed the Executive Secretary to **give notice** to all registrants of the Louisiana Board the importance of §2103 of the Rules of Professional Conduct. The Board wants all registrants to know that it intends to take whatever action is necessary to insure that this rule is complied with. I am therefore quoting this rule for your information and compliance.

- "A. Registrants shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.
- B. Registrants shall at all times recognize that their primary obligation is to protect the safety, health, property, and welfare of the public. If their professional judgment is overruled by non-technical authority, they will clearly point out the consequences, notifying the proper authority of any observed conditions which endanger public safety and health.
- C. Registrants shall approve and seal only those design documents and

surveys which are safe for public health, property and welfare, which are complete and accurate, in conformity with accepted engineering and land surveying standards or practice; and which conform to applicable laws and ordinances.

- 1. Registrants shall comply fully with Chapter 17 Rules Governing The Use Of The Seals.
- 2. Except as permitted by §1701(H), registrants shall not seal the work of or take the professional responsibility for surveying not performed by the registrant or under registrant's complete direction and control.
- 3. Registrants may not accept the responsibility for, nor review, revise, sign, or seal drawings when such plans are begun by persons not properly registered and qualified; or do any other act to enable either such registrants or the project owners, directly or indirectly, to evade the requirements of R.S. 37:681 through R.S. 37:703.

- D. Registrants shall submit to a client only that work (plans, specifications, reports, and other documents) prepared by the registrant or by an employee (or subordinate) of the registrant (which is under the registrant's complete direction and control); however, registrants, as a third party, may complete, correct, revise, or add to the work of another registrant or other related design professional, if allowed by Louisiana Statutes, when engaged to do so by a client, provided:

- 1. The client furnishes the documentation of all such work submitted to him by the previous registrant(s), or other related design professional(s).
- 2. The previous registrants or other related design professionals are notified in writing by the registrant of the engagement referred to herein immediately upon acceptance of the engagement; and,
- 3. All work completed, corrected, revised, or added to shall contain a notation describing the work done by the registrant now in responsible charge, shall have the seal and signature of the registrant affixed thereto, the date of execution, and shall become the responsibility of the registrant."

I know from the telephone calls I receive, many of you are concerned about sealing, signing, and dating of your work. You want to comply with the rules but you're not sure how to comply in your specific situation. Board Members and I can discuss this issue with you; however, you have the ultimate responsibility.

My response to 99.9% of the inquiries on this matter end up with the following: "Is this engineering or surveying work we're talking about? You and I can discuss the specifics; however, it probably would be best for you to take a good hard look at R.S. 37:682 (8) or (9) to determine for yourself if it is engineering or surveying. If your answer is yes then:

- 1. The work has to be done by or under the supervision of a registrant of the Board.
- 2. That registrant of the Board has the

OCTOBER 31, 1992 EXAMINATION SCHEDULE AND DEADLINE DATES

Examination	Pre-Application Deadline Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	July 15, 1992	August 1, 1992	October 31, 1992
Principles & Practice of Engineering Examination (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical			
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum			
Fundamentals of Land Surveying Examination (8 hrs.)	May 1, 1992	May 15, 1992	October 31, 1992
Principles and Practice of Land Surveying (6 hrs.)			
Louisiana Laws and Procedures of Land Surveying (2hrs.)	NOT AVAILABLE October 31, 1992 --- NEXT EXAM April 17, 1993		

Pre-Application is required of applicants for certification as an Engineer-in-Training or Land Surveyor-in-Training and for registration as Professional Engineer or Professional Land Surveyor.

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.



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



responsibility to sign, seal, and date his work."

That's the bottom line --- if it's engineering or surveying work, a registrant must do the work or be responsible for having it done under his direct supervision and finally he must sign, seal, and date his work. The only exception is §1701(H) of the Board Rules which reads:

"In the case of an individual registrant checking the work of and taking the professional responsibility for an out-of-state individual registrant, the Louisiana registrant shall completely check and have complete dominion and control of the design. Such complete dominion and control shall include possession of the sealed and signed reproducible construction drawings, with complete signed and sealed design calculations indicating all changes in design."

The other question which surfaces regularly is — "How can I be sure someone will not alter my signed, sealed, and dated work?" My answer to that is. "You can't be sure. If I were you, I would want to be able to prove what I delivered to my client. What takes place after I delivered my work to my client cannot be my responsibility." The purpose of signing, sealing, and dating your work is to protect the public but it also protects you. Develop yourself a system that does just that in all of the professional work that you do.

January 23, 1992

File #14-3

The Honorable Edwin W. Edwards
Governor of the State of Louisiana
P. O. Box 94004

Baton Rouge, LA 70804-9004

Dear Governor Edwards:

Pursuant to the provisions of LRS 37:691B, I submit the report of the transactions of the Louisiana State Board of Registration for Professional Engineers

and Land Surveyors for fiscal year 1991. A duly certified audit and financial statement showing the receipts and disbursements for the fiscal year ending June 30, 1992 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 appointments are as follows:

Robert D. Fenner	July 31, 1992
Ara Arman	January 24, 1993
Malcolm L. Hurstall	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
Sam L. Sullivan	August 31, 1997

Act 435 of 1991 increased the board membership from ten (10) members to eleven (11) by adding another Professional Land Surveyor. You will appoint this member.

At the regular meeting of the Board held on September 24, 1991, the following officers were elected effective January 21, 1992:

Malcolm L. Hurstall	Chairman
Albert J. Dunn	Vice Chairman
Randall F. Barron	Secretary

Very truly yours,

Signed by Sam L. Sullivan

Chairman of the Board, 1991

Attachment: Annual Report for 1991

ANNUAL REPORT

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

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

The following actions were taken by the Board 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	439
Applications disapproved	76
Land Surveyors:	
Applications approved	9
Applications disapproved	42
Engineers-In-Training	
Apps. approved for certification	378
Applications disapproved	195
Land Surveyors-In-Training	
Apps. approved for certification	70
Applications disapproved	32

As of December 31, 1991 a total of 919 firms and 18,750 individuals were registered or, in the case of Engineers-In-Training and Land Surveyors-In-Training, certified with the Board. A listing by professional classification follows (some indi-

Continued on page 19

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

June 1-2	Sept. 21-22
July 27-28	Nov. 9-10

AS
INSURANCE
SPECIALISTS

SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION - RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE • BATON ROUGE • 70809 • 504/924-1371

LES Board of Direction Meeting Highlights

The January 1992 meeting was held in Lake Charles, LA, with seventeen board members, five guests, and the LES staff in attendance.

1. The December 31, 1991, financial report was accepted subject to the annual audit.
2. With 33.33% of the membership year completed on December 31, the Lake Charles Chapter is leading the Membership Recruitment Contest with 40.00% of quota achieved.
3. A slate of officers for 1992-93 was presented to the Board:

Glynn P. Gautreau, P.E.
President-Elect (elected last year)
Dale T. Hunn, P.E.
1st Vice-President
Edgar P. Benoit, P.E.
2nd Vice-President
Carl A. Jakob, P.E.
Secretary-Treasurer

There are two State Director positions to be filled. The following four nominees for State Directors will appear on the ballot:

Robert C. Hughes, P.E.
James P. Ledet, P.E.
Raymond A. Areaux, P.E.
John S. Bruce, P.E.

The ballot with biographical information will be prepared and mailed to all voting members.

4. The State MATHCOUNTS Competition will be held on March 28, at LSU/A. Exhibits will be provided for the participants.
5. The Legislative Committee met prior to the Board of Direction Meeting and the Chairman, John K. Laws, Jr., P.E., reported to the Board. The following information was presented to the Board:
 - a. Previous events and status of issues relating to **Worker's Compensation**. Does not know if CEC/L plans to introduce legislation on this issue.
 - b. **Professional Liability Limitations** - No attempt will be made this year to shorten the prescriptive periods for liability from ten years to five years. Will determine if LAA plans to file legislation regarding this matter.
 - c. **Tax Assessment of Professional Service Companies** - There is growing precedence for state and local taxing bodies to tax good will and intangibles,

in addition to hard assets or book value. There is some concern that this tax practice may be applied unfairly against professional service companies, such as engineering and surveying firms. There may be an attempt by other types of businesses to change this practice in the Legislature this coming session. This issue will be monitored closely. Members should discuss this issue with their Parish Assessors to promote opposition and awareness.

- d. **Procurement of Professional Services** - There have been past unsuccessful legislative attempts to pass legislation inundating "good government". Among other things, this legislation will mandate local government bodies use the practice of bidding in procuring professional services. It is expected that another attempt will be made this coming legislative session. This committee is prepared to take appropriate action to monitor and/or intervene to prevent use of price as the main factor in selecting professional contractors. This will involve assisting the authors to write favorable language for qualified based selection (or at least - not a price based selection) procedures, and if failing in that, to fight any bill favoring price selection procedures.

6. A Scholarship Report was submitted to the Board. The report was broken into three charts:
 - a. The number of applications received by each chapter, the number of applicants nominated by each chapter, and the number of chapter nominees submitted to national.
 - b. LES nominations submitted to NSPE for the selection process at the national level, and the name of the chapter originally submitting the LES nomination.
 - c. The LES ranking of students 1 to 10. After NSPE announces the names of the national winners, the Scholarship Committee will review the ranked list of Louisiana nominees and recommend to the

Board that the LES Scholarship be awarded to the highest ranked Louisiana high school nominee not accepting an NSPE scholarship.

7. Four of the practice division chairmen reported on their attendance at the NSPE Winter Meeting.
8. LES is in receipt of a letter from the State Board of Registration requesting input in classifying "Environmental Engineers" as a registration discipline. This assignment was directed to a committee previously appointed to address similar issues.
9. A change to Bylaw 6(p) was adopted by the Board. The change will allow the Teller's Committee to meet earlier in the year. This change was required to expedite the election of officers. Beginning July 1, the fiscal and administrative years of the Society will be July 1-June 30.
10. Dr. Price attended the NSPE Winter Meeting and briefed the Board on current happenings with NSPE and Continuing Professional Development. John W. Moore, P.E., has been appointed as the LES/PEPP representative on the NSPE Continuing Professional Development Subcommittee. Price now serves on the PEE/CPD Committee. Price reported that NSPE and NCEES would like to see a mandatory CPD program implemented. NSPE would like to provide a "model" plan which all states could use. Price will keep the Board advised of future actions by NSPE.
11. Leta Bueto, Dale Hunn, and Dudley Hixson participated in a presentation to the NSPE Site Selection Committee placing a bid for the 1997 NSPE Winter Meeting. Despite the efforts, the 1997 Winter Meeting was awarded to Charlotte, NC, and the Annual Meeting was awarded to Rapid City, SD.
12. President Hoover appointed a committee to review the guidelines and criteria for selecting Honorary Members to LES. Hopefully, the committee will be prepared to report to the Board at its next scheduled meeting.
13. The Board voted unanimously to endorse the nomination of Eugene Bechamps, Sr., for the NSPE Distinguished Service Award.



**1992 - State of Louisiana Board of Registration
for Professional Engineers and Land Surveyors**

Front Row (left - right): Paul L. Landry, P.E., Executive Secretary; Albert J. Dunn, PE/PLS, Vice Chairman; Malcolm L. Hurstell, P.E., Chairman; Randall F. Barron, P.E., Secretary; Julie Livaudais, Board Attorney

Back Row (left - right): Ara Arman, PE/PLS; Sam L. Sullivan, Jr., P.E.; William J. Thevenote, Jr., P.E.; Larry A. McKee, PE/PLS; Benjamin S. Harrision, Board Investigator; Coan J. Bueche, PE/PLS; Morris P. Hebert, P.L.S.

Absent: Robert D. Fenner, PE/PLS

"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.

NEW REGISTRANTS Of the State Board

CHEMICAL

Raul Otero
Shreveport, LA
William G. Conner
Luling, LA
Harmon L. Kirkpatrick
Houston, TX
Geoffrey S. Mason
Palm Harbor, FL
Attiah M. Sabry
Birmingham, AL

CIVIL

Douglas D. Carvel
The Woodlands, TX
Chia S. Chang
Covina, CA
James P. Ellsworth
Conroe, TX
Sherrell Helm
Pensacola, FL
Canagasabapathy Nallainathan
Lake Charles, LA
Robert W. Parsons
Northfield, IL
Richard B. Roe
Evansville, IN
Donald E. Troupe
Eunice, LA
Norman Chee-Kong Tse
Olney, MD
James S. Foster
Mobile, AL
Charles T. Halbrook
Mobile, AL
Wilmer R. Hall, Jr.
Memphis, TN

Bill B. Kinabrew
Mobile, AL
Richard F. Kriz, Jr.
Memphis, TN
Richard D. Marshall
Clarksville, TN
Bryan D. Meyers
Phoenix, AR
William K. Morris
Cypress, TX
Robert J. Race
Atlanta, GA
Harry P. Thompson
Houston, TX
Mark A. Daly
Eules, TX
Robert B. Gardner
Valrico, FL
Luis R. Santizo
Norman, OK
Wesley J. Barnett
Shreveport, LA
David S. Barrou
Greensboro, PA
Anthony F. Goodglon
New Orleans, LA
John A. Gotschall
W. Friendship, MD
Dennis C. Gowins
Tallahassee, FL
Robert D. Holloway
Little Rock, AR
David L. Hustad
Tampa, FL
Barbara L. Johnson
Salina, KS
Eric I. Kalivoda
Phoenix, AZ
James T. O'Rourke
Yardley, PA

Gary A. Rozmus
Northport, NY
Cary A. Skahn
Centerville, VA
Jonathan A. Wise
Clearwater, FL
Jose U. Barnes
Arlington, TX
John F. Cussigh
Seattle, WA
Mark D. Fugler
Baton Rouge, LA
Max A. Gregersen
Park City, UT
Neil H. Harris
Tallahassee, FL
Larry C. Hiner
Spring, TX
Parweiz A. Khan
Houston, TX
Charles G. McKinney
Aiken, SC
Guy E. O'Connor
Mobile, AL
David N. Ochs
Cypress, TX
Sidney R. Killebrew
Baton Rouge, LA
David L. Teasdale
Garland, TX
Joseph R. Jerusalem
Miami, FL
Constantine Palaskas
Houston, TX
Bradford J. Raffensperger
Lilburn, GA
Franklin P. Williams, Jr.
Greenville, SC
John R. Erichsen
Mishawaka, IN
Nader Zarrabi
Marietta, GA
Levon H. Nishkian
San Francisco, CA

ELECTRICAL

Reuel M. Olson
Brier, WA
John C. Miller, Jr.
Houston, TX
David B. Boyd
Franklin, TN
Edmund J. Austin
Portst. Lucie, FL
Henry Monroe, Jr.
Metairie, LA
Gordon W. Pellegrinetti
Palatine, IL
Douglas R. Alvine
Omaha, NE
James H. Costley, Jr.
Conyers, GA
Joshua S. Gumban
San Diego, CA
Bob L. Marsh
Jackson, MS
Mark W. Peterson
Lindsborg, KS
William T. Rossi
Franklin, WI
Wisit Suwankosal
Missouri City, TX
Kiah E. Harris
Weston, MO
Benjamin J. Leon
Lafayette, LA
Roger L. Edwards
Oklahoma City, OK

MECHANICAL

Leonard R. Birner
Brookfield, WI
Robert F. Hughes
San Diego, CA
Richard W. Robertson
Greensboro, NC
James K. Thurman, Jr.
Clinton, MS
Steven T. Alvine
Omaha, NE
Frederick W. Keeney
Atlanta, GA

Bachubhai R. Patel
Bay City, TX
John C. Adams
Mableton, GA
William M. Forman
Montgomery, AL
Kenneth H. Hancock
Salina, KS
Jayanti D. Patel
Houston, TX
Theodore W. Vanvick
N. Potomac, MD
Ishwar R. Dave
Missouri City, TX
Gerald A. Bramlett
Mobile, AL
Richard M. Ritner
Manassas, VA
Frederick W. Horstkotte, Jr.
Portland, OR
Charles R. Taylor
Jacksonville, FL
Russell K. Sandlin
Birmingham, AL
Timothy B. Gilbert
Lithonia, GA
Lawrence V. Birney
Toledo, OH
Robert D. Brady
Kirkland, WA
Edward J. Eng
Jacksonville, FL
Nicholas R. Ganick
Nashville, TN
Denise M. Ramsey
Jacksonville, FL
Chung-Ho Chiao
Houston, TX
James W. Patterson
Destrehan, LA
Anwar Hassan
Katy, TX

NUCLEAR

Daniel L. Cox
Gretna, LA

LEF Needs Your Support

The Louisiana Engineering Foundation (LEF) was incorporated in 1978. Its objectives are to promote charitable, educational and scientific involvements. More specifically its goals are:

1. To grant scholarships.
 - a. Eleven (11) \$1,500 Fellowships to college students have been awarded since 1982. Two are to be given this year, 1992.
 - b. Engineering Faculty Professionalism Awards of recognition and a plaque are presented annually to faculty members at Louisiana's seven accredited universities. Five were awarded in 1989-90, four in 1990-91, and six were presented this year.
2. To provide guidance and information to high school and college students who are interested in an engineering career.
 - a. LEF supports MATHCOUNTS, the program to encourage the knowledge of mathematics among junior high school students.
 - b. LEF supports all student chapters of professional and technical societies at our colleges.
3. To establish and maintain an Engineering Center:
 - a. LEF is not a LES department or organization. It is an organization to serve all engineers in the State of Louisiana.
 - b. We have a small center at 1213 Nicholson Drive, Baton Rouge. The conference room is small but available to all engineering societies on request. Telephone (504) 344-4318 for reservations.

We need your support for making our goals a reality. We need a Center large enough for engineers, land surveyors and technicians. A feasibility study is underway now toward the purchase of a three quarters of a million dollar property in Baton Rouge. All engineers registered in the State of Louisiana should help with this goal. Please consider and make your contributions to LEF, P. O. Box 2683, Baton Rouge, LA 70821.



*Draw on our over 60 years of
construction knowledge*

- | | |
|--------------------|-------------------|
| • SITE PREPARATION | • BUILDINGS |
| • EARTH MOVING | • MECHANICAL |
| • DREDGING | • RAILROADS |
| • DOCKS | • LEVEES & DAMS |
| • PAVING | • ROADS & BRIDGES |
| • FOUNDATIONS | • DRAINAGE |
| • ENVIRONMENTAL | • MAINTENANCE |



T. L. JAMES & CO., INC.

Baton Rouge (504) 293-0274

Ruston (318) 255-7912

New Orleans (504) 467-6000

Stephen Spohrer, PE

Thomas Folk, PE

William Westbrook, PE

TOTAL JOB CAPABILITY

**ALL LA BENCHMARKS
NGVD 1929 & NAVD 88
elevations with Lat/Long,
date of last observation,
etc., for the entire state.
Complete descriptions of
each benchmark (sorted by
parish) compressed onto
three high density disks
(specify size) \$150.00 Ppd.
GPA Assoc. - UNO Box 1200
New Orleans, LA 70148
(504) 286-1200**

1992 NSPE Winter Meeting Highlights

The 1992 NSPE Winter Meeting was held in Charleston, South Carolina, January 18-27. Highlights of the week's events follow.

Actions of the Board

Governance, State Relations, and Special Programs

- The Board accepted changes to the NSPE Strategic Plan from the Program and Quality Planning Committee as well as adoption of a new quality improvement project that would streamline new member processing and membership data reporting to states and chapters.
- The Board recommended that the American Association of Engineering Societies (AAES) delete the following paragraph from its constitution: "In the unusual event that no representative...can be present at a meeting of the board, a member society can, through notification of the chair by its voting governor, appoint, as its alternative representative, its chief staff officer to act for it at such meeting." The NSPE Board of Directors wanted to address the concern that executive directors would be allowed to act as voting members.

Registration, Ethics, and Legal

- The Board approved proposed additions to the Legal Review Committee's Legal Fund that will now refer requests for financial or other assistance involving state laws or regulations not initiated by a state society to the state society for consideration. The NSPE Legal Fund will not support legal issues affecting state law or regulations unless they are approved—in writing—by the state society and that state society has agreed—in writing—to provide a specified amount of financial support. Financial support from the state society may be waived by the Legal Review Committee in some situations.
- Other Board-approved changes to the Legal Fund would allow the Legal Review Committee to determine if financial assistance would be appropriate and how much money, if any, should be provided. If the committee chooses to lend its support, it will notify the NSPE Executive Committee as well as the state society. The state society will also be contacted if the committee rejects its request. Decisions are final unless the state society submits an additional written request for financial support.

- The bylaw establishing the Public Advocacy Review Board (PARB) was eliminated by the Board as recommended by the special task force that studied the PARB.

Government Relations

- Paragraph 4 of NSPE bylaw 7 that defines the scope of the NSPE government relations efforts was expanded by the Board to include "promoting interchange between NSPE and state societies and among state societies regarding legislative matters at the state level, and providing legislative assistance to state societies." Monitoring and interpreting legal matters pertaining to engineering is no longer a duty of the government relations department.
- Bylaw 8 was also changed to reflect that the Government Affairs Committee will serve as a clearinghouse for all NSPE and state society positions on federal, regulatory, and legislative matters.
- The Board established model language for a Good Samaritan Act that will serve as a professional policy for the Society. The language provides immunity from liability for engineers who provide professional assistance in times of natural disasters or other catastrophic events.
- The Board continues to oppose free engineering services with one exception: "...except in cases where engineers are providing voluntary engineering services for charitable or civic organizations, or as a crisis response to a natural disaster or other catastrophic event."

Society Development

- To make certain that age and retirement requirements are consistent with retired membership status, life membership status has been redefined. "A member shall become eligible for life membership with waiver of dues if the person has been a member above the student grade for a period of 40 years or if the member has retired from full-time employment—not working more than 20 hours a week—and is at least 60 years of age and has been a member for a continuous period of 30 years." Board approval carries with it the proviso that special arrangements be made to grant life membership to those members between 59 and 60 years old who would have been eligible for life membership before the age requirement changed.
- Technology and surveying students can become affiliate student members

if an amendment to the constitution is approved by the members. Added to the list of possible student chapters are groups at a "college or school having an engineering technology program of at least four years duration accredited by ABET."

- NSPE will now consider accepting affiliate members, defined as a "graduate of a non-ABET-accredited engineering curriculum or a graduate of an ABET-accredited engineering technology program." The amendment to the constitution will now be offered to the membership for approval.

Resolutions

In response to budget concerns, the Delaware Engineering Society proposed a resolution that would establish a committee to study discontinuing one of the two meetings held each year—the Winter Meeting or the Annual Meeting. The goal of the committee would be to design a single Annual Meeting format and to develop financial recommendations to apply the savings to needed NSPE programs or to return the savings to the membership. The committee would report its findings at the Annual Meeting in July 1992. A substitute motion that would have established a "TQM" task force to study the issue failed to get the necessary 2/3 vote for Board consideration and the original resolution was tabled.

The Board also tabled a resolution from the Professional Engineers of Oregon to reimburse only those members who answer the roll call at the end of the last day of the NSPE Board of Directors meeting.

The Michigan Society of Professional Engineers and the Delaware Engineering Society each submitted resolutions to the Board calling for a reinstatement of the student conference at the NSPE Winter Meeting. The Michigan Society recommended that the idea be reviewed by the Program and Quality Planning Committee and that the Student Program Committee be directed to develop a plan to restore the student conference, which relieves the NSPE budget of the staff costs. The Board approved the Michigan resolution. Satisfied with the terms of the Michigan resolution, Delaware withdrew its resolution. Students attending the Winter Meeting spoke in favor of reinstating the conference and offered alternative methods of funding. "We are the future of engineering," one student said.

The California Society of Professional Engineers asked the Board to consider changes to the nominating process—bylaws 4 and 9—that were made

Continued on page 20

COMMITTEE MEETINGS

Continued from page 11

3. Avoidance of scheduling conflicts
4. Legislative information dissemination
5. Engineer's Week activities
6. Guest forum in LE magazine

Public Relations

- a. Determine scope of projects for 1992-93

Long Range Planning Committee

1. State Meetings
 - a. Attendance
 - b. Location
 - c. Cost limitations
2. Communication
 - a. Agendas in Louisiana Engineer
 - b. Issues
 - c. Practice Divisions
3. Finances

Liaison/State Board of Registration

1. Call to Order
2. Review of the list of candidates for the vacancy on the Board of Registration for the expiring term of Robert D. Fenner, P.E.
3. Review of the progress of the list of candidates for the vacancy on the Board of Registration which will occur when the term of Ara Arman, P.E., P.L.S., expires on January 24, 1993 (to be filled by PEC)
4. Review future Board member terms and expiration dates.
5. Unfinished business
6. New business

Legislative Committee

- a. Legislative Wrap-up

MATHCOUNTS

1. Committee Appointments
2. Review of 1991-92 MATHCOUNTS State Competition
 - a. Report of 91-92 State Coordinators
 - b. Financial Statement by Executive Director
3. MATHCOUNTS program organization evaluation
 - a. Fundraising campaign status
 - b. Public relations program
 - c. Program endorsements
 1. State Board of Education
 2. Governor, Senators, Representatives, etc.
 3. Engineering college deans
 - d. Competition
 1. Schedules
 2. Sites
 3. Rules and regulations
 4. Awards

PRACTICE DIVISION MEETINGS

Construction

New Business

- a. Candidates for the Engineers Selection Board
- b. Report on NSPE Winter Meeting

Education

Note: PEE will meet jointly with PEPP at the beginning of the time set aside for practice divisions in order to attend the joint practice division session sponsored by PEPP. General Jude Patin, Secretary of LDOTD, will be the guest speaker.

1. Introductions
2. Reading of minutes of March 12, 1992 meeting in New Orleans
3. Financial Report
4. Old Business
 - a. Continued discussions on future directions of the Louisiana Engineering Society and PEE.

- b. Meaningful activities of the PEE Practice Division
- c. NSPE Education Professional Development Award (no submissions were made by universities for 1991)
- d. Report on legislative matters
- e. More involvement of deans and faculty members in LES and PEE
- f. Student Paper Presentations program
- g. PEE Chairman or representative travel to NSPE 1993 Winter Meeting
- h. Election of other 1992-93 PEE Officers
- i. Other

5. New Business

6. Adjourn

Government

1. Minutes of March 12, 1992 meeting
2. Review of financial statement
3. Discussion of Professional Engineers in Government Award
4. Discussion of State Department of Civil Service's job evaluation of non-licensed engineering job series in DEQ and DNR
5. NSPE Annual Meeting, July 19-25, 1992, in Oak Brook, IL
6. Other business

Industry

1. Approval of agenda
2. Business
 - a. PEI Revitalization
 - b. NSPE Meetings
3. Issues:
 - a. Industry "exemption" from registration law
 - b. New Engineering Model
 1. No longer requiring exam?
 2. Engineering curriculum
 - c. PE Review Courses
 - d. New category called "Control Engineer"
 - e. NSPE-PEI programs
 - f. Continued education requirements for engineers

Private Practice

1. Call to order
 - a. Attendance list
 - b. Agenda acceptance
2. Minutes of March 12, 1992 Meeting
3. Treasurer's Report
4. Change of officers
5. Guest Speaker - B.G. Jude Patin, P.E., Secretary, LDOTD
6. Old Business
 - a. Environmental Site Assessment
 - b. Public Bid Laws
 - c. QBS Legislation, et al
 - d. Budget adoption
 - e. Nominees to State Board of Registration and Engineers Selection Board
 - f. Loss Prevention Tapes
7. New Business
 - a. Legislative committee appointee
 - b. PEPP meetings - how many?
 - c. Chicago/NSPE - topics
 - d. Governor/Chairman/Vice Chairman - NSPE meeting attendance
 - e. LABI membership - Right to Work
 - f. Topics!
 - g. Other
8. Announcements
9. Adjourn

able technology from industry to help identify, catalog, analyze and, finally, prioritize problems. With the local area network and application systems in place, WWC personnel now had hands-on experience with computers, and knew firsthand the patience and persistence needed in dealing with digital technology. This experience would be helpful in implementing computer-based systems for field operations.

The first technique used in the field was digital picture capture. This involves lowering a video camera mounted on wheels into wastewater collection lines, then taping the traverse of camera until encountering a problem, such as misaligned joint, structural collapse or root encroachment. The tape is retrieved, taken back to the office, placed in a VCR that is attached to a PC workstation and viewed on the PC display screen. When the obstruction is seen on the screen, the VCR is stopped, and the image on the screen is "grabbed" and recorded on hard disk along with text data describing the problem and its location.

Problem determination and analysis using digital picture capture is reliable, cost effective, and provides an excellent historical record of collection line problems. Both the image and text data are stored in PC format, and can be viewed by more than one person on the local area network. Other computer-based systems collect data with automated electronic equipment in the field for later analysis at the office using PC workstations. The result is lower costs, quicker results, and complete, centrally-located, historical databases.

Flow Monitoring and Modeling, and Pen-Based Systems are two technologies that offer even greater potential for gathering data and managing the system. Using flow monitoring and modeling, WWC can watch wastewater flow at most pump stations throughout the parish, record data electronically, then model alternatives to the present collection system. This technology will permit more time analyzing problems and solutions, and less time actually gathering data.

Perhaps the technology that will contribute the most to lowering the cost of field operations, while increasing the productivity of WWC personnel, is the Pen-Based computer. Pen-Based systems will greatly reduce the need for paper forms, by substituting instead hand-held PCs that capture and transmit data to the file server faster and with greater accuracy than written reports that must be re-typed into the computer at headquarters. These com-

LOUISIANA ENGINEER/APRIL 1992

puters, including the software, permit field personnel to write any combination of letters and numbers in their own handwriting on the computer screen with an attached electronic pen. The handwriting is digitized, interpreted by the computer, then re-displayed as type on the computer screen. Any characters not understood by the system are re-displayed as question marks, allowing the user to re-write the correct letter or number. The field inspector can record information for a variety of purposes, including sewer point repairs, cave-in analysis and work-order progress. When finished, data from the pen-based system is transmitted either directly, or by modem, to the file server, eliminating the need for data entry personnel. The cost and operational advantages are obvious: quicker, more reliable, retrieval of data from the field; immediate feedback to field personnel on accuracy of the data being written to the computer; fewer office clerical personnel involved; fewer paper forms needed.

Multi-Media Technology Produces Forceful, Colorful and Professional Presentations

Multi-media, a new concept made possible by recent advances in hardware speed and software sophistication, is used regularly by WWC staff to produce computer generated presentations for a variety of purposes. With a large and varied amount of historical data on the file servers, charts and tables are developed easily into slides and printed reports. With the recent acquisition of audio-visual hardware and software, complete presentations for any group can be produced at a PC workstation within the Wastewater Collection Division. This greatly enhances the ability of the staff to respond quickly to requests for presentations where large amounts of detailed and difficult to understand data must be presented.

In summary, the Wastewater Collection Division of the East Baton Rouge Department of Public Works has put together an effective, computer-based system for managing the construction and operation of the parish's wastewater collection system. From the day-to-day operation of its group of application systems on the local area network, to multi-media presentations, this organization has been in the forefront of identifying and using technology the way it is meant to be used. **LE**

viduals and firms have dual classifications):

Professional Engineers	14,855
Professional Land Surveyors	2,177
Engineers-In-Training	4,394
Land Surveyors-In-Training	177
Public Employees	1
Engineering Firms	961
Land Surveying Firms	208

The number of Professional Engineers registered in the various branches as of December 31, 1991 follows (some engineers are registered in more than one branch):

Agricultural	139
Chemical	1,173
Civil	6,254
Electrical	2,223
Industrial	136
Mechanical	3,797
Metallurgical	37
Mining	30
Nuclear	1
Petroleum	1,332

A total of 1,202 written examinations were administered in April and October of 1991. Engineering examinations were administered at examination centers in Baton Rouge, Lafayette, New Orleans and Ruston. Land surveying examinations were administered in New Orleans. A list by type of examination follows:

Fundamentals of Engineering	619
Fundamentals of Land Surveying	84
Principles and Practice of Engineering	387
Principles and Practice of Land Surveying	37
Laws and Procedures of Land Surveying	75

LRS:683A 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 and (Vacant)	

In accordance with LRS 37:683B, Sam L. Sullivan was reappointed August 31, 1991 for a full six year term expiring August 31, 1997.

*On February 18, 1992 the Governor appointed Mr. Charles L. McDonald, PLS. His term expires on August 31, 1997. **LE**

**STATE OF LOUISIANA
DIVISION OF ADMINISTRATION
STATE LAND OFFICE**

**Standards for a Statewide Land Information
Mapping and Map Records System**

Under the authority of R.S. §50:171 and in accordance with the provisions of the Administrative Procedure Act, R.S. §49:950 et seq., the Commissioner of Administration has adopted LAC §43:XXVII, Chapters 1-19, pertaining to Standards for a Statewide Land Information Mapping and Map Records System of all lands, private and public, in Louisiana.

These new rules and regulations establish standards for the development of accurate, complete and compatible geographic base map products which form the framework and foundation to facilitate subsequent land parcel mapping activities. Major topics addressed under these standards include uniform requirements for map accuracy, ground control densification, aerial photography, photo laboratory procedures, analytic aerial triangulation, digital mapping, geographic base map preparation, land parcel mapping, associated relational data base development, and standardized map feature elements. These standards outline the orderly development of each major phase of work to be accomplished in connection with the implementation of a Land Information System and establish minimum criteria necessary for acceptable completion of each phase. Copies of the Standards are available from the State Register in the Division of Administration.

The Land Information Advisory Board has been meeting monthly studying possible program revenue sources for the purpose of funding the development of the system. Evaluation criteria and guidelines for state financial aid to parish governments or assessors are being developed.

Signed: H. Glen Kent, Jr.
Public Land Administrator

NSPE MEETING HIGHLIGHTS

Continued from page 17

at the Annual Meeting in July 1991. The Board referred the resolution to the Policy Book Task Force with a report pending at the Annual Meeting in July 1992.

The Board defeated the resolution from the Minnesota Society of Professional Engineers that called for limiting terms of NSPE national directors to 10 consecutive years or 15 total non-consecutive years of service. Directors argued that this decision should remain at the state level.

**Total Quality Management
Seminar**

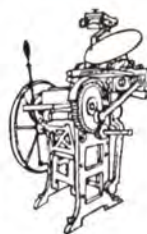
The NSPE Board of Directors spent two half-day sessions taking an in-depth look at total quality management (TQM) within the structure of the Society. NSPE member and TQM expert Gary Sproles examined the current process for satisfying the NSPE customer and planning a path for continuous improvement in the organization. Topics for discussion included understanding the processes of an organization, team management, and the measurement of successes or failures in the processes.

**ADVANCED TECHNICAL
APPLICATIONS CENTER, INC.**

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"
3200 Ridgeland Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



FAX 355-2178

**PRINTING
INCORPORATED**

3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department

Ed's ep
PRINTING
COMPANY, INC.

925-0991
9366 Greenwell Springs Rd.
at Monterey



Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax: (318) 981-7922

USL (318) 231-6846

BUDDY VERNON
"DOES THINGS DIFFERENTLY"

2YDDUB
PROMOTIONAL ADVERTISING

11920 Industriplex Blvd. B. R., La.
(504) 923-0000 FAX: 504-293-7544

LEAK LOCATING



- ☐ LEAKS IN UNDERGROUND PIPES
- ☐ BLOCKED OR BROKEN SEWERS
- ☐ LOCATION OF UNDERGROUND PIPES

TOLL FREE: 1-800-673-5726
NEW ORLEANS: 392-7545

PRO-AM, INC.
RT 2 BOX 414
PICAYUNE, MS 39466

FRANK A. ZIMBELMAN, P.E.
Owner & President

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123

Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives and Motors
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts



- Programmable Controllers**
- SHARK / AutoMate / Automax
 - ReSource ScreenWare 2 graphics

authorized stocking distributor
RELIANCE ELECTRIC



A. J. (AL) ADOUE, P.E.

Gregory-Salisbury & Co., Inc.

Manufacturers' Representatives
"Electrical Equipment & Apparatus"

2233 DECATUR STREET • P.O. BOX 8726
NEW ORLEANS, LA 70182
504-945-5207 • FAX 504-945-7492



PROFESSIONAL LISTINGS

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 584351 NELSNG

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
45 YEARS OF EXPERIENCE SERVING INDUSTRY

- | | |
|---|--|
| ☐ SITE PLANNING / PERMITTING | ☐ MONITORING / MODELING |
| ☐ CHEMICAL / PROCESS / PETROLEUM | ☐ MECHANICAL |
| ☐ CIVIL / STRUCTURAL | ☐ PIPELINE |
| ☐ ELECTRICAL / ELECTRONIC | ☐ MINING |
| ☐ ENVIRONMENTAL / SANITARY | ☐ HVAC |
| ☐ INSTRUMENTATION / CONTROLS | ☐ ARCHITECTURE |
| ☐ CONSTRUCTION MANAGEMENT | ☐ ASBESTOS |

Parsons Brinckerhoff

- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1460
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 • FAX

BALAR CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 815
SHREVEPORT, LA 71101
(318) 221-8312
FAX (318) 424-6508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL

Simons-Eastern Consultants, Inc.

P. O. Box 1286 • Atlanta, GA 30301-1286



**STRATEGIC
PLANNING
DESIGN**

Atlanta, GA (404) 370-3200
Monroe, LA (318) 387-6216

**CONSTRUCTION
MANAGEMENT**



McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

Serving the World's Environmental Needs

JMM James M. Montgomery
Consulting Engineers, Inc.



3501 N. Causeway Blvd.
Suite 300
Metairie, LA 70002
(504) 835-4252

Offices located throughout the United States

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477



ATCHLEY & ATCHLEY, INC.
Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821
Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.

HALLIBURTON NUS Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX



Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.
Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3666 Government St.
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.

CONSULTING  ENGINEERS

pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

8178 GSRI AVENUE • BATON ROUGE, LA 70820-7405 • (504) 766-6330

FORTE AND TABLADA, INC. CONSULTING ENGINEERS

OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA 70896
9107 INTERLINE AVE • BATON ROUGE, LA 70809



**professional engineering
consultants corporation**

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810

FROMHERZ ENGINEERS, INC. Consulting Engineers

Public Works and Airports, Waterfront Development,
Environmental Services, Highways and Bridges,
Industrial Facilities, Energy Studies

(504) 488-7711

4747 EARTHART BLVD. NEW ORLEANS, LA. 70125

RPM ENGINEERING, INC. A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC.
Consulting Engineers and Land Surveying

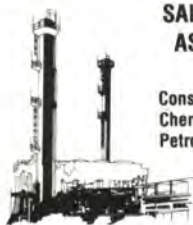
General Civil Engineering & Land Surveying

1225 NICHOLSON DRIVE BATON ROUGE, LA 70821
P. O. BOX 711 PH. 504/344-3782



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND - OFFSHORE - HYDROGRAPHIC

550 South Van Ave.
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 77396

Call: SAM BROWN, Ph.D., P.E.
(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

- Project Managers
- Engineers
- Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBauve and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST.
ALEXANDRIA, LA 71302

318-445-8910

NBR

Nance
Brown
Roach

Architects • Engineers • Planners
401 Edwards Street
Suite 815
Shreveport, Louisiana 71101
318-424-3274

COYLE ENGINEERING
CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71171-6177

3925 BENTON RD
PHONE (318) 746-8987

DAVID
VOLKERT
& ASSOCIATES, INC.
ENGINEERS • ARCHITECTS • PLANNERS
3500 N. CAUSEWAY BLVD. • SUITE 1240
METAIRIE, LA 70002 • (504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, Miami, Tampa

Office (504) 632-5596

Res. (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.
Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction

1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437



Engineers, Architects
and Planners



ENGINEERS • PLANNERS

TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981



HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

- Aviation
- Bridges and Structures
- Civil Engineering
- Construction Management
- Environmental Services
- Transportation and Planning

CATFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504.346.0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182

1200 SO. ACADIAN THRUWAY
SUITE 106
BATON ROUGE, LA 70806
(504) 387-0745



Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

Burk-Kleinpeter, Inc.

Engineers, Architects, Planners, Environmental Scientists

CIVIL • STRUCTURAL • MECHANICAL • ARCHITECTURAL
PLANNING • DESIGN • CONSTRUCTION MANAGEMENT
HIGHWAYS • STRUCTURES • DRAINAGE • FLOOD CONTROL
WATER AND WASTEWATER • SOLID WASTE
PORT AND MARINE FACILITIES • LANDSCAPE ARCHITECTURE
CADD • GRAPHIC DESIGN • AERIAL PHOTOGRAPHY

4176 Canal Street, New Orleans, Louisiana 70119
Tel. (504) 486-5901 Fax (504) 488-1714



GERAGHTY
& MILLER, INC.
Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide



MITCH ORTEGO, P.E.
MARKETING REPRESENTATIVE

OFFICE (504) 835-2577
FAX (504) 837-5024

3330 WEST ESPLANADE AVE. • SUITE 200 • METAIRIE, LOUISIANA 70002

CDM environmental engineers, scientists, planners, & management consultants

CAMP DRESSER & McKEE INC.

3445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272

236 Riverside Mall, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822

offices nationwide

gregory c. rigamer & associates, inc. professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Murfa, P.E.
Lawrence J. Ringel, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS

BERGER, BARNARD & THOMAS, INC. ENGINEERS, ECONOMISTS, and PLANNERS

MUNICIPAL AND INDUSTRIAL ENGINEERING COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504/927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504/364-1637

JN JONES AND NEUSE, INC. Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

8126 ONE CALAIS, SUITE 1A
BATON ROUGE, LOUISIANA 70809

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

PHONE: 504-767-5296
FAX: 504-767-5299

MOHR & ASSOCIATES, INC. Consulting Civil Engineers & Land Surveyors

6025 Buncomb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS

GULF SOUTH ENGINEERS, INC. ENGINEERING CONSULTANTS

1700 GRAND CAILLOU RD.
HOUMA, LA 70363
(504) 878-6380
FAX 878-0621

1000 LEONIDAS ST.
NEW ORLEANS, LA 70178
(504) 886-1821
FAX 886-1781

SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS

GEOTECHNICAL
SOIL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS

ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION

QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS

316 HIGHLANDIA DR.
4100 LOUISIANA AVE.

BATON ROUGE, LA.
LAKE CHARLES

504-752-4790
318-474-1340

PETROLEUM ENGINEERS INTERNATIONAL, INC.

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management - Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588

Lafayette, Louisiana 70505 (318) 233-5346

Numerical Modeling of Mechanical Systems



- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

Mechanical Troubleshooting
Failure Analysis
Vibration Analysis
Machine Design

Stress Analysis
Pressure Vessel/Heat Exchanger Design
Heat Transfer
Risk Assessment

8126 One Calais Ave., Suite 1B • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765

EUSTIS ENGINEERING GEOTECHNICAL ENGINEERS

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET

METairie, LA 70002

DAMES & MOORE

A DIVERSIFIED ENVIRONMENTAL/EARTH
SCIENCE CONSULTING AND DESIGN FIRM

4949 ESSEN LANE, SUITE 900
BATON ROUGE, LOUISIANA 70809
(504) 769-2600
FAX (504) 769-3695



LANIER & ASSOCIATES Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

WOODWARD-CLYDE CONSULTANTS engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



CHARLES R. FURLOW, P.E.
President

VICTOR R. DONALD, P.E.
Vice President

12021 Lakeland Park Blvd. • Baton Rouge, LA 70809
(504) 756-2555 FAX: (504) 756-2562

LANKFORD ENGINEERING, INC. CONTROL SYSTEMS

DESIGN, MANUFACTURE, INSTALL, AND SERVICE
PLC-COMPUTER-ELECTRONIC
PNEUMATIC-ELECTROMECHANICAL

P.O. BOX 53931
LAFAYETTE, LA. 70505

NO. 6 FLAGG PLACE
PH. (318) 981-0532

Poché Associates LIMITED

CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 Lafayette, LA 70508 (318) 237-6517

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

2000 North 7th
P. O. Box 728

JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E.

West Monroe, La. 71291
Phone 318/387-2710

BADEAUX & ASSOCIATES INCORPORATED CONSULTING ENGINEERS STRUCTURAL/CIVIL

115 EAST SIXTH STREET (504) 447-2317
P.O. BOX 1056 THIBODAUX, LA 70302

J. Alvin Badeaux, P.E.
President

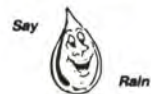
JACKIE W. D. ROBBINS: Ph.D., C.I.D., P.E.
Engineer (Agricultural) and C.E.O.

The Robbins Association/IRRIGATION-MART, Inc.

Rt. 6, Box 1241
Ruston, LA 71270
FAX & Ph (318) 255-7572

1-800-SAY-rain • 1-800-729-7246

Irrigation Sales & Engineering/Design



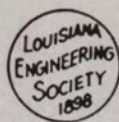
we SAVVY irrigation

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS



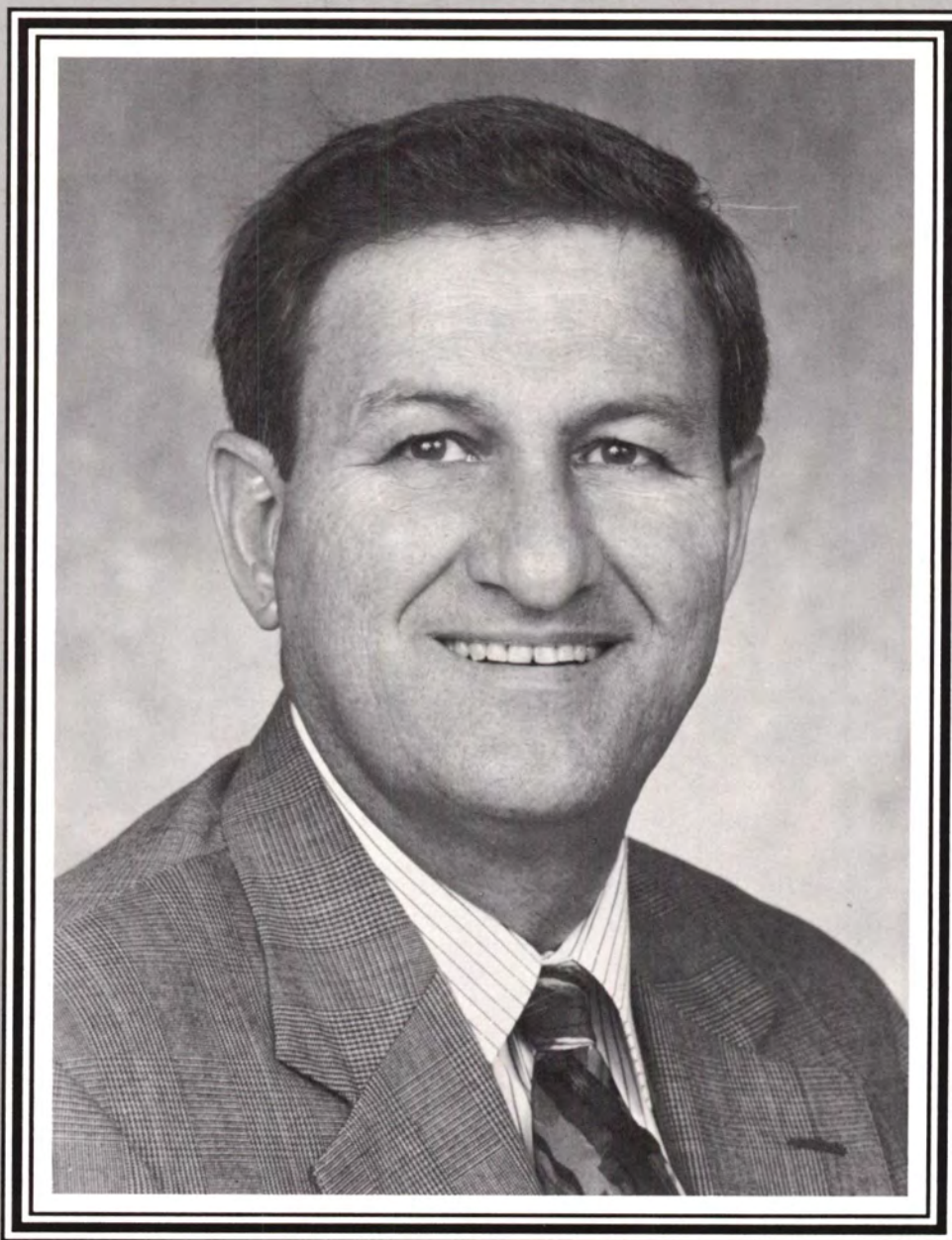
Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650



JUNE, 1992
LOUISIANA

ENGINEER



Glynn P. Gautreau, P.E.

**President
Louisiana Engineering Society
1992-1993**

On The Inside:

Be sure to see page 19 for ballot to elect LES and CEC/L Members to Engineers Selection Board.

New Business Prospects Are Really Up On Louisiana Issues.



Education, Transportation, Research & Development — three key subjects affecting Louisiana's potential to attract new businesses have been brought to light in the first three issues of *Louisiana Spirit* magazine, published by your Louisiana Investor-Owned Electric Companies.

Every issue contains thorough and unbiased reporting of the state we're in and where we're going. This is meaty information that

many companies outside of Louisiana must have in selecting new sites for business expansion. And because the news looks good, we're making sure they get it.

If you would like to be on our mailing list for future issues, or receive any back issues, mail the coupon below. We'll add your name to the growing list of site selection managers and CEOs in targeted industries who are really up on Louisiana issues — with *Louisiana Spirit* magazine.

Investing in your energy future

LIOEC

LOUISIANA'S INVESTOR-OWNED
ELECTRIC COMPANIES

Central Louisiana Electric Company/Gulf States Utilities Company
Louisiana Power & Light Company/New Orleans Public Service Inc.
Southwestern Electric Power Company

☐ Please put me on your mailing list to receive *Louisiana Spirit* magazine. I would also like to receive the following back issues:

- ☐ Education
☐ Transportation
☐ Research & Development

Name _____

Address _____

City _____

State _____

Zip _____

Business / Civic Affiliation _____

Title _____

Day Phone _____

Send to: *Louisiana Spirit*, 1055 St. Charles Ave., Suite 615, New Orleans, LA 70130

JUNE, 1992



ABOUT THE COVER

Our cover this month features 1992-1993 LES President Glynn P. Gautreau, P.E.

LOUISIANA ENGINEER

IN THIS ISSUE

Presidential Privilege	4
The Institute for Micromanufacturing; Work in Progress	5
MATHCOUNTS	7
The Spec Sheet.	8
Notre Metier	10
LES 1992-93 Board of Direction	12
Chapter Presidents and Practice Division Chairmen	13
Bueto's Column	14
New Registrants	17
Vincent A. Forte Graduate School Fellowships	18
Calendar of Events	18
Ballot to Elect LES Members and CEC/L Members	19
Will There Be a Shortage of U.S. Engineers?	20

(Please note: Receipt of Louisiana Engineer Magazine does not necessarily mean that you are registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, or that you are a member of the Louisiana Engineering Society.)



STATE OF LOUISIANA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256

Office Hours
Monday thru Friday
8:00 am until 4:00 pm

Chairman
Malcolm L. Hurstell, P.E.

Vice Chairman
Albert J. Dunn, P.E./P.L.S.

Secretary
Randall F. Barron, P.E.

Other Members
Ara Arman, P.E./P.L.S.
Coan J. Bueche, P.E./P.L.S.
Robert D. Fenner, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Charles L. McDonald, P.L.S.
Larry A. McKee, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenote, Jr., P.E.

Executive Secretary
Paul L. Landry, P.E.

PUBLICATIONS COMMITTEE

Chairman
H. L. Henry, Jr., P.E.
Managing Editor
Leta G. Bueto
Publishing Consultant
Printing Incorporated



LOUISIANA ENGINEERING SOCIETY

P.O. BOX 2683, BATON ROUGE, LA 70821 TELEPHONE (504) 344-4318
STREET ADDRESS: 1213 NICHOLSON DR., BATON ROUGE, LA

LES OFFICERS AND BOARD

President
Glynn P. Gautreau, P.E.

First Vice President
Dale T. Hunn, P.E.

Second Vice President
Edgar P. Benoit, P.E.

Secretary-Treasurer
Carl A. Jakob, P.E.

NSPE DIRECTORS
James L. Meyer, P.E.
Glynn P. Gautreau, P.E.

STATE DIRECTORS
Robert A. Brossette, P.E.
Richard P. Wright, P.E.
Robert C. Hughes, P.E.
John S. Bruce, P.E.

PAST PRESIDENT
Lloyd G. Hoover, P.E.

CHAPTER PRESIDENTS
Alexandria
Roger D. Danzy, P.E.

Baton Rouge
Ann F. Trappey, P.E.

Bayou
Prosper J. Troups, P.E.

Lafayette
Mitchell P. Wyble, P.E.

Lake Charles
Lee Lancon, Jr., P.E.

Monroe
Thomas L. Holtzclaw, P.E.

New Orleans
George Mahl, III, P.E.

Shreveport
R. Kerry Smith, P.E.

PRACTICE DIVISIONS
Construction
Roger D. Melancon, P.E.

Education
Bobby E. Price, Ph.D., P.E.

Government
Paul E. Colquette, P.E.

Industry
J. Madison Drake, P.E.

Private Practice
Steven W. Brown, P.E.

COMMITTEE CHAIRPERSONS
Constitution and Bylaws
Charles L. Eustis, P.E.
Engineering Education
Frederick J. Brown, P.E.

Young Engineers
Angela DeSoto, E.I.T.
Ethics and Professional Conduct
Foy B. Gadberry, P.E.
Honors and Awards
Kerry J. LaBauve, P.E.
Inter-Society Relations
Legislative
Raymond G. Areaux, P.E.
Membership
Richard J. Primeaux, P.E.
Public Relations
John J. Plaisance, P.E.
Scholarship
Keith M. Warden, E.I.T.
Long-Range Planning
Edgar P. Benoit, P.E.
Publications
H. L. Henry, Jr., P.E.
Liaison Committee/State Board of Registration
James L. Meyer, P.E.
Louisiana Engineering Foundation
Robert P. Blanche, P.E.
EXECUTIVE DIRECTOR
Leta G. Bueto

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society. The LOUISIANA ENGINEER is the journal of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The magazine is published in February, April, June, August, October and December. Subscription \$2.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. Two dollars of each LES member's annual dues is set aside for six issues of the LOUISIANA ENGINEER. Second class postage paid at Baton Rouge, La. The Louisiana Engineering Society and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors do not guarantee the accuracy of statements made or necessarily concur with opinions expressed in this publication. ISSN: 0024-6794

Address LES Communications and Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318, FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Presidential Privilege

Thank you for allowing me to serve as president of the Society for the coming year. With your help we will continue the programs and attempt to achieve better visibility for the Engineering Profession.

Since its inception in 1898, the Louisiana Engineering Society has strived to become a better organization under successful leadership and **participation** of its members. Many programs have evolved and LES is striving for continuity from year to year to make your participation effective and meaningful. If this sound like a "pep-talk" well you are correct!

Hopefully, LES can become the professional focal point for a united effort from all technical societies. Remember we are not in competition with the technical societies. We should all **unite** and support LES to provide a strong effort in items of Legislation and other key topics.

Attendance and participation at our recent awards meeting in New Orleans



Glynn P. Gautreau, P.E.
President
Louisiana Engineering Society

was disappointing. We lacked enough members at the General Membership Meeting to have a quorum. Attempts have been made to publish agendas for these state meetings to encourage your participation. It is difficult to tell where we fell short. The Society will continue to challenge you and ask for your commitment to **participate**. As officers, we will establish the priorities, set policies and provide leadership in an accountable fashion.

We are always looking for volunteers and new ideas, and cannot conduct business of the Society **without your help**. Please notify the state office or state president of your desires. Please complete the form at the bottom of this page to indicate ideas or areas in which you would like to **participate** and **become involved**. You will be contacted and offered an opportunity to participate.

We look forward to working with you in this coming year. **LE**

PLEASE CLIP AND RETURN TO STATE OFFICE
P. O. Box 2683, Baton Rouge, LA 70821

Name: _____

Address: _____
Street City/State Zip

Telephone: Home () Office ()

Constitution & Bylaws	_____	Membership	_____
Engineering Education	_____	Public Relations	_____
Young Engineers	_____	Scholarship	_____
Ethics & Professional Conduct	_____	MATHCOUNTS	_____
Inter-Society Relations	_____	Long Range Planning	_____
Legislative	_____	Publications	_____
Liaison Committee/ State Board of Registration	_____		

Other Comments: _____

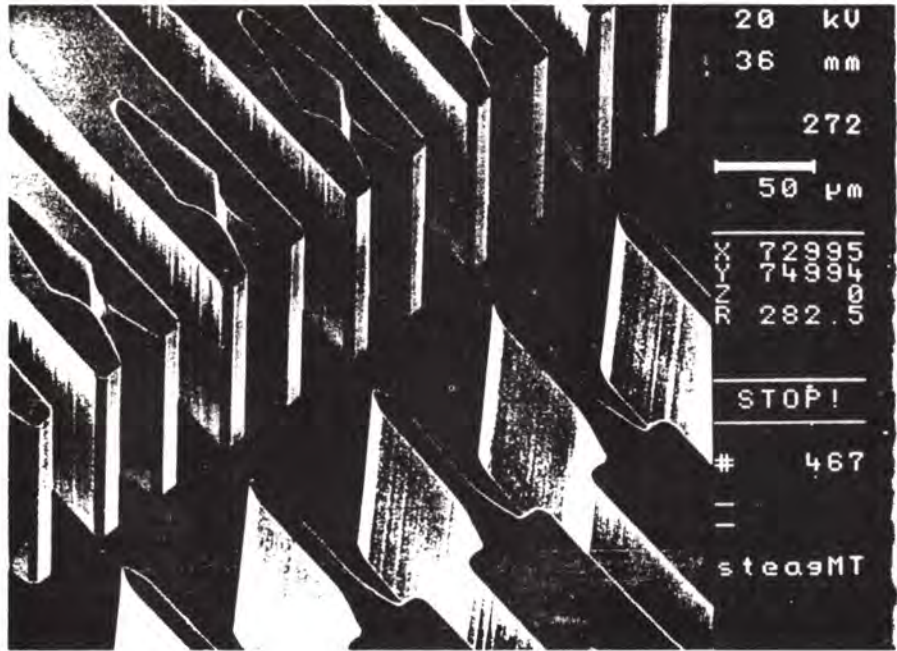
**The Institute for Micromanufacturing; Work in Progress, R.W. Warrington, Director,
Gang Lin, Robert Gao, Randall Barron and Craig Friedrich
Louisiana Tech University**

On November 5, 1990 President Bush signed the 1990-91 federal budget, and the planning phase for the Institute for Micromanufacturing was initiated. The approval this year of ten million dollars of funding from the Department of Energy will provide funds for buildings and equipment for the Institute. An additional two million dollars has been provided by the state for equipment. The funding for this institute is the culmination of over six years of efforts by Dr. Dan Reneau, Senator J. Bennett Johnston, and College of Engineering faculty and administration.

The focus of this Institute will be applied, rather than basic, research emphasizing the design and development, the metrology, the inspection and testing, and the production and assembly of micron and submicron structures and devices. Related to these microstructures and devices, the following areas will be emphasized: sensors, manufacturing techniques, systems, and mechanical, thermal/fluid, and biomedical devices and structures. The transfer of these new technologies to government, academia, and industry will be given high priority. What is not included is the study of VLSI of ULSI technology. At this point the idea of micron size devices, structures, etc. should be clarified somewhat. To put things in perspective, there are 25,400 microns in an inch, a human hair is approximately 75 microns in diameter, the limit of human visibility is 40 microns, bacteria are 2 microns and the wavelength of light is 0.5 micron. The Institute will be building some devices with components and features smaller than 0.5 micron.

The Institute for Micromanufacturing will be composed of three components. The focal point for the Institute for Micromanufacturing will be the component for research and development located on the Louisiana Tech University campus in Ruston. A second component will be associated with the Center for Advanced Microstructures and Devices (CAMD) in Baton Rouge. This component will perform research associated with the X-ray lithography micromachining capability at CAMD. The third and final component of the Institute is technology transfer. This component will be located in Shreveport in order to take advantage of the unique opportunities and resources offered in this region. There will be a strong interaction among the three components of the proposed Institute, and each of the components will interact, to varying degrees, with universities, indus-

LOUISIANA ENGINEER/JUNE 1992



Example of a micro electrical connector made using X-ray lithography

tries and research centers within the state and region.

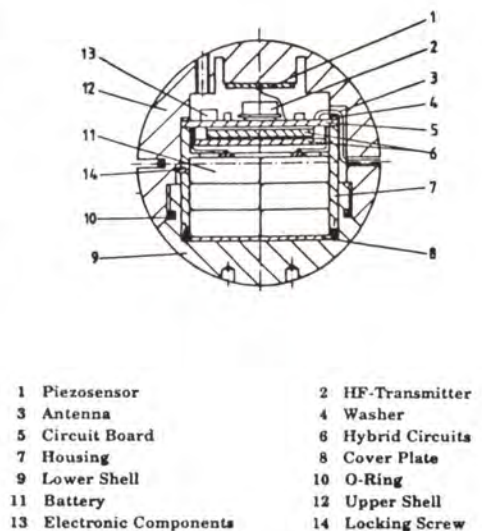
The rest of this article gives a brief overview of some of the projects that are underway at the Institute.

Development of Smart Bearings for On-Line Process Supervision, Dr. Robert Gao

Ball and roller bearings are the fundamental mechanical components widely used in industry. Though small in volume, they are highly complex in construction, featuring different parts like rolling-elements, raceways, cages, and so on. Depending on the type of machines, bearings are often used under extreme conditions; cryogenic regions, high temperature, corrosive media, or ultra high speeds. In case of overloading or overheating, bearing failures will occur, and manufacturing precision will suffer greatly.

By integrating sensors and microelectronics into the bearings, however, these disastrous situations may be detected quickly so that further damage could be prevented. The sensors generate electronic signals which correspond to the current loading states of the bearings. By signal overflow that indicates danger of damages, the integrated electronics activates a data transmitter, which in turn gives alarm signals to the machine monitoring system.

In contrast to traditional methods of machining control which focus on post-error adjustment and compensation, instrumental smart bearings will allow on-line error source location. This helps to increase the machine intelligence which is strongly desired in automation of manufacturing processes.



Schematic of Smart Grinding Ball for On-Line Measurement

Continued on page 6

Design and Fabrication of Biomechanical Micro Swimming Robots Using Smart Materials, Dr. Gan Lin

The objective of this research effort is to design micro robots with a simple mechanism, so that the robots can be fabricated at very small scale and have the necessary power and strength for practical applications.

In this study, two types of micro-robots will be designed and fabricated with smart materials. One type is a jelly-fish like robot with an umbrella made of a shape memory alloy which has the capability of memorizing and recovering the original shape on being raised to a higher temperature, while the second type is a tadpole-like robot with muscles made of piezoelectric materials which can change their dimensions upon being electrically charged.

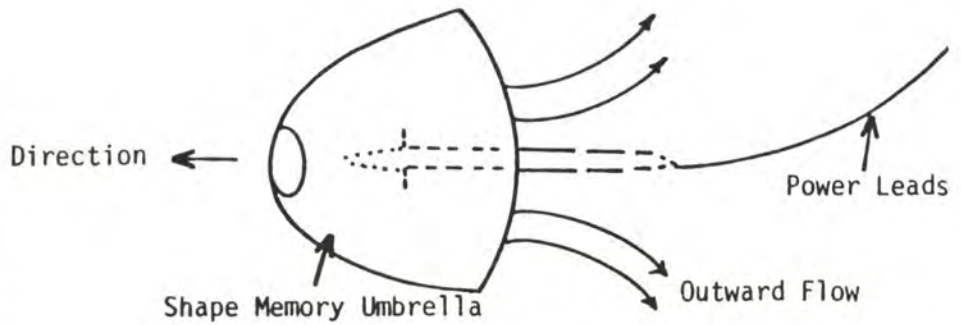
The muscles within the umbrella of the "jellyfish" will be heated by joule heat generated by the electric current flowing in the shape memory alloys (SMA), while the cooling will be naturally done by the liquid surrounding the robot. When the umbrella is heated by electric power, it will contract due to the shape memory effect, and when the power is cut off, the surrounding water will cool down the umbrella and it will then be reopened to its original shape. With proper design this process will impulse the water to push the robot forward.

The muscles of the tadpole, powered and controlled by electric pulses, will expand and contract simultaneously at different sides of the robot so that the tail of the tadpole can swivel and impulse the water to push the robot forward.

The robots designed through this research could be applied to special medical operations, for instance delivering special medicines to locations within the human body to treat cancer or remove cholesterol within blood vessels.

Diamond Bit Micromachining, Dr. Craig Friedrich

Currently, all-metal micro compact heat exchangers are being built, tested, and



Conceptual drawing of the Micropropulsive device using smart memory alloys

applied. These very high capacity devices have a one cubic centimeter heat transfer volume. They are of the plate-type design with each fluid having 1500 flow passages. Each flow passage is about 80 micrometers deep and 260 micrometers wide and is produced by diamond machining. When assembled by vacuum diffusion bonding, the heat exchanger is approximately 25% void with channels resulting in reduced weight. A one cubic centimeter heat exchanger can transfer approximately 20 kilowatts of power with a temperature difference of approximately 50 degrees Celsius. The application of these devices in metal reflectors for high power applications is also under investigation.

Thermal distortion is a problem in such situations, and it would be beneficial to have a heat exchanger located just several tens-of-micrometers below the reflecting surface.

A second area of research is in the development of piezoactuated micro tooling to compensate for spindle or work-piece vibration errors or to machine a non-circular part on a lathe. The very small cutting tools will be moved with piezocrystal actuators thus providing very fast response time. The crystals may also be used to sense cutting forces near the tool tip and reposition the tool to maintain a constant contact force with the work-piece. **LE**



Microdrilling of 75 μ m human hair. Drill bit was approximately 25 μ m in diameter.

AS
INSURANCE
SPECIALISTS

SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION - RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE • BATON ROUGE • 70809 • 504/924-1371

MATHCOUNTS 1992

by Carol E. Fisher, P.E., State Coordinator



Brad Siegele
Caddo Middle Magnet
School
Shreveport



Emory Chan
McKinley Middle Magnet
School
Baton Rouge



Nilesch Vora
McKinley Middle Magnet
School
Baton Rouge



Chris Mohme
Boyett Junior High School
Slidell



Claudia Allums, Coach
McKinley Middle Magnet
School
Baton Rouge

As we approach the tenth anniversary of the MATHCOUNTS program, our attention is drawn to the accomplishments of the past and to the needs of the future. While there are certainly many notable accomplishments, there are many challenges for the future. The theme for the upcoming year is "Connections", emphasizing the desire to identify how mathematics relates to other areas of our daily lives, other school subjects, and many careers.

Astronaut Ronald Sega, Ph.D., addressed the Mathletes during the awards ceremony at the national competition. As a mathematician, physicist, and electrical engineer, he articulated the relevance of mathematics in technical careers and the need for these Mathletes to prepare for the challenging careers. His movie and slide presentation depicted many fascinating careers available within the National Aeronautics and Space Administration programs.

The focus of "Connections" has been just as important in Louisiana. This year the Louisiana Engineering Society held an Engineering Exhibition in conjunction with the state competition. The MATHCOUNTS Committee believed that the state competition would provide a great opportunity to introduce the Mathletes to the field of engineering through demonstrations, question and answer sessions, and hands-on activities. The exhibits were designed to emphasize how engineering and mathematics can be applied to their lives. The small group format provided an opportunity for the Mathletes to discuss engineering careers during the question and answer sessions.

National Competition

The 1991-92 Louisiana MATHCOUNTS Team, comprised of the state's top

Special thanks to the regional coordinators and the volunteers who worked so hard to recruit the MATHCOUNTS teams and to host the competitions:

Carol E. Fisher, P.E.	State Coordinator
Roger D. Danzy, P.E.	Alexandria Coordinator
Richard P. Wright, P.E.	Baton Rouge Coordinator
James P. Ledet, P.E.	Bayou Coordinator
Thomas R. Carroll, P.E.	Lafayette Coordinator
Melissa R. Jessen, P.E.	Lake Charles Chapter
Thomas L. Holtzclaw, P.E.	Monroe Chapter
Charles E. Prewitt, P.E.	New Orleans Chapter
Lanier H. Devine, P.E.	North Lake Chapter
James A. Hagan, P.E.	Shreveport Chapter
Leta G. Buetto	LES Executive Director
Cindy B. Marshall	LES Secretary

Congratulations to the Louisiana team and individual finalists:

TOP TEN SCHOOLS

McKinley Middle Magnet
Caddo Middle Magnet
Sherwood Middle School
St. Aloysius School
Pineville Junior High
Lake Castle School
Moss Bluff Middle School
Boyett Junior High
St. Margaret Mary
Houma Junior High

TOP TEN INDIVIDUALS

Brad Siegele
Emory Chan
Nilesch Vora
Chris Mohme
Stephen Hooks
Carlos Moreno
Gavin Cannizzaro
Jed White
Chase Hamilton
Jeff Berg

The Louisiana Engineering Society would like to recognize our Louisiana sponsors who have made this program possible and who made a valuable investment in the youth of our state. Our sincere thanks to the following:

Central Louisiana Electric Co.
New Orleans Chapter/NSPE Winter
Meeting Committee
Louisiana Engineering Foundation
McDermott, Inc.
Freeport McMoran
George Heller Estate
R. J. Tricon Company
New Orleans/ASME
Williamette Industries, Inc.
L.O. Consulting

COACH

Claudia Allums
Clyde Moore
David Hopkins
Peggy Patout
Robert Smith
Danny McGovern
L. Hayes/B. Leleux
M. Harsch/L. Novotny
Jane Reynolds
Cindy Hunter

SCHOOL

Caddo Middle Magnet
McKinley Middle Magnet
McKinley Middle Magnet
Boyett Junior High
Lake Castle School
St. Aloysius School
Lake Castle School
Pineville Junior High
McKinley Middle Magnet
L.J. Alleman School

REGION

Baton Rouge
Shreveport
Baton Rouge
Baton Rouge
Alexandria
New Orleans
Lake Charles
North Lake
North Lake
Bayou

T. J. James & Co., Baton Rouge
LES/PEG
Jay Charles Smith, P.E.
Dale T. Hunn, P.E.
Waldemar S. Nelson & Co., Inc.
LES/PEPP
LES/PEI

We also extend our thanks to the many individual engineers who have contributed to the MATHCOUNTS program.

Continued on page 16

CEC/L and the Political Process...

There has been a lot of discussion this year at the state Council level whether or not Member Organizations should become involved in the various campaigns for political offices by endorsing particular candidates. Several years ago the American Consulting Engineers Council (ACEC) adopted the following position statement.

Position Statement on Political Involvement by ACEC Members

Background:

The cornerstone of our democracy is a free and open electoral process. Therefore, it is of the utmost importance that all our citizens participate in the electoral process by supporting candidates of their choice, by voting, and by running for office.

The substantial sums of money required to run effectively for public office are a threat to our electoral process. When one considers that the average Senate race costs \$3 million in 1986, but only \$.5 million in 1976, it is clear the trends are not favorable to reduced campaign costs. It is obvious that a significant effort is required to raise such funds which distracts elected officials from legislative duties and constituent services. The high cost and length of time required to run for elective office also deters some outstanding challengers.

Campaigns also last too long using the time and energy of public officials that might be better spent on legislation and resolving issues. Consequently, fundamental change is needed to shorten campaigns, to reduce the funds required to run for office and to shift the emphasis of campaigns from image to issues.

The purpose of this Position Paper is to provide guidance to ACEC members on campaign reform and campaign finance issues at all levels and to encourage the involvement of individuals, member firms and member organizations at the local level.

Position:

1. ACEC encourages its member firms to participate actively in the political process by urging its employees to vote, to volunteer to work in campaigns at all levels, to make campaign contributions in keeping with state and federal laws and, where their interests so dictate, to seek public office. ACEC members should also offer technical expertise to legislative and executive elected officials.

2. ACEC encourages its member firms and their employees to support candidates who support a) the procurement of engineering and architectural services on the basis of qualifications, because it is in the best interest of our nation, and b) who are supportive of our position on important business issues such as tort reform.
3. ACEC believes that the cost of elections at all levels is too high. This discourages some potential candidates from seeking elective office. Consequently, we support the establishment of limits on the length of time during which money can be collected and spent on campaigns.
4. ACEC supports the concept of political action committees (PACs) at the state and federal levels. ACEC believes that citizens have a fundamental right to join together to support candidates at all levels of government who have the same or similar points of view, and whom the citizens believe will best represent their points of view. ACEC opposes any and all efforts at the state or federal level to erode the ability of citizens to join together through PACs or to prohibit the participation of PACs in the electoral process.
5. ACEC supports the enactment of state laws which set reasonable limits on and require full public disclosure of campaign contributions by individuals, corporations and political action committees to candidates for federal offices. ACEC recognizes that there are differences in campaign costs due to vast geographic and demographic differences across the country. ACEC encourages each state individually to set limits on campaign contributions based on the individual state's unique set of circumstances. Established limits should allow adequate participation by individuals, corporations, (where allowable) and political action committees in individual races at the state level. ACEC encourages Member

Organizations to participate in the enactment of state laws dealing with election reform and to assist in protecting the rights of individuals, corporations and political action committees to participate in the election process at the state level.

6. ACEC is opposed to Consulting Engineers making contributions to gain favorable consideration for contracts for proposed projects.
7. ACEC is opposed to the public financing of elections at any level of government.
8. ACEC supports the development of federal and state disclosure and reporting guidelines to cover the uses to which left-over campaign fund balances and office holder accounts can be put.
9. ACEC encourages all of its member firms to develop a written policy as regards political participation (or involvement) and contributions.
10. ACEC will work with other organizations to implement this position statement and is willing to amend its position as such action is appropriate.

By having the positions cited herein adopted, ACEC believes that:

- A) the opportunities for citizens to become, and remain, active in the political process will be encouraged;
- B) the election process will become fairer;
- C) there will be more widespread interest in seeking public office;
- D) the cost of seeking office may be reduced; and
- E) our nation will thereby greatly benefit.

Pothole Association Pushes for Patch Reform...

George P. Burdell of the American Society for Proper Pothole Repair and Patching has written the following open letter which outlines the proper method to patch road potholes. The association is campaigning for the successful passage of a referendum which will appear on the national ballot of the forthcoming Presidential Election (November 3, 1992):

The Art and Science of Patching A Road

by G. P. Burdell, Hon. Sc. P.P.

The road patch for an asphalt or concrete pavement is a necessary item of maintenance and preservation of our highway infrastructure. Its primary use



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



s to fill a void in a highway or street. By last count, 1990 U.S. Census, there are 2.76 billion holes, potholes and cracks in the highway and street system through the United States. That is approximately 11 1/2 holes or potholes per American. Further, the U.S. Pothole Patching Program (UPS³) is about 6 years and \$157 million dollars behind schedule and appropriation of funds. It is crudely estimated by various Federal, State, County, Parish and City administrators that it costs \$57.78 to patch a pothole irrespective of its size and depth. And, it has been concluded by research that the average pothole patch has an in-place life of 98 days 14 hours 28 minutes.

Observational evaluation shows that virtually all pothole patching is done wrong. U.S. Army Corps of Engineers research and work done during World War II (1942-1944) developed a pothole patch method that will extend the average life of a pothole patch 10 to 20 times (2 to 5 years). This research was done to fully utilize petroleum based asphalt which was a scarce commodity during WWII.

Figure 1A shows a typical pothole. Figure 1B shows a typical pothole patch — which is the wrong method of patching. Figure 1C shows the proper "conditioning" of a pothole prior to patching. Figure 1D shows the proper finished patch.

The American Society for Proper Pothole Repair and Patching (ASP²RP) is vigorously campaigning for all Pothole Patchers (union and non-union) to rec-

ognize the correct (proper) pothole patch. This is being done to conserve tax dollars over a long-term by eliminating the need for all to frequent patching with short-life patches.

Basically the correct patch costs about twice the price of the current wrong patch; but it lasts 10 to 20 times longer.

Your acceptance of the total cost reduction method of pothole patching will be appreciated. Please tell all your roadway maintenance personnel of this cost saver.

Signed by: George P. Burdell

Risk Transfer: A Possibility to Ponder ...

More and more of your clients appear to be requesting a central source of responsibility in design contracts. This may save paperwork for them, but requiring you to hire subconsultants services that you client has traditionally contracted for direct could add substantially to your liability exposure. Add to this the fact that you may be requested to subcontract those services on a direct pass-through basis without markup, and you have increased your liability exposure without any remuneration: a sad scenario indeed.

If these additional services happen to be in an area such as asbestos abatement where certain exclusions cause you to have less than full coverage, the problem is doubly compounded. Then you could be hiring subconsultants in an area where you have no liability coverage in the event your subconsultants' work involves you in certain claims.

What to do? You can, of course, refuse to accept such assignments. This could indeed be the prudent course where you having nothing to gain. You may decide that it is in your best interest to accept the work and try to manage the risk as best you can. Besides doing the best possible job, what else can be done?

There are some specialty insurance companies offering coverage for specific work not fully covered by regular professional liability policies. You may consider purchasing an additional policy for your practice. Some of these insurance companies have good A.M. Best financial ratings, and some of them cannot be found in Best. They may be on an island somewhere in the Caribbean. The minimum premiums charged by the better rated companies are likely to be very stiff (\$10,000. to \$30,000.) when compared to

the fees earned. Coverage is, of course, on a claims made basis. Will future fees from this type of work allow you to maintain the policy in order to have coverage? In any event, coverage on your own would be the preferable insurance answer, assuming the economics work.

Risk transfer could be another possibility. Is the client willing to provide you with indemnification for any claims resulting from the activity? Along with that go the questions: Can you obtain an enforceable agreement, and does the client have the financial capacity to back it up?

You are already requiring certificates of insurance from your traditional subconsultants (if not, you should be), and it is doubly important that you require adequate insurance from subconsultants in non-traditional services where specialized hazards exist. Requiring insured indemnification from the subconsultant should also be considered. Keep in mind that the subconsultants E & O is also on a claims made basis. You may wish to ask how long subconsultants have carried their coverage and weigh carefully their ability and desire to continue the coverage in the future. The time for checking on this is before you start; and if their insuring company is not familiar to you, a financial check would be in order. We have the A.M. Best reports in our office.

Keeping up with Certificates of Insurance from subconsultants can be difficult, but the process is not meaningful if you do not follow up to obtain new certificates as old ones expire. We do have a Certificate of Insurance Suspense Binder that is set up for just that purpose. We will be pleased to provide one to you at no cost. Just let us know.

A lot of design professionals have done extensive planning toward managing their risk in certain special areas. It is a situation requiring that you set up guidelines and rules to live by in order to make prudent decisions.

Questions can be directed to Alexander & Sanders Insurance Agency, Inc., 9613 Brookline Avenue, Baton Rouge, LA 70809, (504)924-1371. A & S is responsible for this article. LE

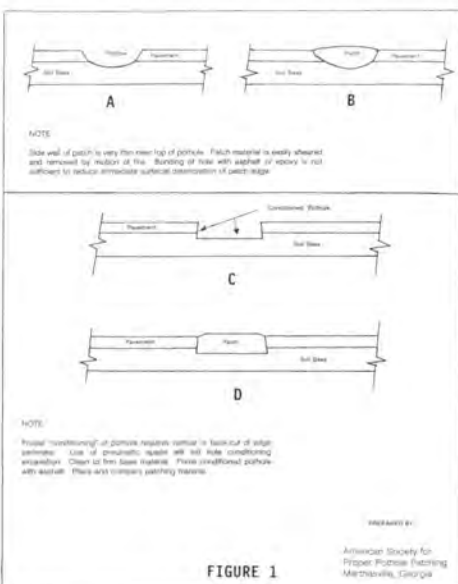


FIGURE 1

Disciplinary Actions

Because of space limitation in past issues of the *Louisiana Engineer*, the Board delayed reporting of actions taken in the past several months regarding registrants and non-registrants of the Board. Listed below is a brief summary of such actions taken by the Board. Future issues of the *Louisiana Engineer* will contain more detailed summaries of disciplinary action as space permits.

- 1) A non-registrant who was involved in a project with a professional engineer continued to provide engineering design on his own for the project after the professional engineer relocated to another state. The non-registrant voluntarily executed a Cease and Desist Affidavit and ceased his unlicensed practice. (La. R.S. 37:681 and 37:700).
- 2) A non-registrant advertised in the Yellow Pages under a heading of engineering even though he was not actually providing engineering services. The non-registrant voluntarily signed a Cease and Desist Affidavit and terminated his inappropriate advertisement. (La. R.S. 37:681 and 37:700).
- 3) A non-registrant prepared a sketch of property to be sold and developed a corresponding legal description of the property. The sketch reflected the boundary dimensions of various parcels within a tract. The sketch was then recorded in the conveyance records of the Clerk of Court of a parish. The non-registrant voluntarily signed a Cease and Desist Affidavit agreeing to abide by the registration statutes. (La. R.S. 37:681 and 37:700).
- 4) A non-registrant advertised land surveying and/or engineering services in a newspaper and performed at least one slab elevation survey which was not done under the direct supervision of a Louisiana professional land surveyor. The non-registrant was later employed by a registrant of the Board and voluntarily executed a Cease and Desist Affidavit. (La. R.S. 37:681 and 37:700).
- 5) Formal charges were filed by the Board against a Texas Registered Professional Engineer alleging that he may have been guilty of offering to practice and/or the actual practicing of engineering in Louisiana without appropriate licensure. The non-registrant agreed to a Consent Order in lieu of a formal hearing, wherein he was ordered to cease and desist any offer to practice or the actual practice of engineering in Louisiana until appropriately registered in Louisiana. He was also notified that any further violations would result in the imposition of a civil penalty up to five thousand dollars (\$5,000.00) per violation. (La. R.S. 37:681 and 37:700).
- 6) A non-registrant voluntarily signed a Cease and Desist Affidavit after identifying himself as a "project engineer" and agreed to abide by the Louisiana Registration Statutes or risk a formal hearing before the Board or a referral to a district attorney for action. (La. R.S. 37:681 and 37:700).
- 7) A registered professional Louisiana engineer admitted violating the registration statutes by surveying property in an act of re-subdivision of two lots he owned. The engineer voluntarily signed a Cease and Desist Affidavit agreeing to observe the statutes in the future and had the property resurveyed by a Louisiana registered professional land surveyor. (La. R.S. 37:681, 37:698(A)(2), and 37:700).
- 8) Formal charges were filed by the Board against a Texas corporation alleging that it may have been guilty of the offering and/or providing of land surveying service in Louisiana without registration of the corporation with the Board. In lieu of a hearing the corporation executed a Consent Order in which it agreed to immediately cease and desist offering to practice and practicing land surveying in Louisiana until it was appropriately registered by the Board or risk a civil penalty of up to five thousand dollars (\$5,000.00) to be imposed per violation. The firm subsequently obtained registration with the Board. (La. R.S. 37:681, 37:689, and 37:700).
- 9) Formal charges were filed by the Board against a Louisiana engineer who was practicing engineering on a suspended Louisiana license. Following a hearing the engineer's license was suspended by the Board for an additional year. (La. R.S. 37:698(A)(2) and (9)).
- 10) Formal charges were filed by the Board against a corporation and three engineers who were offering to provide and providing engineering in Louisiana, all without appropriate licensure. Following a hearing the corporation and all three engineers were found guilty of unlicensed practice and an Order was issued to cease and desist any further practice or a civil penalty would be imposed of up to five thousand dollars (\$5,000.00) per violation. The corporation was later registered by the Board based upon its hiring of a full time employee who is a Louisiana registered professional engineer. (La. R.S. 37:681, 37:689, and 37:700).
- 11) A professional engineering registrant of the Board had charges filed against him by the Board after his engineering license was suspended in one state and conditioned in another for violations of rules concerning the supervision of engineering work, sealing of engineering work, care of his engineering seal, and his duty to refrain from conduct tending to discredit the engineering profession. In lieu of a hearing the registrant agreed to a Board Consent Order suspending his license in Louisiana until December 20, 1992, with reinstatement at that time in the absence of any additional violations while on suspension. (La. R.S. 37:698(A)(7) to-wit LAC Title 46:LXI, § 1701(C)&(E), 2103(C)(2), 2105(C)).
- 12) Formal charges were filed against an engineering firm registered by the Board alleging that its officers and owners may have been guilty of offering and/or providing engineering services through the firm for a lengthy period prior to its



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



obtaining of corporate registration with the Board. In lieu of a hearing the corporation agreed to a Board Consent Order fining the corporation one thousand dollars (\$1,000.00) and placing it on probation for one year. (La. R.S. 37:681 and 37:700).

- 13) Formal charges were filed by the Board against two engineering registrants of the Board for violations of the rules which require regis-

trants to seal, sign, and date plans submitted to a client as completed work, and which prohibit the release of plans for bidding purposes unless they have been signed, sealed, and dated by the registrant. One of the engineers was also charged with performing services outside of his area of competence. One of the registrants elected to execute a Board Consent Order and pay a fine of five hundred dollars (\$500.00), neither admitting or denying the charges. The second registrant requested a hearing before the Board following which he was found not guilty of the charges. (La. R.S. 37:698(A)(6) to-wit LAC Title 46:LXI, § 1701(B), 2105(A), and La. R.S. 37:698 (A)(12).

- 14) Formal charges were filed by the Board against a Design/Construction firm alleging that the firm was offering to provide and providing engineering services through its offering of "turn key" services, part of which included engineering that was subcontracted to a licensed Louisiana engineer. Following a for-

mal hearing before the Board the firm was found not guilty of the charges. (La. R.S. 37:681 and 37:700).

- 15) Formal charges were filed by the Board against a construction firm for advertising as an engineering firm in the Yellow Pages. A hearing was held, and the firm, upon a finding of guilty, was issued a Cease and Desist Order by the Board. The firm failed to comply with the order and was subsequently fined \$1,500.00. The Board has instituted appropriate legal action to collect the fine assessed. (La. R.S. 37:681 and 37:7

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

July 27-28 Nov. 9-10
Sept. 21-22

1993

Jan. 25-26 July 26-27
Mar. 22-23 Sept. 27-28
June 7-8 Nov. 8-9

EXAMINATION SCHEDULE AND DEADLINE DATES

Examination	Pre-Application Deadline Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	July 15, 1992	August 1, 1992	October 31, 1992
Principles & Practice of Engineering Examination (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical			
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum			
Fundamentals of Land Surveying Examination (8 hrs.)	May 1, 1992 and October 1, 1992	May 15, 1992 and October 15, 1992	October 31, 1992 and April 17, 1993
Principles and Practice of Land Surveying (6 hrs.)			
Louisiana Laws and Procedures of Land Surveying (2hrs.)	October 1, 1992	October 15, 1992	April 17, 1993

Pre-Application is required of applicants for certification as an Engineer-in-Training or Land Surveyor-in-Training and for registration as Professional Engineer or Professional Land Surveyor.

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.

Action By the Board of Registration

The following resolution was approved unanimously by the Board of Registration for Professional Engineers and Land surveyors at its meeting on March 24, 1992.

Resolution

WHEREAS the practice of surveying and engineering in the State of Louisiana is restricted by state law to individuals who are licensed by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors as Professional Land Surveyors and Professional Engineers, respectively; and

WHEREAS the qualifications for such licensing include education, experience, character and examination requirements of an exacting nature, and

WHEREAS the practice of surveying and engineering requires the application of mathematical, scientific and legal principles, and

WHEREAS licensed Professional Land Surveyors and Professional Engineers are required to hold paramount the safety, health and welfare of the public in the performance of their duties; **THEREFORE BE IT RESOLVED THAT**

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors do hereby recognize that registered Professional Land Surveyors and Professional Engineers are professionals in every sense of the word and law, and does hereby affirm its desire to convey such an image to other professions with whom we work and to the public which we serve. **LE**

Louisiana Engineering Society 1992-93 Board of Direction



PRESIDENT

Glynn P. Gautreau, P.E.
Co-principal
Gautreau & Gonzalez, Inc.
Baton Rouge, LA



FIRST VICE PRESIDENT

Dale T. Hunn, P.E.
Assistant Vice President
Project Manager
Waldemar S. Nelson & Co., Inc.
New Orleans, LA



SECOND VICE PRESIDENT

Edgar P. Benoit, P.E.
Senior Member Service
Engineer
Cajun Electric Power
Cooperative, Inc.
Baton Rouge, LA



SECRETARY-TREASURER

Carl A. Jakob, P.E.
Vice President
Gulf South Engineers, Inc.
Houma, LA



NATIONAL DIRECTOR

James L. Meyer, P.E.
President
Meyer, Meyer, LaCroix &
Hixson, Inc.
Alexandria, LA



STATE DIRECTOR

Robert A. Brossette, Jr., P.E.
Manager-Marketing Services
Louisiana Power & Light Co.
New Orleans, LA



STATE DIRECTOR

Richard P. Wright, P.E.
Assistant Public Works Director
City of Baton Rouge
Parish of East Baton Rouge
Baton Rouge, LA



STATE DIRECTOR

Robert C. Hughes, P.E.
Director-Construction
Division
Meyer, Meyer, LaCroix &
Hixson, Inc.
Alexandria, LA



STATE DIRECTOR

John S. Bruce, P.E.
Manager-Construction
Division
Meyer & Associates, Inc.
Sulphur, LA



PAST PRESIDENT

Lloyd G. Hoover, P.E.
Vice President/Regional
Manager
Southwestern Laboratories, Inc.
Shreveport, LA

Chapter Presidents and Practice Division Chairmen



ALEXANDRIA CHAPTER PRESIDENT

Roger D. Danzy, P.E.
Chief Product Engineer
Dresser Industries
Alexandria, LA



BATON ROUGE CHAPTER PRESIDENT

Ann Forte Trappey, P.E.
Chief Civil Engineer
Forte and Tablada, Inc.
Baton Rouge, LA



BAYOU CHAPTER PRESIDENT

Prosper J. Toups, Jr., P.E.
Chief Engineer
Terrebonne Parish Waterworks
District 1
Houma, LA



LAFAYETTE CHAPTER PRESIDENT

Mitchell P. Wyble, P.E.
Engineer III
City of Lafayette
Lafayette, LA



LAKE CHARLES CHAPTER PRESIDENT

Lee Lancon, Jr., P.E.
Engineering Manager
Site Civil & Transportation
Projects
Meyer & Associates, Inc.
Sulphur, LA



MONROE CHAPTER PRESIDENT

Thomas L. Holtzclaw, P.E.
Civil/Structural Design
Engineer
Ford, Bacon & Davis,
Industries
Monroe, LA



NEW ORLEANS CHAPTER PRESIDENT

George Mahl, III, P.E.
President
Mahl & Associates, Inc.
New Orleans, LA



SHREVEPORT CHAPTER PRESIDENT

R. Kerry Smith, P.E.
Technical Support
Supervisor
Arkla Energy Resources
Shreveport, LA

Chairmen, Practice Divisions

LES has five practice divisions, which provide the means for engineers to develop professional relationships with others in the same field of employment.



CONSTRUCTION

Roger D. Melancon, P.E.
Senior Vice President
Engineering
Gulf Industries, Inc.
Baton Rouge, LA



EDUCATION

Bobby E. Price, Ph.D., P.E.
Professor & Associate
Department Head
Department of Civil
Engineering
Louisiana Tech University
Ruston, LA



GOVERNMENT

Paul E. Colquette, P.E.
District Design, Water
Resources and Development
Engineer
La. Dept. of Transportation &
Development
Monroe, LA



INDUSTRY

J. Madison Drake, P.E.
Lead Aerospace Engineer
DPRO Michoud
New Orleans, LA



PRIVATE PRACTICE

Steven W. Brown, P.E.
Vice President
BaLaR Associates, Inc.
Shreveport, LA

White House Backs Off on Ethics Rule to Limit Federal Employee Association Participation

An overwhelming response from U.S. associations has led the White House Office of Government Ethics (OGE) to defer action on a portion of proposed ethics rules that would limit federal employee participation in professional associations.

In an unusual move, OGE Director Stephen D. Potts announced in a December 9, 1991 letter that judgment on the "Participation in professional associations" section of the proposed rules would be deferred until after the other sections of the proposal are issued as a final rule. OGE plans to revise the proposal impacting professional associations' participation and publish it as a separate proposed rule with a new comment period.

National Society of Professional Engineers (NSPE) Executive Director Donald G. Weinert, P.E., led a task force for the American Society of Association Executives (ASAE) opposing the OGE proposal. "We are delighted that OGE has decided to reconsider the original language. The association community stands ready to work with the agency for future revisions," said Weinert.

The OGE proposal that the association community opposed would forbid executive branch employees from using work time to "administer the internal affairs" of a professional association and to attend or participate in meetings that serve those purposes. Serving on association boards and committees, education programs, and budget committees would be restricted under the OGE proposal.

Potts acknowledged when he was called to testify at Congressional hearings on the proposal in October that 980 of the 1000 comments his office received on the ethics rules proposal dealt with the section on professional associations.

ASAE President R. William Taylor, CAE, said the move "signifies that OGE is finally listening to the concerns of associations. There appears to be a new willingness to draft rules favorable to federal workers, who should never be denied opportunities for professional growth and development."

Until the associations section of the proposal is resolved, the existing federal policy regarding excused absences will remain in effect. In the OGE memo, Potts reminded federal agencies they have complete authority to grant excused absences as outlined in Office of Personnel Management rules dealing with participation in professional associations.

1992 Salary Ranges Published

The recommended salary base rate for professional engineers is \$34,800 in 1992, according to NSPE's latest published salary ranges. While eight ranges of positions have been used to simplify comparison with widely distributed statistical data of the U.S. Department of Labor, other subdivision may be necessary for direct comparison with pay schedules of individual employers.

The Salary Base Rate* represents a national average annual starting salary for new engineering graduates. While the starting salary reflects the current "going rate" for new engineering graduates, succeeding Salary Ranges are intended to provide a more appropriate career pattern, in keeping with NSPE Professional Policy 100, Professional Engineer Income, than is reflected in current surveys of engineering income. Retrospective comparisons between these Salary Ranges and actual salaries reported in NSPE member surveys show that while the Salary Ranges do exceed actual salaries, the spread of the middle 80% of Society members does significantly overlap the Recommended Salary Ranges. This relationship is monitored by the NSPE Professional Employment Committee which recommends changes when appropriate. A new Salary Base Rate is developed each year based on latest available statistics.

***Salary Base Rate** — The Recommended Salary Ranges are stated as percentages of the Salary Base Rate. The Salary Base Rate is an index derived from the latest available information on starting salaries offered new engineering graduates or seniors. **It should be noted that the Salary Base Rate for 1992 of \$34,800 should be adjusted by the following factors when applying to individual branches:** Aeronautical - .921; Agricultural - .939; Architectural - .848; Bioengineering/Biomedical - .833;

Chemical - 1.131; Civil - .863; Computer - .957; Electrical - .982; Environmental - .993; Industrial - .954; Mechanical - 1.005; Metallurgical - .944; Mining - .938; Nuclear - 1.003; Petroleum - 1.194; Textile - .878

Additional information may be obtained by contacting NSPE at (703)684-2800.

States Consider NSPE "Good Samaritan" Legislation

After Hurricane Hugo ripped through Charleston, South Carolina, professional engineers rushed to help deal with the destruction. But they immediately encountered a problem outside the ravaged buildings that they could not resolve. Were they exposing themselves to future lawsuits? The South Carolina Society of Professional Engineers (SCSPE) asked the state General Assembly to resolve this problem by enacting "Good Samaritan" liability legislation that would cover engineers the way physicians are protected in most states.

In 1989, after Hugo had passed, 100 engineers from SCSPE volunteered their services to the state. "It took the governor's office a day or so to figure out a way to utilize the engineers' services and at the same time protect them from any liability", says SCSPE Executive Director Joe Jones. The Governor finally made the volunteer PEs temporary state employees to shield them from liability so they could go to work.

While all 50 states offer "Good Samaritan" protection to individuals assisting the injured in emergencies, similar legal protection seldom exists for engineers. That, coupled with a national explosion of liability lawsuits creates additional concerns for volunteer engineers during disasters.

In January of this year, the National Society of Professional Engineers (NSPE) Board of Directors at their winter meeting in Charleston approved model "Good Samaritan" legislation. SCSPE is the first state engineering society to introduce this model law in its entirety before a state legislature. Other states may follow including: Arkansas, Kentucky, North Dakota, New Jersey and Virginia.

Presently, five states offer such liability protection to engineers. California protects

LOUISIANA ENGINEER/JUNE 1992



Leta G. Bueto
Executive Director
Louisiana Engineering Society



engineers who perform structural inspections during earthquake emergencies, as does Tennessee and Utah where similar legislation was recently enacted. Connecticut and Missouri have established emergency volunteer registry programs which include liability protection for engineers enrolled with the states' emergency management agencies.

Engineers are not the only benefactors of such liability protection. "Good Samaritan legislation also provides states and municipalities with assurances that professional engineers would be willing to provide critical engineering services during time of crisis," said John Gregorits, P.E., Chairman of the NSPE Legislative and Government Affairs Committee.

Third Regional Design Symposium Scheduled

The Louisiana Department of Environmental Quality, in conjunction with Region 6 of the U.S. Environmental Protection Agency, will be hosting the Third Regional Design Symposium on Microbial/Rock Filters and the Beneficial Use of Sewage Sludge. Two sessions of this two-day event have been scheduled. Session #1: June 30-July 1 will be held at Louisiana Tech University in Ruston and Session #2: August 5-6 at Louisiana State University in Baton Rouge. For further information, please contact the Municipal Facilities Division of DEQ at (504) 765-0810.

Memorial

Dr. Wayne P. Wallace, P.E.

Dr. Wayne P. Wallace, P.E., a member of the Society since 1936 and a life member since 1966, expired on March 13, 1992. Dr. Wallace served as State President of the Society in 1956 after completing terms in all elected positions. He was also active at the chapter level serving as Baton Rouge Chapter President in 1949.

He received his B.E. in Civil Engineering from Tulane University in 1934 and Master's Degree in 1936. Dr. Wallace received his Doctorate from Cornell University in 1942 and did post doctoral study at Harvard University.

He began his teaching career in September 1936 as an instructor of civil engineering at Louisiana State University,

where he remained as professor of civil engineering until 1957.

In 1957, Dr. Wallace became Professor and Head of the Department of Civil Engineering at the University of Southwestern Louisiana. He was appointed Dean, College of Engineering, in 1957.

In 1978, he received the M. Elot Girard Professor of Engineering Award and in 1980 was named Professor Emeritus of Civil Engineering at the University of Southwestern Louisiana. In addition to

being a life member of LES, he was a past president and fellow of the American Society of Civil Engineers, member of the American Society for Engineering Education, and a member of the Tulane Society of Engineers.

Dr. Wallace is survived by his wife, the former Virgie Frances Bienvenu of Lafayette, two sons, Wayne Clifton Wallace and Gregory Paul Wallace, two granddaughters, three grandsons, and one great-granddaughter. **LE**

You're probably paying too much for insurance!

NSPE offers a complete line of outstanding insurance plans...available to Members only...and offered at rates **priced lower** than individually-purchased plans. (We invite you to compare and see yourself!)

Yes! Please send my FREE NSPE Insurance Plans Information Kit right away. I understand there is no obligation whatsoever.

I am interested in the following money-saving NSPE Group Plans:

- | | |
|---|--|
| ☐ Major Medical Plan (08130) | ☐ Hospital Income Plan (08103) |
| ☐ Term Life Plan (08107) | ☐ "All Risk" Accidental Death and |
| ☐ Disability Income Plan (08105) | Dismemberment Plan (081106) |

NAME _____

ADDRESS _____

CITY _____

STATE/ZIP _____

..... For more information, mail this coupon to: NSPE Insurance Plans,
400 Locust Street, 8th Floor, Des Moines, IA 50398.
OR CALL TOLL FREE 1-800-552-4119



**National Society of
Professional Engineers**

MATHCOUNTS

Continued from page 7

Mathletes, represented us well at the national competition. Coach Claudia Allums, of McKinley Middle Magnet in Baton Rouge, worked diligently to prepare her team for this competition. Bradford Siegele of Caddo Middle Magnet in Shreveport, Emory Chan and Niles Vora of McKinley Middle Magnet in Baton Rouge, and Christopher Mohme of Boyet Junior High in Slidell formed this year's team. Our Mathletes proved equal to the task and returned with national placements with randomly listed scores of 61, 68, 81, 106 out of 224 competing students and 23rd out of 56 competing teams.

The Louisiana Engineering Society, the Louisiana MATHCOUNTS coordinators and all teachers, mathletes, and parents who participated in MATHCOUNTS congratulate these students and their coach, Mrs. Claudia Allums.

The Louisiana delegation was welcomed to Washington by Senator Bennett Johnston. The students toured many of the sites in our nation's capital, including the Lincoln, Jefferson, Washington, and Vietnam Memorials. They also visited Arlington National Cemetery and wit-

nessed the changing of the guard at the tomb of the unknown soldier.

State Competition

The state competition was held in Alexandria this year. Students from the top three teams from each of the nine regional competitions as well as seven other individual winners competed for the honor of representing Louisiana at the national competition.

The Mathletes and their coaches arrived early on Friday to participate in an Engineering Exhibition. The Mathletes, coaches, coordinators, and guests enjoyed an outdoor barbecue held in the beautiful Ramada Inn courtyard. LE



"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.



**Draw on our over 60 years of
construction knowledge**

- SITE PREPARATION
- EARTH MOVING
- DREDGING
- DOCKS
- PAVING
- FOUNDATIONS
- ENVIRONMENTAL
- BUILDINGS
- MECHANICAL
- RAILROADS
- LEVEES & DAMS
- ROADS & BRIDGES
- DRAINAGE
- MAINTENANCE



T. L. JAMES & CO., INC.

Baton Rouge (504) 293-0274

Ruston (318) 255-7912

New Orleans (504) 467-6000

Stephen Spohrer, PE

Thomas Folk, PE

William Westbrook, PE

TOTAL JOB CAPABILITY

**ALL LA BENCHMARKS
NGVD 1929 & NAVD 88
elevations with Lat/Long,
date of last observation,
etc., for the entire state.
Complete descriptions of
each benchmark (sorted by
parish) compressed onto
three high density disks
(specify size) \$150.00 Ppd.
GPA Assoc. - UNO Box 1200
New Orleans, LA 70148
(504) 286-1200**

NEW REGISTRANTS Of the State Board

AGRICULTURAL

William B. Paul
Deville, LA
Gerald R. Bodman
Lincoln, NE

CHEMICAL

Toan H. Nguyen
Gretna, LA
Daniel J. McCormick
Destrehan, LA
Nelson E. P. Valentin
Lake Charles, LA
Larry A. Hable
New Orleans, LA
Ronald C. McCain
Houston, TX
James E. Dean
New Orleans, LA
Paul R. Broch
New Orleans, LA
Bruce P. Beynon
Belle Chasse, LA
George Abraham
Metairie, LA
Robert J. Danos
Lakeland, FL
Howard J. Duhon
Metairie, LA
William C. Glenn
Kenner, LA
Ralph G. Werling
Baton Rouge, LA
Brent A. Fetzer
Lake Charles, LA
Cynthia C. Ingram
Denham Springs, LA
Michael D. Jeffrey
Baton Rouge, LA
Peter H. Jensen
Baton Rouge, LA
Leslie D. Jensen
Baton Rouge, LA
Anthony L. Jones
Baton Rouge, LA
Timothy L. Kellner
Baton Rouge, LA
Charles N. Morgan
Baton Rouge, LA
Loree J. Poole
Baton Rouge, LA
Eldridge A. Monette, III
Slidell, LA
Richard L. Vail
El Dorado, AR
Charles M. Sheppard
Ruston, LA
John J. Waycullis
Lafayette, LA
Phillip E. Swaim
Sulphur, LA
Timothy P. Theriot
Metairie, LA
William S. McDuff
Destrehan, LA
Walter J. Dugas
Brusly, LA
David B. Wingard
Baton Rouge, LA
Susanne C. Warren
Baton Rouge, LA
Timothy D. West
New Orleans, LA
Ramona A. Singleton
League City, TX
Timothy D. Sherbon
Sulphur, LA
Ronald A. Bray
Sulphur, LA
Julie A. Baron
Baton Rouge, LA

CIVIL

Andrew A. Prinaris
Ruston, LA
John P. Boyd
Sachse, TX
Sanjoy K. Bhattacharya
Metairie, LA
Tommy G. Clem
Amarillo, TX
James H. Forbes, Jr.
Garland, TX
Sharadchandra R. Joshi
Mobile, AL
Gregory A. Campbell
Knoxville, TN
Paul A. Holt
Mobile, AL
Jerry C. Wolverton, Jr.
Snellville, GA
Martha J. Robinson
Clemson, SC
Edwin G. Bishop
Birmingham, AL
Thomas F. Bulla, III
Katy, TX
Charles C. Chang
Northridge, CA
Robert A. Shinkle
Milford, OH
Edward R. Wedge, III
Baton Rouge, LA
Ronald E. Buys
Austin, TX
Michael C. Anderson
De Berry, TX
Jack McDaniel
Shreveport, LA
Ross E. Monk
Dixon, IL
Abdolrasoul Nazermalek
Shreveport, LA
Barry A. Sullivan
Tallulah, LA
Neal P. Robichaux
Erath, LA
Martin T. Benoit
Lake Charles, LA
Markay Brown
Pineville, LA
Steven R. Draughon
Lafayette, LA
Wayne L. Harris
Sulphur, LA
Woodson Harvey, III
Turkey Creek, LA
Leroy J. Lasseigne
Lafayette, LA
Charles D. Moore
Lafayette, LA
Susan H. Richard
Lafayette, LA
Christopher K. Richard
Lafayette, LA
James C. Van Hoof
Lecompte, LA
Stacy L. White
Hackberry, LA
Catherine H. Weiss
Wichita Falls, TX
Masud M. Aghayan
Baton Rouge, LA
Song-Kai Yan
Baton Rouge, LA
Jon C. Hesslop
Houston, TX
Mitchell J. Lebas
Baton Rouge, LA
Frank C. McCaskell
Metairie, LA
Keith M. Meyer
Gretna, LA
Patrick A. Owens
Metairie, LA

John W. Paschal, III
New Orleans, LA

Joseph S. Rawls, Jr.
Covington, LA

Kenneth W. Smith
Houma, LA

Roy K. Smith
Kenner, LA

Ann L. Springston
Harvey, LA

David A. Waltz
Houma, LA

Harley S. Winer
New Orleans, LA

Scott M. Anderson
New Orleans, LA

Barry J. Batchelor
New Orleans, LA

Joseph R. Becker
Metairie, LA

Charles R. Bower
Slidell, LA

Lawrence J. Brotherton
River Ridge, LA

Roy M. Carubba
Metairie, LA

Kenneth M. Chevis
Metairie, LA

Pak C. Chu
San Francisco, CA

Lance R. Cooper
New Orleans, LA

Harry V. Harlan
New Orleans, LA

Jefferson T. Tessier, Jr.
Baton Rouge, LA

Terri L. Richardson
Baton Rouge, LA

Herodotos A. Pentas
Baton Rouge, LA

Elmore Moody
Baton Rouge, LA

William H. McCain
Baton Rouge, LA

Todd F. Marks
Port Allen, LA

David A. Bates
Baton Rouge, LA

William A. Clattenburg
Holden, LA

Larry E. East, Jr.
Baton Rouge, LA

Mehrdad Foroozesh
Baton Rouge, LA

Frank P. Frey
Baton Rouge, LA

John L. Gremillion
Alexandria, LA

Gary D. Heltman
Baton Rouge, LA

Carl B. Johnson
Baton Rouge, LA

Darren B. Kendrick
Baton Rouge, LA

Jerome C. Lohmann
Baton Rouge, LA

Victor K. Angell
Oxford, NC

John A. Nelson
Houston, TX

Richard E. Thorsten
Missouri City, TX

Kenneth B. Bennett
Mandeville, LA

Dean P. Kusserow
Mesquite, TX

Gui Ponce De Leon
Ann Arbor, MI

Norman J. Scheel
Fair Oaks, CA

ELECTRICAL

Raymond W. Harr
Orlando, FL

Gerald L. Binkley
Lenexa, KS

Charles A. Brown
Metairie, LA

Kenneth W. Allen
Hedwig Village, TX

Ernest J. Rousselle, Jr.
Bridge City, LA

Brent A. Austin
West Monroe, LA

Michael W. Hilton
Pollock, LA

Kenneth L. Robison
Alexandria, LA

Louis C. Guidry
Pineville, LA

Scotty J. Baudoin
Pineville, LA

Paul H. Vegas
New Orleans, LA

Mark D. Varisco
Metairie, LA

Stephen W. Rockco
Thibodaux, LA

Chadi Murr
Metairie, LA

Siamak Hatamian
Kenner, LA

Edward J. Davis
Gretna, LA

Mark D. Clement
Metairie, LA

Dennis P. Dawsey
Denham Springs, LA

Terry J. Whitmore
Moreauville, LA

INDUSTRIAL

Jerry M. Ivey
Shreveport, LA

Avinash M. Walkar
Baton Rouge, LA

Kenneth K. Lee
Baton Rouge, LA

MECHANICAL

Jerry J. Moser
Sulphur, LA

Mark S. Sigel
Iowa City, IA

Jon A. Dutton
Slidell, LA

David V. McMullin
Orlando, FL

Karl S. Allen
Paducah, KY

Joseph H. Versnel
Shreveport, LA

Dennis A. Gamlen
Missouri City, TX

Michael J. Fontenot
Lake Charles, LA

Glenn J. Chlasson
Houston, TX

William F. Berg
Metairie, LA

Timothy M. Duncan
Metairie, LA

Thomas J. Wallbillich, III
New Orleans, LA

Peter M. Willemoes
Mobile, AL

Edwin L. Lantzer
Baton Rouge, LA

Janet M. Boley
Wenatchee, WA

Thomas J. Babineaux
Baton Rouge, LA

Paul A. Sicard
Destrehan, LA

James C. Pittman, Jr.
Destrehan, LA

Tracy J. Moragas
Mandeville, LA

Janet K. Michelet
New Orleans

James A. Macstravic, Jr.
New Orleans, LA

Cary R. West
Baton Rouge, LA

Jack E. Spearow
Brazoria, TX

William C. Schadrack, III
Memphis, TN

MINING

John P. Storrs, Jr.
Natchitoches, LA

Dennis J. Meyer
Mansfield, LA

Kevin T. Wright
Keithville, LA

NUCLEAR

Thomas W. Oliphant
Baton Rouge, LA

PETROLEUM

Byron M. Sprawls
Lafayette, LA

Mark E. Barton
Lafayette, LA

Phillip W. Coleman
Laayette, LA

Daniel C. Coolidge
Lafayette, LA

David M. Hammond
Lafayette, LA

Wendell P. Menard
Katy, TX

Rene A. Richard
Lafayette, LA

Randall A. Young
Lafayette, LA

John C. Healy, Jr.
Metairie, LA

Scott E. Gentry
Bossier City, LA

David W. Kelly
New Orleans, LA

Roger D. McGulre
Gretna, LA

Carey J. Naquin
Houma, LA

Thomas M. Snow
New Orleans, LA

John B. Weingardt
New Orleans

Richard L. Fowler
New Orleans, LA

Charles L. Ellis, Jr.
Baton Rouge, LA

Joel E. Kohler
Baker, LA

Stuart A. Boggan
Houston, TX

Two LA Tech Students Win 1991-92 Vincent A. Forte Graduate School Fellowships

David R. Smat and Roger S. Stanley, Louisiana Tech University, are recipients of the Louisiana Engineering Foundation's 1991-92 Vincent A. Forte Graduate School Fellowships. The \$2,000 Fellowships are presented annually to graduate engineering students who express a sincere desire to enter the teaching profession at the university level.

Dean Barry A. Benedict, P.E., College of Engineering, Louisiana Tech University and Mrs. Vincent A. Forte (Florence) will make the presentations to Mr. Smat and Mr. Stanley on June 19, 1992, at the Louisiana Engineering Society's Annual Meeting Banquet, Ramada Hotel, Baton Rouge, Louisiana.



David R. Smat

David R. Smat was born in Chicago, Illinois, the son of Dr. and Mrs. Robert J. Smat. His father is a Senior Patent Consultant with the Dupont Company, Wilmington, Delaware and his mother is a Special Education Teacher. David is married and his wife, Laura A. Smat, is a Senior Systems Engineer with the Century Telephone Company, Monroe, Louisiana. She graduated from Louisiana Tech in 1985 with a Bachelor of Science degree in Computer Science (BSCS).

Mr. Smat graduated from Archmere Academy, Claymont, Delaware in 1982, Louisiana Tech University in 1985, where he earned a Bachelor of Science Degree in Computer Science (BSCS), the University of Delaware in 1986 with a Bachelor of Science Degree in Electrical Engineering (BSEE), and is currently enrolled at Louisiana Tech University working toward a masters degree in Civil Engineering. His previous professional experience include, Senior Engineer, General Dynamics, Fort Worth, Texas, from 1986 through 1991, and Electrical Engineer, The Mathes Group, New Orleans, Louisiana, 1991.

Smat is an impressive individual, not only in his academic abilities, but in his professional attitude and his acceptance of responsibilities. His strong desire to teach at the university level is in keeping with the goals of the Foundation's Vincent A. Forte Graduate School Fellowship.



Roger S. Stanley

Roger S. Stanley was born in Winnsboro, Louisiana, the son of Dr. Patricia D. Stanley, Professor of Psychology, LSU/Shreveport, and Larry R. Stanley, retired High School Band Director. Stanley graduated from Airline High School, Bossier City, Louisiana. He received his Bachelor of Science Degree in Mechanical Engineering from Louisiana Tech University in 1989. He is currently enrolled at Louisiana Tech University as a full time graduate student. Mr. Stanley is single.

Stanley is a registered Engineer-in-Training (EIT) in the State of Louisiana and he plans to enter the work force for a few years in order to round out his education and obtain more experience for teaching preparation purposes. He has an excellent academic record. Mr. Stanley is a highly motivated individual and has shown outstanding leadership ability, all in keeping with the goals of the Vincent A. Forte 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 engineers. The Foundation is headquartered at 1213 Nicholson Drive, Baton Rouge, Louisiana.

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.

June 17-20, 1992

LES Annual Meeting and
Installation of Officers
Ramada Inn
Baton Rouge, LA

June 20, 1992

LES Board of Direction Meeting
Baton Rouge, LA

July 19-25, 1992

NSPE Annual Meeting
Oak Brook Hills Hotel
Oak Brook, IL

July 27-28, 1992

State Board of Registration Meeting
New Orleans, LA

August 12-16, 1992

NCEES Annual Meeting
Portland, OR

August 14, 1992

LES Board of Direction Meeting
Lafayette, LA

September 21-22, 1992

State Board of Registration Meeting
New Orleans, LA

October 8-10, 1992

NSPE Southwest Regional Meeting
Las Cruces, NM

October 9, 1992

LES Board of Direction Meeting
Alexandria, LA

October 14-16, 1992

ACEC Fall Membership Conference
Hilton Head, SC

October 21, 1992

NCEES Exams

January 23-30, 1993

NSPE Winter Meeting
Kona, HI

Ballot to Elect Louisiana Engineering Society Members To Engineers Selection Board

Act 721 passed in the 1975 Legislature amended Chapter 30 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, 1993, and one ending December 31, 1993.

The LES Board of Direction nominates Foy B. Gadberry, P.E., West Monroe, for the June 30 position and Freddy L. Roberts, P.E., Dubach, 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 17, 1992. 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, 1992 - June 30, 1993)

☐ Foy B. Gadberry, P.E., West Monroe, LA

☐

For write-in

POSITION TWO (Term January 1, 1993-December 31, 1993)

☐ Freddy L. Roberts, P.E., Dubach, LA

☐

For write-in

PLEASE VOTE. RETURN TO LES, P. O. BOX 2683, BATON ROUGE, LA 70821 prior to July 17, 1992

PLEASE CUT ALONG THIS LINE

Ballot to Elect Consulting Engineers Council 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, 1992 and ends June 30, 1993.

One nominee will be elected to fill the position whose term begins January 1, 1993 and ends December 31, 1993.

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 17, 1992.

POSITION ONE (Term July 1, 1992 and ending June 30, 1993)

☐ David A. Hunter, P.E., New Orleans, LA

☐

For write-in

POSITION TWO (Term beginning January 1, 1993 and ending December 31, 1993)

☐ Louis J. Capozzoli, P.E., Baton Rouge, LA

☐

For write-in

Will There Be a Shortage of U.S. Engineers?

Japanese Prime Minister Miyazawa's comments about the U.S. sending more graduates to Wall Street than to manufacturing jobs renewed the debate about the supply and demand for engineers. But the issue needs closer analysis than it has received in the general press, according to an article in the April issue of the *Engineering Times*, a publication of the National Society of Professional Engineers.

Miyazawa was correct in saying the number of U.S. engineering graduates has fallen. In 1990, there were 66,000 engineering undergraduate degrees awarded, down from 78,000 in 1986, according to the Engineering Manpower Commission. The talk of engineer shortages originated with a National Science Foundation (NSF) study in 1990 that predicted a shortfall of 675,000 engineers by the year 2006.

Engineering educators and analysts have criticized the study that was made by the NSF Division of Science Resources and was commissioned by the White House. The general press reported several inaccurate versions of the study, which was never published, including a report that there were

50 lawyers in the U.S. for every engineer. In fact, there are two engineers for every lawyer in the United States - 1.5 million engineers to 741,000 lawyers in 1990, according to the U.S. Bureau of Labor Statistics.

The NSF study was criticized by the executive director of the National Resource Council Office of Scientific and Engineering Personnel (OSEP), Alan Fletcher, who testified before a congressional hearing on the matter that the NSF report was flawed. "You can't talk meaningfully about the question of imbalance without having a clear picture of what you need. We have to deal with downsizing, the recession, and defense cutbacks," Fletcher told *Engineering Times*.

One hundred twenty seven thousand defense engineering positions may be lost by 1995, according to a study recently released by the congressional Office of Technology Assessment (OTA). According to another story in the same issue of *Engineering Times*, displaced defense engineers laid off in 1991 are finding fewer defense jobs to apply for. In its report, *After the Cold War: Living With Lower Defense Spending*, OTA suggests that defense engi-

neers losing their jobs could eventually fill the gap left by the smaller supply of young engineers entering the work force.

Richard Ellis, director of the Engineering Manpower Commission warned Congress in testimony that NSF did not measure the demand side of the equation, and consequently the study's findings were flawed. "There is a tendency to talk about shortages and markets as if there is only one big market. There are many markets, and there can be simultaneous surpluses and shortages," Ellis says.

"With engineers in the aerospace and defense industries being laid off today, it's more important to focus on how these engineers' skills can be transferred to other industries than to debate whether or not there will be a shortage of engineers. NSPE demonstrated through its Skills Conversion program in the late 60s that engineers can successfully transfer their skills to new industries, and we are working with the Administration and Congress to do that again," said Donald Hiatte, P.E., the president of NSPE.

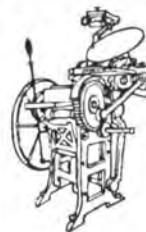
SERVICES & SUPPLIERS

ADVANCED TECHNICAL APPLICATIONS CENTER, INC.

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"
3200 Ridgeland Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



FAX 355-2178

PRINTING INCORPORATED

3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department

Ed's ep
PRINTING
COMPANY, INC.

925-0991
9366 Greenwell Springs Rd.
at Monterrey

Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax: (318) 981-7922

USL (318) 231-6846

BUDDY VERNON

"DOES THINGS DIFFERENTLY"

BUDDY PROMOTIONAL ADVERTISING

11920 Industriplex Blvd. B. R., La.
(504) 923-0000 FAX: 504-293-7544

LEAK LOCATING



- ☐ LEAKS IN UNDERGROUND PIPES
- ☐ BLOCKED OR BROKEN SEWERS
- ☐ LOCATION OF UNDERGROUND PIPES

TOLL FREE: 1-800-673-5726
NEW ORLEANS: 392-7545

PRO-AM, INC.
RT. 2 BOX 414
PICAYUNE, MS 39466

FRANK A. ZIMBELMAN, P.E.
Owner & President

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123

Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives and Motors
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts



Programmable Controllers

- SHARK / AutoMate / Automax
- ReSource ScreenWare 2 graphics

authorized stocking distributor

RELIANCE ELECTRIC



PROFESSIONAL LISTINGS

WALDEMAR S. NELSON AND COMPANY INCORPORATED

ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 584391 NELSENG

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
45 YEARS OF EXPERIENCE SERVING INDUSTRY

- ☐ SITE PLANNING / PERMITTING
- ☐ CHEMICAL / PROCESS / PETROLEUM
- ☐ CIVIL / STRUCTURAL
- ☐ ELECTRICAL / ELECTRONIC
- ☐ ENVIRONMENTAL / SANITARY
- ☐ INSTRUMENTATION / CONTROLS
- ☐ CONSTRUCTION MANAGEMENT

- ☐ MONITORING / MODELING
- ☐ MECHANICAL
- ☐ PIPELINE
- ☐ MINING
- ☐ HVAC
- ☐ ARCHITECTURE
- ☐ ASBESTOS

Simons-Eastern Consultants, Inc.

P. O. Box 1286 • Atlanta, GA 30301-1286



**STRATEGIC
PLANNING
DESIGN**

Atlanta, GA (404) 370-3200 **CONSTRUCTION**
Monroe, LA (318) 387-6216 **MANAGEMENT**



- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1460
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 • FAX

BALAR

CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 815
SHREVEPORT, LA. 71101
(318) 221-8312
FAX (318) 424-6508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL

EBASCO

An ENSERCH Engineering & Construction Co.

- | | | |
|---|--|--|
| ☐ Project Management | ☐ Hydroelectric | ☐ Environmental |
| ☐ Construction | ☐ Nuclear | ☐ Nuclear Waste |
| ☐ Plant Services | ☐ Life Extension | ☐ Hazardous Waste |
| ☐ Maintenance | ☐ Industrial | ☐ Cogeneration |
| ☐ Retrofit | ☐ Construction | ☐ Quality Assurance |
| ☐ Operations | ☐ Management | ☐ Vendor |
| ☐ Fossil | ☐ Infrastructure | ☐ Construction |
| ☐ MSW/Alternate Energy | ☐ Advanced Technology | ☐ Defense |

EBASCO SERVICES INCORPORATED
Two James Park
120 Mallard St., Ste. #140
St. Rose, LA 70087
(504) 468-5460



McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

Serving the World's Environmental Needs

JMM James M. Montgomery,
Consulting Engineers, Inc.



3501 N. Causeway Blvd.
Suite 300
Metairie, LA 70002
(504) 835-4252

Offices located throughout the United States

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



ATCHLEY & ATCHLEY, INC.
Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821
Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.



HALLIBURTON NUS
Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX

(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477



Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.
Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3666 Government St.
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.



CONSULTING ENGINEERS

pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

8178 GSRI AVENUE • BATON ROUGE, LA 70820-7405 • (504) 766-6330

FORTE AND TABLADA, INC.
CONSULTING ENGINEERS



OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA. 70896
9107 INTERLINE AVE. • BATON ROUGE, LA. 70809



**professional engineering
consultants corporation**

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810

FROMHERZ ENGINEERS, INC.
Consulting Engineers

Public Works and Airports, Waterfront Development,
Environmental Services, Highways and Bridges,
Industrial Facilities, Energy Studies

(504) 488-7711

4747 EARHART BLVD. NEW ORLEANS, LA. 70125

RPM ENGINEERING, INC.
A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC.
Consulting Engineers and Land Surveying

General Civil Engineering & Land Surveying

8335 KELWOOD AVE. BATON ROUGE, LA 70806
SUITE D PH. (504) 924-0235
FAX (504) 926-1687

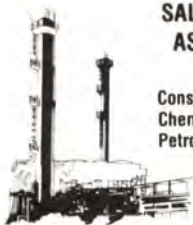


THE MEYER GROUP



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND - OFFSHORE - HYDROGRAPHIC

550 South Van Ave
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 77396

Call: SAM BROWN, Ph.D., P.E.

(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

• Project Managers
• Engineers
• Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBauve and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST
ALEXANDRIA, LA 71302

318-445-8910

NBR
Nance
Brown
Roach

Architects • Engineers • Planners
401 Edwards Street
Suite 815
Shreveport, Louisiana 71101
318-424-3274

COYLE ENGINEERING
CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71111-6177

3925 BENTON RD.
PHONE (318) 746-8987

DAVID VOLKERT & ASSOCIATES, INC.

ENGINEERS • ARCHITECTS • PLANNERS
3500 N. Causeway Blvd • Suite 1240
Metairie, LA 70002
(504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, AL • Tampa & Miami, FL

Office (504) 632-5596

Res. (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.
Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction

1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437



Engineers, Architects
and Planners



TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

• Aviation • Construction Management
• Bridges and Structures • Environmental Services
• Civil Engineering • Transportation and Planning

CATFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504 516-0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182

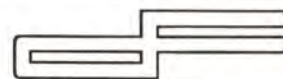
1200 SO. ACADIAN THRUWAY
SUITE 106
BATON ROUGE, LA 70806
(504) 387-0745

SWL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

BURK-KLEINPETER, INC.

ENGINEERS ARCHITECTS PLANNERS ENVIRONMENTAL SCIENTISTS

• CIVIL	• HIGHWAY	• TRANSPORTATION PLANNING
• STRUCTURAL	• STRUCTURES	• ENVIRONMENTAL ASSESSMENT
• MECHANICAL	• DRAINAGE	• PORT / MARINE FACILITIES
• ARCHITECTURE	• FLOOD CONTROL	• CONSTRUCTION MANAGEMENT
• PLANNING	• WATER AND WASTEWATER	
• LANDSCAPE ARCHITECTURE	• SOLID WASTE	

4176 CANAL STREET, NEW ORLEANS, LOUISIANA 70119
TEL. 504 - 486-5901 FAX 504 - 488-1714



GERAGHTY
& MILLER, INC.
Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide

CDM environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

3445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272

236 Third Street, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822

offices nationwide

gregory c. rigamer & associates, inc.
professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Murla, P.E.
Lawrence J. Ringel, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS

BERGER, BARNARD & THOMAS, INC.
ENGINEERS, ECONOMISTS, and PLANNERS

**MUNICIPAL AND INDUSTRIAL ENGINEERING
COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS**

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504-927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504-364-1637

JN JONES AND NEUSE, INC.
Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

11924 COURSEY BLVD., STE. A
BATON ROUGE, LOUISIANA 70816
PHONE: (504) 291-3055
FAX: (504) 291-4801

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers & Land Surveyors

6025 Buncomb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS

GULF SOUTH ENGINEERS, INC.
ENGINEERING CONSULTANTS

1700 GRAND CAILLON RD.
HOUMA, LA 70363
(504) 876-6380
FAX 876-0621

1000 LEONIDAS ST
NEW ORLEANS, LA 70178
(504) 866-1821
FAX 866-1781

SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS

GEOTECHNICAL
SOIL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS

ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION

QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS

316 HIGHLANDIA DR.
4100 LOUISIANA AVE.
BATON ROUGE, LA
LAKE CHARLES
504-752-4790
318-474-1340



CONSULTING ENGINEERS
SERVING THE PETRO-
CHEMICAL AND OIL & GAS
INDUSTRIES

OFFICE (504) 835-2577
FAX (504) 837-5924

3330 WEST ESPLANADE AVE. • SUITE 300 • METAIRIE, LOUISIANA 70002

**PETROLEUM ENGINEERS
INTERNATIONAL, INC.**

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management - Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588
Lafayette, Louisiana 70505 (318) 233-5346

Numerical Modeling of Mechanical Systems



- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

Mechanical Troubleshooting
Failure Analysis
Vibration Analysis
Machine Design

Stress Analysis
Pressure Vessel/Heat Exchanger Design
Heat Transfer
Risk Assessment

8126 One Calais Ave., Suite 1B • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765

**EUSTIS ENGINEERING
GEOTECHNICAL ENGINEERS**

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET
METAIRIE, LA 70002



**A DIVERSIFIED ENVIRONMENTAL/EARTH
SCIENCE CONSULTING AND DESIGN FIRM**

4949 ESSEN LANE, SUITE 900
BATON ROUGE, LOUISIANA 70809
(504) 769-2600
FAX (504) 769-3695

**Balancing The Needs Of Business
With Those Of The Environment**

- Geotechnical
- Marine
- Environmental
- Construction Materials



1-800-743-0092 25 Offices Nationwide



LANIER & ASSOCIATES
Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

WOODWARD-CLYDE CONSULTANTS
engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



Environmental Consulting and Remediation

SAMUEL K. WILEY
President

A Subsidiary of Osca, Inc.
12021 Lakeland Park Blvd., Suite 120
Baton Rouge, Louisiana 70806
Office: (504) 756-2555 Fax: (504) 756-2562

LANKFORD ENGINEERING, INC.
CONTROL SYSTEMS

DESIGN, MANUFACTURE, INSTALL, AND SERVICE
PLC-COMPUTER-ELECTRONIC
PNEUMATIC-ELECTROMECHANICAL

P.O. BOX 53931
LAFAYETTE, LA. 70505

NO. 6 FLAGG PLACE
PH. (318) 981-0532

**Poché Associates
LIMITED**
CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 Lafayette, LA 70508 (318) 237-6517

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E.

2000 North 7th
P. O. Box 728
West Monroe, La. 71291
Phone 318/387-2710

JACKIE W. D. ROBBINS: Ph.D., C.I.D., P.E.
Engineer (Agricultural) and C.E.O.

the Robbins Association/ IRRIGATION-MART, Inc.

Rt. 6, Box 1241
Ruston, LA 71270
FAX & Ph (318) 255-7572

1-800-SAY-rain • 1-800-729-7246

Irrigation Sales & Engineering/Design



we SAVVY irrigation

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS

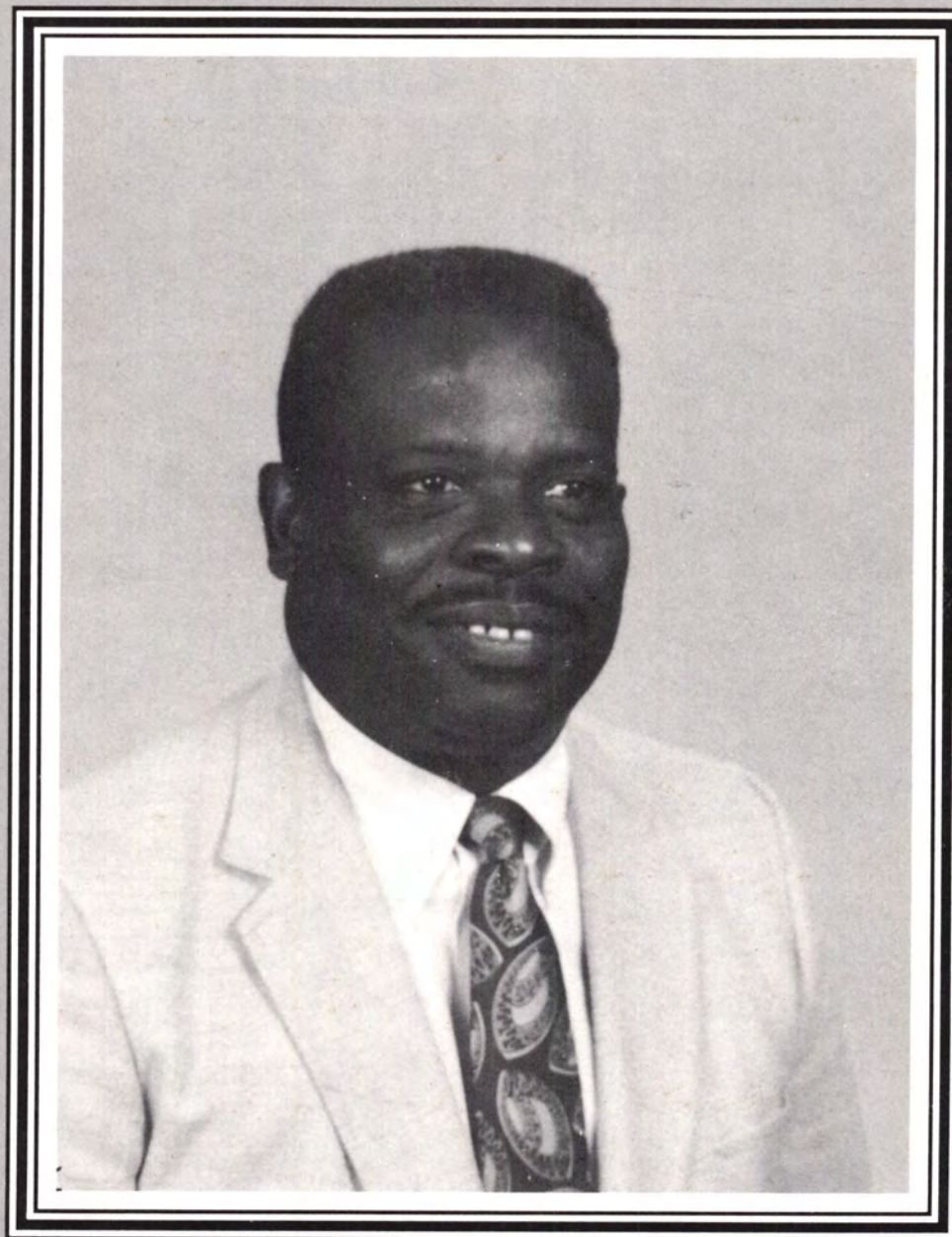
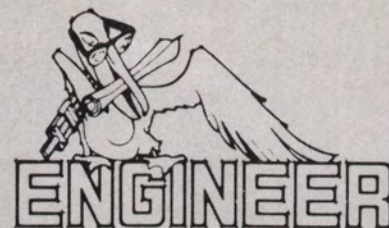


Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650



AUGUST, 1992
LOUISIANA



Morgan M. Watson, P.E.
Consulting Engineers Council of Louisiana, Inc.
President
1992-1993

THINK OF US AS YOUR AGENT.



An actor or singer's agent strives to keep his clients working—and prospers only when his clients succeed.

In our role as aggressive promoters of economic development, Louisiana's Investor-Owned Electric Companies act as agents for everyone in the state.

A single job in basic or secondary industry generates three more jobs. And every secure, well-paying job makes the economic prospects better for us all.

We represent you because our future can be no brighter than yours.

**Louisiana. Ready, willing
and very capable.**

Investing in your energy future

LIQEC

LOUISIANA'S INVESTOR-OWNED
ELECTRIC COMPANIES

Central Louisiana Electric Company/Gulf States Utilities Company
Louisiana Power & Light Company/New Orleans Public Service Inc.
Southwestern Electric Power Company

AUGUST, 1992



ABOUT THE COVER

Our cover this month features 1992-1993 CEC/L President Morgan M. Watson, P.E.



IN THIS ISSUE

Presidential Privilege	4
Unix for Engineers	5
The Spec Sheet.	6
Calendar of Events	9
Notre Metier	10
Hixson Installed as President-Elect of NSPE.	12
LES Board of Direction Meeting Highlights	13
Bueto's Column	14
LES Awards Program	16
Roster of Engineering and Surveying Societies	17
New Registrants	19

(Please note: Receipt of Louisiana Engineer Magazine does not necessarily mean that you are registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, or that you are a member of the Louisiana Engineering Society.)



STATE OF LOUISIANA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256

Office Hours
Monday thru Friday
8:00 am until 4:00 pm

Chairman
Malcolm L. Hurstall, P.E.

Vice Chairman
Albert J. Dunn, P.E./P.L.S.

Secretary
Randall F. Barron, P.E.

Other Members
Ara Arman, P.E./P.L.S.
Coan J. Bueche, P.E./P.L.S.
Robert D. Fenner, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Charles L. McDonald, P.L.S.
Larry A. McKee, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenote, Jr., P.E.

Executive Secretary
Paul L. Landry, P.E.



LOUISIANA ENGINEERING SOCIETY

P.O. BOX 2683, BATON ROUGE, LA 70821 TELEPHONE (504) 344-4318
STREET ADDRESS: 1213 NICHOLSON DR., BATON ROUGE, LA

LES OFFICERS AND BOARD

President
Glynn P. Gautreau, P.E.

First Vice President
Dale T. Hunn, P.E.

Second Vice President
Edgar P. Benoit, P.E.

Secretary-Treasurer
Carl A. Jakob, P.E.

NSPE DIRECTORS
James L. Meyer, P.E.
Glynn P. Gautreau, P.E.

STATE DIRECTORS
Robert A. Brossette, P.E.
Richard P. Wright, P.E.
Robert C. Hughes, P.E.
John S. Bruce, P.E.

PAST PRESIDENT
Lloyd G. Hoover, P.E.

CHAPTER PRESIDENTS
Alexandria
Roger D. Danzy, P.E.

Baton Rouge
Ann F. Trappey, P.E.

Bayou
Prosper J. Toups, P.E.

Lafayette
Mitchell P. Wyble, P.E.

Lake Charles

Lee Lancon, Jr., P.E.

Monroe

Thomas L. Holtzclaw, P.E.

New Orleans

George Mahl, III, P.E.

Shreveport

R. Kerry Smith, P.E.

PRACTICE DIVISIONS

Construction
Roger D. Melancon, P.E.

Education
Bobby E. Price, Ph.D., P.E.

Government
Paul E. Colquette, P.E.

Industry
J. Madison Drake, P.E.

Private Practice
Steven W. Brown, P.E.

COMMITTEE CHAIRPERSONS

Constitution and Bylaws
Charles L. Eustis, P.E.

Engineering Education
Frederick J. Brown, P.E.

Young Engineers

Angela DeSoto, E.I.T.

Ethics and Professional Conduct

Foy B. Gadberry, P.E.

Honors and Awards
Kerry J. LaBauve, P.E.

Inter-Society Relations
John S. Bruce, P.E.

Legislative
Raymond G. Areaux, P.E.

Membership
Richard J. Primeaux, P.E.

Public Relations
John J. Plaisance, P.E.

Scholarship
Keith M. Warden, E.I.T.

Long-Range Planning
Edgar P. Benoit, P.E.

Publications
H. L. Henry, Jr., P.E.
**Liaison Committee/State
Board of Registration**
James L. Meyer, P.E.

**Louisiana Engineering
Foundation**
Robert P. Blanche, P.E.
EXECUTIVE DIRECTOR
Leta G. Bueto

PUBLICATIONS COMMITTEE

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

Managing Editor
Leta G. Bueto

Publishing Consultant
Printing Incorporated

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society. The LOUISIANA ENGINEER is the journal of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The magazine is published in February, April, June, August, October and December. Subscription \$2.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. Two dollars of each LES member's annual dues is set aside for six issues of the LOUISIANA ENGINEER. Second class postage paid at Baton Rouge, La. The Louisiana Engineering Society and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors do not guarantee the accuracy of statements made or necessarily concur with opinions expressed in this publication. ISSN: 0024-6794

Address LES Communications and Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318, FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Presidential Privilege

The Consulting Engineers Council of Louisiana (CEC/L), as it is known today, grew out of an organization called the Gulf Institute of Consulting Engineers, whose founders first met on January 10, 1950 at the Tulane University Library. Per the Articles of Incorporation filed in 1957, CEC/L is a non-profit corporation, organized and operated exclusively for:

- a) The promotion of ethical principals and professional practices;
- b) The advancement of the interests of professional engineers engaged in the consulting practice of engineering;
- c) The increase in the usefulness of the consulting engineer to his clientele and to the public at large.

Membership in CEC/L is limited to engineers (firms) engaged in the consulting practice of engineering, that is the consulting engineering firm, with its principal, or principals, representing the firm in all council business.

CEC/L is a Member Organization of the American Consulting Engineers Council (ACEC), which was formed in 1973 by consolidation of the American Institute of Consulting Engineers (an organization of individual consultants founded in 1910), and the Consulting Engineers Council of the United States, which was established in 1956 with the Gulf Institute of Consulting Engineers as a founder member. ACEC's certificate of incorporation defines its purpose as "assisting its members in achieving higher professional, business and economic standards, thus enabling them to provide better consulting engineering services in the interest of their clients...."

That CEC/L and ACEC both exist primarily for the advancement of the business and economic interests of its membership can easily be concluded from the preceding information. Failure to understand its mission has caused many CEC/L members to become confused about the stand that the organization should take (if any) on many political, economic, ethical, and other contemporary issues that affect the organization and its membership. It is my personal belief, as President of CEC/L, that the consulting engineering profession is a blend of the technical, ethical and business aspects of engineering and CEC/L is first and foremost a **business organization**, and should be fighting for the business interest of its members on all fronts. The Louisiana State Board of Registration for Professional Engineers and Land Surveyors is responsible for regulating and policing the practice of engineering "in order to safeguard life, health and property, and to promote the public welfare." The technical aspects of the engineering profession should be the primary concern of ASME, IEEE, ASCE and other such organizations. The Louisiana Engineering Society



Morgan M. Waston, P.E.
1992-1993 President
Consulting Engineers Council
of Louisiana, Inc.

(LES) and its national counterpart, NSPE, is composed of registered professional engineers (individually) who participate in various practice divisions (construction, education, industry, government, and private practice) related to their field of employment. These practice divisions provide a forum for discussion and action, and deal with issues such as standards of practice, procurement, employment, registration, and legislation. Whereas all these are areas of great concern to all engineers, only consulting engineers (CEC/L and its members) live and die daily by the impact of the business and economic issues that are often inflicted upon them by outside forces. For consulting engineers in general, and CEC/L members in particular, the time is at hand when we must assume an offensive posture on issues that affect the very lifeblood of our practices, and not be passive and reactionary as we have been for so long. CEC/L is a sleeping giant that needs awakening.

The first step in awakening the sleeping giant will be the formulation of a strategic plan. This strategic plan will cover a five-year period and define the specific goals of CEC/L, along with objectives designed to reach these goals. The goals on which the objectives are based should end up being similar to those included in ACEC's Long Range Plan, which include quality engineering, profession procurement, profession liability, membership, identity (public awareness), and changing business practice and marketing conditions. Members of CEC/L's Board of Governors and various other members of the consulting engineering community will soon hold a two (2) day retreat in Natchez, Mississippi to formulate CEC/L's Long Range Plan. After the plan is formulated, it will be presented to the

CEC/L membership for comments, refined by a Long Range Planning Committee, and finally adopted by the Board of Governors, all hopefully by the end of October, 1992. This five-year plan would be updated annually by the incoming President and Board of Governors, with the plan for the present year refined, and one (1) year added to the end of the five-year plan. From the strategic plan, I expect that CEC/L will redefine its direction and become a lion, rather than the lamb it has been in the past.

It does not take a strategic plan, or even a crystal ball, to determine that the greatest single issue facing consulting engineers in Louisiana (as well as nationwide) involves the procurement of professional engineering services. Should contracts for professional engineering and land surveying services be awarded based on the firm's competence and qualifications or based on a bid? It is CEC/L's position that a qualifications based selection (QBS) process should be the exclusive process used to contract for professional engineering services in the **public** sector. QBS directs the focus of procuring professional engineering (and land surveying) services where it should be - on the **quality** of the engineering services provided to the client. The QBS process results in a more cost-effective service than can be achieved under price bidding procedures. The basic elements of the QBS process are well known to consulting engineers (and land surveyors) and thus need not be repeated here. To mandate QBS in the private sector would create numerous enforcement problems in an area that is price-driven, and thrives on the laws of supply and demand. Procurement of professional engineering services in the public sector using QBS should be legislatively mandated, and the passage of such legislation is my single greatest goal as CEC/L President, assuming, of course, the strategic plan sets that as the number one priority.

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors recently proposed a rule prohibiting registrants for soliciting or submitting fee proposals for professional engineering and land surveying services until after having been selected by the prospective client on the basis of competence and qualifications. This attempt by the registration board to prohibit its registrants from engaging in competitive bidding on public and private sector projects met strong objections from CEC/L because the private sector was included, and that would be difficult to enforce for reasons previously mentioned. LES has also proposed QBS legislation in the past, but as of now there is no legislation mandating that QBS be used by all state and local agencies, as well as other political subdivi-

Continued on page 19

Unix for Engineers?

by John Stinson, P.E.

Computer Consulting and Programming

Most engineers and engineering organizations have spent years coming to grips with PCs and DOS. Now, however, higher performance workstation technology along with improved, more powerful software offer attractive alternatives. Unix is no longer the arcane, little-used system championed by a few avid proponents. It is a full-fledged competitor for many of the tasks performed by other systems. Can, however, Unix find a home with engineers who use DOS to great advantage with application packages such as AutoCad, Lotus, WordPerfect and other popular products?

The answer might be found by looking at the differences between Unix and DOS. Then looking at how they fit into networks, and finally, an example of how organizational requirements determine the proper mix of technologies.

Differences Between Unix and DOS

Brian M. Stancil, Business Services Manager with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, manages a Unix operation that tracks thousands of engineers and professional land surveyors. He points out that Unix, as opposed to DOS, is essential to his operation because of the multi-tasking, multi-user capabilities not found in DOS. "In terms of power, it leaves DOS behind", not only in its robust and powerful command language (well over five hundred commands versus less than fifty standard DOS commands), but also in the variety of platforms that it runs on. Whereas DOS runs only on Intel chips, Unix in its various forms runs across many platforms, including PCs, RISC workstations and mainframes.

Other important differences between DOS and Unix are lack of memory constraints within Unix compared to severe DOS limitations — not to mention the different types of memory used by DOS (conventional, extended, expanded). Unix also has the following built-in features: security, system accounting, advanced text manipulation, command shells, DOS shell, mail/communications systems, as well as a C compiler (depending on the version). DOS simulators, such as VPIX and ConcurrentDOS, are also available on most versions of Unix. On the other hand, DOS and Unix have similar directory structures, with DOS organizing directories into drives and Unix organizing directories into mini-disks.

In addition to technical differences, Mr. Stancil points out there are big differences in cost of hardware, software and training. Since DOS systems are limited to stand-alone use, plus the cost of adaptor boards for network use, and Unix systems often are used as multi-user machines, it is not easy to make

direct comparisons in hardware and software cost. However, Unix systems almost always cost more than DOS systems, reflecting increased capacity and performance. Training costs for Unix are higher due primarily to the increased time needed to learn the system.

One trend worth mentioning in regard to the differences between DOS and Unix. The availability of shrink-wrapped DOS applications, such as WordPerfect, Lotus, Novell Netware, AutoCad and others, is much greater today than it was even as recently as a year ago. Many major software developers, recognizing the potential growth in the workstation market, have ported over their applications to Unix.

Network Strategy Key to Choice of Operating Systems

William L. Koederitz, Coordinator for the Petroleum Engineering Department, LSU College of Engineering, helps maintain a network of computers used by professors and students. He has successfully mixed a variety of Unix and DOS platforms into a network that supports the diverse needs of his Department.

Engineering computations and document preparation are two of the primary

requirements of this network — a network, by the way, that reaches beyond the Petroleum Engineering Department to other computers on campus, and is used by faculty, staff and students. Using just DOS, or just Unix, will not meet the variety of needs placed on this network. For example, one faculty member performing numerically intensive research will want a powerful Unix workstation with a high SPECmark or MFLOPS rating on which to run his programs. Another faculty member, on the other hand, may like the features of Microsoft Word for DOS in preparing papers for publication. And, they may both want to store data on a file server, and use the network laser printer.

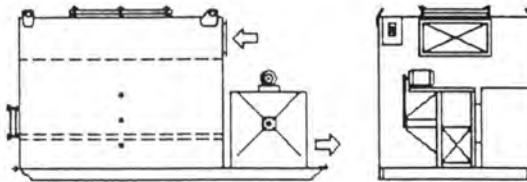
This environment is close to that found in most engineering firms: a variety of requirements, including graphics, numerical computations, word processing and business/financial applications. Where is DOS appropriate? At what point does a Unix workstation become cost effective? What network management system to use? These are all problems that will have better solutions now that Unix workstations are available as alternatives to PCs.

Continued on page 20



Environmental Systems Consultants

LEADER IN VAPOR AND DUST CONTROL
FOR THE REMEDIATION INDUSTRY



Carbon Vapor Control Units
Lease/Purchase Remedial Structures
Air Filtration units to 25,000 CFM
Carbon Catalyst Odor Control Units

Vent Drum Filters
Bulk Activated Carbon
All Carbon Units are Portable
For Shipment to Reactivator

GULF COAST CONTACT: NORMAN B. SWIHART, P.E.
(713) 326-5911 La. Reg. 10803

**CONSULTING ENGINEERS COUNCIL OF LOUISIANA, INC.
PROUDLY PRESENTS THE 1992-1993 BOARD OF GOVERNORS**



President
Morgan M. Watson, P.E.
MEL, Inc.
Baton Rouge, La.



President-Elect
James M. Poche, P.E.
Poche Associates, Ltd.
Lafayette, La.



Vice-President
Joe E. Roach, P.E.
BaLaR Associates, Inc.
Shreveport, La.



Treasurer
Frank Nicoladis, P.E.
N-Y Associates, Inc.
Metairie, La.



Secretary
Jerry G. Lazenby, P.E.
Lazenby & Associates, Inc.
West Monroe, La.



National Director
Richard A. Van Wooten, P.E.
Walk, Haydel & Associates, Inc.
New Orleans, La.



Member-at-Large
Kenneth H. McLaughlin, P.E.
I.M.C. Consulting Engineers, Inc.
New Orleans, La.



Member-at-Large
F. Bren Kramer, P.E.
Marrero, Couvillon & Associates, Inc.
Baton Rouge, La.



Member-at-Large
Donald W. Clayton, P.E.
Ballard & Associates, Inc.
Alexandria, La.



Baton Rouge Chapter President
Thomas A. Stephens, P.E.
Stephens Engineering
Baton Rouge, La.



New Orleans Chapter President
Vincent C. Provenza, P.E.
URS Consultants, Inc.
Metairie, La.



Alexandria Chapter President
Kerry J. LaBauve, P.E.
LaBauve and Company
Alexandria, La.



Shreveport Chapter President
Robert A. Basinger, P.E.
BBC Engineering, Inc.
Shreveport, La.



Lafayette Chapter President
Donald L. Richard, P.E.
Domingue, Szabo & Associates, Inc.
Lafayette, La.



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



Morgan M. Watson, P.E. - A Profile

Morgan M. Watson, P.E., Baton Rouge, was installed as the 1992-1993 President of Consulting Engineers Council of Louisiana, Inc. (CEC/L) at the organization's recent Annual Meeting in New Orleans. This caps several years of service on his part as President-Elect, Vice President, Treasurer, Secretary, two years as Member-at-Large, and two years as Baton Rouge Chapter President.

Watson 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, Inc. 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 societies, including ASME, AEE, SAME, ASEE, and Pi Tau Sigma Honorary Engineering fraternity. He enjoys teaching, and is a part time professor at both Southern University and Louisiana State University, teaching courses in Thermodynamics, Thermal Environmental Engineering, and Architecture students.

Active in both the church and community, Watson 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 the Southern University Alumni Federation, and a member of Omega Psi Phi fraternity, to name but 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.

Commenting on Watson, CEC/L Executive Director, Warren Wilder, has said, "Of historical note, Morgan Watson is the first CEC/L President of African-American descent, but he continually strives to better the profession and the business of consulting engineering for all engineers, regardless of race. Morgan is creative and innovative in his approach to his priorities for the year. He plans to chart the direction of CEC/L by calling for a special meeting to develop a five-year, long-range plan. He has stated that we have to know where we are going before we can determine where we have been. Continued membership development, passage of a bill in the legislature to mandate Qualification Based Selection (QBS) in the public sector, and a better line of communication with the other professional organizations and boards rank highest on his list of priorities. I anticipate a very busy and productive year under the tutelage of Morgan Watson."

Biographical Sketches of the Board Members

JAMES P. POCHÉ, P.E., has assumed the office of President-Elect of CEC/L after serving several years on the Board of Governors as Vice President, Treasurer, Secretary, two years as Member-at-Large and three years as Lafayette Chapter President. He received his Bachelor of Science Degree in Mechanical Engineering from the University of Southwestern Louisiana, Lafayette, Louisiana, in 1970. Poche' is President of Poche' Associates, Ltd., a Lafayette consulting 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, the 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. Seven years ago, he served as Chairman of the Louisiana Engineers Selection Board, a committee empowered to award state agency contracts to engineering firms. Poche' is married to the former Linda DeRousselle, 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 Vice President of CEC/L after serving as Treasurer, Secretary, two years as Member-at-Large, and two years as Shreveport Chapter President. Roach is

a graduate of Louisiana State University with a Bachelor of Science Degree in Civil Engineering. He is a Registered Professional 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 & 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, the Louisiana Engineering Society, the National Society of Professional Engineers,

the Professional Engineers in Private Practice, the American WaterWorks Association, the Water Pollution Control Federation, Construction Specification 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 Treasurer of CEC/L. He continues on the Board, having served as Secretary last year and New Orleans Chapter President the year before that. He is President of N-Y Associates, Inc., Metairie, a consulting firm offering services in civil, electrical, mechanical, and structural engineering, planning and surveying. Nicoladis was graduated from Mississippi State University in 1957 with a Bachelor of Science Degree in Civil Engineering and is licensed to practice in Louisiana, Mississippi, Florida, Texas and Arkansas. He is First Vice President, Louisiana Post, Society of American Military Engineers; a member, Senior Executive Group, Society of American Military Engineers; Past President, New Orleans Chapter, Consulting Engineers Council of Louisiana; Past President, New Orleans Branch, American Society of Civil Engineers, member, New Orleans Branch, Board of Directors, American Society of Civil Engineers; American Waterworks Association; American Public Works Association; Louisiana Engineering Society; National Society of Professional Engineers; American Planning Association and American Society of Consulting Planners. Nicoladis serves on the Advisory Board of the Salvation Army of the New Orleans Metropolitan Command, and he is listed in *Who's Who in Engineering*. He and his wife, the former Peggy Yemelos, have three children.

JERRY G. LAZENBY, P.E., P.L.S., was recently elected to the office of Secretary of CEC/L. This follows an active year as Member-at-Large. He is a 1965 graduate of Louisiana Tech University with a Bachelor of Science Degree in Civil Engineering. Lazenby is President of Lazenby & Associates, Inc., a West Monroe, Louisiana consulting firm offering civil engineering and land surveying services. He is Past Chairman, PEPP Division of the Louisiana Engineering Society, Monroe Chapter President 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.

RICHARD A. VAN WOOTTEN, P.E., New Orleans, is serving his final year on the Board of Governors as National Director, having completed an active year as President of this organization. He is a 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 Professional Engineer, Van Wootten was graduated in 1957 from Rensseler 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. Besides serving as President last year, he has served the Council as President-Elect, Vice President, Treasurer, New Orleans Chapter President, and two years as Member-at-Large (Thank you, Dick, for your years of dedicated, unselfish service to the profession and the Council!).

KENNETH H. MCLAUGHLIN, P.E., serves his third year on the Board of Governors as Member-at-Large, following terms as New Orleans Chapter President and Member-at-Large. He was graduated from Louisiana State University in 1973 with a Bachelor of Science Degree 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 Pack #491, St. Clement of Rome, and is a baseball coach, Johnny Bright Playground (for children under 10 years old). He is married to the former Mary Sue Snipes, and they have two children.

F. BREN KRAMER, P.E., was recently elected to serve a third term on the CEC/L Board of Governors as a Member-at-Large. He has served as Baton Rouge Chapter President and initially Member-at-Large.

He was graduated from Louisiana State University with a Bachelor of Science Degree in Electrical Engineering in 1963 with a Master's Degree in Electrical Engineering 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.

DONALD W. CLAYTON, P.E., was elected to remain on the Board of Governors as Member-at-Large, having served three consecutive years as Alexandria Chapter President. He is Executive Vice President of Ballard & Associates, Inc., an Alexandria, Louisiana 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, the National Society of Professional Engineers, and the American Society of Civil Engineers. He is married to the former Kathryn Byrd, and they have two children.

THOMAS A. STEPHENS, P.E., Baton Rouge, was elected by his peers to the office of Baton Rouge Chapter President and serves on the Board of Governors representing the chapter. He is the owner of Stephens Engineering, a consulting firm offering services in civil and structural engineering and land surveying for flood control and land planning, transportation and industrial development. Stephens was graduated from Louisiana State University in 1977 with a Bachelor of Science Degree in Civil Engineering. A licensed professional in the states of Louisiana, Mississippi and Georgia, he is a member of the Louisiana Engineering Society, the National Society of Professional Engineers, and the American Society of Civil Engineers. He is Chapter President of Tau Beta Pi Honor Society, a member of Chi Epsilon Honor Society, and serves as the CEC/L representative on the East Baton Rouge Department of Public Works Subdivision Regulation Review Committee. Stephens is married to the former Karen Lynch, and they have three children, ages 4, 6, and 9.

VINCENT A. PROVENZA, P.E., has been elected New Orleans Chapter President, and will serve a second term on the Board, having served last year as a Member-at-Large. He is Vice President and New Orleans Branch Manager of URS Consultants, Inc., a multi-office firm offering engineering services in regional water supplies, flood control and drainage facilities, environmental permitting including hazardous and solid waste, wastewater and air. Provenza was graduated from Tulane University with a Bachelor of Science Degree in Chemical Engineering in 1971 and is licensed to practice in Louisiana and Texas. A member of the Louisiana Engineering Society and the Water Environment Federation, he is Past Chairman of the East Jefferson Chamber Transportation Committee, a member of the Louisiana Wildlife Federation, Friends of City Park, and the Jefferson Performing Arts Society. He is a former Vice President, Secretary, and Treasurer of the New Orleans CEC/L Chapter. Provenza is married to the former Sheila Tubre, and they have two children.

KERRY J. LABAUVE, P.E., serves on the Board of Governors this year as Alexandria Chapter President. He was graduated from the University of Southwestern Louisiana, Lafayette, in 1970 with a Bachelor of Science Degree in Civil Engineering. He continued his education, graduating from the University of Oklahoma in 1971 with a Master of Science Degree in Civil Engineering. A registered professional in Louisiana and

Texas, LaBauve holds membership in the American Consulting Engineers Council, the National Society of Professional Engineers, the Louisiana Engineering Society, the Louisiana Engineering Foundation, the American Concrete Institute, the American Institute of Steel Construction, the ACEC Coalition of American Structural Engineers, and is a SERMC Technical Peer Reviewer. He is the head of LaBauve and Company, an Alexandria based firm offering services in civil and structural engineering. LaBauve served on the Board as Alexandria Chapter President in 1980-81, and was President of the Louisiana Engineering Society in 1990-91. In 1980, he was the recipient of the Most Promising Engineer Award presented by LES, and in 1986, he was awarded the Charles M. Kerr Public Relations Award by LES. LaBauve is married to the former Barbara Kathryn King, and they have one son.

ROBERT A. BASINGER, P.E., was reelected Shreveport Chapter President and will serve his second consecutive year on the board. 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 Bachelor of Science Degree 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/L 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 and Bossier Chamber.

DONALD L. RICHARD, P.E., has been reelected to serve a second term as President of the Lafayette Chapter. A graduate of the University of Southwestern Louisiana, he is President and CEO of Domingue, Szabo & Associates, Inc., a Lafayette consulting firm providing services in civil, structural, and environmental engineering; including drainage, water supply, sewerage, water and wastewater treatment, land surveying and development. He is a member of the American Society of Civil Engineers, the Louisiana Engineering Society, the Louisiana Society of Professional Surveyors, the American Society of Military Engineers, the National Society of Professional Engineers, and the Professional Engineers in Private Practice. Richard is married to the former Maxine Easley, and they have five children and an equal number of grandchildren. **LE**

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 21-22, 1992

State Board of Registration Meeting
New Orleans, LA

October 10-12, 1992

NSPE Southwest Regional Meeting
Las Cruces, NM

October 14-16, 1992

ACEC Fall Membership Conference
Hilton Head, SC

October 16, 1992

Honors and Awards Selection Meeting
Alexandria Chapter

October 16, 1992

LES Board of Direction Meeting
Alexandria Chapter

October 31, 1992

NCEES Exams

November 9-10, 1992

State Board of Registration Meeting
New Orleans, LA

December 5-6, 1992

NSPE State Presidents-Elect Conference
Alexandria, VA

January 21, 1993

NCEES Exam Reviews

January 22, 1993

Professional Land Surveyor Oral Exams

January 23-30, 1993

NSPE Winter Meeting
Kona, HI



SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION - RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE • BATON ROUGE • 70809 • 504/924-1371

Reciprocity Registration

States and territories of these United States of America register engineers and surveyors, not the federal government. States and territories have statutes which prohibit individuals and corporations from offering to practice or practice engineering or surveying in a state unless registered to do so.

The National Council of Examiners for Engineering and Surveying (NCEES) is an organization which all registration boards of states and territories of these United States belong to for the purpose of developing a model law, developing examinations, and exchanging enforcement information. The NCEES does not register or certify individuals as engineers or surveyors, but it is in a position to assist you in obtaining reciprocity in other states. I will say more about this later.

First, let us understand that there is no such thing as *reciprocity registration* of engineers and surveyors in these United States. Reciprocity registration of engineers and surveyors means being registered in one state and recognized by another state. That does not take place, there is no such thing as true reciprocity registration. Let me explain. All states and territories of these United States use one of two approaches in granting registration to someone who already has obtained registration in another state or territory. These are:

Original Registration Criteria - Using these criteria the question is, when you initially registered as an engineer/surveyor, did you meet the registration criteria of the state which you are now applying for registration? The education, experience, and examination requirements for registration has changed over the years. Using the original registration criteria, the state in which you are now applying for registration has to determine if when you were initially registered you in fact did meet the educational, experience, and examination requirements for registration.

Present Day Criteria - The states using this approach in granting registration determines whether or not you meet the present day registration requirements criteria for registration in the state for which you are applying. Since the educational, experience, and examination require-

ments for registration have increased over the years, the present day criteria for registration are much more severe than the Original Registration Criteria. Many registrants of the Louisiana Board were registered without having to take written examinations whereas today no one is initially registered without taking the written examinations.

In general terms an engineer who has an accredited engineering degree, a degree which is accredited by the Accreditation Board for Engineering and Technology (Engineering Accreditation Commission), who has passed both the Fundamentals of Engineering Examination and the Principles and Practice of Engineering Examination in a specific discipline after obtaining at least four years of verifiable engineering experience acceptable to the Board subsequent to receiving a bachelor of science degree will be granted registration in most of these states in the United States.

For land surveyors, it's a little more complex, because to my knowledge no state will grant registration without taking the Principles and Practice of the Laws of Land Surveying Examination in the state in which registration is requested.

To facilitate the processing of your registration in a number of states the NCEES will, for a fee, enroll you in the NCEES records program. This is a service whereby the NCEES maintains your records and provides this information to states in which you would like to apply for registration. To obtain information on this program, call (803) 654-6824 or FAX (803) 654-6033.

To register in a state, the first thing you need to do is to call the registration board of that state to obtain an application packet so as to apply for registration. The Board's Biennial Report of 1992 contains a listing of all boards in these United States. To obtain a copy of this biennial report or information regarding registration boards call (504) 568-8450 or FAX (504) 568-8256.

Presenting yourself to the public as an engineer or surveyor in a state without first obtaining registration in that state will create problems for you. In most states that is illegal. It is also illegal to offer to provide or to provide engineering or surveying services in a state without first being registered in that state. Why take

the risk? Please don't hesitate to call the Board office for assistance.

Disciplinary Action Report

Board Rules 1701.C and E and 2103.C.1 and 2 prohibit a registrant from sealing and signing engineering or land surveying documents which were not prepared by him or under his complete direction and control. The term "personal supervision and complete direction and control" is defined in Rule 1701.E. On November 25, 1991 the Louisiana State Board of Registration for Professional Engineers and Land Surveyors preferred charges against James M. Dixon, P.E./P.L.S. alleging that in connection with his signing and sealing of the plat of a survey of the Ormond Trace Subdivision on or about March 11, 1991, Dixon may have violated Rules 1701.C and E and 2103.C.1 and 2.

The charges further alleged that in affixing his professional land surveying seal and signature to plats of survey for Square 3, James Business Park, St. Charles Parish, Louisiana on April 29, 1991 and the Fairview Plantation, Parcel 4 location on or about August 2, 1991, on plan sheets bearing the identification of the firm Murray & Associates, a firm not then registered to provide land surveying services in Louisiana, Dixon may have violated La. R.S. 37:698.A.12, which prohibits a registrant from aiding or assisting another in violating any provision of the registration statutes. The charges further alleged that the said plats of survey were not in conformance with the minimum standards for property boundary surveys set forth in Board Rules 2501-2509.

In lieu of a hearing Mr. Dixon entered into a Consent Order agreement in which the Board assessed a fine against him in the total amount of TWO HUNDRED AND FIFTY AND NO/100 (\$250.00) DOLLARS. Dixon admitted the truth of the matters set forth in the charges and stated that the violations occurred due to an oversight on his part and that he did not intentionally violate the provisions of the registration statutes or Board rules. Dixon waived his right to a hearing before the Board, to presenting evidence and witnesses in his behalf, to Findings of Fact and Conclusions of Law by the Board, and to judicial review. He agreed to the publish-



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

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



ing of a summary of this matter in the *Louisiana Engineer*.

Disciplinary Action Report

On November 25, 1991 the Louisiana State Board of Registration for Professional Engineers and Land Surveyors preferred charges against Murray & Associates, alleging that the firm may have violated La.. R.S. 37:681, 689 and 700 and Board Rule 501.E [Louisiana Administrative Code Title 46:LXI §501.E] for the following reasons:

- (1) providing land surveying services for Ormond Trace Subdivision on or about March 11, 1991;
- (2) providing land surveying services for Square 3, James Business Park, St. Charles Parish, Louisiana on April 29, 1991;
- (3) providing land surveying services for Fairview Plantation Lease Line on May 20, 1991; and
- (4) providing land surveying services for Fairview Plantation, Parcel 4, on or about August 2, 1991.

These charges generally involved the provision of land surveying services prior to the firm's obtaining land surveying registration with the Board. Board rules and

the registration law require that a firm be registered with the Board before it may provide or offer to provide professional land surveying services, despite the fact that the firm may employ Louisiana licensed land surveyors.

In lieu of a hearing the firm of Murray & Associates entered into a Consent Order with the Board in which it voluntarily consented to the issuance of an Order assessing a fine against it in the total amount of FIVE HUNDRED AND NO/100(\$500.00) DOLLARS. Mr. Joey Murray, the firm's authorized representative, acting on behalf of the firm, admitted to the truth of the matters set forth in the charges and the Consent Order and stated that the violations admitted to were the result of an oversight on the part of officers of the firm and not a purposeful act made to avoid the requirements of formal registration as a land surveying corporation with the Board. In agreeing to enter into a Consent Order, Murray waived the firm's right to a hearing before the Board, to the presenting of evidence and witnesses in its behalf, to Findings of Fact and Conclusions of Law, and to judicial review. Murray also

agreed to the publishing of this matter in the *Louisiana Engineer*. **LE**

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

Sept. 21-22

Nov. 9-10

1993

Jan. 25-26
Mar. 22-23
June 7-8

July 26-27
Sept. 27-28
Nov. 8-9

**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 19.

EXAMINATION SCHEDULE AND DEADLINE DATES

Examination	Pre-Application Deadline Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	July 15, 1992 and January 1, 1993	August 1, 1992 and January 15, 1993	October 31, 1992 and April 17, 1993
Principles & Practice of Engineering Examination (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical & Electrical			
Agricultural, Industrial, Metallurgical, Mining Nuclear & Petroleum	ONLY July 15, 1992	ONLY August 1, 1992	ONLY October 31, 1992
Fundamentals of Land Surveying Examination (8 hrs.)	May 1, 1992 and October 1, 1992	May 15, 1992 and October 15, 1992	October 31, 1992 and April 17, 1993
Principles and Practice of Land Surveying (6 hrs.)			
Louisiana Laws and Procedures of Land Surveying (2 hrs.)	ONLY October 1, 1992	ONLY October 15, 1992	ONLY April 17, 1993

Pre-Application is required of all applicants for certification as an Engineer-in-Training or Land Surveyor-in-Training and for registration as a Professional Engineer or Professional Land Surveyor.

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.

1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

1. "Benefits of any substantial nature" and "significant gratuity" as used in the Board Rules shall mean:

- A. Receipt of anything of over one thousand dollars (\$1,000) value
- B. Receipt of anything of such value or proportion that its acceptance creates an obligation or compromises judgment ability
- C. Anything of over five hundred dollars (\$500) value
- D. None of the above

Continued on page 12

REGISTRANTS TEST

Continued from page 11

2. A firm may not provide or offer to provide professional engineering or land surveying services in Louisiana if it has in its title:
 - A. The name of a living owner with an interest in the firm who is not a registered professional or a related licensed professional.
 - B. The words "engineering" or "surveying"
 - C. The name of a deceased person
 - D. More than one name
3. A registered professional may not be designated as a supervising professional by more than one firm unless:
 - A. The firm has more than two (2) registered engineers
 - B. The secondary designation is employment by a firm which is totally owned by one or more of the professionals whose registration is used to qualify the firm for certification
 - C. There are no exceptions
 - D. None of the above
4. A registrant in the State of Louisiana who has disciplinary action taken against him in another state, on grounds other than nonpayment of a registration fee, is subject to having action taken against him by the Board, if the cause of action in the other state was also grounds for disciplinary action at that time in Louisiana.
 - A. True
 - B. False
5. Industrial corporations such as Exxon Chemical, Shell Oil, CIBA-Geigy, etc. may contract for engineering services for plants located in Louisiana from firms or individuals who are not registrants of the Louisiana State Board for Professional Engineers and Land Surveyors.
 - A. True
 - B. False
6. Which of the following is not a violation of the registration law?
 - A. Providing false testimony before the Board
 - B. Use of any false or misleading advertising or solicitation
 - C. Use of seal or stamp or engaging in any act constituting the practice of engineering or land surveying when a registrant's certificate is suspended or revoked
 - D. Supplanting another engineer or land surveyor
 - E. Failing to provide, within 30 calendar days of receipt of notice by certified mail, information requested

by the Executive Secretary as a result of a formal complaint filed with the Board.

7. Which of the below best describes what information applicants will receive regarding examinations they have taken.
 - A. Only whether they passed or failed
 - B. Their scores and specific questions missed
 - C. Whether they passed or failed and the questions missed
 - D. None of the above
8. When must a registrant of the Board place his seal on specifications, reports, plats, drawings, design information, and calculations?
 - A. Only when presented to a governmental agency
 - B. Only when requested by a client
 - C. Whenever presented to a client or any public or governmental agency as completed work
 - D. None of the above

9. When a seal is affixed to a document, the sealing of the document is not complete until:
 - A. The registrant's signature is signed adjacent to the seal along with the date of execution of the documents
 - B. The date is applied
 - C. The drawer of the document is identified
 - D. A facsimile signature is applied adjacent to the seal
 - E. Either B or D
10. Registrants of the Board may pay or offer to pay a commission or fee to secure work in which of the following:
 - A. When it is likely no one will know about it
 - B. When securing salaried positions through employment agencies
 - C. When the fee is minimal (less than 2% of net profit from work secured)
 - D. Under no circumstances **LE**

T. Dudley Hixson, P.E., Installed as President-Elect of the National Society of Professional Engineers



Thomas Dudley Hixson, P.E., of Alexandria, Louisiana, was installed as President-elect of the National Society of Professional Engineers (NSPE) at the Society's Annual Meeting in Oak Brook, Illinois, on July 26.

Hixson is Vice President of Meyer, Meyer, LaCroix & Hixson, Inc., a consulting engineering and land surveying firm, in Alexandria. He is a past chairman of the NSPE Professional Engineers

in Private Practice (PEPP) practice division. He has also served on many NSPE committees, including chairing the Registration and Qualifications for Practice Committee and Program Evaluation Committee. Hixson is also an active member of the Louisiana Engineering Society, where he served as state president. He is a recipient of the LES Andrew M. Lockett Medal for Distinguished Civic Service. Hixson is also a member of the American Society for Testing & Materials, the Consulting Engineers Council of Louisiana, a Fellow of the American Society of Civil Engineers, and a Diplomate of the American Academy of Environmental Engineers.

Hixson, who holds a Bachelor of Science Degree in Civil Engineering from the University of South Carolina, is an active member of the Alexandria community. He is a past president of the Downtown Lions Club and the Central Louisiana Chamber of Commerce; Chairman of the Alexandria Board of Adjustments and Appeals and a member of the Regional Mental Health Center Advisory Board. He is also an active member of St. Timothy's Episcopal Church.

Hixson and his wife, Reba, reside in Alexandria and have three children.

LES Board of Direction Meeting Highlights

The March 1992 meeting was held in New Orleans with seventeen board members and the LES staff in attendance.

1. The January and February financial statements were accepted subject to the annual audit.
2. Liaison Committee/State Board of Registration had four board action requests: 1) "Guidelines for Selecting Nominees for Filling Vacancies on the State Board of Registration for Professional Engineers and Land Surveyors" must be revised due to changes in the registration law regarding practice division appointments and the addition of a second land surveyor on the Board. The Committee also recommends an amendment to clarify language as to when the twelve (12) years "engaged in the practice or teaching of engineering" begins. The Committee recommends that the twelve years of experience begins with the licensing day. The amended guidelines were adopted. 2) The LES Board expressed its concern on November 22, 1991, to the State Board of Registration on its change to Rule #46. Landry responded with six points as to why the rule change would not "dilute" the registration law. The LES Board voted to drop this issue. 3) The State Board of Registration requested that LES assign a representative to serve on an ad hoc committee to evaluate the need to add additional disciplines. The Board agreed. 4) The Board directed President Hoover to correspond with the State Board of Registration regarding an amendment to Rule #105. The amendment addresses the registration of "engineering educators". A letter to the engineering deans implies that the Board does not license "professional engineers" but rather agricultural engineers, chemical engineers, civil engineers, etc. The LES Board feels that the rule change should follow the Administrative Practices Act procedures.
3. PEE Chairman Bobby E. Price, P.E., is concerned with the lack of educators in attendance at state meetings. Requested that President Hoover correspond with the deans and express the Board's concerns about the lack of interest of deans and faculty in the LES.

4. PEG Chairman Paul E. Colquette, P.E., noted that the main topic of the PEG meeting was the discussion of the Department of Environmental Quality hiring personnel that are not Registered Professional Engineers to do engineering work without the supervision of a Registered Professional Engineer.
5. PEI Chairman Edgar P. Benoit, P.E., reported that a statewide PEI newsletter will be developed. Other issues, i.e., industry exemption from the Registration Law, NSPE New Engineering Model, and new registration classifications were discussed.
6. PEPP Chairman Steven W. Brown, P.E., reported that the division continues its discussions on "environmental site assessment" and others.
7. The Board discussed the lack of attendance by some Chapter Presidents at Board of Direction Meetings. President Hoover will contact two chapters concerning this matter.
8. Amendments to the Constitution for election of Honorary Members were accepted in principle with a direction from the Board for the changes to be incorporated into the rewrite of the Constitution.
9. Amendments to the Constitution on the Nominating Committee procedures were accepted with direction from the Board for the changes to be incorporated into the rewrite of the Constitution.
10. Nominees to the Engineers Selection Board were named. Foy B. Gadberry, P.E., PEPP, term July 1, 1992-June 30, 1993; and Freddie Roberts, P.E., PEE, term January 1, 1993-December 31, 1993. Ballots for electing members to the Engineers Selection Board will be published in the June issue of the *Louisiana Engineer*.
11. LES's membership was reinstated in LABI with the financial assistance of an LES member.
12. Bueto was instructed to secure information from the CPA on how chapter funds should be reported to the IRS.

The June 1992 meeting was held in Baton Rouge with nineteen board members, three guests, and the LES staff present.

1. The March, April, and May financial reports were accepted subject to the annual audit.
2. The 1992-93 Budget of \$169,010 was adopted.
3. The Long Range Planning Committee recommended and the Board agreed to proceed with developing a joint meeting with ASCE and possibly other groups with a goal for 1994. The Awards Meeting was moved to a January/February time frame. Amendments will be needed in the Honors and Awards selection guidelines. Amendments will be reviewed at the August 14 Board of Direction Meeting.
4. The Constitution and Bylaws Committee recommended a change to Article XIV, Amendments. Petitions will be mailed to the Chapter Presidents.
5. The Membership Committee recommended language clarifications in the "Membership Net Growth Contest Rules". The amendments will be reviewed at the August 14 Board of Direction Meeting.
6. The Inter-Society Relations Committee requested that Chapter Presidents submit to the state office officers for all professional and technical societies in their area. A roster will be compiled for publication in the *Louisiana Engineer*.
7. Chapter revenues/expenses will be included on LES's annual reports to the IRS.
8. The Board will recognize Emmett Dammon, P.E., Slidell, LA, for his cooperation with the Federal Government in convicting two St. Tammany Parish School Board Members for extortion and bribery.
9. Responses were received from the Chapter Presidents who have not been in attendance at Board of Direction Meetings.
10. R. Brossette reported that the NSPE Engineering Foundation's Board of Governors will drop administrative assistance to the NSPE Scholarship Program by 80%. Only the seven regional scholarships will be presented in 1993.**LE**

LES MATHCOUNTS Eligible for AT&T "Challenge Grant"

The Louisiana MATHCOUNTS program is eligible to earn cash incentives for signing up schools for the 1992-93 MATHCOUNTS program. LES is one of the twelve states targeted in a \$100,000 MATHCOUNTS challenge grant being offered by the AT&T Foundation.

The AT&T Foundation is supporting MATHCOUNTS because it fosters student interest and achievement in math. Through this challenge grant, AT&T hopes to increase the number of schools participating in the program. The grant will provide a cash incentive to the twelve targeted states for registering each of up to 4000 schools in the MATHCOUNTS program. The other targeted states include: Georgia, Illinois, California, Massachusetts, Minnesota, Missouri, New Jersey, North Carolina, Oklahoma, Pennsylvania, and Wisconsin.

State and chapter MATHCOUNTS coordinators in all twelve states are being urged to begin planning now for the AT&T Foundation challenge that will be launched this fall.

"MATHCOUNTS is one of the most effective national efforts in the battle for national math literacy," says Guido Schlesinger, AT&T Foundation program manager for education programs. The challenge makes AT&T Foundation a lead sponsor of MATHCOUNTS in the targeted states. "AT&T is becoming involved in MATHCOUNTS to assist this important math education effort and give something back to the communities around the nation where AT&T does business," Schlesinger indicated.

More information on the AT&T Foundation MATHCOUNTS challenge grant is available from the LES headquarters office.

Central Louisiana Electric Company Receives National Honor

The Central Louisiana Electric Company (CLECO) of Pineville, Louisiana, was chosen to receive an honorable mention for the National Society of Professional Engineers' (NSPE) Professional Development Award for Industry. The Professional Development

Awards are presented annually in the five engineering practice areas of construction, education, government, industry, and private practice to recognize the employer's employment practices and professional career development programs. CLECO received this award on July 21, 1992, at the NSPE Annual Meeting in Oak Brook, Illinois.

CLECO is an electric utility involved in the generation, transmission, and distribution of electric power. It serves approximately 200,000 customers and its service area covers one half of the parishes in Louisiana.

CLECO encourages registration. Of the 108 engineers employed by CLECO, 50 are professional engineers and 27 are engineers-in-training. In fact, all personnel holding the title of engineer must be at the E.I.T. level, and senior engineers must hold a P.E. license. CLECO also pays all costs associated with registration, including fees, renewal fees, travel costs, and paid time off to take the exam. CLECO also holds review sessions prior to testing at company facilities during normal business hours.

CLECO also encourages continuing education, including sponsoring in-house workshops, seminars, and lectures and providing 80 percent tuition reimbursement for outside coursework. CLECO also provides a company-sponsored continuing education series in management in association with Louisiana State University. This two-year series of graduate level courses is available to all senior engineers and above as a career development tool.

CLECO also feels that attendance at technical conferences and seminars is important in order to stay abreast of new developments in the industry. It provides full reimbursement for attendance at one outside conference per year and encourages attendance at in-house technical seminars. As part of their commitment to the engineering profession, CLECO also provides paid membership and attendance at technical and professional society meetings.

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.

NSPE Survey Reveals Trends in State Engineering Issues

A first-ever survey of state regulatory and legislative issues affecting engineering practice has just been released by the National Society of Professional Engineers (NSPE).

The survey examined the impact that a number of trends in State government consolidation and financing are having on engineering registration board disciplinary and enforcement efforts. For example, the study found that eight of twenty-seven autonomous engineering registration boards have faced efforts to move them into state regulatory "umbrella" agencies that administer a collection



Leta G. Bueto
Executive Director
Louisiana Engineering Society



of licensure boards. Among those states currently under an umbrella framework most states responded to the questionnaire that they consider this trend detrimental.

The survey also revealed that fees, fines, or penalties collected by registration boards in 33 states are often diverted to the states' general funds rather than covering registration board expenses. Twelve states are working to reverse these diversions since a shortage of resources often hampers the board's ability to discipline engineers for unprofessional conduct.

Budgetary woes in the states have also caused at least 28 states to seek additional revenue by imposing taxes on engineering services (within the last two years) the study reports.

Several tort reform issues were examined. For example a number of states are attempting to insert provisions in their workers compensation statutes so that construction workers could not seek damages from a design engineer. And, a number of states are working to establish "good samaritan" laws that would provide protection from liability to engineers who volunteer professional services in emergencies such as earthquakes and hurricanes. Thirteen states reported having such laws already.

Among the other subjects covered in the 100-page report are exemptions from the engineering registration law, discipline and enforcement, interprofessional issues, engineering education, engineers in government, and the procurement of engineering services.

Copies of the full report (Product #3051) may be ordered for \$15 plus \$5 shipping and handling from the NSPE Customer Service Department, P. O. Box 96163, Washington, D.C. 20090-6163; 703/684-2882; FAX 703/836-4875.

Hearing on OSHA v. A/E's

On May 28th, the issue of whether design firms are subject to the OSHA construction regulations was aired before the three-member Occupational Safety and Health Review Commission. The Commission has the authority to sustain, overturn, or modify a decision of the administrative law judge who initially heard the case.

The hearing specifically concerned the issuance of citations against the design firm of Simpson, Gumpertz & Heger (SGH), which was charged with serious violations of the construction safety standards when a portion of metal decking collapsed during the pouring of concrete in December 1988, causing injuries to several employees of a subcontractor.

At the heart of the case is the question of whether the design firm was liable for having given "advice" to the contractor when the contractor called to advise the design firm that it had poured one layer of concrete and was ready to add a layer of styrofoam insulation and then immediately add a second layer of concrete. Arguing for the Department of Labor, attorney Laura Fargas told the Commission that design work is an integral part of and is essential to construction, and that all design work is therefore subject to the safety regulations. In response to a question from the Commission panel, she said that it was immaterial that the single phone call between the contractor and SGH was an isolated instance. "SGH participated in some way that had safety implications." On the point made by SGH's attorney that the contract documents made it clear that the contractor was solely responsible for construction means and methods, Ms. Fargas responded that the contractual relationships were immaterial as to the A/E's duty under the OSHA regulations. The key factor, she said, is that A/E's are subject to the regulations if they are a factor in the failure, whether arising from defective design or the giving of advice to the contractor.

Speaking of SGH, defense counsel David J. Hatem stated that the Department of Labor in this case is trying to achieve a change in the law by applying a rule for the first time that would broadly sweep design professionals under the construction safety standards. Such a result, he said would "revolutionize" the way construction is performed in the U.S. Responding to a question from a Commission member, Hatem said that if the A/E gives construction advice on an isolated and casual basis, that does not make the A/E a "partner" in the safety duties of the contractor. "Advice is not control," he added.

Central to the case is the question of whether the Commission will stand by, reverse, or modify a 1977 decision known as the Skidmore Rule, which held that A/E's are not subject to the safety standards unless they exercise substantial control and direction of the construction work.

Arguing for NSPE, AIA, and ACEC as a "friend of the court" Arthur Sapper said that the giving of advice by the A/E should never be considered as the equivalent of control and direction of the construction process. "The Department of Labor would make architects and engineers supervisors, a role for which they are not trained or qualified."

In rebuttal, Ms. Fargas told the Commission that advice by the A/E can endanger lives if the contractor relies upon the A/E's expertise. But she denied that a blanket sweeping of A/E's into the safety standards would lead the Department of Labor into citing A/E's for violations every time there was a construction failure.

It will likely be a number of months before the Commission renders a decision.

The Third Biennial Industrial Electric Power Applications Symposium

The Society of Electric Power Research and Implementation (SERPI) presents The Third Biennial Industrial Electric Power Applications Symposium November 12-13, 1992, at the Doubletree Hotel, New Orleans, LA.

The Third Biennial Symposium, inaugurated to heighten the competitiveness of the Western Hemisphere by encouraging greater cooperation between academe and industry. The Symposium consists of both paper presentations and panel discussions encompassing the latest developments in electric power utilization, generation, transmission, distribution, conditioning, and control.

For more information contact Tammy Marshall, Program Chair, Entergy Services, Inc., P. O. Box 61000, New Orleans, LA 70161 (504)830-6378. **LE**

LES Awards Program

Kerry J. LaBauve, 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 September 15, 1992. Nominations for the awards must be submitted on the appropriate form. These forms were mailed to each Chapter on June 23, 1992. 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 September 15, 1992.

Awards will be presented at the Society's meeting in mid January in Monroe. **LE**



*Draw on our over 60 years of
construction knowledge*

- | | |
|--------------------|-------------------|
| • SITE PREPARATION | • BUILDINGS |
| • EARTH MOVING | • MECHANICAL |
| • DREDGING | • RAILROADS |
| • DOCKS | • LEVEES & DAMS |
| • PAVING | • ROADS & BRIDGES |
| • FOUNDATIONS | • DRAINAGE |
| • ENVIRONMENTAL | • MAINTENANCE |



T. L. JAMES & CO., INC.

Baton Rouge(504) 293-0274

Ruston(318) 255-7912

New Orleans(504) 467-6000

Stephen Spohrer, PE

Thomas Folk, PE

William Westbrook, PE

TOTAL JOB CAPABILITY

**ALL LA BENCHMARKS
NGVD 1929 & NAVD 88
elevations with Lat/Long,
date of last observation,
etc., for the entire state.
Complete descriptions of
each benchmark (sorted by
parish) compressed onto
three high density disks
(specify size) \$150.00 Ppd.
GPA Assoc. - UNO Box 1200
New Orleans, LA 70148
(504) 286-1200**

Roster of Engineering And Surveying Societies

The Inter-Society Relations Committee of the Louisiana Engineering Society is responsible for compiling a roster of chief executive officers for the other engineering and surveying societies located in the state for publication in the *Louisiana Engineer*, on an annual basis. The purposes of this effort are to identify contacts and improve communications among the entire engineering and surveying communities in Louisiana for such inter-society activities as coordination of legislative actions, technical seminars, Engineers' Week seminars, etc. If your engineering and/or surveying organization is not listed and you wish to be included in next year's roster, please make that request through the LES at P.O. Box 2683, Baton Rouge, LA. 70821.

American Association of Cost Engineers

Marc Dahlman
3000 West Esplanade Ave. Ste#300
Metairie, LA. 70002
(504) 835-9696

American Chemical Society Northwest Louisiana Section

Robert E. Pitts
P.O. Box 5425
Shreveport, LA. 71135-5425
(318) 797-5091

American Institute of Architects President

Clarence Babineaux
631 Milam St. Ste#300
Shreveport, LA. 71101
(318) 226-1404

American Institute of Chemical Engineers

R & D Advisor/Ethyl Corp.
451 Florida Blvd.
Baton Rouge, LA. 70801-1780
(504) 388-7507 Fax (504) 388-7686

American Society of Civil Engineers Louisiana Section President

Kam K. Movassaghi, P.E.
P.O. Box 42250, USL
Lafayette, LA. 70504
(318) 231-6511

Baton Rouge Section

Tom Willis, P.E.
100 St. James St. Ste#J-200
Baton Rouge, LA. 70802
(504) 346-0006

American Society of Heating, Refrigeration and Air Conditioning Engineers

Baton Rouge Chapter

Bob Thibodeaux
8239 W. Darryl Dr.
Baton Rouge, LA. 70815
(504) 927-6140

New Orleans Chapter

Frank Schambach, P.E.
Physical Plant Services, U.N.O.
New Orleans, LA. 70148
(504) 286-6868

Shreveport Chapter

Bob Fitzgerald, P.E.
7103 St. Vincent Ave.
Shreveport, LA. 71106
(318) 869-3262

American Society of Landscape Architects

Shreveport Chapter

Gerald Chance
800 Snow St.
Shreveport, LA. 71101
(318) 429-7727

American Society of Mechanical Engineers

Chairman

Larry Lashley, P.E.
P.O. Box 21734
Shreveport, LA 71151
(318) 429-3893

American Society of Safety Engineers

ARK-LA-TEX Chapter

Ray Tabor
P.O. Box 21583
Shreveport, LA. 71120
(318) 677-4590

Consulting Engineers Council of Louisiana, Inc.

President

Morgan M Watson, P.E.
MEL, Inc.
1979 Beaumont Drive
Baton Rouge, LA. 70806
(504) 927-7240 Fax (504) 927-1560

President-Elect

James M. Poche', P.E.
Poche' Associates, LTD.
224 Rue DeJean, Suite 200
Lafayette, LA. 70508
(318) 237-6517 Fax (318) 237-7488

Vice President

Joe E. Roach, P.E.
BaLaR Associates, Inc.
401 Edwards St. Ste.#815
Shreveport, LA. 71101
(318) 221-8312 Fax (318) 424-6508

Treasurer

Frank Nicoladis, P.E.
N-Y Associates, Inc.
2750 Lake Villa Drive
Metairie, LA. 70002-6797
(504) 885-0500 Fax (504) 885-0595

Secretary

Jerry G. Lazenby, P.E.
Lazenby & Associates, Inc.
P.O. Box 728
West Monroe, LA. 71294-0728
(318) 387-2810 Fax (318) 387-2718

Members-at-Large

F. Bren Kramer, P.E.
Marrero, Couvillon & Associates, Inc.
1035 Executive Park Avenue
Baton Rouge, LA. 70806-2048
(504) 926-0005 Fax (504) 926-0060

Donald W. Clayton, P.E.
Ballard & Associates, Inc.
P.O. Drawer 5638
Alexandria, LA. 71307
(318) 445-6571 Fax (318) 448-0257

Kenneth H. McLaughlin, P.E.
I.M.C. Consulting Engineers, Inc.
234 Loyola Ave. Ste#320
New Orleans, LA. 70112
(504) 581-5905 Fax (504) 581-2955

National Director

Richard A. Van Wootten, P.E.
Walk, Haydel & Associates, Inc.
600 Carondelet Street
New Orleans, LA. 70130
(504) 586-8111 Fax (504) 522-0554

Executive Director

Warren J. Wilder
CEC/Louisiana, Inc.
P.O. Box 1549
Baton Rouge, LA. 70821-1549
(504) 387-0843 Fax (504) 387-0844

Chapter Presidents

Baton Rouge Chapter

Thomas A. Stephens, P.E.
Stephens Engineering
9121 Interline Ave.
Baton Rouge, LA. 70809
(504) 928-4008 Fax (504) 927-2655

New Orleans Chapter

Vincent Provenza, P.E.
URS Consultants
3500 N. Causeway Blvd. Ste#900
Metairie, LA. 70002
(504) 837-6326 Fax (504) 831-8860

Shreveport Chapter

Robert A. Basinger, P.E.
BBC Engineering, Inc.
800 Spring St. Ste#100
Shreveport, LA. 71101
(318) 222-8288 Fax (318) 222-8087

Alexandria Chapter

Kerry J. LaBauve, P.E.
LaBauve & Company
3717 Government St.
Alexandria, LA. 71302
(318) 445-8910 Fax (318) 443-0886

Lafayette Chapter

Donald Richard, P.E.
Domingue, Szabo & Associates, Inc.
P.O. Box 52115
Lafayette, LA. 70505-2115
(318) 232-5182 Fax (318) 237-7132

Monroe-West Monroe Chapter

John W. "Billy" Moore, P.E.
Meyer, Meyer, LaCroix & Hixson, Inc.
P.O. Drawer 1245
Ruston, LA. 71273-1245
(318) 255-7236 Fax (318) 251-2916

Industrial Engineers

Charles M. Parker
LSU
3128 Ceba Building
Baton Rouge, LA. 70803
(504) 388-5364

**Illuminating Engineering Society
Baton Rouge Section**

Charles Meyer, P.E.
233 E. Boliwar
Baton Rouge, LA. 70819
(504) 379-1315

Shreveport Section

Frank Harris, P.E.
208 Milam St.
Shreveport, LA. 71101
(318) 221-8638

**Institute of Electrical and
Electronic Engineers
Baton Rouge Section**

Ken Hymel, P.E.
P.O. Box 80698
Baton Rouge, LA. 70898
(504) 923-1641

New Orleans Section

Mona Draper, P.E.
Entergy Services, Inc.
P.O. Box 61000
New Orleans, LA. 70161
(504) 830-6415

Shreveport Section

Fred Berry, P.E.
P.O. Box 1483
Shreveport, LA. 71164-1483
(318) 257-4653

**Institute of Industrial Engineers
Baton Rouge Chapter**

Kenneth Lee
LSU
3128 Ceba Bldg.
Baton Rouge, LA. 70803
(504) 388-5369

**Shreveport Chapter
President**

Robert Pennington
Norwela #159
P.O. Box 30058
Shreveport, LA. 71130
(318) 459-5201

**Instrument Society of America
Baton Rouge Section**

Elaine Miller, P.E.
Moody Price
P.O. Box 53097
Baton Rouge, LA. 70892-3097
(504) 344-0511

New Orleans Section

E. D. "Doug" Luke
104 Ormond Blvd.
Destrehan, LA. 70047

**Louisiana Engineering Foundation
President**

Robert P. Blanche, P.E.
1245 Ingleside Dr.
Baton Rouge, LA. 70806
(504) 768-5406

**Louisiana Engineering Society
President**

Glynn P. Gautreau, P.E.
1208 Ashbourne Ave.
Baton Rouge, LA. 70815
(504) 926-3582 Fax (504) 925-1339

Shreveport Chapter

Albert Tucker, P.E.
P.O. Box 37027
Shreveport, LA. 71133-7027
(318) 636-7777

**Louisiana Society of Professional
Engineers in Civil Service**

John L. Davis, P.E.
P.O. Box 44311-Capitol Station
Baton Rouge, LA. 70804
(504) 379-1585

**Louisiana Society of Professional
Surveyors
President**

Tildon J. Dufrene, Jr. P.E./P.L.S.
1624 Manhattan Blvd.
Harvey LA. 70058
(504) 388-8390

Vice President

John J. Avery, Jr., P.L.S.
2900 Clearview Pkwy.
Metairie, LA. 70006
(504) 454-2493

Secretary-Treasurer

Timothy J. Allen, P.L.S.
1246 Bayou Blue Rd.
Houma, LA. 70364
(504) 879-3528

N.S.P.S. Governor

John E. Walker, P.E./P.L.S.
210 Baronne St. Ste#1315
New Orleans, LA. 70112
(504) 581-6683

Past President

Jack Farmer, P.L.S.
363 Highway 1 South
Natchitoches, LA. 71457
(318) 352-2216

Alexandria Chapter

Robert L. Yeager, P.L. S.
1119 Railroad Ave.
Alexandria, LA. 71309
(318) 487-1849

Baton Rouge Chapter

Michael B. Songy, P.L.S.
5800 One Perkins Place #9A
Baton Rouge, LA. 70806
(504) 769-0546

Bayou Chapter

David L. Martinez, P.L.S.
1400 Dealers Ave. Ste#A
Harahan, LA. 70361
(504) 868-1050

Lafayette Chapter

Gregory L. Palmer, P.L.S.
135 Regency Square
Lafayette, LA. 70508
(318) 237-2200

Monroe Chapter

Charles R. Price, Jr., P.L. S.
122 Leisure Dr.
Monroe, LA. 71203-2808
(318) 345-1388

New Orleans Chapter

Edward L. Clinton, P.L.S.
1400 Dealers Ave. Ste#A
Harahan, LA. 70123
(504) 733-3303

North Lake Chapter

Richard B. Edwards, P.L.S.
P.O. Box 1033
Bogalusa, LA. 70429
(504) 735-5975

Shreveport Chapter

Joseph C. Allen, P.L.S.
712 Livingston Ave.
Shreveport, LA. 71107
(318) 221-5838

**Society of Fire Protection
Engineers**

Roger Bourgeois
c/o Bourgeois & Associates, Inc.
Station 1, Box 10157
Houma, LA. 70363
(504) 851-0881

Society of Mechanical Engineers

Richard Gaudin
P.O. Box 654
Prairieville, LA. 70769
(504) 293-5035

Society of American Military Engineers

Ken Hill, P.E.
401 Edwards St. Ste#1600
Shreveport, LA. 71101
(318) 257-4653

Society of Plastic Engineers

Jim Fox
Mallinckrodt
Baton Rouge, LA.
(504) 756-9093

Society of Naval Architects & Marine Engineers Gulf Section

Amil Raj
Trinity Marine Group
Box 3029
Gulfport, MS. 39505
(601) 864-0029

Society of Petroleum Engineers

Mark Cox
401 Edwards St. Ste#1200
Shreveport, LA. 71101
(318) 429-0700

Society of Women Engineers North Lake Chapter

Suzanne Sonnier
36 Clipper Pl.
Abita Springs, LA. 70420
(504) 892-8069 (w) (504) 349-4245

Shreveport Chapter

Connie Dunavant, P.E.
519 Gladstone Blvd.
Shreveport, LA. 71104
(318) 861-6250

National Society of Black Engineers

Karl A. Quezenque
1340 Poydras St.
New Orleans, LA. 70128
(504) 586-6013

Answers to Laws and Rules of the Board test (on page 11)

1. B 2. A 3. B 4. A 5. B 6. D 7. A
8. C 9. A 10. B

NEW REGISTRANTS Of the State Board

AGRICULTURAL

Clayton C. Smith
Austin, TX

CHEMICAL

Alton T. Barrett, Jr.
Katy, TX

Robert F. Hutcheson
Lakeland, FL

CIVIL

Craig E. Chester
Houston, TX

Dianna N. Chianis
Richmond, TX

Susan P. Jones
Lawrenceville, GA

Gordon H. Reigstad
White Bear Lake, MN

Thomas W. Schepke
Bartonville, IL

Lester J. Wrobel
Hoover, AL

Roger M. Blake
Martinez, GA

William E. Gilbert
Greenwood, SC

Pasquale J. Giovannone
Saddle Brook, NJ

Willis E. Grice, Jr.
Baton Rouge, LA

Louis L. Hoffner
Moore, OK

Joseph M. Allen
Tuscaloosa, AL

John D. Doucet
Austin, TX

Keith C. Cathey
Texarkana, TX

Robert A. Hopkins
Shreveport, LA

Rajendra N. Bhatt
Katy, TX

Kenneth E. Bown
North Little Rock, AR

Charles F. Cooke
Minneapolis, MN

John A. Spear
Landisville, PA

John H. Herndon
Garland, TX

Kelly G. Lyons
Birmingham, AL

Franklin H. Newkirk
Norcross, GA

David B. Granger
North Canton, OH

Duane D. Boice
Sioux Falls, SD

Jack Franks
Birmingham, AL

Larry L. Sorenson
Batavia, IL

Eugene C. Liu
Houston, TX

Clifford J. Farrell
Apopka, FL

Todd L. Vinje
Alexandria, MN

Gary D. Martin
Little Rock, AR

Stanley R. Hayes
Texarkana, AR

James W. Richardson, Jr.
Gallatin, TN

William D. Bates
Raymond, MS

Harry J. Collins, III
Columbia, SC

William G. Corley
Glenview, IL

Jaime Reyes
Sioux City, IA

Danny M. Ryals
Baton Rouge, LA

Harold E. Manuel, Jr.
LaPlace, LA

Ronald D. Murray
Sapulpa, OK

Debbie F. Schultz
Cheyenne, WY

Sam C. Turner
Cincinnati, OH

Melvin J. Cannatella
Lake Village, AR

Stephen L. Carr
Pine Bluff, AR

Richard A. Humpherys
Mt. Holly Springs, PA

Donald R. Posey
Birmingham, AL

Kenneth F. Conrad
Leawood, KS

Grady B. Fowler
Simpsonville, SC

ELECTRICAL

Larry A. Tice
Clayton, NC

Paul E. McGehee
Meadville, MS

Kenneth J. McIntosh
Sapulpa, OK

Thomas D. Reagan
Mandeville, LA

Dale E. Hurt
Overland Park, KS

Edmundo Schober
Houston, TX

John M. Lavoie
Fairport, NY

Donald L. Wolford, Jr.
Guntersville, AL

Durwood E. Rouse
Wilmington, NC

John G. Barnes
Kansas City, MO

George A. Austin
Diamondhead, MS

INDUSTRIAL

Robert A. Pavelick
Madison, WI

MECHANICAL

Robert L. Jones
Gonzales, LA

Kathryn L. McAuliffe
Marrero, LA

Gregory R. Martino
Greeley, CO

Thomas J. Bowling
Alvin, TX

Surinder S. Brar
Martinez, CA

Donald J. Villars
Houston, TX

Ronald L. Fowler
New Orleans, LA

David R. Duros
St. Louis, MO

Charles W. Ackerman
Ft. Lauderdale, FL

Durwood E. Rouse
Wilmington, NC

Mark A. Elkan
Encino, CA

Thomas A. Lewman
Baton Rouge, LA

Stephen A. Roche
Houston, TX

Robert A. Robbleto
Houston, TX

Joseph D. Viness
Atlanta, GA

Richard L. Grover
Gaithersburg, MD

James M. Bradbury
Iowa City, IA

Leonard M. Cook
Newburgh, IN

Douglas C. Mass
New York, NY

Stanley P. Newton
Largo, FL

Jack L. Schuett
Mt. Juliet, TN

Louis C. Stengl
Greenville, SC

Yi-Wey M. Tu
Baton Rouge, LA

NUCLEAR

Scott A. Wimmer
Baton Rouge, LA

LAND SURVEYORS

Donald M. Caldwell, Jr.
Longview, TX

Jessie D. Morrison
Westlake, LA

Allen R. Woodard
Houma, LA

Gary W. Caldwell
Vidalia, LA

John B. French
Shreveport, LA

PRESIDENTIAL PRIVILEGE

Continued from page 4

sions in the state of Louisiana. Several bills have recently been introduced in the legislature to mandate bidding as the method of procuring professional engineering services, but they were either withdrawn or killed as a result of CEC/L's lobbying efforts. Proponents of bidding are regrouping and will probably introduce such legislation in the next regular session. The registration board, LES, CEC/L and other organizations such as ASCE, and individuals supporting QBS must unite and take the offensive on the QBS issue. We cannot afford to be passive, taking the defensive posture when bidding bills are introduced. CEC/L will gladly lead the offensive charge for QBS legislation in the public sector, and I am requesting the full support of the entire engineering community in this effort. All engineers must hang together on this issue, for if we do not, bidding for professional engineering services will cause consulting engineers to all hang separately.

In conclusion, I am proposing that CEC/L become an aggressive, business oriented organization that deals head-on with issues affecting the livelihood of its membership. Let's develop a long-range plan for our organization, and let's unite with LES and the registration board (as well as ASCE and other organizations) to pass QBS legislation in the next legislative session. CEC/L members, let us awaken the sleeping giant!!LE

UNIX FOR ENGINEERS

Continued from page 5

Different Solutions for Different Problems

Linda G. Pitcher, Office Supervisor of the Family Law Division, East Baton Rouge District Attorney's Office implemented a Unix-based system several years ago, and has managed its operation and growth since. Her division handles thousands of cases annually and needs a centrally located database from which attorneys and investigators can enter and retrieve information. A Unix-based system with all the advantages of a central RISC workstation makes more sense in this environment than networked PCs. Since implementing this system, the Family Law Division has replaced ASCII terminals with PCs that can be used as terminals, or as stand-alone PCs, or as "networked" PCs using the central Unix file server. They have blended several platforms and operating systems into an operation that fits their needs.

This system, built around a relational database, handles high volume workloads by integrating database, word processing

and communications to remote mainframes. Most engineering organizations do not require systems to support high volume, Transaction-type workloads, but they do have requirements for central relational databases and hyper-text files. These types of features are strong suits for Unix systems. For many engineers and engineering firms, the problem might not be whether to choose between DOS and Unix, but how to effectively integrate the two.

PCs running DOS provide individual users great flexibility, power and ease-of-use. Networked PCs retain the same flexibility as stand-alones, add increased storage and communications power, but at the expense of ease-of-use. Anyone working within a network knows the frustrations of dealing with print servers and file servers. Unix systems, on the other hand, have reduced flexibility compared to DOS, however, because of the many shrink-wrapped packages available for Intel PCs. Similarly, DOS users have a great advantage over Unix in terms of ease-of-use. However, the functional capabilities and workstation performance of Unix greatly outdistances anything

DOS can achieve for both the individual user and the organization.

For this user and her set of problems, Unix is the obvious answer. It offers a centrally located platform with which staff throughout the organization can interact. It is the solution for this organization's information system problems.

For engineers, choosing Unix is now practical. Hardware components, software application packages and prices have come together to make Unix a worthy contender for the computer investment dollar, both now and in the future. Solutions for both individuals and organizations will continue to exist across a spectrum: from stand-alone PCs running DOS, to stand-alone PCs running multi-tasking systems such as OS/2 and Windows, to networked PCs using Intel-based file servers, to networked PCs using Unix workstations as file servers, and so on. This is good news! Individuals and firms now have a wider variety of choices for configuring technology to their particular situation. **LE**

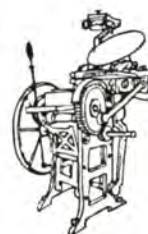
SERVICES & SUPPLIERS

ADVANCED TECHNICAL APPLICATIONS CENTER, INC.

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"
3200 Ridgeline Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



PRINTING INCORPORATED

3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department
Ed's ep
PRINTING
COMPANY, INC.
925-0991
9366 Greenwell Springs Rd.
at Monterrey

Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax (318) 981-7922

USL (318) 231-6846

LEAK LOCATING



- ☐ LEAKS IN UNDERGROUND PIPES
- ☐ BLOCKED OR BROKEN SEWERS
- ☐ LOCATION OF UNDERGROUND PIPES

TOLL FREE: 1-800-673-5726
NEW ORLEANS: 392-7545

PRO-AM, INC.
RT. 2 BOX 414
PICAYUNE, MS 39466

FRANK A. ZIMBELMAN, P.E.
Owner & President

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123

Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014



Programmable Controllers

- SHARK / AutoMate / Automax
- ReSource ScreenWare 2 graphics

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives and Motors
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts

authorized stocking distributor
RELIANCE ELECTRIC



PROFESSIONAL LISTINGS

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 504331 NELSON

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
43 YEARS OF EXPERIENCE SERVING INDUSTRY

- ☐ SITE PLANNING / PERMITTING
- ☐ CHEMICAL / PROCESS / PETROLEUM
- ☐ CIVIL / STRUCTURAL
- ☐ ELECTRICAL / ELECTRONIC
- ☐ ENVIRONMENTAL / SANITARY
- ☐ INSTRUMENTATION / CONTROLS
- ☐ CONSTRUCTION MANAGEMENT

- ☐ MONITORING / MODELING
- ☐ MECHANICAL
- ☐ PIPELINE
- ☐ MINING
- ☐ HVAC
- ☐ ARCHITECTURE
- ☐ ASBESTOS

Simons-Eastern Consultants, Inc.
P. O. Box 1286 • Atlanta, GA 30301-1286



**STRATEGIC
PLANNING
DESIGN**

Atlanta, GA (404) 370-3200
Monroe, LA (318) 387-6216

**CONSTRUCTION
MANAGEMENT**

Parsons Brinckerhoff

- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1460
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 - FAX

BALAR CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 819
SHREVEPORT, LA 71101
(318) 221-8312
FAX (318) 424-6508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL



McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

EBASCO

An ENSERCH Engineering & Construction Co.

- | | | |
|---|--|--|
| ☐ Project Management | ☐ Hydroelectric | ☐ Environmental |
| ☐ Construction | ☐ Nuclear | ☐ Nuclear Waste |
| ☐ Plant Services | ☐ Life Extension | ☐ Hazardous Waste |
| ☐ Maintenance | ☐ Industrial | ☐ Cogeneration |
| ☐ Retrofit | ☐ Construction | ☐ Quality Assurance |
| ☐ Operations | ☐ Management | ☐ Vendor |
| ☐ Fossil | ☐ Infrastructure | ☐ Construction |
| ☐ MSW/Alternate Energy | ☐ Advanced Technology | ☐ Defense |

EBASCO SERVICES INCORPORATED
Two James Park
120 Mallard St. - Ste. #140
St. Rose, LA 70087
(504) 468-5460

Serving the World's Environmental Needs

JMM James M. Montgomery
Consulting Engineers Inc.

3501 N. Causeway Blvd.
Suite 300
Metairie, LA 70002
(504) 835-4252

Offices located throughout the United States

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



ATCHLEY & ATCHLEY, INC.
Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821
Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.

HALLIBURTON NUS Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX

(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477



ALLIANCE, INC.

Architecture • Engineering • Planning
Airport Consulting • Surveying

Petroleum Square, Suite 100 1324 North Hearne Avenue
Shreveport, LA 71107 FAX (318) 221-7635
Phone (318) 221-7501



DYER & MOODY Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.
Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3656 Government St
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.



pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

8178 GSRI AVENUE • BATON ROUGE, LA 70820-7405 • (504) 766-6330

FORTE AND TABLADA, INC. CONSULTING ENGINEERS



OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA. 70896
9107 INTERLINE AVE. • BATON ROUGE, LA. 70809



**professional engineering
consultants corporation**

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810

FROMHERZ ENGINEERS, INC. Consulting Engineers

Public Works and Airports, Waterfront Development,
Environmental Services, Highways and Bridges,
Industrial Facilities, Energy Studies

(504) 488-7711

4747 EARHART BLVD. NEW ORLEANS, LA. 70125

RPM ENGINEERING, INC. A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC.
Consulting Engineers and Land Surveyors

General Civil Engineering & Land Surveying

8335 KELWOOD AVE.-SUITE D PH. 504/ 924-0235
BATON ROUGE, LA 70806-4804 FAX: 504/ 926-1687



THE MEYER GROUP



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND - OFFSHORE - HYDROGRAPHIC

550 South Van Ave.
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 7739

Call: SAM BROWN, Ph.D., P.E.

(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

- Project Managers
- Engineers
- Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBauve and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST
ALEXANDRIA, LA 71302

318-445-8910

NBR
Nance
Brown
Roach

Architects • Engineers • Planners
401 Edwards Street
Suite 815
Shreveport, Louisiana 71101
318-424-3274

COYLE ENGINEERING
CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71111 6177

3925 BENTON RD
PHONE (318) 746-8987

DAVID
VOLKERT
& ASSOCIATES, INC.

ENGINEERS • ARCHITECTS • PLANNERS
3500 N. Causeway Blvd • Suite 1240
Metairie, LA 70002
(504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, AL • Tampa & Miami, FL

Office (504) 632-5596

Res (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.
Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office: Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction

1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437



Engineers, Architects
and Planners



ENGINEERS • PLANNERS

TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981



HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

- Aviation
- Bridges and Structures
- Civil Engineering
- Construction Management
- Environmental Services
- Transportation and Planning

CATFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504.546.0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182
FAX (318) 237-7132
TOLL FREE 1-800-737-5182



SWL SOUTHWESTERN
LABORATORIES

Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

BURK-KLEINPETER, INC.

ENGINEERS ARCHITECTS PLANNERS ENVIRONMENTAL SCIENTISTS

- CIVIL
- STRUCTURAL
- MECHANICAL
- ARCHITECTURE
- PLANNING
- LANDSCAPE ARCHITECTURE
- HIGHWAY
- STRUCTURES
- DRAINAGE
- FLOOD CONTROL
- WATER AND WASTEWATER
- SOLID WASTE
- TRANSPORTATION PLANNING
- ENVIRONMENTAL ASSESSMENT
- PORT / MARINE FACILITIES
- CONSTRUCTION MANAGEMENT

4176 CANAL STREET, NEW ORLEANS, LOUISIANA 70119
TEL 504 - 486-5901 FAX 504 - 488-1714



GERAGHTY
& MILLER, INC.
Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide

CDM environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272
36 Third Street, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822
offices nationwide

gregory c. rigamer & associates, inc.
professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Murla, P.E.
Lawrence J. Ringel, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS

BERGER, BARNARD & THOMAS, INC.
ENGINEERS, ECONOMISTS, and PLANNERS

**MUNICIPAL AND INDUSTRIAL ENGINEERING
COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS**

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504/927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504/364-1637

JN JONES AND NEUSE, INC.
Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

11924 COURSEY BLVD., STE. A
BATON ROUGE, LOUISIANA 70816
PHONE: (504) 291-3055
FAX: (504) 291-4801

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers & Land Surveyors

6025 Buncomb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS
GULF SOUTH ENGINEERS, INC.
ENGINEERING CONSULTANTS

1700 GRAND CAILLOU RD.
HOUMA, LA 70363
(504) 876-6380
FAX 876-0621

1000 LEONIDAS ST.
NEW ORLEANS, LA 70178
(504) 866-1821
FAX 866-1781

SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS
GEOTECHNICAL
SOIL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS
ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION
QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS
316 HIGHLANDIA DR.
4100 LOUISIANA AVE.
BATON ROUGE, LA
LAKE CHARLES
504-752-4790
318-474-1340



3330 WEST ESPLANADE AVE. • SUITE 300 • METAIRIE, LOUISIANA 70002

CONSULTING ENGINEERS
SERVING THE PETRO-
CHEMICAL AND OIL & GAS
INDUSTRIES

OFFICE (504) 835-2577
FAX (504) 837-5924

**PETROLEUM ENGINEERS
INTERNATIONAL, INC.**

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management - Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588
Lafayette, Louisiana 70505 (318) 233-5346

Numerical Modeling of Mechanical Systems



- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

Mechanical Troubleshooting
Failure Analysis
Vibration Analysis
Machine Design
Stress Analysis
Pressure Vessel/Heat Exchanger Design
Heat Transfer
Risk Assessment

8126 One Calais Ave., Suite 18 • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765

EUSTIS ENGINEERING
GEOTECHNICAL ENGINEERS

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET
METAIRIE, LA 70002

LANIER & ASSOCIATES
Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

WOODWARD-CLYDE CONSULTANTS
engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



VICTOR R. DONALD, P.E. CHARLES R. FURLOW, P.E.
SAMUEL K. WILEY

A Subsidiary of Osca, Inc.
12021 Lakeland Park Blvd., Suite 120
Baton Rouge, Louisiana 70806
Office: (504) 756-2555 Fax: (504) 756-2562

LANKFORD ENGINEERING, INC.
CONTROL SYSTEMS

DESIGN, MANUFACTURE, INSTALL, AND SERVICE
PLC-COMPUTER-ELECTRONIC
PNEUMATIC-ELECTROMECHANICAL

P.O. BOX 53931
LAFAYETTE, LA. 70505

NO. 6 FLAGG PLACE
PH. (318) 981-0532

Poché Associates
LIMITED
CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 • Lafayette, LA 70508 (318) 237-6517

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E.
2000 North 7th
P. O. Box 728
West Monroe, La. 71291
Phone 318/387-2710

*Balancing The Needs Of Business
With Those Of The Environment*

- Geotechnical
- Marine
- Environmental
- Construction Materials



1-800-743-0092 25 Offices Nationwide

BADEAUX & ASSOCIATES
INCORPORATED
CONSULTING ENGINEERS
STRUCTURAL/CIVIL
115 EAST SIXTH STREET (504) 447-2317
P. O. BOX 1056 THIBODAUX, LA 70302

J. Alvin Badeaux, P.E.
President

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS



Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650



OCTOBER, 1992
LOUISIANA

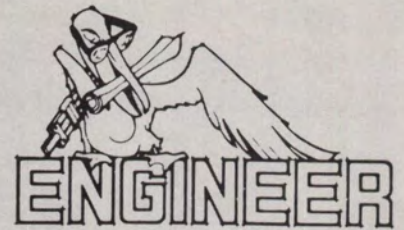


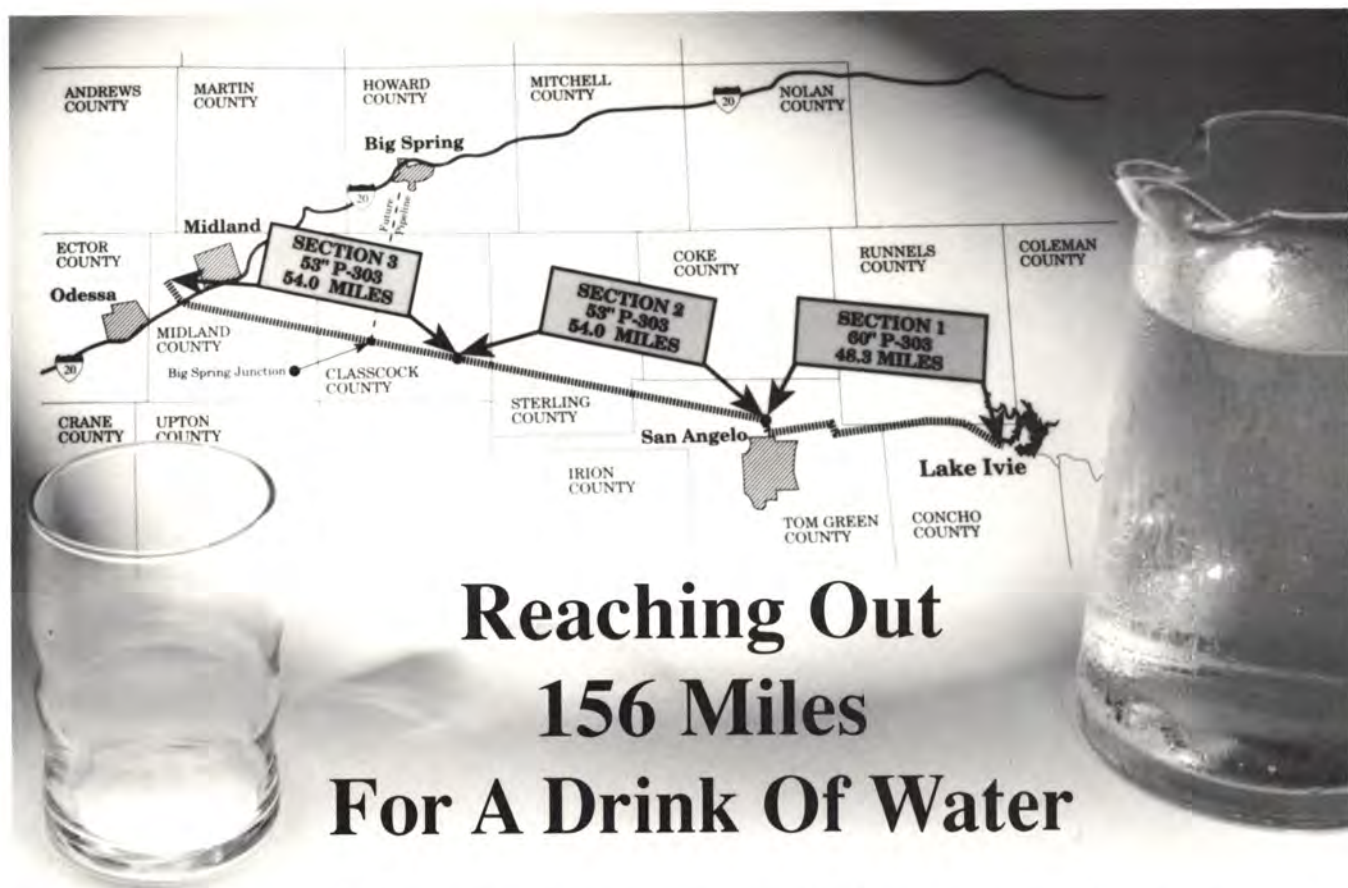
Photo by Brad Emerson, Corps of Engineers

Railroad Bridge Replacement Missouri-Pacific Railroad The Red River, Alexandria, Louisiana

On The Inside:

Be sure to see page 16 for reservation and registration forms for LES Awards Meeting, January 13-16, 1993.

See Notice of Intent to Revise Louisiana Administrative Code 46:LXI, page 12.



Reaching Out 156 Miles For A Drink Of Water

When the Colorado River Municipal Water District acted on plans to provide quality water for future generations of its citizens, it took bold steps to ensure a reliable and economical water source.

First came the O.H. Ivie Reservoir, touching three counties, contained by the S.W. Freese Dam and called the "jewel on the prairie" now that it is filled to its 550,000 acre-feet capacity.

Second was the design of a 156.3 mile pipeline knifing its way through six counties as it stretches westward.

Then came the awarding of the pipeline in one contract, the largest single pipeline contract ever granted in Texas.

Pretensioned concrete cylinder pipe proved to be the most economical choice for this new O. H. Ivie Pipeline now underway.

Pipe diameters include 60" and 53". Even with classes ranging from 100 psi to 300 psi along the line, there was no need for costly overdesign because each sec-

tion of pipe is engineered for its unique position in the pipeline.

Constructed in three phases, the line will carry up to 90 million gallons of water per day and have a 1,400' lift from Lake Ivie to a point between Midland and Odessa.



Installation Contractor, John D. Stephens, lays 60" P-303 at Lake Ivie. Project is scheduled for completion by February 1, 1995.

The conservative design, rugged construction and reliable performance of GHA's P-303 pipe is nothing new to the district. It has been a dependable part of their system for almost 40 years and they presently have over 400 miles in service.

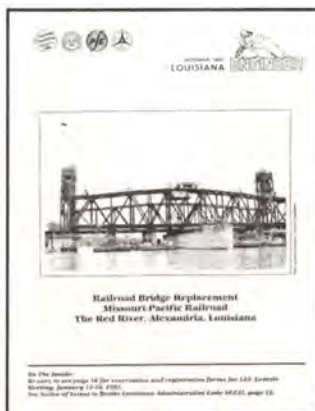
As the people of West Central Texas look toward 1995 when water from Lake Ivie will fill their drinking glasses, they can be assured of dependable service from their pipeline.

Gifford-Hill-American is proud to be a part of this landmark project to provide a reliable water source for the people served by the water district.



Gifford-Hill-American, Inc.

MANUFACTURER OF CONCRETE PRESSURE PIPE
P.O. BOX 569470 / DALLAS, TX 75356-9470 / 214-262-3600



ABOUT THE COVER

Upstream View ... The Missouri-Pacific railroad bridge crossing the Red River at Alexandria, La., has a new look. The new lift span is shown resting on barges prior to replacement of the old swing span (visible behind the new span). The concrete center pier will be removed.



STATE OF LOUISIANA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256

Office Hours
Monday thru Friday
8:00 am until 4:00 pm

Chairman
Randall F. Barron, P.E.

Vice Chairman
Albert J. Dunn, P.E./P.L.S.

Secretary
Coan J. Bueche, P.E./P.L.S.

Other Members
Ara Arman, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Malcolm L. Hurstell, P.E.
Charles L. McDonald, P.L.S.
Larry A. McKee, P.E./P.L.S.
Vernon F. Meyer, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenote, Jr., P.E.

Executive Secretary
Paul L. Landry, P.E.

PUBLICATIONS COMMITTEE

Chairman
H. L. Henry, Jr., P.E.
Managing Editor
Leta G. Bueto
Publishing Consultant
Printing Incorporated



LOUISIANA ENGINEERING SOCIETY

P.O. BOX 2683, BATON ROUGE, LA 70821 TELEPHONE (504) 344-4318
STREET ADDRESS: 1213 NICHOLSON DR., BATON ROUGE, LA

LES OFFICERS AND BOARD

President
Glynn P. Gautreau, P.E.

First Vice President
Dale T. Hunn, P.E.

Second Vice President
Edgar P. Benoit, P.E.

Secretary-Treasurer
Carl A. Jakob, P.E.

NSPE DIRECTORS
James L. Meyer, P.E.
Glynn P. Gautreau, P.E.

STATE DIRECTORS
Robert A. Brossette, P.E.
Richard P. Wright, P.E.
Robert C. Hughes, P.E.
John S. Bruce, P.E.

PAST PRESIDENT
Lloyd G. Hoover, P.E.

CHAPTER PRESIDENTS
Alexandria
Roger D. Danzy, P.E.

Baton Rouge
Ann F. Trappey, P.E.

Bayou
Prosper J. Touns, P.E.

Lafayette
Mitchell P. Wyble, P.E.

Lake Charles

Lee Lancon, Jr., P.E.

Monroe

Thomas L. Holtzclaw, P.E.

New Orleans

George Mahl, III, P.E.

Shreveport

R. Kerry Smith, P.E.

PRACTICE DIVISIONS

Construction
Roger D. Melancon, P.E.

Education
Bobby E. Price, Ph.D., P.E.

Government
Paul E. Colquette, P.E.

Industry
J. Madison Drake, P.E.

Private Practice
Steven W. Brown, P.E.

COMMITTEE CHAIRPERSONS

Constitution and Bylaws
Charles L. Eustis, P.E.

Engineering Education
Frederick J. Brown, P.E.

Young Engineers

Angela DeSoto, E.I.T.

Ethics and Professional Conduct

Foy B. Gadberry, P.E.

Honors and Awards
Kerry J. LaBauve, P.E.

Inter-Society Relations
John S. Bruce, P.E.

Legislative
Raymond G. Areaux, P.E.

Membership
Richard J. Primeaux, P.E.

Public Relations
John J. Plaisance, P.E.

Scholarship
Keith M. Warden, E.I.T.

Long-Range Planning
Edgar P. Benoit, P.E.

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

**Liaison Committee/State
Board of Registration**
James L. Meyer, P.E.

**Louisiana Engineering
Foundation**
Robert P. Blanche, P.E.

EXECUTIVE DIRECTOR
Leta G. Bueto

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society. The LOUISIANA ENGINEER is the journal of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The magazine is published in February, April, June, August, October and December. Subscription \$2.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. Two dollars of each LES member's annual dues is set aside for six issues of the LOUISIANA ENGINEER. Second class postage paid at Baton Rouge, La. The Louisiana Engineering Society and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors do not guarantee the accuracy of statements made or necessarily concur with opinions expressed in this publication. ISSN: (0024-6794)

POSTMASTER: Please send Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318, FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Presidential Privilege

The Louisiana Engineering Society is alive and well. This is basically what we learned from the responses to the Long-Range Planning Committee's questionnaire. The survey essentially indicated that "if it ain't broke, don't fix it".

In the June issue of the *Louisiana Engineer*, we offered not only the 2,600 Louisiana Engineering Society (LES) members, but the 18,000 plus registrants of the Board, an opportunity to participate and/or comment on items of importance. To date, we have only received three (3) replies! LES is vitally interested in being responsive to the wishes of the membership; so please let us hear from you.

Did you know that the National Society of Professional Engineers' (NSPE) founding purpose of promoting registration is still the goal engineers feel is the most important.

To keep you informed, a summary of various issues facing LES follows. The order presented is not in any priority ranking.

- The architects are proposing changes in existing laws to exclude civil engineers from designing buildings. Civil engineers currently registered will be grandfathered. After the year 2000, or thereabouts, any new civil engineers may be limited from designing buildings. We have LES members and civil engineers attending these meetings to monitor these activities.
- The Louisiana State Board of Registration for Professional Engineers and Land Surveyors (LSBRPE&LS) has requested LES to assist them in preparing legislation to allow for a fee increase in licensing renewals. Our legislative group and ad hoc committees composed of the Consulting Engineers Council of Louisiana, Inc. (CEC/L) and the American Society of Civil Engineers (ASCE) are studying the data. As concerned members of the Society, your comments are also welcomed.
- Continuing Professional Development/Competency (CPC) is another issue which the Society and all registrants of the Board may be facing soon. Iowa is currently the only state which has CPC requirements for license renewal. The Alabama legislature has mandated CPC implementation for 1993. LES has formed a committee (task force) to study the CPC issue should such a mandate occur in Louisiana. NSPE and the National Council of Examiners for Engineering and Surveying are assisting in preparing a "model law" as a guideline for the states to utilize. This reason (CPC)



Glynn P. Gautreau, P.E.
President
Louisiana Engineering Society

- may justify supporting the LSBRPE&LS license renewal fee increase. Additional work will be needed before this project becomes a reality.
- At the national level, the American Institute of Architects has amended their bylaws mandating continuing education as a prerequisite for membership.
 - Our Constitution and Bylaws Committee has been diligently working to revise, rewrite, and update the existing documents to conform to NSPE and recent committee/program changes. A commentary will be written for publication in the *Louisiana Engineer* in the near future to inform the LES membership of all the particulars surrounding this rewrite.
 - The LSBRPE&LS will be reporting shortly on their work and study to license other disciplines (branches) of engineering. Some of the branches being considered are Environmental, Control Systems, and Naval Architecture (Marine Engineering). A great deal of work is required to develop examinations and set the rules and guidelines.
 - Burn-out by the officers and inactivity by the membership have created an unstable situation in the North Lake Chapter. The Chapter officers have suggested to the LES Board of Direction to dissolve the Chapter. A letter has been written to each member of the Chapter to confirm that this is their wish. The results of that survey are

forthcoming.

- Plans and strategies are underway with the Louisiana Section of ASCE and LES to hold a joint state meeting in 1994. This could evolve into joint meetings with LES and other technical societies. The intent here is to be more efficient in traveling and minimize conflicts with other state meetings. We are excited with the response and cooperation of ASCE on this project.
- The LES Professional Engineers in Private Practice Division (PEPP) have met to study and review the proposed changes to the process for LDOTD to select engineers for state projects. A letter is being sent to Secretary Patin with LES's comments. CEC/L and ASCE have also sent comments to LDOTD. The engineering community is appreciative for the opportunity to provide input on this important item.
- The LES Board of Direction is working hard to balance the budget and to fund the MATHCOUNTS program. LES is relying on increased revenues from advertising in the magazine. If you or your firm is interested, please contact our Executive Director. Since recently losing a major contributor/sponsor for our MATHCOUNTS program, we have appealed to individuals, industries, and other corporations for financial assistance. Additional funds are being solicited to provide a quality program.
- Planning meetings are being held between CEC/L, ASCE, LES, and the State Office of Emergency Preparedness, with the Civil Engineering Department at Louisiana State University serving as the organizer, to form a Volunteer Technical Assistance Group in the aftermath of Hurricane Andrew. Safety assessments, as well as filling out certain forms, are required for federal funding assistance. If you are interested in helping, additional information is available by phoning the Department of Civil Engineering, Louisiana State University, (504) 388-8796.

The level of activities of our committees are increasing and the Society is moving forward. The Executive Committee (future LES officers) has pledged to continue the programs underway to their completion. Please encourage your associates and **especially your young associates** to become involved in the Louisiana Engineering Society. We need your input and responses to be considered. **LE**

Engineers Accomplish Railroad Bridge Replacement

by David Longmire



JOB WELL DONE . . . John O. Barnhart (left), Corps construction representative, and Richard Jones (right), Corps project manager, stand back to admire the Missouri-Pacific railroad bridge crossing the Red River at Alexandria, La. Replacement of the old swing span with a new lift span required extensive planning and coordination for successful completion. (Photo by P.K. Elliott, Corps of Engineers)

A challenging engineering operation was conducted in Alexandria, Louisiana in early August at the Missouri Pacific railroad bridge crossing the Red River.

Engineers and technical experts from the U.S. Army Corps of Engineers, Union Pacific Railroad, and civilian contractors spent the summer preparing to replace a 360-foot, 1000-ton railroad bridge span in just 12 hours.

The bridge, located just north of the O.K. Allen highway bridge, was modified to accommodate the Red River Waterway Navigation Project.

Model studies at the Corps' Waterways Experiment Station in Vicksburg, Mississippi, determined that the center pier of the bridge and the narrow widths of the piers to it obstructed safe navigation through the bridge.

"After considering several alternative solutions, we decided to convert the existing bridge from its swing span operation to a lift span operation," said Allan Perry, acting chief of the navigation structures section at the Corps' Vicksburg district office.

The change eliminates the center pier and provides the necessary vertical and horizontal navigation clearances.

The project was undertaken by agreement between the Union Pacific Railroad

Company, the bridge's owner, and the Corps of Engineers, Vicksburg District.

The Corps selected Modjeski and Masters, Inc., New Orleans, Louisiana, to design and prepare the plans and specifications for the bridge modifications. The bridge construction was awarded to Johnson Brothers Corporation of Louisiana.

"Operation of the bridge required a 24-hour notice prior to opening so that a 4-man crew could manually disconnect the tracks and swing the span open on its pivot pier to allow tows to pass," Perry explained. "After our modifications, one man will operate the bridge by remote control from a yard office."

The work involves reinforcing the two piers adjacent to the center, or pivot, pier to accommodate the additional weight of the new lift span towers and counterweights, replacing the existing swing span with a new lift span, installing mechanical and electrical operation equipment, and removing the pivot pier.

Wilhelm Luttgaharm of the Corps' Alexandria suboffice said, "One major challenge was allowing passage of all scheduled trains and driver traffic."

Luttgaharm noted that a special condition of the project was that the change-out of the spans be accomplished within

a 12-hour period. "Many hours of design, planning, fabrication, quality assurance, and actual construction took place before the switchout could actually occur," he added. The 12-hour time frame was due to the Union Pacific Railroad's schedule.

"We have to change out our major bridges in what we call a 'curfew or window' which requires that we schedule our train traffic to coordinate with the work," said John Horney, director of bridge construction for Union Pacific.

"It takes a lot of preplanning to adjust the traffic pattern to open up just a four-hour window. This 12-hour window was nearly impossible," Horney explained.

A series of barges were used to move the spans. A key concern to project planners was the swift current of the Red River.

"We've made railroad bridge change-outs several times like this. I believe the biggest challenge we faced was the Red River itself," said Jack Sehlin, bridge division manager for Johnson Brothers.

"The Red is a fast flowing river. The velocity increases very rapidly as the river rises. If the river had risen three feet, we couldn't have done a float-in and float-out procedure. We only had a two-foot window in which to work," he said.

The river traffic posed a threat to the workmen and to the project.

"It's a dangerous project. Rebuilding the piers has put our crews somewhat close to the tows. We've had a few hits and a lot of near misses," Sehlin said.

Although the Red was officially closed to river traffic for seven days for the entire changeout operation, some tows were allowed to pass at night. The float-in and float-out of the span was scheduled for day two.

"It was a very good idea to halt the river traffic," Sehlin said. "All the accidents we had were due to the tows."

"The contractor assembled the new bridge span on marine barges in an old bendway north of the site," said Richard Jones, the Corps' project manager for pools 1-3 on the Red River Waterway.

The contractor floated the barges into position immediately upstream of the bridge, lowered them in the water by flooding them, and moved into position to pick up the new span.

Once in position, the water pumped out of the barges to raise the old bridge

Continued on page 17

Strategic Plan Begins to Take Shape . . .

Fourteen members of Consulting Engineers Council of Louisiana, Inc. (CEC/L) met in the latter part of July in Natchez, Mississippi, to formulate a five-year Strategic Plan for the organization. By the end of the two-day meeting, the planning team had assembled a rough draft that was reviewed and revised by the CEC/L Board of Governors at its last meeting on September 2nd. Copies of the plan are now in the hands of the principals of the 147 member firms for their input. It is anticipated that the final draft will be ready for adoption by the board at its October 30th meeting.

The plan sets forth the mission statement for the organization, lists the critical issues and objectives, then outlines the six strategic plans. Action plans to accomplish the objectives are also included.

CEC/L President, Morgan Watson, has indicated that the Strategic Plan is needed to give the board more concise direction in which to move toward achieving a stronger organization and to enhance the image of the consulting engineer and the profession. The plan addresses communication, creating better relationships and liaisons with the other design professional and construction organizations as well as public agencies and boards. It focuses on the strengths and weaknesses of CEC/L's program and lobbying efforts, and membership recruitment and retention.

Legislative Update

The "Contractor Licensing Reform Act," S.2928, is particularly troublesome and costly to small firms. It would require any government contractor to obtain a license from a newly created office in the Treasury Department. Firms would have to submit a mountain of paperwork, including client lists and a report of civil or criminal judgments. Other provisions in the bill are equally threatening to small firms. ACEC and Key Constituents are alerting Senators of the problems and asking for their opposition. The bill may arise as an amendment to the Department of Defense authorization bill. For information on how you can help, contact Tom Dobbins at ACEC.

ACEC noted a challenge to the federal government **Small Purchase Threshold** in the House of Representatives. ACEC worked with Congressional committees and agency officials to relay the small business implications of the proposed change from the current \$25,000 level to \$100,000. Any contract below the small purchase threshold is not required to be announced in the Commerce Business Daily and/or reported individually for government data collection purposes. ACEC pointed out that small firms rely on the CBD for contract announcements, as many are not equipped at present to link up to the proposed computerized commerce network as the only means of contract information. ACEC will continue to promote information access for small purchase contracts.

A bill reauthorizing the **Small Business Competitiveness Demonstration Program** passed the Senate floor in early August. ACEC anticipates that it will pass the House and be signed by the President. The program allows free and open competition on Federal contracts for all sizes of firms, with set-asides used only if small firms get less than 40% of an agency's contracts. The Small Firm Coalition advocates minor changes to the current law to allow a more accurate calculation of the number of truly small businesses contracting with the Federal government. To that end, the reauthorization bill includes provisions to count small firm subcontracts in agency data, list percentages of disadvantaged business participation, and reports only Brooks Law procurements in the A/E industry data. For more information on the SBCDP, contact Tom Dobbins at ACEC, 1015 15th Street, N.W., Suite 802, Washington, D.C. 20005. (Reproduced from "Small Firm Connector", the newsletter of the Small Firm Coalition of American Consulting Engineers Council. The coalition was formed to address the specific needs and concerns of firms that employ a staff of 30 or less people.)

Network Marketing

Today more than ever, small design professional firms are looking to strengthen their business by improving their market position. In the process, an array of new ideas is being introduced and explored. One such idea, discussed at the

Small Firm Coalition (SFC) spring convention in Chicago, is network marketing.

Network marketing is "a marketing strategy that enhances small firm competitiveness." Participants at the convention also agreed that network marketing enhances competitiveness in three ways:

- positions small firms to compete for larger projects
- offer small firms the opportunity to pursue specialized assignments
- opens up new service areas and/or geographic markets

Utilizing a network system currently in use within the legal profession as a model, the group debated

- how network marketing might work among engineering firms
- what opportunities such a system has to offer to small firms
- what difficulties might be encountered

How might it work?

Network marketing could take a variety of forms - everything from an informal ad-hoc, teaming approach to a formal, association-type structure. Each option presents its own unique set of opportunities and risks. *Informal* offers the advantage of simplicity and is probably the least expensive. This method was used by consortium of a dozen SFC members, led by Linfield, Hunter & Junius on a recent Corps of Engineers proposal. The group got shortlisted. "This proves that small firms can blend disciplines and services to be competitive on larger projects," noted team member Bob Hogan. The biggest risk may be the additional liability inherent in a loosely organized effort.

A *formal* structure can offer several advantages, including a greater opportunity to control quality among team members and to determine decision-making procedures. One of the most important benefits a lawyers network achieved was a reduction in the professional liability premiums for members. In their case, the savings more than offset the fee for membership.

Some of the questions that remain:

- how are fees determined?
- how can teams be organized quickly?



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



- who controls the project(s)?
- how are contracts and fees handled?

What other opportunities are there?

Depending on the structure of the system, other benefits are the sharing of information, expertise and resources. If properly organized, network marketing can be useful when a firm needs to expand its in-house expertise or borrow/lend employees.

It is also possible for firms to combine resources to do marketing, public relations and/or advertising. It might even be practical for several small firms to share a marketing/PR person.

What other difficulties are there?

One of the first challenges is how to market a group of firms. Because this is a new approach to offering engineering services, the issue of establishing credibility with owners will be critical to the success. Confidentiality, coordination and appropriate professional registration status will also need attention. It will also be essential for firms to understand the corporate culture and philosophy of their potential partners before the team is assembled and presented to a client. Funding the team operations, establishing priorities, decision making procedures and quality control standards also present potential difficulties if not addressed during the organization stage. Last, but certainly not least, CADD compatibility and technical production procedures and standards must be understood by all.

Where do we go from here?

At this point, this idea of network marketing is still in its infancy. SFC has identified it as a delivery system that holds excellent potential for small firms. The next step is to continue these deliberations and to refine the process. It is also important to address the barriers to success.

We must remember that network marketing is a means to an end, and not an end in itself.

By the end of this convention session, the group had raised many questions while developing few solutions:

- how will this be different from the traditional prime/subconsultant arrangement?
- is this an alternative to joint ventures and their inherent legal implications?

- will clients accept this new idea?

The SFC has a lot of work ahead of it to bring this idea to reality. The work done at this meeting laid a solid foundation for the future. (Reproduced from "Small Firm Connector", the newsletter of the Small Firm Coalition of American Consulting Engineers Council. The coalition was formed to address the specific needs and concerns of firms that employ a staff of 30 or less people.)

Falling Profits and Backlogs Indicate Recession Not Over for Design Firms

The results of the 1992 PSMJ Financial Statistics Survey show typical profit levels fell 16% below the levels of a year ago. Falling profits, staff reductions and many firms with falling backlogs point to a profession experiencing significant recession pain.

"It is almost impossible to find any broad indicators of strength for the design profession" says Frank Stasiowski, publisher of survey sponsor **Professional Services Management Journal (PSMJ)**. "The numbers indicate many firms have not yet seen the bottom of the recession."

"Even the firms that are doing well are only performing at the average levels of prior years" commented Bill Fanning, PSMJ's director of research. "With 25% of the profession losing money last year, almost 50% reporting lower backlogs and over half of all firms reducing staff, this is probably the most adverse economic climate the profession has ever faced."

"With design backlogs falling in commercial building sectors, there will be less construction work coming into the pipeline" added Stasiowski. "This translates into no improvement for the construction industry at least into mid 1993."

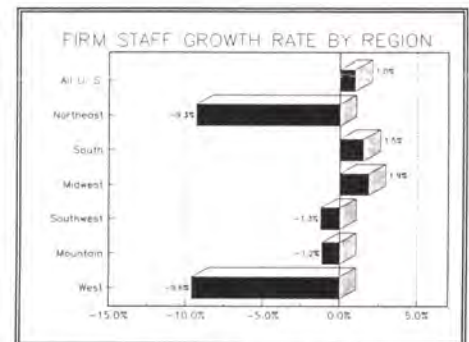
Survey results indicate operating profits (before bonuses and taxes) fell almost 16% to 7.0% of net revenues from the level found in the same survey one year ago. Profits were particularly weak for firms serving private sector clients. The firms primarily serving private sector developer clients saw median profit levels of only .2%, barely breaking even on their efforts for the year.



Profits for design firms continued a five year slide.

"Profit levels have been falling for the past 5 years" commented Stasiowski "but this year shows an even deeper profit slide."

Participating firms also reported staff level cuts over the past year, with overall employment levels dropping to 3.1%.



The northeast and west reported the largest loss of design jobs.

"This is the first year since 1982 that overall employment levels declined" commented Stasiowski.

"Twenty-five percent of the participating firms cut staff levels by 8% or more" added Fanning. "We also believe overall job declines are even greater since many firms have simply closed their doors and are no longer around to report staff levels."

Particularly hard hit were small firms, architects and firms working for commercial developers. Large firms and firms working for government clients in such areas as transportation and environmental projects typically saw small staff increases.

Continued on page 17

Engineers Building Bridges to Students

If you were going to help a teacher show kids that math can be interesting, and yes even fun, what would you do? Do you tell the students that math is very important and they really should study hard? That approach is not likely to be very successful. The Louisiana Engineering Society has taken an entirely different approach with the Math Initiative program.

The Math Initiative is a highly innovative, and highly successful, program whereby practicing engineers teach math lessons to fifth grade classes throughout the East Baton Rouge Parish public schools. The engineers don't just tell the students how an engineer uses mathematical skills every day, they demonstrate how those skills are used. Not only do the engineers demonstrate the skills, they challenge the students to use their mathematical skills to solve engineering problems.

The Math Initiative has only one goal, to stimulate interest in math and science. In order to achieve this goal, the Math Initiative uses "hands-on" lessons to show that math is not some old boring subject where you have to memorize some silly multiplication tables just because the teacher wants you to and is going to give you a test on them. Not only does math serve a useful purpose, it can give you a surprising amount of information about the world.

For instance, if you have a 27 inch bicycle and the highest gear ratio you have is three to one, how many times would you have to pedal your bicycle to go a mile? The answer is 250 times! If your friend had the three to one ratio bike and your bike had only a two to one ratio, you would have to pedal 373 and a half times to cover the same mile.

Currently, the Math Initiative consists of three lesson plans, two civil/structural lessons and one mechanical lesson. All three lessons emphasize the practical applications of mathematics.

The first civil engineering lesson uses students of different sizes to demonstrate how the distribution of weight on a seesaw affects the balance. Remember when you were little and you used to put two

small kids on one end of the seesaw to balance one big kid on the other end? There are fundamental engineering principles behind balancing this way and it is possible to calculate where to put each smaller kid. This is just what the engineers do in class using volunteers from the class, a scale and a seesaw.

In civil lesson number two the students build scale models of bridges using some of the engineering and mathematic principles the engineers have demonstrated. One student decorated her bridge with a yellow disk on top. "That's the Sunshine Bridge," she stated.

The mechanical lesson uses gears and bicycles to demonstrate the mathematical principles behind many everyday items. After a short discussion of gears and things that use gears, the class calculates how far they would travel if they were to pedal a bike some given number of times. Then a student gets on a bike and they see if they were right.

Throughout each lesson, the students are continuously making calculations and calling out the answers. They get so wrapped up in the fun and competition to see who can get the answer first they don't even realize they are "doing math."

This is the fifth year of the program which has grown from six schools the first year to over forty schools last year. Teachers and students have given the program high marks for stimulating interest in math and science and even expanding the student's vocabulary with items such as cantilever and gear ratio.

Mike McGaugh of ABMB Engineers, Baton Rouge, one of the originators of the Math Initiative, believes the program is very rewarding to all of the volunteers. There are approximately 50 engineers on the volunteer roster with a core group of 20 - 25 who keep the wheels turning. As one volunteer stated, "It is a truly amazing experience to see a child's face light up when it dawns on him that he can "do math." According to McGaugh, "A lot of engineers enjoy getting out of the office and playing teacher a couple of times a year. The kids certainly help to keep the engineers sharp and quick on their feet."

To start the program contact the Louisiana Engineering Foundation, P. O. Box 2683, Baton Rouge, LA 70821, phone - (504)344-4318, and ask for the Math

Initiative package. It contains sample lesson plans and other pertinent details about the program.

This is a good opportunity to serve your community and to receive positive recognition that reflects well on the engineering profession.

MATHCOUNTS Celebrating its 10th Anniversary

MATHCOUNTS is celebrating its 10th anniversary and the Louisiana Engineering Society is proud to be a participant. MATHCOUNTS, the first nationwide program of its kind, combines the efforts of education, business, government and the technological community to promote math excellence among junior high school students.

MATHCOUNTS was developed as a positive and rewarding solution to reversing the current problem of math illiteracy and a way to make parents, educators and the general public aware of career opportunities in math.

The program builds skills, promotes strategic problem-solving, and drills students in dealing with complex problems and hard-to-handle numbers—all a critical part of our technological society. And it provides an opportunity to bring 7th and 8th graders together to prompt lively exchange of mathematical ideas through competition.

MATHCOUNTS impacts these student "mathletes" at an age when they are formulating attitudes about math and technology—when they can still elect to take college math courses in high school to prepare them for future math careers.

The National Society of Professional Engineers estimates that 350,000 students from 7500 junior high schools participated in the 1992 program that culminated in 224 making it through local and state competitions to the exciting national finals where teams from all 50 states, the District of Columbia, Guam and Puerto Rico participated.

The Society's participation in MATHCOUNTS has been possible through the dedication of many LES members and teachers (coaches) who have given many hours of their valuable time to make the program successful; but, we all know this is a very costly program and without



Leta G. Bueto
Executive Director
Louisiana Engineering Society



financial support and in-kind contributions we could not fund the program. We're very proud to acknowledge these sponsors at both the regional and state levels and to express our sincerest appreciation to all.

Alexandria Chapter

Optimist Club of Alexandria
Louisiana Intrastate Gas Corporation
Dresser Industries
International Paper Company

Baton Rouge Chapter

Copolymer Rubber & Chemical Company
Exxon Baton Rouge Federal Credit Union
Dow Chemical, LA Division
T. L. James & Company
Jenkins Software Service
Domino's Pizza
Coca-Cola Company

Bayou Chapter

South Louisiana Electric Company
Bollinger Machine Shop
Acadian Gas Pipeline
Badeaux & Associates
J. Wayne Plaisance Inc.
Coastal Engineering & Wetlands Consultants
T. Baker Smith & Son, Inc.
Pipelines Plus
Milford & Associates
George Bergeron Jr. & Son
Conference On Water Supply
Louisiana Power & Light Company

Lafayette Chapter

ANR Pipeline Company
Thomas R. Carroll, P.E.
Robert S. Wang, P.E.
Warren P. Beedle, P.E.
Mark B. Dubroc, P.E.
Michael R. Bergeron, P.E.
Sellers Dubroc & Associates
Poche' Associates Ltd.
Frederick J. Trahan, P.E.
Donald L. Richard, P.E.

George G. Glaubrecht, P.E.
Adam Thibodeaux
Kim Touchet
A. J. Szabo, P.E.
Kenneth E. Deal, P.E.
Richard J. Primeaux, P.E.
Chris Richard
Calvin Courville, P.E.
John A. Key, P.E.
Dale W. LeBlanc, P.E.

Lake Charles Chapter

Terry Gaudet & Associates
F. Miller & Sons
Curtis E. Dyle, P.E.
Ohmstede
Soil Testing Engineers
Boise Cascade Publishing & Packaging Paper Division
Citgo Petroleum Corporation
Meyer & Associates
Concrete Pipe Products, Inc.
Fugro-McClelland (Southeast)
John Sloan Miller
Charles W. Stokes, P.E.
Levingston Engineers
Sigma Engineering, Inc.
Vista Chemical
Mr. & Mrs. Troy Portie
Mr. & Mrs. Edward Lanier
Carrol Leger, Radio Shack
Bill Robertson, Sears, Roebuck & Company
Mr. Gatti's Pizza
Dr. George Mead, McNeese State University
Nancy Roach, McNeese State University
D.W. Jessen & Associates

Monroe Chapter

The Riley Company
Bobby E. Price, P.E.
Jack T. Painter, P.E.
Frank Perkins, Jr., P.E.

New Orleans Chapter

Freeport-McMoRan
Steimle & Associates

SECO Industries
Walk, Haydel & Associates
IMC Consulting Engineers
Robert L. Manard
R. J. Tricon Company
Stewart & Stevenson
Louisiana Post, Society of Military Engineers
American Society of Mechanical Engineers, New Orleans Branch
Society of Petroleum Engineers Design Engineering, Inc.
Creole Engineering
American Society of Civil Engineers, New Orleans Branch
Piccadilly Cafeteria
Engineers Club of New Orleans
Louisiana Power & Light Company
McDermott, Inc.
Denson Engineers, Inc.
Society of Women Engineers
University of New Orleans
St. Martin's Episcopal School

State

Louisiana Society of Professional Engineers in Civil Service
Central Louisiana Electric Company
AT&T Foundation
New Orleans Chapter/NSPE Winter Meeting Committee
Louisiana Engineering Foundation
McDermott, Inc.
Freeport-McMoRan
George Heller Estate
R. J. Tricon Company
New Orleans/ASME
Williamette Industries, Inc.
L.O. Consulting Engineers
T. L. James & Company
LES/PEG
Jay Charles Smith, P.E.
Dale T. Hunn, P.E.
Waldemar S. Nelson & Co., Inc.
LES/PEPP
LES/PEI



SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION - RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE • BATON ROUGE • 70809 • 504/924-1371

1992 NSPE Annual Meeting Highlights

The 1992 NSPE Annual Meeting was held in Oak Brook, Illinois, July 19-25. Highlights of the week's events follow.

Actions of the Board

Governance, State Relations, and Special Programs

- The NSPE Board approved a Society policy that prohibits sexual harassment by or against any employee, member, vendor, or customer and defines the scope of that harassment.

Registration, Ethics, and Legal

- The Board approved a new policy on registration and qualifications for practice that consolidates a number of NSPE policies. While the Board repealed several professional and administrative policies, it voted to retain a professional policy that would allow the Society to continue its work to improve engineer/architect relationships.

Other changes to the policy include:

- Supporting the restriction of licensing fees to the administration and enforcement of state licensing programs rather than using such fees as a source of general revenue for states;
- Promoting an inactive status license at a reduced fee for professional engineers not actively practicing in a jurisdiction;
- Declaring that the public interest is best protected when a majority of a registration board are licensed professional engineers; and,
- Advocating the use of the title "Professional Engineer Intern" rather than "Engineer-in-Training."
- The Board approved a resolution to encourage the National Council of Examiners for Engineering and Surveying (NCEES) to take a leadership position in drafting model rules for continuing professional competency. NSPE recommends that NCEES devise a method for registrants to appeal to a registration board when that board has disallowed the registrants' claimed professional development hours (PDH). The Society also recommends a grace period to accumulate and submit alternative PDH for disallowed PDH.

- As requested by the Board, an NSPE committee will develop a business plan for NSPE operation of the National Professional Development Registry for Engineers (NPDRE) as a profession-wide record-keeping system for continuing professional competency.
- The Federal Trade Commission (FTC) has expressed concern that certain sections of NSPE's Code of Ethics restrict truthful, nondeceptive advertising by prohibiting quality claims and the use of "showmanship, puffery, self-laudation, including the use of slogans, jingles, or sensational language or format." The Board urged the NSPE general counsel to negotiate with the FTC to reach a satisfactory settlement of the matter.
- To facilitate the mutual recognition of registered professional engineers between the United States and Canada, the Board approved an interim statement by the United States Council for International Engineering Practice (USCIEP) that is similar to the NCEES model law.

Government Relations

To minimize the impact on state and local governments, the Board approved a policy recommending that federal funding assistance for infrastructure be designed to allow categorical grant alternatives; cost sharing between the federal government and states, localities, and the private sector; user fees for projects receiving federal assistance; and federal aid contingent on the demonstrated ability of the recipient to adequately operate and maintain a proposed facility.

- The Board revised the Society's Water Resources Policy, which calls for a national strategy. Elements of the revised policy include an emphasis on a systems approach in which the water resource strategy is consistent with other physical and political systems and suggestions for developing such a program. There is also a reference to the NSPE Wetlands Policy, which calls for wetlands protection that is compatible with necessary economic and infrastructure development. The Board also approved the NSPE position statement on water resources.
- The Board voted in favor of a policy on federal spending that supports

constitutional amendments and other action to limit and reduce spending as a percentage of Gross National Product.

- The Board revised NSPE's policy on federal capital budgeting to better address current government infrastructure funding needs. The policy urges Congress as well as other jurisdictions to use capital budgeting procedures.
- A position statement on energy favoring a national energy plan to reduce oil imports and allow for government intervention in situations where market forces alone cannot bring about desired long-range goals was approved by the Board. The policy encourages the government to look at alternative energy sources.
- The Board approved the actions of a special PAC Task Force that recommended maintaining the PAC as an NSPE function and establishing an operating policy.

Professional Practice

- The Board rejected a committee recommendation that asked for a five-year limit on entries for the Professional Development Award.
- A recommendation to provide feedback to the Professional Development Award entrants who did not receive an award was supported by the Board.

Budget

- The Board approved a balanced budget and directed the executive committee to adjust the capital budget to avoid a cash deficit. The Board also requested a report in January to provide a more thorough explanation of reserve fund management.
- The Board passed a \$25 service fee for life members to cover publication costs and other services. There will also be a \$10 voluntary dues check-off to help cover necessary improvements for new tenants on the NSPE headquarters building.

Resolutions

The Board rejected a resolution from the Montana Society that called for a revision of NSPE's policy on the responsibility of engineers during construction.

Continued on page 18

LOUISIANA ENGINEER/OCTOBER 1992



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

Louisiana State Board of Registration for Professional Engineers and Land Surveyors



Disciplinary Action Report

The following is a summary of disciplinary actions taken by the Board between April and August, 1992.

- 1) A non-registrant graduate engineer, employed by a registered professional engineer, used a business card identifying himself to the public as a civil engineer when he was not registered as a professional engineer in Louisiana. The non-registrant acknowledged he unknowingly violated the registration statutes and executed a Cease and Desist Affidavit certifying his current understanding of the restrictions of the registration statutes and agreeing to never again represent himself as an engineer to the public by verbal claim, sign, advertisement, letterhead or card unless properly registered as a professional engineer in Louisiana and further certifying that any engineering work he did in Louisiana until so registered would be done under the direct supervision of a Louisiana registered professional engineer. He obtained new business cards identifying himself as having a B.S. in Civil Engineering from the appropriate university and destroyed the old business cards. [Louisiana Revised Statute 37:681, 37:700]
- 2) Formal charges were filed by the Board against a Louisiana Corporation whose title contained the word "engineering". The corporation had failed to register the firm as an engineering corporation with the Board as specified in the registration statutes and further had been unresponsive to the Board's request for compliance by registration or a deletion of the word "engineering" from the title. In lieu of a formal hearing the corporation through its owners entered into a Consent Order settlement in which the owners changed the title of the corporation to eliminate the word "engineering" and certified that no engineering service has been or would be offered or provided by the corporation until such time as the corporation had complied with all aspects of the registration statutes regarding registration for corporations and/or individuals. Any violation of the terms and conditions of the Consent Order shall be grounds for the Board to assess a fine of up to fifteen hundred dollars (\$1,500.00) against individuals and five thousand dollars (\$5,000.00) against the corporation. [Louisiana Revised Statute 37:681, 37:689, and 37:700]
- 3) Formal charges were filed by a citizen against a registered professional engineer alleging that the registrant had released for construction an engineering plan which did not conform to the State Sanitary Code and that with actual knowledge of such non-conformity, the registrant permitted construction of the sewer lines and that in addition the registrant sealed and signed engineering plans for the project which were not prepared by him or under his complete direction and control. In lieu of a hearing the registrant executed a Consent Order settlement in which the registrant admitted to not affixing his seal and signature on all sheets of drawings prepared under his direction and control, permitting construction of sewer lines in possible violation of State Sanitary Code, to not providing notice to another registrant advising him of acceptance of an engagement in which work previously done by the other registrant would be revised, corrected, or supplemented, and in failing to note on the revised plan sheets what work was being corrected, revised, or supplemented by the registrant. The registrant denied all other charges and advised the sealing violations were the result of an oversight and that the sanitary code violation was allowed because in the registrant's judgment there was little danger of contamination while the costs of line encasement was considered prohibitive. As part of the Consent Order, the registrant was fined five hundred dollars (\$500.00) and was given a reprimand. [Louisiana Revised Statute 37:698(A)(6), LAC Title 46:LXI, §1701(C)(1), §2103(C) and §2103(D)(2) and (3)]
- 4) Formal charges were filed by the Board against an engineering firm and its owner who is a registered professional engineer alleging that the owner was guilty of offering and/or providing engineering services through the corporation in excess of three years prior to the corporation being registered by the Board. The registrant admitted to the violation as being an oversight on the part of his attorney during the incorporation of the firm, but recognized that as the sole supervising professional engineer it was his responsibility to insure registration of the corporation. As part of the Consent Order the registrant agreed to a fine of three hundred and fifty dollars (\$350.00). [Louisiana Revised Statute 37:681, 37:689, and 37:698(A)(2) and (6) to wit LAC Title 46:LXI §501(E)]
- 5) Formal charges were filed by the Board against an engineering firm and its supervising registered professional engineer alleging that the corporation through the

registrant offered and/or provided engineering services in excess of nine years prior to the corporation's registration with the Board as required by the registration statutes. The registrant admitted to the violation as being an unintentional oversight on the part of officers of the firm and their attorney. As part of the Consent Order the registrant agreed to a fine of four hundred and one dollars (\$401.00). [Louisiana Revised Statute 37:681, 37:689 and 37:700 to wit LAC Title 46:LXI §501(E) and (F)]

- 6) On June 9, 1992, the Board filed a Notice of Charges, preferring charges against Mr. Glenn R. Snyder, a Louisiana registered professional engineer, based upon the suspension of his professional engineering registration in North Carolina on May 22, 1991 for a period of two years, and the assessment of a fine of two thousand dollars (\$2,000.00). Said action was as a result of a disciplinary hearing in North Carolina in which Mr. Snyder was found guilty of violating two of its rules. Mr. Snyder appealed the North Carolina Board of Registration's findings to a North Carolina State Superior Court which affirmed the Board's findings. Mr. Snyder did not appeal the Superior Court's affirmation. Mr. Snyder was found guilty of violating the rules which concerned the sealing of engineering work not prepared by a registrant or under his responsible charge and direct supervision and the sealing of work outside his area of competence. The North Carolina Board found that Mr. Snyder violated these rules in connection with an engineering project for Evangeline of Gates, Incorporated in Gatesville, North Carolina. Louisiana Revised Statute 37:698(A)(7) permits the Board to suspend, refuse to renew, revoke the certificate, reprimand or fine any registrant due to the revocation or suspension or other restriction imposed on that registrant's license to practice engineering issued by the licensing authority of another state, on grounds other than non-payment of a registration fee; provided, that the reason for the action taken by the other licensing authority was recognized by the Louisiana Board as a ground for disciplinary action at the time the action was taken. Certain Board Rules codified as Louisiana Administrative Code Title 46:LXI §1701(C) and (D), §2103(C)(1) and (2), and §2105(C) which were in effect at all times material hereto, prohibit a registrant from affixing his seal and signature to work not prepared by him or under his direct supervision and from sealing work

dealing with subject matter outside his area of competence. In lieu of a hearing Mr. Snyder entered into a Consent Order agreement with the Board in which he, of his own free will, consented to the issuance of an Order by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors in which he was (1) placed on probation for one year, (2) fined five hundred dollars (\$500.00), (3) assessed five hundred dollars (\$500.00) in costs related to this disciplinary proceeding, and (4) agreed to the publication of a summary of this matter in the *Louisiana Engineer* by name.

NOTICE OF INTENT

[Scheduled to be published in the *Louisiana Register* on October 10, 1992]

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:XXI as follows:

Title 46

PROFESSIONAL AND OCCUPATIONAL STANDARDS Part XXI. Professional Engineers and Land Surveyors Subpart 1. Rules

Chapter 3. Requirements for Certification and Registration of Individuals and Temporary Permit to Practice Engineering (Reference Chapter 11. Curricula, Chapter 13. Experience, and Chapter 15. Examinations.)

§305. Professional Engineer Registration

A. An applicant for registration as a professional engineer must be of good character and reputation and recommended by five personal references, three of whom are registered professional engineers and who have personal knowledge of the applicant's character and abilities.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:693B.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:350 (November 1976), amended LR 5:114 (May 1979), LR 5:365 (November 1979), LR 6:735 (December 1980), LR 7:644 (December 1981), LR 10:804 (October 1984), portion deleted LR 11:362 (April 1985), amended LR

§311. Land Surveyor Registration

A. ...

B. ...

1. - 3. ...

4. Reciprocity (or Comity)

The applicant shall be a person who holds a valid certificate of registration to engage

in the practice of land surveying issued to him/her by proper authority of a state, territory, or possession of the United States, or the District of Columbia, based on requirements that do not conflict with the provision of the registration law (Louisiana R.S. 37:681 through 37:703 as amended by Act 568 of 1980) and the rules of the board, who has passed a written examination in the laws, procedures, and practices pertaining to land surveying in Louisiana, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, and if the state, territory, or possession, or the District of Columbia in which he/she is registered will accept the certificates of registration issued by the board on a reciprocal basis.

5. - 7. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:693B and R.S. 37:694.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:244 (August 1976), amended LR 2:351 (November 1976), LR 5:114 (May 1979), LR 6:735 (December 1980), LR 7:645 (December 1981), LR 11:362 (April 1985), LR 16:773 (September 1990), amended LR

Chapter 5. Rules Governing Corporations and Firms

Repealed: §503. Firm Title

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:689.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 3:502 (December 1977), amended LR 5:116 (May 1979), LR 8:191 (April 1982).

§509. Enforcement

A. ...

B. Any firm that has qualified with the board in accordance with the above rules shall be deemed to be a registrant of the board and therefore shall be subject to all disciplinary provisions provided for in the registration law.

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:689.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 3:503 (December 1977), amended LR 5:117 (May 1979), LR 8:191 (April 1982), amended LR

Chapter 7. Applications and Fees

§701. Applications

A. Applications for registration as a professional engineer or land surveyor shall be typed on forms furnished by the board, shall contain statements made under oath showing the applicant's qualifications, and the names and addresses of persons who can verify such statements and in addition, the names and addresses of five personal references. Three or more of the five personal references furnished by an applicant for registration as a professional engineer

shall be registered professional engineers. Three or more of the five personal references furnished by an applicant for registration as a land surveyor shall be registered land surveyors.

B. - H. ...

I. Any application for registration of an engineering firm and/or land surveying firm must be typed on the form provided by the board, must be completed in its entirety and must contain the name, registration number, and signature of all Louisiana registered professional engineers designated as supervising professionals in accordance with Chapter 5. The name and signature of an officer of the firm duly authorized to make certifications on behalf of the firm must appear in the specified location of the form. If the applicant is a corporation, a copy of the corporation's Louisiana State Charter (domestic) or Certificate of Authority (foreign) must accompany the application. Designated supervising professionals for the firm must also successfully complete the Louisiana Laws and Rules Questionnaire prior to registration of the firm.

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:689.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 5:112 (May 1979), amended LR 5:365 (November 1979), LR 7:646 (December 1981), LR 11:362 (April 1985), amended LR

Chapter 11. Curricula

§1101. Approved Curricula

A. - C. ...

D. Until January 1, 1995, the board may recognize as approved for the registration of land surveyors under R.S. 37:693 B (4) (b) all approved engineering curricula that contain at least six semester credit hours, or equivalent, of satisfactory surveying courses.

E. Until January 1, 1995, the board, by a majority vote at a regular meeting, may recognize a curriculum of a college or university of recognized standing, leading to a bachelor of science degree, as an approved curriculum for the registration of land surveyors under R.S. 37:693 B (4) (b) provided the curriculum contains at least six semester credit hours, or equivalent, of satisfactory surveying courses.

F. Until January 1, 1995, the board may recognize that the formal education of an applicant for registration as a land surveyor meets the requirements of R.S. 37:693 B (4) (b) if he/she has passed 60 semester hours, or the equivalent, of courses above the high school level, including at least six semester hours, or the equivalent, of satisfactory surveying courses.

G. The Board, by a majority vote at a regular meeting, may approve curricula that contain at least thirty (30) semester credit hours, or the equivalent, of satisfactory land surveying, mapping, and real property courses as required under R.S. 37:693 B

(3) (b) for certification as a land surveyor-in-training and under R.S. 37:693 B (4) (f) for registration as a professional land surveyor.

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:693.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 5:113 (May 1979), amended LR 5:365 (November 1979), LR 7:646 (December 1981), LR 10:805 (October 1984), amended LR

Chapter 15. Examinations

\$1501. General

A. - D. ...

E. Examinees will be notified in writing what material will be permitted in the examination room when scheduled for an examination.

F. - H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:693.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 5:112 (May 1979), amended LR 7:647 (December 1981), LR 11:363 (April 1985), LR 16:774 (September 1990), amended LR

\$1515. Re-Examinations

A. A person who fails an examination is eligible to apply to retake the examination. A request for re-examination must be submitted in writing on the form specified by the board prior to the deadline date for scheduling of the examination.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:693.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:353 (November 1976), amended LR 4:516 (December 1978), LR 5:113 (May 1979), LR 7:647 (December 1981), LR 12:692 (October 1986), LR 16:774 (September 1990), amended LR

Chapter 17. Rules Governing the Use of Seals

\$1701. Seal Rules

A. - D. ...

E. ...

1. the client or any public or governmental agency requesting preparation of such plans, specifications, drawings, reports or other documents makes the request directly to the registrant, or the registrant's employee as long as the employee works in the registrant's place(s) of business; and
2. the registrant supervises the preparation of the plans, specifications, drawings, reports or other documents and has input into their preparation prior to their completion; and

E.2. - I.2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:696.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 8:112 (April 1982), amended LR 12:692 (October 1986), LR 16:774 (September 1990), LR 17:273 (March 1991), amended LR

Chapter 25. Minimum Standards for Property Boundary Surveys

\$2507. Property Boundary Survey

A. - F.6. ...

7. All field data gathered shall satisfy the requirements of the following subsection on plats, maps, and drawings.

G. - H. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:681, 682(9), 688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 16:1065 (December 1990), amended LR

Title 46

PROFESSIONAL AND OCCUPATIONAL STANDARDS

Part LXI. Professional Engineers and Land Surveyors

Subpart 2. Bylaws

\$2703. Board Members

A. Number of Board Members
The board shall be comprised of 11 members, each of whom shall be appointed by the governor in accordance with the requirements established by law.

B. ...

C. Date of Elections

The election of board officers shall take place at the board's annual meeting in July. In the event that an officer cannot complete his term, an election in order to fill the unexpired term shall be scheduled at the earliest practical regular or special meeting.

D. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), amended LR 11:1179 (December 1985), amended LR

\$2705. Standing Committees

A. Committees

The board shall establish the following Committees: Executive Committee, Agricultural Engineering Committee, Chemical Engineering Committee, Civil Engineering Committee, Electrical Engineering Committee, Industrial Engineering Committee, Mechanical Engineering Committee, Metallurgical Engineering Committee, Mining Engineering Committee, Nuclear Engineering Committee, Petroleum Engineering Committee, Land Surveying Committee, Engineer-in-Training Committee, Finance Committee, and Nominations Committee.

B. - D.8 ...

9. Nuclear Engineering Committee;
10. Petroleum Engineering Committee.

E. Land Surveying Committee

The Land Surveying Committee shall (1) review applications for registration as a professional land surveyor; (2) review applications for certification of persons as a land surveyor-in-training; (3) conduct oral examinations or interviews; (4) supervise the selection of examinations on the fundamentals of, on principles and practice of, and on the laws and procedures of land surveying; (5) recommend passing scores for their respective written examinations; and (6) evaluate and recommend land surveying curricula acceptable to the board.

F. - G. ...

H. Curricula Committee

The chairman shall appoint a Curricula Committee to evaluate and make recommendations to the board concerning the quality of the engineering, related science, related technology, curricula, the faculties, and facilities of schools within the state of Louisiana. The curricula committee shall have the power to make inspections in the course of its evaluations. The committee chairman shall coordinate the selection of board observers for all ABET visitations in the state.

I. - J. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), amended LR 11:1180 (December 1985), amended LR

\$2707. The Executive Secretary

A. - C.17. ...

18. be an associate member of the National Council of Examiners for Engineering and Surveying (NCEES);

19. - 23. ...

24. keep a register of receipts and expenditures, maintaining such financial books and will at all times show the financial condition of the board and the validity of the registrations and of the certificates which have been issued;

25. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), amended LR 11:1180 (December 1985), amended LR

\$2709. Meetings

A. ...

B. Annual Meeting

The first regular meeting of the fiscal year is to be held in July and shall be designated as the annual meeting.

C. - L. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), amended LR 11:1181 (December 1985), amended LR

§2713. Executive Session

A. Reasons for Calling Executive Sessions

1. - 3. ...
4. investigative proceeding regarding allegations of misconduct;
5. cases of extraordinary emergency, which shall be limited to natural disaster, threat of epidemic, civil disturbances, suppression of insurrections, the repelling of invasions, or other matters of similar magnitude; or
6. discussion of board office operations, staff personnel assignments, pay, and benefits.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 11:1181 (December 1985), amended LR

§2715. Voting

A. - H. ...

Repealed: I. Voting Members

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 11:1181 (December 1985), amended LR

§2719. Publications of the Board

A. Roster

A roster showing the names and addresses of all registered professional engineers, the branch of engineering in which professional engineers are registered, and all registered land surveyors may be published by the board. Upon request, a copy of this roster shall be mailed without charge to each person so registered. Extra copies to registrants and copies to others shall be furnished upon payment of a fee established by the board. The roster shall be placed on file with the secretary of state and in the libraries of all colleges and universities in this state.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), LR 11:1182 (December 1985), amended LR

§2725. Compensation and Expenses

A. Authority to Incur Traveling Expenses

1. ...
2. The board may, by resolution at one of its meetings, authorize any of its members or representatives to travel at the expense of the board to attend meetings and conventions such as those

of the National Council of Examiners for Engineering and Surveying (NCEES), the Accreditation Board for Engineering and Technology (ABET), or other allied organizations. Per diem for time spent traveling and for time spent at the meeting will be allowed. The allowance of per diem for time spent traveling shall not exceed the total number of days computed by dividing the most direct route driving mileage by 400 miles per day.

B. - C. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 2:52 (February 1976), amended LR 5:118 (May 1979), LR 11:1182 (December 1985), amended LR

§2727. Board Nominations

A. Guidelines and Procedures

The following guidelines and procedures will be observed in order that timely and prudent advice can be given to the Louisiana Engineering Society and the Louisiana Society of Professional Surveyors with regard to nominees for vacancies on the board.

1. At each annual meeting, the board will determine and publish in the minutes of the meeting, and include in the annual report issued to the governor, the names of the sitting board members and the respective division of engineering practice of each, in the case of engineers, and the identities of the registered professional land surveyor members. A copy of the list will be forwarded by certified mail, return receipt requested, to the Louisiana Engineering Society and the Louisiana Society of Professional Surveyors.

a. ...

- b. If a board member is not a member of the Louisiana Engineering Society or the Louisiana Society of Professional Surveyors, it shall be his duty to notify the executive secretary of any significant change in his regular employment; the executive secretary shall so advise the Louisiana Engineering Society and the Louisiana Society of Professional Surveyors of its action, if any, prior to the annual meeting.

2. - 5. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 37:688.

HISTORICAL NOTE: Promulgated by the Department of Transportation and Development, Board of Registration for Professional Engineers and Land Surveyors, LR 4:299 (August 1978), amended LR 5:120 (May 1979), LR 11:1182 (December 1985), amended LR

Repealed and Reserved: **Chapter 29. Organization of the Board**

Repealed and Reserved: **Chapter 31. Administration**

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 November 4, 1992. 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 November 10, 1992.

FIRE PROTECTION SPRINKLER SYSTEMS POSITION STATEMENT

July 28, 1992

The State Board of Registration for Professional Engineers and Land Surveyors has reviewed and discussed Louisiana Revised Statute 40:1625 through 40:1636 concerning the licensing of fire protection sprinkler system contractors. These statutes provide for the certification of contractors of fire protection sprinkler systems, provide for the issuance of permits by the State Fire Marshal to those engaging in the business of sprinkler protection systems, provide for proof of competency before issuing permits, provide for permit fees, and provide for penalties for violations of the provisions of the statutes. These statutes require the design of fire protection sprinkler systems in accordance with fire protection engineering standards which is an indirect reference to adherence to National Fire Protection Association (NFPA) standards. NFPA standards are part of the model codes such as uniform, standard, and BOCA and are recognized by almost all jurisdictions that adopt independent building codes. The Board has therefore arrived at the following conclusions:

1. The planning and installation of a fire protection sprinkler system in strict compliance with the NFPA standards by a "certified fire protection sprinkler contractor" licensed by the State Fire Marshal does not constitute the practice of engineering. Any variation from these standards, that is not considered an error requiring correction, will be a violation of the Louisiana Engineering Registration Statutes if not performed by a Louisiana registered professional engineer.
2. Performance criteria for fire protection systems must be established by a qualified registered professional engineer.
3. The determination that the structure of a building is adequate to support the fire protection sprinkler system as installed is the practice of engineering and must be made by a qualified Louisiana registered professional engineer.
4. System interfaces, such as elevator controls, HVAC controls, smoke control systems, door closures, pumps, controllers, underground water supplies, exit systems, compartmentation and the like, are the practice of engineering and must be done by a qualified Louisiana registered professional engineer. **LE**

APRIL 17, 1993

EXAMINATION SCHEDULE AND DEADLINE DATES

Examination	Pre-Application Deadline Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	January 1, 1993	January 15, 1993	April 17, 1993
Principles & Practice of Engineering Examination (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical			
Agricultural, Industrial, Metallurgical, Mining Nuclear, & Petroleum	July 15, 1993	August 15, 1993	October 29, 1993
Fundamentals of Land Surveying Examination (8 hrs.)	October 1, 1992	October 15, 1992	April 17, 1993
Principles and Practice of Land Surveying (6 hrs.)			
Louisiana Laws and Procedures of Land Surveying (2 hrs.)			

Pre-Application is required of all applicants for certification as an Engineer-in-Training or Land Surveyor-in-Training and for registration as a Professional Engineer or Professional Land Surveyor.

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.

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

Nov. 9-10

1993

Jan. 25-26

Mar. 22-23

June 7-8

July 26-27

Sept. 27-28

Nov. 8-9

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.

October 16, 1992

Honors and Awards Selection Meeting
Alexandria Chapter

October 16, 1992

LES Board of Direction Meeting
Alexandria Chapter

October 31, 1992

NCEES Exams

November 9-10, 1992

State Board of Registration Meeting
New Orleans, LA

December 5-6, 1992

NSPE State Presidents-Elect Conference
Alexandria, VA

January 21, 1993

NCEES Exam Reviews

January 22, 1993

Professional Land Surveyor Oral Exams

January 23-30, 1993

NSPE Winter Meeting
Kona, HI

January 25-26, 1993

State Board of Registration Meeting
New Orleans, LA

February 6-27, 1993

Window for Chapter MATHCOUNTS
Competitions

February 15-19, 1993

Engineers' Week

March 13, 1993

State MATHCOUNTS Competition
Alexandria, LA

— The — PRIVATE Pension Plan

Yes, you can have it all! The Private Pension Plan provides benefits now and when you retire. Compare the advantages:

Regular Pension Plans

- * Tax deductible Contribution
- * No current tax to employees
- * Tax-deferred accumulation of funds
- * May not discriminate
- * May not touch the funds
- * Possible 15% excise tax on large plans
- * Fund balance subject to income tax at death
- * Benefits affect social security

Private Pension Plan

- * Same
- * Same
- * Same
- * May discriminate
- * May use for any purpose
- * No excise tax
- * No income tax at death
- * No effect on Social Security

for details call: Smith, Hill
Lillian Smith, MBA or Bruce Hill, CLU
504-581-1269

Underwritten by Bankers United Life Assurance Company (FORM DRL-0150) • Rated AA+ by Standard & Poor

**LES HONORS AND AWARDS MEETING
REGISTRATION
HOLIDAY INN - HOLIDOME, MONROE, LA
JANUARY 13-16, 1993**

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**LES
P. O. Box 2683
Baton Rouge,
LA 70821**

		No. Tickets	Amount
PREPAID DISCOUNT REGISTRATION FEE ¹	\$40.00	_____	_____
Registration Without Prepayment	\$53.00	_____	_____
Daily Registration Fee ²	\$13.50	_____	_____
Wednesday Golf	\$20.00	_____	_____
Thursday Dinner ⁴	\$16.50	_____	_____
Friday Seminar	FREE ⁵	_____	_____
Friday Luncheon ⁶	\$11.00	_____	_____
Friday Awards Banquet	\$18.00	_____	_____

Spouses

Thursday - Shopping Spree, Pecanland Mall

Friday - Ruston/Shopping Spree/Tour of
Louisiana Tech Facilities

Saturday, Brunch and Style Show \$10.00

TOTAL

1/Prepaid discount applies only if registration and payment are received one week prior to the convention.

2/Daily registration fee is applicable for one day attendees only.

3/Chennault Golf Course - Includes green fee and cart for 18 holes.

4/New Orleans Cafe Atrium - Entertainment by Bill Cox (Comic/Magician)

5/Seminar: Total Quality Management - Speaker: Dr. Russ Wharton, Philip Crosby Associates. FREE with payment of daily registration fee.

6/Guest Speaker: Senator Randy Ewing - "Issues Facing the Engineering Profession"

☐ 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
January 13-16, 1993
Holiday Inn Holidome, Monroe, LA**

Please register early. Reservations must be received by DECEMBER 26, 1992. On that date the rooms will be placed on a first come, first serve basis.

Your Arrival Date _____ Your Departure Date _____

Name (print) _____

Address _____

City _____ State _____ Zip _____

Please check type of room requested.

Check-in Time: 1:00 p.m.

Check-out Time: 12:00 Noon

☐ Standard (Domeside) \$56.00

☐ Standard (Outside Dome) \$51.00

☐ King (Domeside) \$58.00

☐ King (Outside Dome) \$55.00

**CLIP OR
REPRODUCE &
MAIL TO:**

**HOLIDAY INN
P.O. Box 7860
Monroe,
LA 71211**

1-318-387-5100

Extra Person: \$6.00 per person - Rollaway beds ...\$4.00 + tax. The tax rate is 9%. Suites available upon request. The first night deposit is required with reservation or credit card guarantee. Refund given if cancellation made **seven (7)** days prior to beginning date of event.

Guaranteed by one of the following:

Credit Card and Number _____ Expiration _____

Advance Deposit \$ _____ (One night)

RAILROAD BRIDGE REPLACEMENT

Continued from page 5

ff of its rest. Once it was high enough or clearance, the barge system was moved downstream and flooded again to set the new structure in position.

While Johnson Brothers brought experience to the project, the venture was a new one for engineers at the Corps' district office in Vicksburg.

"The fact that this type of work was really unusual for us created a big challenge," said Jones. "Our main obstacle was our lack of familiarity with railroad bridges and even the jargon of railroad construction."

Jones said the project was a good one because it helped him and his peers sharpen their skills and abilities.

"You take nothing for granted. You question everything. It was a very high-exposure, high-risk type of job. It forces you to manage to the utmost of your ability," Jones said.

For the operation to work successfully, the 12-hour work period was tightly managed. "We had almost each minute of the day planned. There were several crews doing different tasks all at the same time," Perry explained.

To supplement its technical expertise, the Corps added Ralph Eppehimer of

Modjeski and Masters and Derrick Townley from Union Pacific to its on-site engineering team to help manage the construction and changeout.

Coordination with the project team members was another challenge.

In addition to the Corps, Modjeski and Masters, Johnson Brothers, and the Union Pacific Railroad, there was participation by the U.S. Coast Guard, the Red River Waterway Commission, the Louisiana Department of Transportation, the Louisiana State Historic Preservation Office, and the Louisiana Department of Environmental Quality.

Constant monitoring by hydraulic engineers in Vicksburg of the river, weather, and watershed conditions was also critical.

Following the successful installation of the new span, the first train to cross carried 113 cars.

"The entire operation went exceptionally well, really exceptional," said John O. Barnhart, construction representative with the Corps. "The job went more smoothly and more quickly than expected."

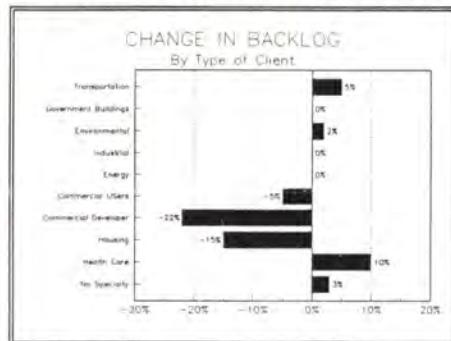
"This project has been an outstanding example of many disciplines working together for a common goal," Perry said. **LE**

THE SPEC SHEET

Continued from page 7

Project backlogs do not indicate a dramatic change in economic health is imminent. Overall, backlog levels increased only 1% from a year ago. Forty-five percent of the participating firms reported backlog levels below last year.

"With lower levels of future revenues in the pipeline, it does not appear conditions will improve soon" added Stasiowski. "For many firms, the bottom of the recession has yet to be reached."



Firms serving commercial building clients indicate continuing drops in project backlogs.

"One of our best leading indicators is backlogs for survey firms since their site work is often the first sign of new projects entering the pipeline" commented Fanning, "and their average backlog is down 20%".

Firms indicated fee levels per staff grew only by 2% while average labor costs also grew by 2%.

"The low revenue increases and wage increases mean firms are not able to pass cost increases on to clients and wages did not even keep up with inflation" according to Stasiowski.

Overhead rates declined slightly to a median of 149.6% from 152.3% a year ago.

"It is clear firms are clamping down wherever possible on discretionary overhead costs" commented Fanning. "Less spending on retirement plans and bonus/incentive payments helped hold down costs, but at the same time, taxes, group insurance and marketing costs are rising."

"Some firms are still growing and achieving decent profit levels" said Stasiowski, "but overall, the profession is seeing a very deep recession."

The complete 220 page survey report is now available from **PSMJ**, 10 Midland Avenue, Newton, MA 02158, phone (617) 965-0055, for \$195. The results are presented by size and type of firm, region and client type. The report contains information on revenues, expenses, financial analysis, automation and staff ratios.

Supported by the leading professional societies, including the American Institute



T. L. JAMES & CO., INC.

Draw on our over 60 years of construction knowledge

- SITE PREPARATION
- EARTH MOVING
- DREDGING
- DOCKS
- PAVING
- FOUNDATIONS
- ENVIRONMENTAL

- BUILDINGS
- MECHANICAL
- RAILROADS
- LEVEES & DAMS
- ROADS & BRIDGES
- DRAINAGE
- MAINTENANCE



T. L. JAMES & CO., INC.

Baton Rouge (504) 293-0274

Ruston (318) 255-7912

New Orleans (504) 467-6000

Stephen Spohrer, PE

Thomas Folk, PE

William Westbrook, PE

TOTAL JOB CAPABILITY

of Architects, American Consulting Engineers Council, National Society of Professional Engineers in Private Practice, Civil Engineers and Land Surveyors of California, Management Association for Private Photogrammetric Surveyors, and the Professional Services Management Association, the survey is the most comprehensive financial management tool available for design firms.

Liability Concerns of Design Professionals Alleviated by Decision Rejecting Labor Department's Attempt to Bring Them Under Construction Safety Standards

In a case of vital importance to architects and engineers, the Occupational Safety & Health Review Commission has rejected the Department of Labor's position that design professionals are subject to the OSHA construction safety standards merely because they have a relationship to the overall construction project.

OSHA had issued citations against a design firm, Simpson, Gumpertz & Heger,

Inc. on the basis that the firm was responsible for the collapse of metal decking on a building project because it had given "bad advice" to the contractor in responding to a telephone call regarding the contractor's procedure for a concrete pour.

At the heart of the issue was the Labor Department's argument that design firms are an "integral part" of construction and thus subject to the construction standards. The Review Commission, in rejecting this position, stated that neither the law, the regulations, or previous cases support that view. It adhered to a 1977 decision holding that the construction standards apply to A/E firms only if the professional firms perform actual construction work or exercise substantial supervision over actual construction.

Paul L. Genecki, president of Schinnerer Management Services, hailed the decision as one of utmost significance in terms of the potential liability of design firms. "This decision," he said, "should remove the cloud hanging over the design professions. If the Labor Department position had been sustained, every A/E firm

would be vulnerable to liability suits from injured workers in addition to being subject to OSHA fines."

The CNA/Schinnerer program is the largest insurer of architects and engineers for professional liability in the U.S. and has been continuously commended by the American Institute of Architects and the National Society of Professional Engineers to their members since 1957. In this 35th anniversary year, the program has more architects and engineering firms insured than at any time in its history. Based in Chevy Chase, Maryland, Schinnerer is the largest professional liability insurance management firm in the country. In addition to serving as the commended program's underwriting manager, Schinnerer is responsible for its loss prevention and risk management initiatives. Schinnerer also serves as liability insurance counsel to the American Institute of Architects and the National Society of Professional Engineers/Professional Engineers in Private Practice. **LE**

NSPE MEETING HIGHLIGHTS

Continued from page 10

Montana contended that the policy imposed too much responsibility on small and medium-sized firms and set "a dangerous legal precedent of encumbering...engineer(s) with undue liability."

The Virginia Society of Professional Engineers hoped to ratify the NSPE 2000 Task Force Report, but the resolution was tabled by the Board. The report seeks to define NSPE's role in the engineering profession as well as the role played by the American Association of Engineering Societies (AAES). The NSPE Planning Committee will review the proposal this year.

A resolution from the Pennsylvania Society of Professional Engineers (PSPE) voiced objections to the NSPE Nominating Committee procedure of choosing a slate of officer candidates. According to PSPE, the policy is in direct violation of the NSPE Constitution and should allow a "slate of candidates for each NSPE office that...contain(s) the names of all persons whose names have been appropriately submitted, evaluated, and endorsed by the Nominating Committee..." The Board denied the action.

Following the recent firing of a Chicago engineer after that city's major flooding, the Illinois Society of Professional Engineers (ISPE) put forth a resolution that called for NSPE to establish a mechanism to respond quickly to accusations

regarding failures involving engineers. ISPE sought to assure that due process is followed and the facts bear out the actual responsibility of the engineers involved. The Board accepted the resolution.

The Board approved a resolution from the Michigan Society of Professional Engineers that urges NSPE to recommend that the U.S. take strong leadership action to develop an infrastructure plan that will use quality-based management and will prioritize needs.

Redesigning the NSPE Standard Committee Process

The Board of Directors received a copy of *Redesigning the NSPE Standard Committee Process*, a guidance booklet for committee chairmen. Chairs are required to complete a flow chart of their committee process within the NSPE standard process.

Women in Engineering

To better understand the needs of women in engineering and the importance of the addition and promotion of women to the profession, a special NSPE task force spent the last year researching and analyzing those needs and produced a comprehensive report—*The Glass Ceiling and Women in Engineering*.

NSPE Women in Engineering Task Force Chairman Lynn Bertuglia presented the report's findings at a special Professional Practice Luncheon. Bertuglia related some of her own experiences as a professional engineer and outlined the findings of the report, which affirmed that

a "glass ceiling" exists for women in engineering and technology.

The report includes sample employment practices to improve the business climate for women engineers.

Awards

The 1992 NSPE Professional Development Awards

At the Joint Practice Division Awards Luncheon, the Society honored several organizations that have encouraged professional registration among their engineering staff and have developed forward-looking employment practices to accommodate the changing work force.

Education—Virginia Military Institute
Government—The U.S. Army Corps of Engineers-Albuquerque District

Industry—Tampa Electric Company
Private Practice—Booker Associates, Inc.

An honorable mention for professional development went to Central Louisiana Electric Company.

Special Address

A special luncheon address was given by Brigadier General Russell Fuhrman, commander of the U.S. Army Corps of Engineers, Engineering Division, North Central. Fuhrman offered his insight into the events leading to the flooding in Chicago's 90-year-old freight tunnels last spring and the Corps' efforts to control and eventually stop the damage.

NSPE Award

John Reh, a professional engineer and firm owner, was recognized for his service in the profession that began with an earlier stint as a hydrologist and program manager with the Soil Conservation Service in Kansas. There he contributed to the planning and installation of 700 watershed structures that created flood control, water supply, and recreation opportunities across the state. Reh's professional contributions continued with his work as assistant state conservationist, managing major watershed, river basin, water quality, and abandoned mineland programs.

Young Engineer of the Year

A senior project engineer in the transportation division of a private firm was named the NSPE Young Engineer of the Year. Josephine Emerick carries impressive professional credentials that include work as a project manager on Lambert-St. Louis International Airport's access roadways and the design of the Metro Link Light Rail System.

Distinguished Service

NSPE bestowed its Distinguished Service Award on two professional engineers for their outstanding technical and professional contributions to the field of engineering.

Earl Reynolds began his career in a seven-person design firm that he helped transform into what is now CH2M Hill, an international firm with more than 5000 employees. Reynolds was named chairman of the board in 1980 and remained in that position until his retirement in 1983. Active in many professional organizations, Reynolds was a 43-year member of NSPE and the Idaho Society of Professional Engineers (ISPE) and was also involved with the American Public Works Association, American Consulting Engineers Council, and the Consulting Engineers of Idaho. He served as an NSPE national director and as a vice chairman for NSPE/PEPP.

John Grant, president and chief engineer of his own firm, has served the engineering profession and NSPE in a number of ways. Grant's consulting engineering and land surveying firm is responsible for a variety of infrastructure projects. Grant has been an active member of NSPE, the Florida Engineering Society (FES), and the Florida Institute of Consulting Engineers (FICE) since the early 1960s. He has served on a variety of NSPE committees and has been a national director for 12 years.

Ace Awards

The Society recognized four chapters from around the country this year with

the Award for Chapter Excellence (ACE \$2000 Award). The cash prizes are given for chapter achievements and support continued growth for projects that benefit the community.

ACE \$2000 Award Winner—Ozark Chapter-Missouri

Project: Proceeds from the Annual Shrimp Feed generate scholarships for engineering students.

ACE \$1000 Award Winner—Cincinnati Chapter-Ohio

Project: The Interdisciplinary Engineering Exposition and Conference features an employment expo with 115 exhibits, 45 seminars and workshops, and

a two-day session for engineers searching for work.

ACE \$250 Honorable Mentions

Western Chapter-Michigan

Project: *The Careers in Engineering* booklet summarizes career choices in engineering, employment opportunities, and universities that offer accredited engineering programs.

Central Chapter-Florida

Project: Project Create calls on 4th and 5th graders to find practical applications to math and science problems—in this case, designing a plan to circumnavigate the globe without the use of an air vehicle. **LE**

 Statement of Ownership, Management and Circulation (Required by 39 U.S.C. 3685)		
1A. Title of Publication LOUISIANA ENGINEER		1B. PUBLICATION NO. 0 0 2 4 6 7 9 4
3. Frequency of Issue BI-MONTHLY		2. Date of Filing 9-24-92
3A. No. of Issues Published Annually 6		3B. Annual Subscription Price \$2.00
4. Complete Mailing Address of Known Office of Publication (Street, City, County, State and ZIP + 4 Code) (Not printer)		
LA. ENGINEERING SOCIETY, P.O. BOX 2683/1213 NICHOLSON DRIVE, BATON ROUGE, LA. 70821		
5. Complete Mailing Address of the Headquarters of General Business Offices of the Publisher (Not printer)		
LA. ENGINEERING SOCIETY, P.O. BOX 2683/1213 NICHOLSON DRIVE, BATON ROUGE, LA. 70821		
6. Full Names and Complete Mailing Address of Publisher, Editor, and Managing Editor (This item MUST NOT be blank)		
Publisher (Name and Complete Mailing Address)		
LA. ENGINEERING SOCIETY, P.O. BOX 2683/1213 NICHOLSON DRIVE, BATON ROUGE, LA. 70821		
Editor (Name and Complete Mailing Address)		
LETA G. BUETO, LOUISIANA ENGINEERING SOCIETY, P.O. BOX 2683, BATON ROUGE, LA. 70821		
Managing Editor (Name and Complete Mailing Address)		
LETA G. BUETO, LOUISIANA ENGINEERING SOCIETY, P.O. BOX 2683, BATON ROUGE, LA. 70821		
7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publication is published by a nonprofit organization, its name and address must be stated.) (Item must be completed)		
Full Name	Complete Mailing Address	
LOUISIANA ENGINEERING SOCIETY	P.O. BOX 2683	
	1213 NICHOLSON DRIVE	
	BATON ROUGE, LA. 70821	
8. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities (If there are none, so state)		
Full Name	Complete Mailing Address	
N/A		
9. For Completion by Nonprofit Organizations Authorized to Mail at Special Rates (DMM Section 424.12 only) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)		
(1) ☒ Has Not Changed During Preceding 12 Months		
(2) ☐ Has Changed During Preceding 12 Months (If changed, publisher must submit explanation of change with this statement)		
10. Extent and Nature of Circulation (See instructions on reverse side)	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
A. Total No. Copies (Net Press Run)	19,778	19,900
B. Paid and/or Requested Circulation		
1. Sales through dealers and carriers, street vendors and counter sales	-0-	-0-
2. Mail Subscription (Paid and/or requested)	19,488	19,644
C. Total Paid and/or Requested Circulation (Sum of 10B1 and 10B2)	19,488	19,644
D. Free Distribution by Mail, Carrier or Other Means (Samples, Complimentary, and Other Free Copies)	100	100
E. Total Distribution (Sum of C and D)	19,588	19,744
F. Copies Not Distributed		
1. Office use, left over, unaccounted, spoiled after printing	190	156
2. Return from News Agents	-0-	-0-
G. TOTAL (Sum of E, F1 and 2—should equal net press run shown in A)	19,778	19,900
11. I certify that the statements made by me above are correct and complete		
Signature and Title of Editor, Publisher, Business Manager, or Owner		
Leta G. Bueto/Editor		
PS Form 3526, January 1991 (See instructions on reverse)		

National Engineering Hall of Fame

The concept of a National Engineering Hall of Fame was first introduced at the January 1986 Annual Meeting of the National Society of Professional Engineers by William E. Grenier, P.E., L.S. In June 1986, the Wyoming Society of Professional Engineers, at its Annual Meeting in Rawlins, Wyoming, set up a two-man committee of William E. Grenier, P.E., L.S. and Stephen R. Elliott, P.E., A.I.A., to begin planning for an Engineering Hall of Fame.

This led to registration as a Wyoming non-profit corporation and 501-C-3 IRS status as a charitable and educational body.

The Economic Development and Stabilization Board of the State of Wyoming made a grant of \$25,000 to fund

a feasibility study and other services by Southwest Museum Services, including a slide presentation on video cassette. The positive results of the feasibility study encouraged the Board of Directors to accept the offer of a decommissioned power plant and city block from Cheyenne Light, Fuel and Power Company.

Goals: 1) To further community, state and national interest by preserving, restoring, and displaying artifacts, objects, manuscripts, photographs, and art relating to engineering and engineers; 2) To recognize annually at least one engineer who has demonstrated knowledge of the mathematical and physical sciences gained by study, experience, and practice

and has applied this knowledge with judgment to develop ways to use the materials and forces of nature for the well-being of mankind; 3) To promote the broad goal of engineering education, including the education of the individual, the development of leadership ability, and a commitment to professional ethics; and 4) To do all things, either along or in cooperation with other organizations and institutions, that are necessary or proper in order to carry out any of the foregoing objectives or purposes. **If you would like to be a member of the 1992 National Engineering Hall of Fame, complete the form below and mail to National Engineering Hall of Fame, 609 So. 2nd Street, Laramie, Wyoming 82070**

Clip and return this portion with your payment

1993 National Engineering Hall of Fame Membership

Please enroll me as a member of the National Engineering Hall of Fame for 1993: _____

Please renew my membership in the National Engineering Hall of Fame for 1993: _____

Amount Enclosed: \$ _____

Renewal/Amount

Signature

Date

- | | |
|---------------------------------------|----------|
| ☐ Corporate | \$ 1,000 |
| ☐ Supporting | \$ 500 |
| ☐ Contributing | \$ 100 |
| ☐ General | \$ 25 |
| ☐ Student | \$ 10 |

Address _____

SERVICES & SUPPLIERS

LEAK LOCATING

PINPOINTING



- ☐ LEAKS IN UNDERGROUND PIPES
- ☐ BLOCKED OR BROKEN SEWERS
- ☐ LOCATION OF UNDERGROUND PIPES

TOLL FREE: 1-800-673-5726
NEW ORLEANS: 392-7545

PRO-AM, INC.
RT 2, BOX 414
PICAYUNE, MS 39466

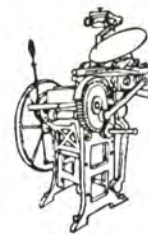
FRANK A. ZIMBELMAN, P.E.
Owner & President

ADVANCED TECHNICAL APPLICATIONS CENTER, INC.

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"
3200 Ridgeway Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



FAX 355-2178

**PRINTING
INCORPORATED**

3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department

Ed's ep

**PRINTING
COMPANY, INC.**

925-0991

9366 Greenwell Springs Rd.
at Monterey



SINCE
1969

Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax (318) 981-7922

USL (318) 231-6846

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123

Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014



Programmable Controllers

- SHARK / AutoMate / Automax
- ReSource ScreenWare 2 graphics

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives and Motors
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts

authorized stocking distributor
RELIANCE ELECTRIC



PROFESSIONAL LISTINGS

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 584351 NELSENG

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
45 YEARS OF EXPERIENCE SERVING INDUSTRY

- | | |
|---|--|
| ☐ SITE PLANNING / PERMITTING | ☐ MONITORING / MODELING |
| ☐ CHEMICAL / PROCESS / PETROLEUM | ☐ MECHANICAL |
| ☐ CIVIL / STRUCTURAL | ☐ PIPELINE |
| ☐ ELECTRICAL / ELECTRONIC | ☐ MINING |
| ☐ ENVIRONMENTAL / SANITARY | ☐ HVAC |
| ☐ INSTRUMENTATION / CONTROLS | ☐ ARCHITECTURE |
| ☐ CONSTRUCTION MANAGEMENT | ☐ ASBESTOS |

Parsons Brinckerhoff

- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1460
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 • FAX

BALAR

CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 815
SHREVEPORT, LA 71101
(318) 221-8312
FAX (318) 424-8508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL

Simons-Eastern Consultants, Inc.

P. O. Box 1286 • Atlanta, GA 30301-1286



STRATEGIC
PLANNING
DESIGN

Atlanta, GA (404) 370-3200
Monroe, LA (318) 387-6216

CONSTRUCTION
MANAGEMENT



McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

EBASCO

An ENSERCH Engineering & Construction Co.

- | | | |
|---|--|--|
| ☐ Project Management | ☐ Hydroelectric | ☐ Environmental |
| ☐ Construction | ☐ Nuclear | ☐ Nuclear Waste |
| ☐ Plant Services | ☐ Life Extension | ☐ Hazardous Waste |
| ☐ Maintenance | ☐ Industrial | ☐ Cogeneration |
| ☐ Retrofit | ☐ Construction | ☐ Quality Assurance |
| ☐ Operations | ☐ Management | ☐ Vendor |
| ☐ Fossil | ☐ Infrastructure | ☐ Construction |
| ☐ MSW/Alternate Energy | ☐ Advanced Technology | ☐ Defense |

EBASCO SERVICES INCORPORATED
Two James Park
120 Mallard St. - Ste. #140
St. Rose, LA 70087
(504) 468-5460

Serving the World's Environmental Needs

JMM James M. Montgomery
Consulting Engineers, Inc.



3501 N. Causeway Blvd.
Suite 300
Metairie, LA 70002
(504) 835-4252

Offices located throughout the United States

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



ATCHLEY & ATCHLEY, INC.

Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821

Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.

HALLIBURTON NUS Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX

(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477



ALLIANCE, INC.

Architecture • Engineering • Planning
Airport Consulting • Surveying

Petroleum Square, Suite 100 1324 North Hearne Avenue
Shreveport, LA 71107 FAX (318) 221-7635
Phone (318) 221-7501



Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.

Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3666 Government St.
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.



pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

8178 GSRI AVENUE • BATON ROUGE, LA 70820-7405 • (504) 766-6330

FORTE AND TABLADA, INC. CONSULTING ENGINEERS

OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA 70896
9107 INTERLINE AVE • BATON ROUGE, LA 70809



professional engineering
consultants corporation

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810

RPM ENGINEERING, INC. A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC. Consulting Engineers and Land Surveyors

General Civil Engineering & Land Surveying

8335 KELWOOD AVE.-SUITE D
BATON ROUGE, LA 70806-4804

PH. 504/ 924-0235
FAX: 504/ 926-1687



THE MEYER GROUP



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND - OFFSHORE - HYDROGRAPHIC

550 South Van Ave.
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 77396

Call: SAM BROWN, Ph.D., P.E.

(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

- Project Managers
- Engineers
- Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBaue and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST.
ALEXANDRIA, LA 71302

318-445-8910

COYLE ENGINEERING
CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71171-6177

3925 BENTON RD
PHONE (318) 746-8987

DAVID VOLKERT & ASSOCIATES, INC.

ENGINEERS • ARCHITECTS • PLANNERS
3500 N. Causeway Blvd • Suite 1240
Metairie, LA 70002
(504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, AL • Tampa & Miami, FL

Office (504) 632-5596

Res. (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.
Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction

1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437



Engineers, Architects
and Planners



ENGINEERS • PLANNERS

TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

- Aviation
- Construction Management
- Bridges and Structures
- Environmental Services
- Civil Engineering
- Transportation and Planning

CATHFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504 346-0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182
FAX (318) 237-7132
TOLL FREE 1-800-737-5182



SWL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

BURK-KLEINPETER, INC.

ENGINEERS ARCHITECTS PLANNERS ENVIRONMENTAL SCIENTISTS

- | | | |
|--------------------------|------------------------|----------------------------|
| • CIVIL | • HIGHWAY | • TRANSPORTATION PLANNING |
| • STRUCTURAL | • STRUCTURES | • ENVIRONMENTAL ASSESSMENT |
| • MECHANICAL | • DRAINAGE | • PORT / MARINE FACILITIES |
| • ARCHITECTURE | • FLOOD CONTROL | • CONSTRUCTION MANAGEMENT |
| • PLANNING | • WATER AND WASTEWATER | |
| • LANDSCAPE ARCHITECTURE | • SOLID WASTE | |

4176 CANAL STREET, NEW ORLEANS, LOUISIANA 70119
TEL. 504 - 486-5901 FAX 504 - 488-1714



GERAGHTY & MILLER, INC.
Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide

CDM environmental engineers, scientists,
planners, & management consultants

JAMP DRESSER & McKEE INC.

3445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272

236 Third Street, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822

offices nationwide

gregory c. rigamer & associates, inc.
professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Murla, P.E.
André DeHaan, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS



BERGER, BARNARD & THOMAS, INC.
ENGINEERS, ECONOMISTS, and PLANNERS

**MUNICIPAL AND INDUSTRIAL ENGINEERING
COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS**

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504/927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504/364-1637



JONES AND NEUSE, INC.
Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

11924 COURSEY BLVD., STE. A
BATON ROUGE, LOUISIANA 70816

PHONE: (504) 291-3055
FAX: (504) 291-4801



3330 WEST ESPLANADE AVE. • SUITE 300 • METAIRIE, LOUISIANA 70002

CONSULTING ENGINEERS
SERVING THE PETRO-
CHEMICAL AND OIL & GAS
INDUSTRIES

OFFICE (504) 835-2577
FAX (504) 837-5924

**PETROLEUM ENGINEERS
INTERNATIONAL, INC.**

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management • Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588
Lafayette, Louisiana 70505 (318) 233-5346

Numerical Modeling of Mechanical Systems

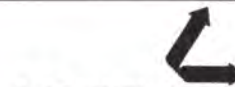


- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

Mechanical Troubleshooting
Failure Analysis
Vibration Analysis
Machine Design
Stress Analysis
Pressure Vessel/Heat Exchanger Design
Heat Transfer
Risk Assessment

8126 One Calais Ave., Suite 1B • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765



LANIER & ASSOCIATES
Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

WOODWARD-CLYDE CONSULTANTS
engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



Environmental Consulting and Remediation

VICTOR R. DONALD, P.E. CHARLES R. FURLOW, P.E.
SAMUEL K. WILEY

A Subsidiary of Osca, Inc.
12021 Lakeland Park Blvd., Suite 120
Baton Rouge, Louisiana 70806
Office: (504) 756-2555 Fax: (504) 756-2562

EUSTIS ENGINEERING
GEOTECHNICAL ENGINEERS

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET
METAIRIE, LA 70002

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers & Land Surveyors

6025 Buncumb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

Poché Associates
LIMITED

CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 • Lafayette, LA 70508 (318) 237-6517

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS



GULF SOUTH ENGINEERS, INC.
ENGINEERING CONSULTANTS

1700 GRAND CAILLON RD.
HOUMA, LA. 70363
(504) 876-6380
FAX 876-0621

1000 LEONIDAS ST.
NEW ORLEANS, LA. 70178
(504) 866-1821
FAX 866-1781

*Balancing The Needs Of Business
With Those Of The Environment*

- Geotechnical
- Marine
- Environmental
- Construction Materials



1-800-743-0092 25 Offices Nationwide

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E.

2000 North 7th
P. O. Box 728
West Monroe, La., 71291
Phone 318/387-2710



SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS

GEOTECHNICAL
SOIL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS

ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION

QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS

316 HIGHLANDIA DR.
4100 LOUISIANA AVE.

BATON ROUGE, LA.
LAKE CHARLES

504-752-4790
318-474-1340

**BADEAUX &
ASSOCIATES**

INCORPORATED
CONSULTING ENGINEERS
STRUCTURAL/CIVIL
115 EAST SIXTH STREET (504) 447-2317
P. O. BOX 1056 THIBODAUX, LA 70302

J. Alvin Badeaux, P.E.
President

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS

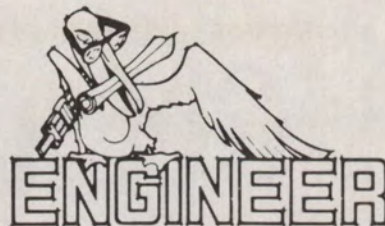


Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650



DECEMBER, 1992
LOUISIANA



Jerry G. Lazenby, P.E.
Public Relations



John W. Moore, P.E.
Civic Activities



William J. Thevenote, Jr., P.E.
Engineer in Management



Robert D. Fenner, P.E., P.L.S.
Services to the Profession



Michael B. Songy, P.E., P.L.S.
Young Engineer



Ernest L. Kistler, Ph.D., P.E.
Technological Accomplishment

LES Honors Six Engineers

On the Inside:

Be sure to see page 16 for special registration forms, general program, and meeting agendas.

LES Awards Program, January 13-16, 1993

Proposed Change To Constitution, Page 13

Get a Good Reading on Louisiana's Economic Barometer.

Send for Louisiana Spirit magazine...FREE.

Your Investor-Owned Electric Companies have recently published their fourth issue of Louisiana Spirit, "Profile Louisiana: 20 Companies with a Record of Success & Profit." What sets this apart from previous issues — and other dissertations on Louisiana — is that the editorial content includes quotes from Louisiana business executives themselves. It is candid, shoot-from-the-hip dialogue that you'll find revealing and heartening at the same time.

If you would like to be on our mailing list for this latest issue and future publications, or receive any of the back issues below, mail in the form ... and we'll send you good reading on the state we're in, with Louisiana Spirit magazine.

Please put me on your mailing list to receive Louisiana Spirit magazine. I would also like to receive the following back issues:

_____ Education _____ Transportation
_____ Research & Development

Name

Address

City

State

Zip

Business/Civic Affiliation

Title

Day Phone

Send to: Louisiana Spirit, 1055 St. Charles Ave., Suite 615, New Orleans, LA 70130



Investing in your energy future

LIOEC

LOUISIANA'S INVESTOR-OWNED
ELECTRIC COMPANIES

Central Louisiana Electric Company/Gulf States Utilities Company
Louisiana Power & Light Company/New Orleans Public Service Inc.
Southwestern Electric Power Company

DECEMBER, 1992



ABOUT THE COVER
LES honors six outstanding engineers.



IN THIS ISSUE

Presidential Privilege	4
Engineers In Government.	5
LES Honors Outstanding Engineers.	6
Notre Metier	11
Calendar of Events	12
Proposed LES Constitutional Amendment	13
The Spec Sheet	14
LES Awards Meeting Reservation and Registration Forms	16
LES Awards Meeting General Program	17

(Please note: Receipt of Louisiana Engineer Magazine does not necessarily mean that you are registered with the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, or that you are a member of the Louisiana Engineering Society.)



STATE OF LOUISIANA BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

1055 ST. CHARLES AVE., SUITE 415
NEW ORLEANS, LA 70130-3997
(504) 568-8450
FAX - 568-8256

Office Hours
Monday thru Friday
8:00 am until 4:00 pm

Chairman
Randall F. Barron, P.E.

Vice Chairman
Albert J. Dunn, P.E./P.L.S.

Secretary
Coan J. Bueche, P.E./P.L.S.

Other Members
Ara Arman, P.E./P.L.S.
Morris P. Hebert, P.L.S.
Malcolm L. Hurstall, P.E.
Charles L. McDonald, P.L.S.
Larry A. McKee, P.E./P.L.S.
Vernon F. Meyer, P.E./P.L.S.
Sam L. Sullivan, Jr., P.E.
William J. Thevenote, Jr., P.E.

Executive Secretary
Paul L. Landry, P.E.



LOUISIANA ENGINEERING SOCIETY

P.O. BOX 2683, BATON ROUGE, LA 70821 TELEPHONE (504) 344-4318
STREET ADDRESS: 1213 NICHOLSON DR., BATON ROUGE, LA

LES OFFICERS AND BOARD

President
Glynn P. Gautreau, P.E.

First Vice President
Dale T. Hunn, P.E.

Second Vice President
Edgar P. Benoit, P.E.

Secretary-Treasurer
Carl A. Jakob, P.E.

NSPE DIRECTORS
James L. Meyer, P.E.
Glynn P. Gautreau, P.E.

STATE DIRECTORS
Robert A. Brossette, P.E.
Richard P. Wright, P.E.
Robert C. Hughes, P.E.
John S. Bruce, P.E.

PAST PRESIDENT
Lloyd G. Hoover, P.E.

CHAPTER PRESIDENTS
Alexandria
Roger D. Danzy, P.E.

Baton Rouge
Ann F. Trappey, P.E.

Bayou
Prosper J. Toups, P.E.

Lafayette
Mitchell P. Wyble, P.E.

Lake Charles

Lee Lancon, Jr., P.E.

Monroe

Thomas L. Holtzelaw, P.E.

New Orleans

George Mahl, III, P.E.

Shreveport

R. Kerry Smith, P.E.

PRACTICE DIVISIONS

Construction
Roger D. Melancon, P.E.

Education
Bobby E. Price, Ph.D., P.E.

Government
Paul E. Colquette, P.E.

Industry
J. Madison Drake, P.E.

Private Practice
Steven W. Brown, P.E.

COMMITTEE CHAIRPERSONS
Constitution and Bylaws
Charles L. Eustis, P.E.
Engineering Education
Frederick J. Brown, P.E.

Young Engineers

Angela DeSoto, E.I.T.

Ethics and Professional Conduct

Foy B. Gadberry, P.E.

Honors and Awards
Kerry J. LaBauve, P.E.

Inter-Society Relations
John S. Bruce, P.E.

Legislative
Raymond G. Areaux, P.E.

Membership
Richard J. Primeaux, P.E.

Public Relations
John J. Plaisance, P.E.

Scholarship
Keith M. Warden, E.I.T.

Long-Range Planning
Edgar P. Benoit, P.E.

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

Liaison Committee/State Board of Registration
James L. Meyer, P.E.

Louisiana Engineering Foundation
Robert P. Blanche, P.E.

EXECUTIVE DIRECTOR
Leta G. Bueto

PUBLICATIONS COMMITTEE

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

Managing Editor
Leta G. Bueto

Publishing Consultant
Printing Incorporated

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society. The LOUISIANA ENGINEER is the journal of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The magazine is published in February, April, June, August, October and December. Subscription \$2.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. Two dollars of each LES member's annual dues is set aside for six issues of the LOUISIANA ENGINEER. Second class postage paid at Baton Rouge, La. The Louisiana Engineering Society and the Louisiana State Board of Registration for Professional Engineers and Land Surveyors do not guarantee the accuracy of statements made or necessarily concur with opinions expressed in this publication. ISSN: (0024-6794)

POSTMASTER: Please send Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-4318, FAX 504/344-4319; 1213 Nicholson Drive, Baton Rouge, La.

Presidential Privilege

A Time To Reminisce

The Louisiana Engineering Society has a rich heritage. As President of this distinguished organization, I would like to share with you some of the history of the Society and the impact it has had on the engineering profession.

Members of the Louisiana Engineering Society can be proud that they belong to the oldest state organization of its kind in the nation. It was conceived in the fall of 1897 by J. F. Coleman, who was then the principal engineer for the City of New Orleans. Mr. Coleman later became a distinguished engineer, the recipient of many honors, who was acclaimed nationally as a professional-minded leader. Believing in the creed that it was the duty of all engineers to keep abreast of new technical developments, and knowing too well the meager earnings of his fellow professionals (at that time his own salary was \$135 per month) it occurred to Mr. Coleman that engineers could pool their resources to avail themselves of expensive professional publications. This thirst of knowledge and desire for self-improvement was shared not only by our founding fathers but by many of the old timers. From the Society's very beginning the greater part of the membership dues was allocated to the support of a technical library, and one of its first actions was to select a committee to investigate sites for housing the library. Its volumes increased and provided a source of valuable information for engineers until World War II, when its use declined appreciably. In 1955 when the Society moved its headquarters from the St. Charles Hotel to the Engineers Club of New Orleans, the painful decision was made to discontinue the library.

The Beginning

The first organizational meeting of LES was held on December 22, 1897. On that memorable day fourteen professional-minded engineers met in the old New Orleans City Hall, now known as Gallier Hall. It was decided that the purpose of the Society would be "for the professional improvement of its members and for the advancement of the engineering profession."

On January 8, 1898 a Constitution and Bylaws were adopted and a motion was passed to incorporate an engineering society, but Louisiana law required a minimum of twenty-five charter members. Immediately a drive began and by February 3rd fifteen new members were admitted. On that day the charter was recorded, bearing the signatures of twenty-nine members. February 3rd also marked the selection of the Society's first home, the second floor of 712 Union Street, New Orleans, Louisiana.

The initial work toward securing passage of a law to regulate the practice of engineer-



Glynn P. Gautreau, P.E.
President
Louisiana Engineering Society

ing was begun as early as 1898. Our founding fathers were much concerned about engineering incompetency and wanted to protect the public from the activities of "dabblers and quacks who had only to hang out a shingle in order to qualify for business." In 1900 and subsequent sessions of the Legislature bills were introduced, but it was not until 1908 that a law was passed. Though we had been the first state to introduce a bill for registration of engineers, ours was the second law of its kind in the nation. Wyoming passed the first in 1907, and it was not until 1917 that Florida became the third state to regulate the practice of engineering. The registration act of 1908 provided for the regulation of the practice of Civil Engineering and Land Surveying only. But though it was amended in 1914 and again in 1920, no provisions were added to broaden the act to include other branches of engineering. Many attempts were made to amend the law to include other branches, but it was not until 1950 that Act 73 passed and increased the five-member Board of Engineering Examiners to seven and enlarged its responsibility to regulate the practice of all Professional Engineering and Land Surveying, enumerating the major branches of engineering. In 1969 amendments increased the Board to a nine-member board. Act 568 was enacted in 1980 replacing the old law with its amendments. Enactment of this law is truly a milestone in our history. Profiting by thirty years of experience in our state and others, it streamlined and modernized the old law and at the same time gave the board more authority to enforce it. An amendment in 1991 increased the Board to an eleven-member board.

In 1914 it was decided that the Society would publish its own journal to be titled

Proceedings of the Louisiana Engineering Society. It was to be issued bimonthly and to include papers presented at meetings, minutes of the Board of Direction meetings and other pertinent information of interest to engineers. The first issue appeared in February 1915 with this editorial comment: "The launching of this publication represents one of the most important steps the Society has ever undertaken....The record shows that the LES, with a comparatively small membership, and consequently with limited resources, has always been an active and going concern. Whatever it has undertaken to do in the past has been well done. This means that the spirit of the Society as manifested in the activity and enthusiasm of its members is one of high ideals and accomplishments. This in itself is the best augury for the success of this our new venture."

Successful it was - for it never stopped growing. Much credit belongs to Dean Douglas Anderson, James M. Robert and Arthur M. Hill, the editors who piloted the publication through the first 40 years.

For years the activities of the Society were brought to the attention of the public sporadically because there was no one to handle our publicity on a continuous basis. Another dream was the desire to improve our journal and in 1959 the Louisiana State Board of Registration for Professional Engineers and Land Surveyors joined in our effort to strive for these goals. The LES and the State Board became partners in a venture. The *Louisiana Engineer* became the official journal for both organizations and was enlarged from 6" x 9" to its present dimensions of 8-1/2" x 11".

In 1980 the Consulting Engineers Council of Louisiana, Inc., contributed its first article and continues to participate in the magazine. In 1982 and 1986 respectively, the President of the Consulting Engineers Council of Louisiana, Inc., and the Chairman of the State Board of Registration for Professional Engineers and Land Surveyors were first featured on the cover of our magazine. In 1991 by invitation of the LES President both the Consulting Engineers Council's President and the State Board of Registration's Chairman wrote their first articles for the Presidential Privilege Section of the magazine. We welcome aboard this issue, the Louisiana Society of Professional Engineers in Civil Service. It has always been and remains the goal of the magazine to serve as a public relations tool and as a forum to keep the LES membership and the engineering profession apprised of engineering related activities and technical matters.

Back in 1975, Dr. Paul Fisher, School of Journalism, University of Missouri, reviewed the publications of various state societies. The cover, format, content, and art work of

Continued on page 20

LOUISIANA ENGINEER/DECEMBER 1992

Engineers in Government



Louisiana Society of Professional Engineers in Civil Service

The Louisiana Society of Professional Engineers in Civil Service (LSPECS) is an organization composed of professional engineers and land surveyors who work for state government. The organization was founded in 1964 by engineers working for the then Louisiana Department of Highways. Membership has grown to include engineers and surveyors from numerous state agencies.

The LSPECS is very pleased to have been afforded column space in *Louisiana Engineer*. LSPECS hopes in this and future issues to present information, views, and opinions relative to the engineer in the public service sector, and the relationship of the public sector engineer to the overall engineering community in Louisiana. An article in the October, 1992 issue of *GOVERNING* magazine so effectively addressed many of the current attitudes about government and those in government service, that it was decided to offer it as LSPECS first editorial contribution to *Louisiana Engineer*. [*"PAINTING BULL'S-EYES AROUND BULLET HOLES"* is reprinted here with the permission of *GOVERNING* magazine, copyright 1992.]

These are hard times for state and local government. Consultants, journalists and professors are crisscrossing the land selling books and giving speeches about how to make things better. Mostly they are describing and prescribing the governmental innovations of the 1980s. As we say about consultants who come from afar, they paint bull's-eyes around bullet holes.

What is wrong, we are told, is bureaucracy - bureaucratic bloat, bureaucratic thinking, bureaucratic paradigms, bureaucratic systems. Bureaucracy is a very useful word for consultants, journalists and professors. No one, of course, is for it. What we need, we are told, is to break through bureaucracy; what we need is entrepreneurial government.

The principles of entrepreneurial government include empowered "customers," competition, markets, reducing regulations, charging fees and making money, decentralization and privatization. The twin notions of taking on bureaucracy and promising better government for less money are especially beguiling for those wishing to be mayors, governors, legislators and even president.

There is no question that many governments, especially at the state and local level, have been and are innovative. Financial crisis has been the mother of innovation. State and local crises include the sharp reduction in support from the national government, the continuation of many national government mandates, the insistence of the courts that jails and prisons avoid cruel and unusual punishment and that the schools be equally funded. A combination of increasing taxes, charging fees and instituting lotteries, deferring maintenance on infrastructure, setting up single-purpose special districts, some increase in contracting out and privatization and extraordinary managerial pluck, guile and hustle has so far gotten state and local governments through these crises.

This may be a description of some of the more interesting governmental innovations in our recent past. But is it a good prescription for our state and local government future?

First, promises of better government for less money are simplistic and misleading, regardless of the "principles" upon which they are based. In government, as business, over the long run you get what you pay for.

Second, governments are not markets. The vaunted market has brought American workers lower net wages over the past 20 years, hostile takeovers, huge debt based on junk bonds, short time horizons, asset selloff, greenmail, strategic bankruptcy and the movement of manufacturing to countries with very low wages. It would be better to stop trying to make governments function like markets and try to make them function like governments.

Third, citizens are not the customers. They are the owners. Customers choose between products presented in the market; citizens decide what is so important that the government will do it at public expense. In the best of governments, the citizens and their representatives define the greater good and employ qualified civil servants-bureaucrats-to implement that good. The idea of the American as a customer of government significantly diminishes both the concept and the potential of the noble concept of citizen.

Fourth, it is incorrect to assume that either those who work for government or the system of government work are the primary problems. The problems are power and politics, not bureaucracy. Government agencies and programs are established by law and are funded by legislatures. Behind every agency and program is a significant interest group, often several of them. Bureaucrats and bureaucracies generally make as much sense out of government programs as is possible.

Fifth, downsizing, rightsizing, cutback management and the other means of reducing the size and costs of government, when combined with deregulation, have significantly diminished the capacities of some units of government to function effectively. This particular combination provided the incubator for both the HUD and S&L scandals.

If concepts such as entrepreneurial government and breaking through bureaucracy are not the prescription for better government in the 1990s, what is? If the past is any guide, we are leaving the era of hyper-individualism and recreational greed and are entering an era of greater concern for the general interest. We need political leadership that can build the public commitment to deal with the significant problems of the day - health care, education, infrastructure, race relations, poverty, housing and so forth.

This political leadership will need to see these issues as common or governmental, and not attempt to define them as bureaucratic, managerial or primarily amenable to business solutions. Nor will this leadership be able to assume that governments can manage these problems without resources: this leadership will need to be honest about costs. And, as always, competent and qualified civil servants will need both the resources and the latitude to get the job done.

In short, state and local government must be more rather than less governmental. These are the bullet holes which will be made by the genuinely effective governments of the 1990s. LE

LES Honors Outstanding Engineers

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.



Jerry G. Lazenby, P.E.

Jerry G. Lazenby, P.E., President of Lazenby & Associates, Inc., West Monroe, Louisiana, is a native of Bernice, Louisiana. He and his wife, the former Christine Wilson, a native of Lisbon, Louisiana, have three children, Jeffery, David, and Heather, two grandchildren and three step-grandchildren. Jerry received his Bachelor of Science Degree in Civil Engineering in 1965 from Louisiana Tech University. He is a registered Professional Engineer in Louisiana.

Mr. Lazenby began his professional career in 1965 with the U.S. Bureau of Public Roads, now known as the Federal Highway Administration. During his tenure with the Highway Administration, Jerry completed a 3-year Highway Training Program which enlightens the engineer on planning, design, development, construction, maintenance and administration of highway systems and programs.

In 1974, he moved to Monroe, Louisiana to join the consulting firm of Jenkins and Madden Engineering. The firm later changed to Jenkins and Lazenby Engineering Company, to Harrison and Lazenby, Inc., and finally to Lazenby & Associates, Inc. Jerry's responsibilities are

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.



John W. Moore, P.E.

John W. "Billy" Moore, P.E., Manager of the Ruston Division of Meyer, Meyer, LaCroix and Hixson, Inc., an Alexandria, Louisiana based consulting firm, is a native of Jennings, Louisiana. He is married to the former Janet Miller of Crowley, Louisiana, and they have two daughters, Monica Lee and Melanie Ann. He received his Bachelor of Science Degree in Civil Engineering from Louisiana Tech University in 1972 and is presently completing his thesis to earn a Master's Degree in Civil Engineering also from Tech. He successfully completed a short course in Piping Design from Utah State University at Logan in 1980. Billy is a registered Professional Engineer in Louisiana.

Mr. Moore began at a young age contributing his time and talents to his community. He served as an Assistant Scout Master to a Boys Scout of America Troop in Tioga from 1974 through 1977. From 1973 to 1981 he was a member of the Alexandria Jaycees serving on numerous committees and in most officer positions through Vice President. When his work took him to Ruston and Lincoln Parish he immediately got involved with the Ruston Jaycees. As

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.



William J. Thevenote, Jr., P.E.

William J. Thevenote, Jr., P.E., Senior Vice President of Central Louisiana Electric Company, Inc., manages the Engineering and Construction Division of the company, which consists of 140 employees. He is responsible for transmission line design and construction, substation design and construction, communication design and maintenance, transmission and distribution systems planning and protection, materials standards, electric system maintenance, metering, project budgeting and scheduling, and automated mapping and facilities management. He is also the contracting officer with other utilities and entities for power sales and transmission wheeling agreements. His division's annual capitol budget is about \$20 million, with an operations and maintenance budget of \$6 million.

Following his graduation from Louisiana State University with a Bachelor of Science Degree in Electrical Engineering, Mr. Thevenote began his career with CLECO as a Cadet Engineer in August 1957. He became a power plant construction engineer in 1958 and provided engineering expertise for twelve company owned water properties. In 1964 he attended a ten month Advanced

Continued on page 8

Continued on page 8

Continued on page 9

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.



Robert D. Fenner, P.E., P.L.S.

Robert D. Fenner, P.E., P.L.S., is a Founding Partner, Treasurer, and Head of the Structural Engineering Division of Aillet, Fenner, Jolly & McClelland, Inc., a Shreveport, Louisiana based consulting engineering firm. Aillet, Fenner, Jolly & McClelland, Inc. offers complete services in the fields of civil and structural engineering to municipal and state governments and the private sector.

Bob's professional career expands industry, government, and private practice. He served as a civil engineer with Exxon and the City of Shreveport; as a graduate assistant while working toward his Master's Degree at Louisiana State University; and as a structural engineer with Ogden, Woodruff & Dyer, Walter Kidde Engineers, Inc., and E. M. Freeman and Associates, before joining Aillet, Fenner, Jolly & McClelland, Inc., in 1960.

Mr. Fenner received a Bachelor of Science Degree in Civil Engineering from Louisiana Polytechnic Institute, now Louisiana Tech University, in 1953, and a Master of Science Degree in Civil Engineering majoring in structures and soil mechanics in 1957 from Louisiana State University. He is a registered

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 the Louisiana Engineering Society from 1944 until his death in 1979. His financial support not only pays for this award to infinity but other awards in our program. 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.



Michael B. Songy, P.E., P.L.S.

Michael B. Songy, P.E., P.L.S., received his Bachelor of Science Degree in Civil Engineering from Louisiana State University in 1979. He is a registered Professional Engineer in Louisiana and a registered Professional Land Surveyor in Louisiana and Mississippi.

Michael has been continuously active in his professional career development. Since the beginning of his pursuit toward professional engineering registration and professional engineering practice, he has dedicated himself to personal professional growth and the advancement of the engineering profession.

Mr. Songy has worked fourteen years in the consulting civil engineering field in Baton Rouge and Lafayette with emphasis on site improvements, subdivision design, drainage, sanitary sewer, highway, bridge and roadway design. From 1979 to 1981, Michael was employed by Edward E. Evans & Associates, Inc. in Baton Rouge and from 1981 to 1984, by Sellers, Dubroc & Associates, Inc. in Lafayette. In 1984, at the age of 26, he founded Michael B. Songy, Inc. in Baton Rouge performing civil design and topographic surveys for a number of architec-

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.



Ernest L. Kistler, Ph.D., P.E.

Ernest L. Kistler, Ph.D., P.E., is Founder and President of Spatial Information Management Corporation, Shreveport, Louisiana. The recent establishment of his firm comes after a seven year tenure with Barksdale Air Force Base in a number of key positions such as Chief of Engineering Design, Chief of Industrial Engineering, Chief of the Systems Division for Air Force Model Base (co-located tenant at Barksdale AFB, Shreveport, Louisiana), and HQ Air Force Civil Engineering Support Agency Representative to AF Model Base. Model Base is a Pentagon-level initiative to conduct technical, procedural and cost/benefit analyses of all new communications-computer initiatives in a live operational environment before a decision is made to field them AF-wide.

Dr. Kistler receives this award as the originator and developer of the highly successful INFOMAN & SYNERGIS initiatives at Model Base. When Model Base was moved to Barksdale, the early initiatives (1989) focused on design and evaluation of communications-computer architectures to take Air Force into the rapidly expanding new era of automated base-level information man-

Continued on page 9

Continued on page 10

Continued on page 10

JERRY G. LAZENBY, P.E.

Continued from page 6

the administration of the company, business development, and professional engineering and land surveying activities as it pertains to the planning, development and design of various highway and bridge projects for state and local municipalities; the planning, design, and construction administration of various projects for the development of wastewater collection and treatment systems, potable water distribution and treatment systems; drainage systems; gas distribution systems, private developments, transportation and drainage studies; and related infrastructure improvements.

Mr. Lazenby is active in his community. He is a member of the Ouachita Parish Public Health Advisory Committee serving as an advisor to the Ouachita Parish Health Unit and liaison to state legislators and local government officials.

The committee was formed to increase public awareness and effectiveness of public health programs to promote adequate funding for vital programs. Through these avenues he represents the engineering profession to the public and the public's government representatives.

He served four years on Louisiana Tech University's Department of Civil Engineering Advisory Committee. Jerry was Vice Chairman of the Committee in 1989-90 and Chairman in 1990-91. The Committee evaluates the Civil Engineering Department and recommends actions and programs to improve the Department and the education of civil engineering students. Through these activities he promoted the good of the engineering professional to the general public and more importantly to engineering students and engineering faculty.

Mr. Lazenby is a member of the Monroe Chamber of Commerce and the West Monroe Rotary Club where he serves as club treasurer.

Jerry has been actively promoting engineers and the engineering profession through his volunteerism with the West Monroe-West Ouachita Chamber of Commerce. Mr. Lazenby serves as the advisor to the West Monroe-West Ouachita Chamber of Commerce on all engineering related matters and has for the past ten years. He served two three-year terms on the Board of Directors and as its President in 1980-81. Jerry is a Past Chairman of the Government Affairs Division with over fifteen years service on the Transportation Committee. He worked diligently with the Chamber to obtain an interchange at Camp Road and I-20 to serve the West Ouachita Industrial Park. The park was constructed in the mid 1970s with the promise of an interchange with I-20 at Camp Road to serve the park. Due to funding problems, the interchange was delayed for a number of years. Through the efforts of the Chamber and working with the Ouachita Parish Policy

Jury and elected officials, they were successful in lobbying the legislature, the Governor's office and the Federal Highway Administration to obtain the funding from the Louisiana Department of Transportation and Development and the Federal Highway Administration. After many years, the interchange is now nearing completion. These actions again have helped the public appreciate and respect the engineering profession.

Mr. Lazenby has given unselfishly his time to assist the Chamber in meeting the needs of Ouachita Parish. He assisted the Chamber in a number of ways: planning and promoting a bond issue to improve the education facilities of the Parish School System and the renewal of a maintenance tax millage; served on the Legislative Committee for over fifteen years reviewing, recommending, and promoting legislation beneficial to the State of Louisiana and more particularly northeastern Louisiana; in promoting the creation of the West Ouachita Industrial District in order to promote economic development in the Parish; and, in promoting the creation of the West Ouachita Sewerage District No. 5 in order to provide adequate wastewater collection and treatment to the large residential areas outside the corporate limits of the City of West Monroe.

In 1979, he was appointed by the City of West Monroe to the Monroe-West Monroe (Ouachita Parish) Public Finance Authority. The authority was created to promote housing construction in the Parish and provide mortgage financing of homes by first time home buyers. He served as Vice-Chairman to the Authority from 1979 through 1988. During the early years of the Authority, revenue bonds were issued to provide financing of homes at reasonable interest rates. In recent years, the bond issues have been restructured providing excess funds for the Cities of Monroe and West Monroe to purchase significant real property improvements.

Jerry is an active member of the Louisiana Engineering Society having served as Monroe Chapter President in 1982-83 and as Chairman of the State Professional Engineers in Private Practice Division in 1988-89.

He is currently serving as Secretary to the Board of Directors and as Chairman of the Ways and Means Committee of the Consulting Engineers Council of Louisiana, Inc. Jerry also served two terms as Monroe Chapter President.

Jerry and Christine are members of the Edgewood Baptist Church where he is a deacon and Vice Chairman of the Deacons Board. He served as Sunday School Superintendent for eight years.

Mr. Lazenby and his engineering partners have donated engineering services to such organizations as the West Ouachita Little Boys Football Association and the West Monroe Dixie Youth Baseball Association in surveying and providing planning and construction layout for youth football and

baseball complexes which are used by hundreds of children in western Ouachita Parish.

Mr. Lazenby 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.

JOHN W. MOORE, P.E.

Continued from page 6

Ruston Jaycee President in 1984, the chapter grew from eighty-five to one-hundred-fifty members and completed over fifty community and leadership projects with an annual budget of over \$40,000. Ruston was honored as the seventh best Jaycee Chapter in the state under Billy's leadership. Mr. Moore served as District Director, a state officer position responsible for assisting nine chapters and starting new Jaycee chapters in north central Louisiana. He ended the year as one of the top thirty District Directors in the United States and was recognized at the national convention in Atlanta, Georgia in 1985. He then served as Regional Director over a thirteen parish area in northeast Louisiana and was honored as the fourth best Director in the State of Louisiana at the state convention.

Because of his leadership with the Jaycees, he was honored with the presentation of a United States JCI Senatorship and Life Member of the Ruston Jaycees in 1985. Mr. Moore continued serving the Jaycees on the Louisiana Jaycee Foundation as State Chairman of the 1st Timers Committee, the committee responsible for getting members who attend state meetings to become educated about and involved with the Jaycees.

Mr. Moore was Chairman of the Lincoln Parish Heart Fund Committee in 1984 and 1986 through 1988, during which time he coordinated fund raising and education programs.

He has been active in the Ruston/Lincoln Chamber of Commerce by serving as a member of the Site Selection Committee, the Industrial Development Committee from 1985 through 1988, the Chamber Board of Directors, 1984 through 1986, and participated in the Parish Leadership Training Course in 1989.

He served on the Board of Directors and on several committees of the Parents Association of A. E. Phillips School and as a MATHCOUNTS coach for the school.

Mr. Moore has been active with Louisiana Tech University, serving as President of the Greater Tech Foundation which raised over \$30,000 during his tenure. He served as a member of the Board of Directors and as President of the Louisiana Tech Engineering Foundation. During his tenure as President, the Foundation began a major fund raiser and within one year had raised over \$2,000,000 for the College of Engineering.

He is a Past President and a Lifetime Member of the Louisiana Tech Lady Techster Basketball Team Booster Club and the Lady Techster Tip-Off Club.

Mr. Moore and his family have attended both St. Thomas and St. Benedict Catholic Churches since coming to Ruston in 1981. Billy has taught religion classes to high school students weekly since 1983. At St. Thomas, he has been an usher, eucharistic minister and reader of scriptures at Sunday services. During March of this year, he became a Charter Member and was elected President of the Knights of Columbus, a Catholic men's fraternal organization. Since beginning in March, the group has raised over \$3,000 in funds to benefit the church and community. The organization has grown by ten members and has made a spiritual impact with its additional church and family activities. The organization plans to further assist the church youth organization and the St. Vincent DaPaul Society, an organization which assists the needy.

Billy has been a member of the Sunrise Kiwanis Club for four years and is now serving on the Board of Directors. He has been chief cook at the club's fund raiser for the past two years.

Billy and Janet also have several years of active participation with the Gymnastics Specialty Parents Club to assist in fund raising for the private gym their daughters attend. Since their daughter, Monica, has been a debater for three years, they also are active with the Ruston High School Debate parents organization, serving as chaperons and judges on debate trips throughout the state and as judges and members of the local debate tournament committee. Billy and Janet open their hearts and home to full-time exchange students, a program operated by the Educational Foundation and the International Cultural Exchange Services. During the 1991-92 school term, they hosted two students, one from Spain and the other from Italy.

In addition to Billy's civic involvement, he also supports his profession. He is an active member of the Louisiana Engineering Society, the National Society of Professional Engineers, the American Society of Civil Engineers, and the Consulting Engineers Council of Louisiana, Inc.

Mr. Moore'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.

WILLIAM J. THEVENOTE, JR., P.E. Continued from page 6

Power Systems Engineering Course at General Electric Company, in Schenectady, New York.

From 1965 to 1972, Mr. Thevenote held several managerial positions with responsibility for gas, water and electric distribution

systems including all operations and maintenance duties.

In 1972 he was named Manager of Technical Operations for his company, and was later promoted to Vice President of Operations, holding that position until 1983 when he was named Vice President of Engineering, his present position.

He has placed emphasis on continuing education. After graduation from Louisiana State University, he completed courses in Essentials of Management, Mid-South Executive Management, Managing Interpersonal Relationships and Advanced Power Systems Engineering.

One of the significant programs sponsored by Mr. Thevenote within CLECO is the continuing education for engineers and other technical employees. In conjunction with Louisiana State University, University of New Orleans, Tulane University, Louisiana Tech University, and the University of Southwestern Louisiana, special technical projects and seminars have been conducted. This has provided support for the universities and continuing education for the CLECO engineers.

Under his sponsorship, CLECO also provides in-house instruction and review for engineers preparing for the Engineer-in-Training or the Professional Engineer exams. CLECO requires that all engineers be at the Engineer-in-Training level. Much emphasis and encouragement is provided for engineers to become registered Professional Engineers.

Mr. Thevenote has always been active in and supportive of the Louisiana Engineering Society, and he encourages the CLECO engineers to be active members. As a result, several have held officer roles in the organization. Some have leadership roles in various activities such as Engineers' Week, Engineer for a Day, and MATHCOUNTS.

Several engineers and technical employees act as mentors and tutors for high school students at local schools, under the auspices of the company.

CLECO also sponsors a Boy Scouts Engineering Explorer Post for the benefit and education of Explorer Scouts.

As a result of the active involvement in professional societies, continuing education, aiding high school students, and the strong support of registration for its engineers, CLECO received an Honorable Mention for the National Society of Professional Engineers' Professional Development Award in July 1992.

Besides being a member of the Louisiana Engineering Society, Mr. Thevenote is a member of the Edison Electric Institute, Southwest Power Pool Engineering and Operating Committee, the Southeastern Electric Exchange Engineering and Operation Division, the Society for Electric Power Research and Implementation, the Louisiana State University Utilities Power Research Consortium and the LABI Energy Council.

In 1989 he was appointed by Governor Buddy Roemer to a six-year term on the State Board of Registration for Professional Engineers and Land Surveyors. He is Chairman of the Agricultural, Industrial, Petroleum, Nuclear, Chemical, Mining and Metallurgical Committee and a member of the Electrical and Mechanical Committee.

Mr. Thevenote is a past member of the United Way Board and past Chairman of the United Way Campaign of Central Louisiana. He is a member of the Kiwanis Club of Pineville and the Sierra Club of Alexandria.

He and his wife Marlene are active members of Prompt Succor Catholic Church in Alexandria, where he is President of the Parish Council. They are the parents of three children and they have four grandchildren. He is a native of Cottonport, Louisiana.

The accomplishments of Mr. Thevenote as a Manager and Professional Engineer make him a worthy recipient of the A.B. Paterson Medal for an Engineer in Management.

ROBERT D. FENNER, P.E., P.L.S. Continued from page 7

Professional Land Surveyor in Louisiana and a registered Professional Engineer in Louisiana, Texas, and Mississippi.

Mr. Fenner is a member of the Louisiana Engineering Society, the National Society of Professional Engineers, the American Society of Civil Engineers, the National Council of Examiners for Engineering and Surveying, the Prestressed Concrete Institute, the American Concrete Institute, and the American Consulting Engineers Council. Bob has been very active in the Consulting Engineers Council of Louisiana, Inc., serving in every elected office of the Council. He was President in 1980-81 and National Director in 1981-82. Mr. Fenner served as Shreveport Chapter President to the American Society of Civil Engineers in 1968.

In 1986, Mr. Fenner was appointed by Governor Edwin W. Edwards to a six year term on the State Board of Registration for Professional Engineers and Land Surveyors. During his tenure on the Board, he served as Chairman, Vice Chairman, and Secretary and was a member of the Civil Engineering and Land Surveying Committees. He was very active in the National Council of Examiners for Engineering and Surveying serving as the Chairman of the Nominations Committee for the Southern Zone and as a member of the National Nominations Committee. As a member of the Structural Committee for the Examinations for Professionals Engineers, Bob has helped in the selection of problems to be used and has solved and scored examinations. This committee meets at least four times each year in Clemson, South Carolina. Mr. Fenner

has served on this examinations committee since 1989.

Mr. Fenner was very active in pursuing enforcement of the registration laws and board rules. Bob was diligent in his effort for the Board to assume a more pro-active role in enforcement rather than a reactive one. Mr. Fenner also was vitally interested in professionalism and was on the committee that drafted minimum standards for surveying. These standards were adopted as Chapter 25 of the Board Rules. Bob was honored in 1992 with a Distinguished Service Certificate by the National Council of Examiners for Engineering and Surveying.

By invitation from the American Society of Military Engineers, Mr. Fenner presented a paper on the design and construction of a 350' clear span x 70' high clear hangar to the attendees of their 1985 annual meeting in Shreveport, Louisiana. He was program speaker for the American Society of Civil Engineers Student Chapter Meeting in Ruston, Louisiana, and the Monroe and Shreveport Chapters of the Louisiana Engineering Society. In 1974, he was appointed by Mayor Allen to a four year term on the Appeals Board for the City of Shreveport.

Mr. Fenner is a native of Lake Charles, Louisiana, and is married to the former Ruth Self Shaver of Belcher, Louisiana. They are the parents of eight children. Bob and his wife are active members of the First Methodist Church of Shreveport, Louisiana. Bob is a former Methodist Youth Fellowship teacher and former board member of the First Methodist Church and the North Highlands Methodist Church, both in Shreveport, Louisiana.

Mr. Fenner has distinguished himself throughout his career as a professional engineer who has unselfishly given of his time and resources to the advancement of his profession. His achievements exemplify the outstanding leadership recognized and honored through this award.

MICHAEL B. SONGY, P.E., P.L.S.

Continued from page 7

tural, private, and governmental clients.

Mr. Songy serves as President of Rodi & Songy, Inc., the firm founded when Michael B. Songy, Inc. merged with Ronald J. Rodi & Associates in 1989.

Michael is the firm's principal responsible for the management and supervision of all surveying and drafting personnel as well as performing civil engineering design. From a management perspective, Michael began his engineering practice with himself and one draftsman in 1984, and in eight years, now oversees the operations of a twelve-person firm consisting of two civil engineers, five CADD operators, a three-man survey crew and two administrative staff. Under Michael's direction, the firm has implemented the strict use of computer-aided drafting and design, and surveying

methodologies utilizing electronic data collection, transfer and mapping.

Recognized for his technical skills, Michael has been the project surveyor and civil engineer on a number of prominent projects in the Baton Rouge area. More recent projects include: a) Boundary, Topographic and Construction Layout Surveys and Civil Engineering Site Design for the Louisiana State University Center for Advanced Microstructures and Devices in 1990-91. He was involved in this project from property acquisition through construction, including the precise surveying for placement and calibration of the research equipment; b) Boundary and Topographic Surveys for the U.S. Department of Justice, New Federal Courthouse in Baton Rouge; c) Topographic Surveys for Louisiana State University Computing Services Center, Life Science Complex, and Campus-Wide Energy Services Project; d) 20-Mile Pipeline Corridor Survey for Exxon Pipeline Company in Baton Rouge; and, e) Surveyed, designed and supervised drafting of six Federal bridge replacement contracts (over the past four years) for the Louisiana Department of Transportation and Development with an estimated construction value of \$4 million to \$5 million. Most recently he has worked on a number of subdivision projects in the Baton Rouge area with special emphasis on stormwater detention.

Mr. Songy is a member of the Louisiana Engineering Society, the American Society of Civil Engineers, and the Louisiana Society of Professional Land Surveyors. He served as Chairman of the LES/Baton Rouge Chapter Young Engineers Committee. Michael has actively served the Louisiana Society of Professional Surveyors since becoming a member. Currently, he is District 6 (Baton Rouge) Chairman having recently served on the Society's Board of Directors for two years. He also serves as Louisiana Society of Professional Surveyors' representative to the East Baton Rouge Parish Selection Board of Engineers and Surveyors. In 1991, he commenced a two-year term on the Board. This Board is responsible for selection of engineers and surveyors for consulting contracts with the City-Parish of Baton Rouge. By serving in this position, his firm must forego consideration for any City-Parish work for the duration of his term plus six months.

Mr. Songy serves as the Louisiana Engineering Society's representative to the Land Information Advisory Board. This Board was established by the Louisiana Legislature to formulate standards and obtain funding for a statewide computerized land information system. Michael's responsibility on the Board includes compiling and editing information to be submitted in a report to the Legislature to outline an implementation plan for a statewide Land Information System.

Michael is a native of Alexandria, Louisiana, and is married to the former Jean Anne Bullock of Baton Rouge, Louisiana.

They are the parents of three children. Michael and his family are active members of Our Lady of Mercy Catholic Church.

Michael Songy 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.

ERNEST L. KISTLER, Ph.D, P.E.

Continued from page 7

agement. However, requirements were being determined totally on the basis of projected movement of "descriptive" information. Dr. Kistler noted the fallacy of this, and introduced to Model Base an understanding of the requirements for use and distribution of "spatial" information (i.e., electronic maps, facility drawings, etc.).

Even prior to Model Base moving to Barksdale, Dr. Kistler foresaw the advantages and requirements for automation of base maps and drawings, and sharing of these electronic files to all functional areas base-wide. He presented his concept and proposed methodology in December 1987 at a Strategic Air Command Conference on base-level computer systems and demonstrated effectively the impact on cost-per-active-user; the advantages to automation of manpower-intensive activities such as processing of engineering digging permits; the potential for coordinated emergency management operations through multi-user terminals across all key functional areas; and numerous other applications. He asserted that base-wide the functional area personnel must become active daily users of the system so that they feel it benefits them, and they feel a level of "ownership and control". He enunciated that this methodology is the only practical way to maintain reasonable validity of the electronic drawing files. In actuality, the very "problems" that had prevented Air Staff from funding Computer Aided Design and Drafting (CADD) at all bases became the solution elements Dr. Kistler used to perfect his expanded methodology of integrated CADD/GIS (Geographical Information Systems), including Automated Mapping and Automated Facility Management, and also implementing wide usage of GPS (Global Positioning Systems) plus laptop and pen-based notebook computers, bar-coding, etc., for rapid acquisition of field information in digital format. His engineering training, strong systems experience, dynamic motivation and leadership were keys to his achievements, and the methodologies proposed by Dr. Kistler are now rapidly becoming Air Force and Department of Defense standard procedures.

Dr. Kistler not only envisioned and explained, he persevered and implemented. With assistance from Model Base, he devel-

Continued on page 19



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



Board Approved Changes to Bylaws and Rules

[Effective January 20, 1993]

The Board at its November 10, 1992 meeting approved the changes to the Board Bylaws and Rules which were published in the October 1992 issue of the *Louisiana Engineer* (page 12-14) and the October 20, 1992 issue of the *Louisiana Register* (page 1166-1170). These changes in the rules and bylaws will be effective when published in the *Louisiana Register* (January 20, 1993).

Reporting Violations

Rarely does a week go by that I do not receive telephone calls or letters either reporting a violation or asking how to report a violation of the registration statutes or Board Rules. The Board does not have a rule which spells out how to report a violation and what information should be contained in such a complaint.

La. R.S. 37:699 (2) provides only that any person may prefer charges of violation against any registrant or certificate holder by filing a sworn letter of charges with the Secretary of the Board. It does not specify format or content. Maybe the Board should have a rule that is more specific, but I'm not recommending one because we already have enough rules that try to detail the engineers and land surveyors "ten commandments".

If you will recall, the Board Investigator had an article in the August 1991 edition of the *Louisiana Engineer* titled, "How do you file a Complaint?" This should be considered as a supplement to said article. This article basically deals with some common sense aspects of deciding whether to file a complaint and then how you should go about doing so. I suggest you follow these steps:

1. Because we receive a large number of written reports of violation which reference old rules and statutes, verify that the Board Rules and/or Statutes you have are current. The most current rules booklet is dated August 20, 1991. The most current statute booklet is dated July 15, 1991. A complaint which is submitted that references old rules which may or may not be effective will result in the complaint being returned without it being acted upon.
2. Get your facts together! Dates, times, places, actions, who, what, where, when, how, why, etc. Do your homework to know exactly what you're talking about. Don't come up with "I suspect John Doe is doing something wrong" or "I know something is wrong because John Doe is getting all the jobs". Another good one is, "Did you see what the paper said about John Doe? What are you going to do about that?" We read the newspaper and take it for what it is, a product of a media business which no matter how reputable must make money to stay in business. I don't mean to lead you to not reading the newspaper, but do not take everything printed as being an uncontested fact. When you see something in the newspaper that may involve a violation of the engineering or land surveying rules or statutes and you have personal first hand information relating to the matter, then what you know may be important and very useful. In summary, the Board just does not have the manpower to waste time on investigative inquiries which are based upon suspicion or speculation rather than upon substantial, concrete facts.
3. Take all your facts and arrange them in an orderly and understandable fashion in a sworn written complaint. Ideally this complaint will be in an affidavit format of which the Board will be more than happy to provide an example to prospective complainants. When identifying persons in a complaint, please insure that you provide all the identifying information about that person, i.e. name, address, phone number, etc. Always provide the identity of other persons who are knowledgeable of the matter to which the complaint relates. Always provide copies of documents that are pertinent to your complaint. Mention in your complaint that you have those documents in your possession, if the documents are too bulky to mail or deliver with your complaint.
4. Anonymous complaints - I will not make the statement that anonymous

complaints will never be investigated, but most anonymous complaints received are lacking in detail and strongly biased. For the most part they tend to lack information which would allow attempts to corroborate their allegations with an independent source. Additionally, I have always been skeptical of the validity of information from a person who makes a complaint indicating they feel strongly about a certain situation but then will not identify themselves. My position of this type of complaint is basically that if they do not relate to serious matters which if true could cause loss of life or serious monetary loss, they are looked into when and if time allows.

The more detailed and thorough your complaint is the more time you will save the Board in any investigation that the complaint might generate. Please keep in mind that the Board has only one full-time investigator who must address the Board's enforcement responsibilities for the entire State of Louisiana which has 9,240 in-state registrants and 9,932 out-of-state registrants. Your assistance in providing thorough, well documented complaints will be appreciated by the Board and the Board Staff.

Minimum Standards for Property Boundary Surveys

The Board at its September 21-22, 1992 meeting adopted the following procedure for the enforcement of Chapter 25 of Title 46, Part LXI, of the Board Rules:

1. The Land Surveying Committee will review the maps or plats and determine if in their opinion a violation occurred.
2. Upon being notified by the Land Surveying Committee, the staff will open a file and take action to implement a Cease and Desist Affidavit. The registrant will be required to agree in the Cease and Desist Affidavit that he has violated the minimum standards and must sign and return the Cease and Desist Affidavit within thirty (30) days of his receipt of the affidavit. The Cease and Desist Affidavit will also stipulate that the registrant agrees to

provide the Board a copy of his next boundary surveying map and accompanying field notes to the Board for a demonstration of compliance with the minimum standards. If the Cease and Desist Order is not agreed to by the registrant, formal charges will be presented to the Board for consideration.

3. The Land Surveying Committee will review the boundary survey maps and accompanying field notes submitted to insure compliance with the minimum standards. If in compliance, the registrant will be informed in accordance with paragraph five below.
4. If the boundary survey maps submitted for review are found to be not in compliance with the minimum standards, a determination will be made by the staff and the Land Surveying Committee as to the appropriate action to be taken. The appropriate action may be simply to inform the registrant of the minor violation or to present the matter to the Board so that formal charges can be made.
5. Assuming the registrant is in compliance with the standards, he

would be informed that the matter is closed; however, a file of the Cease and Desist Affidavit will be kept as a matter of record in the Board enforcement files for the period that such files are normally maintained.

6. Applicants for the oral examination shall be advised that the maps and field notes they bring to the examination as an example of their work under a professional land surveyor will be reviewed by the committee for compliance with the Minimum Standards. If the committee finds the maps or field notes not in compliance, the above procedure will be followed.
7. Any violations of Minimum Standards for Property Boundary Surveys resolved through Cease and Desist Affidavits by the Board will be published in the *Louisiana Engineer* and the *L'Arpenteur Louisiane* giving the nature of the violation and the action of the Board but without identifying the person.

Chapter 25 of the Board Rules, Minimum Standards for Property Boundary Surveys, became effective on December 20, 1990 having been published in the *Louisiana Register*. The rule was fur-

thermore mailed directly to all Professional Land Surveyor registrants of the Board, announced or published in both the *Louisiana Engineer* and *L'Arpenteur Louisiane*. The Board expects all Professional Land Surveyor registrants to abide by these standards. **LE**

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.

1993

Jan. 25-26	July 26-27
Mar. 22-23	Sept. 27-28
June 7-8	Nov. 8-9

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.

January 13-16, 1993

LES Awards Meeting
Holiday Inn Holidome, Monroe

January 21, 1993

NCEES Exam Reviews

January 22, 1993

Professional Land Surveyor Oral Exams

January 23-30, 1993

NSPE Winter Meeting
Kona, HI

January 25-26, 1993

State Board of Registration Meeting
New Orleans, LA

February 6-27, 1993

Window for Chapter MATHCOUNTS Competitions

February 14-20, 1993

Engineers' Week

March 13, 1993

State MATHCOUNTS Competition
Alexandria, LA

March 18, 1993

NCEES Exam Reviews

June 23-26, 1993

LES Annual Meeting
Holidome, Lafayette

ENFORCEMENT CORNER

by Registration Board Investigator
Benjamin S. Harrison

Statistical Summary of Complaints/Investigation - 1991

The calendar year of 1991 was an extremely busy year in the enforcement section of the Board. Not only were complaint file openings at an almost record level, but considerable time was expended in various educational enforcement projects. Complaints opened based upon information from the public and/or registrants continued its slow increase over previous years.

The flood of complaints predicted by some registrants, upon the adoption of the Minimum Standards for Property Boundary Surveys, did not materialize as 1991 saw only two complaints directed towards minimum standards. Over fifty percent of complaint file openings in 1991 related to non-registrants of the Board. Of the complaint files closed (disposed of) in 1991, a majority were closed based upon cooperation and compliance with the requirements of the statutes and/or rules by the subject(s) of the complaint.

I extend my personal thanks to all registrants who have actively supported the Board's enforcement program with information about possible violations. We need your continued support.

Complaint files pending from 1990.....	37
Complaint files opened in 1991.....	186
Complaint files disposed of in 1991.....	169
Complaint files carried over into 1992.....	54
Board Hearings held during 1991	4
Number of Board Disciplinary Actions from Hearings.....	3
Complaints resolved with cease & desist affidavits.....	4
Complaints resolved by consent order	6
Complaints referred to District Attorney.....	0
Fines paid in 1991	\$3,750.00
New Firms registered as result of Investigative Action.....	32

Louisiana - 1991 Exam Results

Exam		Total	Pass	% Pass
Professional Engineering				
Agricultural	Apr	Not Offered		
	Oct	3	1	33
Chemical	Apr	8	5	63
	Oct	41	31	76
Civil	Apr	41	21	51
	Oct	92	60	65
Electrical	Apr	27	11	41
	Oct	38	15	39
Industrial	Apr	Not Offered		
	Oct	8	3	38
Mechanical	Apr	19	8	42
	Oct	50	19	38
Metallurgical	Apr	Not Offered		
	Oct	4	0	0
Mining	Apr	Not Offered		
	Oct	3	3	100
Nuclear	Apr	Not Offered		
	Oct	4	1	25
Petroleum	Apr	Not Offered		
	Oct	42	19	45
Total PE		380	197	52
Professional Land Surveying				
Principles & Practice of LS-4	Apr	18	12	67
	Oct	19	15	79
Public Domain PLS II-A Exam -3 hr	Apr	31	20	65
	Oct	Not Offered		
LA Laws of Land Surveying-1 hr	Apr	44	10	23
	Oct	Not Offered		
Total P.L.S.			Registered - 9	
Fundamentals of Engineering	Apr	243	155	64
	Oct	374	232	62
Fundamentals of Land Surveying	Apr	35	26	74
	Oct	49	21	43
TOTAL EXAMS ADMINISTERED - 1,193				

APRIL , 1993

EXAMINATION SCHEDULE AND DEADLINE DATES

Examination	Pre-Application Deadline Date	Application Deadline Date	Examination Date
Fundamentals of Engineering Examination (8 hrs.)	January 1, 1993	January 15, 1993	April 17, 1993
Principles & Practice of Engineering Examination (8 hrs.) Civil (Including Structural & Sanitary), Mechanical, Chemical, & Electrical	January 1, 1993	January 15, 1993	April 16, 1993
Agricultural, Industrial, Metallurgical, Mining Nuclear, & Petroleum	July 15, 1993	August 15, 1993	October 29, 1993
Fundamentals of Land Surveying Examination (8 hrs.)	October 1, 1992	October 15, 1992	April 17, 1993
Principles and Practice of Land Surveying (6 hrs.)	October 1, 1992	October 15, 1992	April 16, 1993
Louisiana Laws and Procedures of Land Surveying (2 hrs.)			

Pre-Application is required of applicants for certification as an Engineer-in-Training or Land Surveyor-in-Training and for registration as a Professional Engineer or Professional Land Surveyor.

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.

Proposed LES Constitutional Amendment

The founders of our Society were twenty-nine men of vision who saw the need for the professional registration of engineers as a means to protect the public from unqualified individuals and who shared a thirst for knowledge. These pioneers established the Louisiana Engineering Society in 1898 to foster these goals. They wrote documents to define the purpose and operation of the organization.

These men lived during a time when the social setting was dramatically different than it is today; before there was a National Society to which they could belong and before women and minorities entered the profession. Given the significant changes that have occurred in the ninety-four year life of the LES Constitution, is it any wonder that the time for a rewrite has arrived?

All of the elected officers of the Louisiana Engineering Society are sworn to uphold the Constitution and Bylaws of the Society when they are installed. Being conscientious officers, they make this pledge. The existing Constitution contains sections that are antiquated. For example, the Admissions Committee, which is mandated by the Constitution, has not been appointed as far back as any Board Member can remember. There are other elements of outdated thinking that are still contained in the existing Constitution.

The Constitution and Bylaws Committee has studied this document and has drafted a new Constitution with help from the National Society. It is the recommendation of the Board of Direction that the proposed amendment be favorably considered by the membership. **Your attendance at the General Membership Meeting is strongly encouraged.**

Procedure

The Secretary of the Louisiana Engineering Society has been petitioned by at least fifteen voting members in good standing in each of seven chapters to consider an amendment to the existing Constitution. The amendment, which if approved by two-thirds of the ballots cast, will grant authority to the LES Board of Direction to abolish the existing LES Constitution and replace it with a new Constitution, is listed below.

The amendment will be on the agenda for discussion at the **next LES General Membership Meeting, which will be held on Friday, January 15, 1993, 4:00 p.m., at the Holiday Inn Holidome in Monroe, Louisiana.**

In accordance with the existing Constitution, the amendment may be amended in any manner pertinent to the original amendment by a majority vote of the members present and voting. If so amended, it shall be submitted to the membership of the Society and voted upon by letter ballot in its amended form; if not so amended, it shall be voted upon by letter ballot in its original

Continued on page 19

Certificate of Merit Requirement Upheld

Of potential significance for design professionals seeking ways to limit frivolous suits is a recent decision by the Illinois Supreme Court. This decision upholds the requirement that a plaintiff in a medical malpractice action must file an affidavit declaring that the plaintiff's attorney has consulted with a health care professional who believes there is merit to the action. A report stating the basis for that opinion must also be filed. The Illinois law is similar to a Georgia law along the same lines that has been applied in a series of cases to dismiss actions against architects and engineers when the plaintiff failed to file the required affidavit.

The Illinois court stated in its decision that the law was designed to reduce the number of frivolous suits and to eliminate such suits at an early stage before the expenses of litigation have mounted. In rejecting the charge that the statute was unconstitutional because it allowed the professional filing the affidavit and report to exercise judicial power, the decision noted that the plaintiff could select his or her health care professional to obtain the certification. Also, the court described the submission of the affidavit and report as not essentially different from the function of the expert witness called upon to testify at the trial.

A significant point for those considering various approaches to the frivolous suit problem was the court's observation that the statute did not establish a new court or require the judge to share his authority with others. "Indeed, the health professional consulted...issues no ruling and decides no legal question."

That distinction is significant as compared with an attempt in Wyoming to require that all malpractice complaints against professionals first be submitted to a nonjudicial review panel before the action can be filed in court. The Wyoming Supreme Court struck down that approach holding that the mandatory review requirement invaded the authority and jurisdiction of the courts.

Several of the state A/E professional societies are developing legislative programs to deal with the frivolous suit issue. With the Illinois decision, plus the favorable results under the Georgia law, these approaches appear to be the most viable ways to achieve the desired results. [From *Liability Update*, October, 1992, vol. 5, no.

10, a publication of Schinnerer Management Services, Inc.]

ACEC, Corps of Engineers Sign Partnering Agreement

On October 16, 1992 at the Fall Membership Conference of the American Consulting Engineers Council, held at Hilton Head, South Carolina, a memorable event took place. Major General Peter J. Offringa, Deputy Commander of the U.S. Army Corps of Engineers, and John H. Foster, President of ACEC, signed a first-ever Partnering Agreement. Below are the Mission Statement and the Goals and Objectives:

Mission Statement

The U.S. Army Corps of Engineers (USACE) and the American Consulting Engineers Council (ACEC) seek through this agreement to achieve a "world-class" partnership between our organizations. Our common purposes are to provide quality and responsive engineering and consulting services to the nation and to keep the United States competitive in the "global economy".

Goals and Objectives

- Ensure a continuing dialogue between USACE and ACEC at all levels.
- Enhance professionalism and integrity throughout our industry.
- Foster a problem-solving attitude to ensure effective issue resolution.
- Promote quality through continuous process improvement.
- Clarify and understand the changing roles of USACE and the private sector.
- Promote qualifications-based selection procurement of A/E services and support a healthy business environment.
- Improve communications and team work to achieve uniform and efficient business practices.
- Invest in the future by promoting continuing education, research, and development.

This agreement is a model and a roadmap for direction, a framework for action, and a guideline for operations. It ratifies the work of the USACE/ACEC Partnering Conference at St. Michaels, MD, September 28-30, 1992, and the conferees' signatures are appended. Agreed to this day, October 16, 1992

ACEC, CEC/L, Win Two-Year Legal Battle Over Construction Site Role

ACEC and CEC/Louisiana first heard the news in December 1990—that the U.S.

Department of Labor would challenge the long-standing, precedent-setting decision by the OSHA Review Commission in *Skidmore, Owings & Merrill, 1977*, the case which fairly and appropriately defined the distinctive role and responsibilities of design professionals on the construction site.

The challenge presented the possibility of grave results for the profession, so ACEC, with the support of the state Member Organizations and our member firms, organized and led the effort, in cooperation with other associations, to oppose the challenge. The result was a landmark ruling in favor of the profession.

The Department of Labor had filed appeals in two cases which alleged safety violations at construction sites that resulted in the issuance of citations. In each case, the presiding Administrative Law Judge had dismissed the citations. On appeal in the *Simpson, Gumpertz and Heger* case, the Secretary of Labor argued that design professionals are engaged in "construction work" within the reach of OSHA Regulations Part 1926. The OSHA Review Commission rejected this premise. In the companion case, *Kulka Construction Management*, the commission further clarified the role of the design professional when acting as construction manager on the worksite.

The decision was hailed as a substantial victory because the action by the Department of Labor was a clear and present danger to the A/E profession. "This is a significant win for the profession and is one of the many reasons why those in the profession join together in this association," said John Foster, 1992-93 ACEC President.

"The most significant business practice aspect of the OSHRC ruling, is that it recognizes the fundamental distinction between the design professional and the construction contractor on the site and their concomitant roles and responsibilities as to safety issues," said ACEC General Counsel Mark A. Casso.

ACEC Takes the Lead in Industry-Wide Effort

ACEC's office of General Counsel, under the direction of Casso in cooperation with Executive Vice President Howard Messner and a few leading member firms of ACEC, convened a group of design professional associations, including ACEC's Design Professionals Coalition (DPC), the National Society of Professional



Consulting Engineers Section

Warren J. Wilder

CEC/L Executive Director



Engineers (NSPE), the American Institute of Architects (AIA), the American Society of Civil Engineers (ASCE) and the Associated General Contractors (AGC), to confront the challenge.

ACEC, NSPE, and the AIA eventually joined in an *amicus curiae* (friend of the court) brief to defend and preserve the legal precedent in the *Skidmore* decision. A special \$1 assessment was levied on ACEC members to build a "war chest" for the litigation. The legal efforts were coupled with regulatory and legislative activities carried out by ACEC's Department of Government Affairs which lobbied to maintain the proper role and responsibilities of design professionals on the construction site.

Also supporting ACEC's General Counsel in these efforts was the law firm of Jones, Day, Reavis & Pogue, which specialized in labor law cases. "ACEC members agreed to the one dollar assessment with great foresight and with a clear understanding of the gravity of the issues involved. The results may cause us to

think twice the next time we reflect on the value of a dollar," Casso said.

OSHA Commission Reaffirms Skidmore Test

The OSHA Commission reaffirmed its "substantial supervision" test originally set forth in *Skidmore*, which recognized that employers providing professional design services for construction projects who do not perform actual construction trade labor, such as architects and engineers, are subject to the construction standards only if they substantially supervise actual construction labor. It was the culmination of a two-year effort to preserve the role of A/E's on a construction site.

The ruling has practical implications that must be taken into account, Casso said. A design professional is still responsible for their employees on the site, and the OSHA construction standards still apply to a design employer who "performs actual construction work or exercises substantial supervision over actual construction."

It is the latter "test" that must be considered, Casso said, when assuming responsibilities for a design/construction project, either in fact or by contractual agreement. For example, the commission has held that although "construction managers" perform no actual construction tasks, they have considerable authority over the performance and safety measures implemented by subcontractors. If the A/E also contracts or assumes a similar "construction managers" role as described, the commission may find it within the construction standard rules.

In SGH, the commission provided guidance when it noted that instructions to the general contractor's superintendent are characteristic of lack of supervision if only to advise as to work needed, but do not amount to instruction as to "how" to perform the work. Such instructions also should not devise the procedure or plan, the timing or sequence of events, or amount to oversight of labor, Casso noted. **LE**

- GasWorks™** Steady state, compressible flow of real gases (compressibility & elevation changes taken into account; pure gases or mixtures, for complex piping networks, any piping configuration. Calculates the pressures, flow rates, compressibility factors, mach and reynolds numbers, etc. for all nodes & pipes in the system. Up to 800 pipes & nodes with no "ram cram" problems. All properties may vary from pipe to pipe.
- PipeWorks™** Steady State, incompressible flow of liquids, for complex piping networks, any piping configuration, loops, branches, etc. Calculates the pressures, flow rate, velocities, pump head, reynolds numbers, friction factors, etc. for all nodes & pipes in the system. Up to 800 pipes, nodes, pumps & equipment with no "ram cram" problems. All properties may vary from pipe to pipe.
- HeatTrace™** Heat loss or gain (cryogenic) at any ambient temperature, wind speed, or insulation thickness in accordance with current ASTM C680-89 standards for thermal insulation. External steam tracer design with/without cement, for any number of tracers, and calculates the final heat transfer and temperature of the process fluid with the tracer.
- All programs have the following features: full multiple screen scrolling, double precision calculations, 100% interactive, can select accuracy & number of iterations, comprehensive user manual with "real life" examples, extremely user friendly, extensive error checking, fast input, quality output, minimal learning curve.

Programs may be leased for \$150.00 per month.

We Do Highdraulics, Mail us your isos.

high tech engineering software

P.O. Box 9339

Metairie, LA 70055-9339

(504) 832-1489

**LES HONORS AND AWARDS MEETING
REGISTRATION
HOLIDAY INN - HOLIDOME, MONROE, LA
JANUARY 13-16, 1993**

Name _____ P.E. YES _____ NO _____

Spouse's Name _____

Chapter _____

**CLIP OR
REPRODUCE &
MAIL TO:**

**LES
P. O. Box 2683
Baton Rouge,
LA 70821**

		No. Tickets	Amount
PREPAID DISCOUNT REGISTRATION FEE ¹	\$40.00	_____	_____
Registration Without Prepayment	\$53.00	_____	_____
Daily Registration Fee ²	\$13.50	_____	_____
Wednesday Golf	\$20.00	_____	_____
Thursday Dinner ⁴	\$16.50	_____	_____
Friday Seminar	FREE ⁵	_____	_____
Friday Luncheon ⁶	\$11.00	_____	_____
Friday Awards Banquet	\$18.00	_____	_____

Spouses

Thursday - Shopping Spree, Pecanland Mall

Friday - Ruston/Shopping Spree/Tour of
Louisiana Tech Facilities

Saturday, Brunch and Style Show \$10.00

TOTAL

1/Prepaid discount applies only if registration and payment are received one week prior to the convention.

2/Daily registration fee is applicable for one day attendees only.

3/Chennault Golf Course - Includes green fee and cart for 18 holes.

4/New Orleans Cafe Atrium - Entertainment by Bill Cox (Comic/Magician)

5/Seminar: Total Quality Management - Speaker: Dr. Russ Wharton, Philip Crosby Associates. FREE with payment of daily registration fee.

6/Guest Speaker: Senator Randy Ewing - "Issues Facing the Engineering Profession"

☐ 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

January 13-16, 1993

Holiday Inn Holidome, Monroe, LA

Please register early. Reservations must be received by DECEMBER 26, 1992. On that date the rooms will be placed on a first come, first serve basis.

Your Arrival Date _____ Your Departure Date _____

Name (print) _____

Address _____

City _____ State _____ Zip _____

Please check type of room requested.

Check-in Time: 1:00 p.m.

Check-out Time: 12:00 Noon

☐ Standard (Domeside) \$56.00

☐ Standard (Outside Dome) \$51.00

☐ King (Domeside) \$58.00

☐ King (Outside Dome) \$55.00

**CLIP OR
REPRODUCE &
MAIL TO:**

**HOLIDAY INN
P.O. Box 7860
Monroe,
LA 71211**

1-318-387-5100

Extra Person:\$6.00 per person - Rollaway beds ...\$4.00 + tax. The tax rate is 9%. Suites available upon request. The first night deposit is required with reservation or credit card guarantee. Refund given if cancellation made **seven (7)** days prior to beginning date of event.
Guaranteed by one of the following:

Credit Card and Number _____ Expiration _____

Advance Deposit \$ _____ (One night)

LES Awards Meeting, January 13-16, 1993, Monroe, Louisiana

General Program

Wednesday, January 13, 1993

11:00 a.m. - 5:00 p.m.
12:00 Noon

Registration
Golf Tournament
Chennault Golf Course
"On Your Own"

DINNER

Thursday, January 14, 1993

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 10:00 a.m.

Registration
COMMITTEE MEETINGS
Membership
Constitution and Bylaws
Engineering Education

10:00 a.m. - 10:30 a.m.
10:30 a.m. - 12:00 Noon

Break
LOUISIANA ENGINEERING
FOUNDATION
COMMITTEE MEETINGS
Long Range Planning
Legislative
"On Your Own"

LUNCH

2:00 p.m. - 4:00 p.m.

PRACTICE DIVISION MEETINGS
Education
Government
Industry
Private Practice
Guest: Gen. Jude Patin

4:00 p.m. - 5:00 p.m.

JOINT PRACTICE DIVISION SESSION
Speaker: Emmett G. "Pete" Dammon, P.E.
Topic: "Ethics in Business"
Chief Engineer, Dammon
Engineering, Inc., Slidell
DINNER
New Orleans Cafe Atrium
Entertainment: Bill Cox,
Comic/Magician

Friday, January 15, 1993

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

Registration
Seminar: "Total Quality
Management"
Speaker: Dr. Russ Wharton, Philip
Crosby Associates
BREAK
COMMITTEE MEETINGS
Public Relations
Inter-Society Relations
Executive Committee

10:00 a.m. - 10:30 a.m.
10:30 a.m. - 12:00 Noon

Meeting Information

Agenda/Issues for all Committees and Practice Divisions scheduled to meet are published below for your information.

Seminar: A seminar on "Total Quality Management" will be conducted by Dr. Russ Wharton, Philip Crosby Associates.

Joint Practice Division Session - Emmett G. "Pete" Dammon, P.E., will relate personal accounts of his cooperation with the Federal Government to convict two St. Tammany Parish School Board Members for extortion and bribery. A video tape made by a hidden camera will disclose the actual transactions.

COMMITTEE MEETINGS

Membership Committee

Old Business

1. Statewide membership recruitment efforts
2. Revision of Membership Recruitment Formula

New Business

1. Membership dues payments by payroll deduction

Constitution and Bylaws Committee

1. Final preparation for presentation of an amendment to the present Constitution to provide a mechanism for adopting a new Constitution to be presented at the General Membership Meeting
2. Continue work on proposed Bylaws
3. Review final draft of proposed Constitution
4. Other old business

Engineering Education Committee

1. Review Definition and Mission of Engineering Education Committee
2. The Budget Crisis - Should LES Take a Constructive Stand?
3. Principles and Practice Examination Schedule Changes
4. State Population -vs- Engineering College
5. LES Meeting Locations
6. Old Business
7. New Business

Public Relations Committee

Old Business

1. Reviewing and revising Public Relations Master Plan

New Business

LOUISIANA ENGINEER/DECEMBER 1992

Liaison/State Board of
Registration

Young Engineers
LUNCHEON

12:15 p.m. - 1:45 p.m.

Speaker: Senator Randy Ewing
Topic: "Issues Facing the
Engineering Profession"

2:00 p.m. - 4:00 p.m.

Student Paper Presentations
GENERAL MEMBERSHIP MEETING
Cocktails (cash bar)
AWARDS BANQUET

4:15 p.m. - 5:30 p.m.

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

7:30 p.m.

Saturday, January 16, 1993

8:30 a.m.

BOARD OF DIRECTION MEETING

Spouses' Program

Wednesday, January 13, 1993

11:00 a.m. - 5:00 p.m.
12:00 Noon

Registration
Golf Tournament
Chennault Golf Course
"On Your Own"

DINNER

Thursday, January 14, 1993

8:00 a.m. - 5:00 p.m.
8:30 a.m. - 10:30 a.m.
10:30 a.m.
6:30 p.m.

Registration
Hospitality Room Open
Shopping Spree/Pecanland Mall
DINNER
New Orleans Cafe Atrium
Entertainment: Bill Cox,
Comic/Magician

Friday, January 15, 1993

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

Registration
Hospitality Room Open
Ruston/Shopping Spree/Tour of
Louisiana Tech Facilities
Cocktails
Awards Banquet

Saturday, January 16, 1993

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

Hospitality Room Open
Brunch and Style Show

1. New LES Award
Inter-Society Relations Committee
Old and New Business

1. Proposed revisions to State Public Bid Law

Young Engineers

1. Input to the Louisiana Board of Registration concerning changes in Registration Law
2. Retention of College Graduates
3. Greater interaction with Student Chapters
A. Revitalize Defunct Chapters
4. Promotion of Professional Engineer Registration

Long Range Planning Committee

1. Joint meeting with ASCE
2. Joint meeting with Mississippi Engineering Society
3. Future joint meeting with other societies
4. Articles on issues in Louisiana Engineer magazine
5. Attendance at state meetings

Liaison/State Board of Registration

1. Review schedule for upcoming vacancies, Board of Registration
2. Review any pending or proposed legislation being considered for the 1993 Legislative Session which would affect the Board of Registration
3. Review and discuss any preliminary or final reports dealing with the proposed amendment of architectural registration law to exclude civil engineer as this subject may impact the Louisiana Engineer Registration Act.
4. Review status of unfinished business dealing with:

Continued on page 18

COMMITTEE MEETINGS

Continued from page 17

- A. Qualification Based Selection
- B. Licensing of engineering educators
- C. Need for additional disciplines
- 5. Other business which may be added to the agenda

Legislative Committee

- 1. Proposed Changes to the Architects Registration Law concerning Civil Engineers
- 2. Proposed Changes to the Engineers Registration Law
- 3. CEC/L's - Qualification Based Selection legislation in 1993 session
- 4. Good Samaritan Legislation

PRACTICE DIVISION MEETINGS

Education

- 1. Introductions
- 2. Reading of Minutes of March 12, 1992 Meeting in New Orleans
- 3. Financial Report
- 4. Old Business
 - A. Continued discussions on future direction of the Louisiana Engineering Society and PEE.
 - B. Meaningful activities of the PEE Practice Division
 - C. More involvement of Deans and Faculty Members in LES and PEE
 - D. Report on Legislative matters
 - E. Student Paper Presentations Program
 - F. PEE Chairman or representative travel to NSPE 1993 Winter Meeting and NSPE 1993 Annual Meeting
 - G. Election of other 1992-93 PEE Officers
 - H. Other
- 5. New Business
- 6. Adjourn

Government

- 1. Minutes from the June, 1992 meeting
- 2. Update on non-licensed engineering job series in DEQ and DNR
- 3. Discussion concerning increasing PEG dues
- 4. Review of DOTD guidelines for contracting out engineering services
- 5. Election of Officers
- 6. Other Business

Industry

- 1. Approval of Agenda
- 2. Secretary-Treasurer's Report
- 3. Old Business
 - A. Continuing MATHCOUNTS Incentive for Chapter Participation
 - B. Results of PEI Newsletter Survey
 - C. Report on Industry Visitation
 - D. Industry Relations Program
- 4. New Business
 - A. Nomination of Officers
 - B. NSPE Meetings
 - 1. Pittsburgh, PA, July 18-24, 1993
 - 2. Tucson, AZ, January 9-15, 1994
- 5. Adjournment

Private Practice

- 1. Call to Order
 - A. Attendance List
 - B. Agenda Acceptance/Modifications
- 2. Minutes of Last Meeting
- 3. Treasurer's Report
- 4. Old Business
 - A. Environmental Site Assessment
 - B. Public Bid Laws
 - C. Continuing Professional Development
 - D. Proposed AIA State Law Changes Affecting Civil Engineers
- 5. New Business
 - A. LDOTD
 - 1. Contracting Out Guidelines
 - 2. Selection Criteria Modifications
 - B. Legislation
 - 1. QBS/Bidding
 - 2. State Registration Board
 - 3. Good Samaritan
 - 4. Affidavit Alleging Negligence
 - 5. Goodwill Tax
 - C. Topics - Various Individuals
- 6. Announcements
- 7. Adjourn

You're probably paying too much for insurance!

NSPE offers a complete line of outstanding insurance plans...available to Members only...and offered at rates **priced lower** than individually-purchased plans. (We invite you to compare and see yourself!)

Yes! Please send my FREE NSPE Insurance Plans Information Kit right away. I understand there is no obligation whatsoever.

I am interested in the following money-saving NSPE Group Plans:

- o Major Medical Plan (08130)
- o Hospital Income Plan (08103)
- o Term Life Plan (08107)
- o "All Risk" Accidental Death and Dismemberment Plan (081106)
- o Disability Income Plan (08105)

NAME _____

ADDRESS _____

CITY _____

STATE/ZIP _____

..... For more information, mail this coupon to: NSPE Insurance Plans,
400 Locust Street, 8th Floor, Des Moines, IA 50398.
OR CALL TOLL FREE 1-800-552-4119



**National Society of
Professional Engineers**



**Draw on our over 60 years of
construction knowledge**

- | | |
|--------------------|-------------------|
| • SITE PREPARATION | • BUILDINGS |
| • EARTH MOVING | • MECHANICAL |
| • DREDGING | • RAILROADS |
| • DOCKS | • LEVEES & DAMS |
| • PAVING | • ROADS & BRIDGES |
| • FOUNDATIONS | • DRAINAGE |
| • ENVIRONMENTAL | • MAINTENANCE |



T. L. JAMES & CO., INC.

Ruston(318) 255-8740
New Orleans(504) 467-6000

Thomas Folk, PE
William Westbrook, PE

TOTAL JOB CAPABILITY

ERNEST L. KISTLER, Ph.D, P.E.

Continued from page 10

oped and demonstrated a real-world rapid prototype on limited funding so quickly that his achievements could hardly be believed by others who had been working for several years to solve these problems. He led the development of INFOMAN, a common interface box for collecting distributed information from existing "stovepipe" computer systems in a client-server fashion, integrating the information, and then presenting it against spatial displays on a common graphics system he developed and named SYNERGIS. He showed that it is this COMBINATION of descriptive with spatial information that is necessary to establish full essence of the "configuration" of an air installation. Furthermore, he showed that each functional area should not develop their own base maps and facility drawings because that was highly replicative and a sure path to serious information conflicts. Instead, functional areas merely need selected "views" of the overall configuration and spatial displays.

He further pointed out that air bases no longer can be analyzed as lone entities, but instead must in the future be treated from a "total systems" perspective, interactive with their metropolitan communities, and interfacing to an entire host of regulatory agencies for common maps and Electronic Data Interchange (EDI). Dr. Kistler proceeded to develop and demonstrate several special application modules on the SYNERGIS graphics system using common maps and drawing tools, and advocated further development of a common expert shell for decision support. Dr. Kistler's methodologies and achievements at Model Base are now being considered in the private sector by major airports, and soon will be having a profound impact on the entire air traffic industry as well as major defense modernization programs.

Dr. Kistler received his Bachelor of Science (Summa Cum Laude in February 1955) and Master of Science (1957) in Aeronautical Engineering from the University of Texas at Austin where he worked part-time at the Defense Research Lab and full-time at the Military Physics Research Lab. In 1960, he became a registered Professional Engineer in Texas, and also that year joined Stanley Aviation in Denver, Colorado, as Chief of Technical Design. He later worked for Martin-Marietta, Denver, and then Lockheed Electronics in Houston, where he became a Senior Staff Engineer and further distinguished himself on the NASA/JSC Center Support Contract.

His dedicated and superb work at critical times removed several potential launch holds during the Apollo Program, and he was presented the NASA Apollo Achievement Award. Simultaneously with working full-time for Lockheed and NASA, he earned his Ph.D. in Mechanical and Aerospace Engineering from Rice University in 1969.

Dr. Kistler is a member of the Louisiana Engineering Society, former President of the Shreveport Chapter, former President of the Engineers Council of Houston (ECH), and Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA). He is a member of the National Society of Professional Engineers (NSPE), American Society of Mechanical Engineers (ASME), Society of American Military Engineers (SAME), Institute of Electrical and Electronic Engineers (IEEE) Computer Society, Society for Industrial and Applied Mathematics (SIAM), and others. He has served as President of local sections of ASME, SAME, AIAA and the Marine Technology Society; President of the Student Sections of AIAA and SAME; and President of the Student Engineering Council at the University of Texas in Austin. Dr. Kistler currently chairs two national committees as well as the Energy Technology Conference MANAGEMENT SYMPOSIUM for ASME.

Ernest has been listed in Who's Who in Technology, Who's Who in Aviation, Who Houston, Who's Who in Texas, Who's Who in the South and Southwest, International Registry of Profiles, American Scientific Registry, Directory of International Biography, Men of Achievement, Notable Americans, and Distinguished Personalities of the South.

Professional honors include the Air Force Sustained Superior Performance Award; Runner-up for the SAC Engineer of the Year Award; Engineer of the Year Award for Professional Engineering Achievement from the Engineering and Scientific Council of Shreveport; and the Ralph James Award from the American Society of Mechanical Engineers.

Dr. Kistler is a native of San Antonio, Texas, and is married to the former Dorothy Palmer of Shreveport, Louisiana and San Antonio, Texas. They have three children and five grandchildren, and attend Ellerbe Road Baptist Church in Shreveport.

Dr. Kistler's outstanding achievements make him a worthy recipient of the James M. Todd Technological Accomplishment Medal. LE

PROPOSED AMENDMENT

Continued from page 13

form. If, after discussion of a proposed amendment, the members present shall so decide by a majority vote it may refer the amendment to a Committee, to be appointed by the President of the Society, for further consideration. This Committee shall report at the next regular meeting whereupon the amendment shall be acted upon as hereinbefore provided. The proposed amendment in its original or amended form may, at the written request of a majority of those signing the original petition, be withdrawn at any time prior to its submission to the membership for letter ballot. An affirmative vote of two-thirds of all ballots cast shall be necessary for the adoption of any amendment. Amendments shall take effect immediately upon adoption unless specifically provided otherwise.

Amendment

The following proposed amendment is an addition to the last paragraph of Article XIV, Section 1:

The existing Constitution and/or the existing Bylaws may be abolished or a new Constitution and/or Bylaws may be adopted, in whole or in part, by the Board of Direction provided that at least eighty percent of the whole Board is present at the meeting during which the vote is taken. A unanimous vote of the Board members at this meeting is required for such action.

Reasons

Publication and passage of this amendment is necessary for LES to avoid printing and mailing expenses estimated to be \$10,000. These expenses would be incurred by LES if the letter of the existing Constitution is followed. The existing Constitution requires that the proposed amendments to the Constitution be mailed to all voting members. Thus, the complete new Constitution and the existing Constitution for comparison and a commentary on the proposed changes would be provided to all voting members. Recent experience on constitutional changes and officer elections reveal that less than 10% of the members eligible to vote exercise that privilege.

Pro-Position

If the members have confidence in the Board of Direction to serve their interests, they should vote for the passage of this amendment to replace the ninety-four year old document. The new document will be in general conformance with the National Society Model Constitution and current LES practices. **After this action is completed, authority to amend the Constitution is returned to the general membership.**

Continued on page 20

AS
INSURANCE
SPECIALISTS

SERVING DESIGN PROFESSIONALS IN PRIVATE PRACTICE

PROFESSIONAL LIABILITY INSURANCE

LOSS PREVENTION - RISK MANAGEMENT ASSISTANCE

ALEXANDER & SANDERS INSURANCE

9613 BROOKLINE • BATON ROUGE • 70809 • 504/924-1371

PRESIDENTIAL PRIVILEGE

Continued from page 4

the magazine were given high marks. LES is proud of the *Louisiana Engineer* and Dr. Fisher said that LES has an editor who puts the *Louisiana Engineer* up there with the leaders.

Your present editor, Leta G. Bueto, continues to cover all aspects of engineering through a thrust of simplicity and clarity in the magazine. Her reports on engineering events, honors and awards, legislative activity, scholarships, membership, conventions, conferences, calendar of events, meeting agendas, new members, new registrants, NSPE news and programs, roster of other societies, Board of Direction Meeting highlights, and memoriams to name but a few of the activities reported in the magazine.

Through its history our organization has been blessed with dedicated member Secretary-Treasurers, who served year after year in spite of the ever-increasing amount of work. But as the Society and its programs grew so did the work load, which eventually reached a point where no part-time individual could do justice to it. When the *Louisiana Engineer* became the official journal for the State Board of Registration, the publication distribution greatly increased. These time-consuming chores made it difficult for volunteer members who made their living practicing engineering to accept the position and the office of Secretary-Treasurer needed continuity. With this in mind, a full-time Executive Secretary and staff were engaged in 1965. In 1967 the state organization relocated its headquarters to Baton Rouge.

As early as 1925, attempts were made to establish chapters, but this was first accomplished with the formation of the Baton Rouge Chapter on November 20, 1939. The Lake Charles Chapter was chartered on November 3, 1947 and then followed a period of incredible growth. The Shreveport, Monroe, Lafayette and Alexandria Chapters immediately followed with charters in 1949, 1949, 1950, and 1951 respectively. As a result of the reorganization, New Orleans became a chapter in 1964 and in 1969 the Bayou Chapter was established. The North Lake Chapter was established in 1982. Unfortunately, the North Lake Chapter was dissolved on October 16, 1992, just two short months before it would have celebrated its 10th anniversary.

The depression years marked another big milestone in the Society's growth pattern. In 1932, at the instigation of Mrs. William B. Gregory, a group of engineers' wives and relatives joined in an effort to establish a Student Loan Fund to help needy engineering students to get through college. Thus was the Woman's Auxiliary born.

In 1957 the issue before the Society was whether or not to affiliate with the national organization and, if such affiliation appeared desirable, whether that organization would be the National Society of Professional Engineers or the Engineers Joint Council or both. The membership voted to join both. The Louisiana Engineering Society is still a member of the National Society of Professional Engineers.

These are a few of the highlights in our Society's history. To list all the accomplishments and give credit to each of its dedicated

and resourceful leaders is of course impossible in the limited space. It must be recognized also that the milestones reached in our administration usually were made possible by the work of preceding ones. One thing is certain: our founders built well, and those who followed have been worthy successors. (Portions of this article are reprinted from "84 Years of Accomplishments" by John P. Fernandez, P.E.) LE

PROPOSED AMENDMENT

Continued from page 19

The changes to the existing Constitution are best handled at one time and the amendment provides a mechanism to do so.

Con-Position

The organization is functioning under the current Constitution and changes should only be by individual amendment(s) through the existing procedure.

There is no desire to follow the National Society's Model.

Conclusion

This one time occurrence will abolish outdated operating procedures and will provide the Board of Direction the flexibility to operate the affairs of the Society in a more efficient and professional manner.

Any member who requests copies of the Constitution (existing and proposed) should call the LES State Office at (504) 344-4318, no later than **January 6, 1993**, to obtain same. A commentary on the changes will be included. LE

SERVICES & SUPPLIERS

PIPE & LEAK LOCATING

- ✓ LEAKS IN UNDERGROUND PIPES
- ✓ SEWER SYSTEM MAPPING
- ✓ LOCATION OF UNDERGROUND PIPES

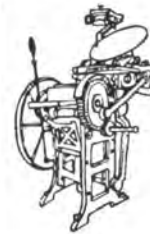
LEAK TECHNOLOGY **FRANK ZIMBELMAN, PE**
div. PRO-AM, INC. NEW ORLEANS
1674 HWY 43 NORTH 583-1857
PICAYUNE, MS 39466 (800) 873-5726

ADVANCED TECHNICAL APPLICATIONS CENTER, INC.

COMPUTER TRAINING

- AUTOCAD
- ADEV PRO-SERIES
- MICROSTATION
- MS-DOS/UNIX
- WORDPERFECT
- LOTUS
- dBASE
- DESKTOP PUBLISHING

"Computer Training Specialist"
3200 Ridgeway Drive, Ste. 211, Metairie, La. 70002
(504) 835-4984



FAX 355-2178
PRINTING INCORPORATED
3019 PLANK ROAD (504) 357-5961
BATON ROUGE, LOUISIANA 70805

The Best People
The Best Equipment
For the Best Product!

We House A Complete
"Independent" Art Department

Ed's ep
PRINTING
COMPANY, INC.

925-0991
9366 Greenwell Springs Rd.
at Monterey

Water King



James E. Bowie, Jr., Ph.D., P.E.

Acadiana Treatment Systems
103 Charbonnet Road
Duson, Louisiana 70529
(318) 988-2360
Fax: (318) 981-7922

USL (318) 231-6846

MORGAN ELECTRIC, INC.

ELECTRICAL CONTRACTORS & ENGINEERS

ELMWOOD INDUSTRIAL PARK
1200 DISTRIBUTORS ROW
HARAHAN, LA 70123
Phone 733-2900

DRIVE SYSTEMS, INC.

5333 River Road New Orleans, LA 70123
(504) 733-8375 FAX (504) 733-0014

Your local RELIANCE Variable Speed & Programmable Control Specialist

- RELIANCE A-C and D-C V'S Drives and Motors
- REEVES Mechanical Adjustable Speed Drives
- MASTER & DODGE Reducers and Gearmotors
- Electrical & Mechanical Parts



Programmable Controllers

- SHARK / AutoMate / Automax
- ReSource ScreenWare 2 graphics

authorized stocking distributor
RELIANCE ELECTRIC



Sea Water Conversion Equipment
Pharmaceutical Distilling Plants
Marine Heat Exchangers and Pumps
Reverse Osmosis Systems

MECHANICAL EQUIPMENT COMPANY, INC.
861 CARONDELET STREET, NEW ORLEANS, LA 70130 U.S.A.

PHONE: (504) 523-7271
TELEFAX: (504) 525-4846

TELEX: 460165

PROFESSIONAL LISTINGS

WALDEMAR S. NELSON AND COMPANY INCORPORATED ENGINEERS AND ARCHITECTS

1200 ST. CHARLES AVENUE
NEW ORLEANS, LA 70130



TELEPHONE: (504) 523-5281
FACSIMILE: (504) 523-4587
TELEX: 984351 HELSENG

COMPLETE ENGINEERING AND PROJECT MANAGEMENT SERVICES
45 YEARS OF EXPERIENCE SERVING INDUSTRY

- ☐ SITE PLANNING / PERMITTING
- ☐ CHEMICAL / PROCESS / PETROLEUM
- ☐ CIVIL / STRUCTURAL
- ☐ ELECTRICAL / ELECTRONIC
- ☐ ENVIRONMENTAL / SANITARY
- ☐ INSTRUMENTATION / CONTROLS
- ☐ CONSTRUCTION MANAGEMENT

- ☐ MONITORING / MODELING
- ☐ MECHANICAL
- ☐ PIPELINE
- ☐ MINING
- ☐ HVAC
- ☐ ARCHITECTURE
- ☐ ASBESTOS

Parsons Brinckerhoff

- Engineers
- Planners
- Designers
- Construction Managers

Urban Design • Highways/Civil • Bridges/Tunnels
Marine Facilities • Water Resources • Energy
Environmental Protection • Underground Facilities
Transit Systems/Transportation • Railroads
Mechanical/Electrical Systems • Agribusiness
One Lakeway Center • 3900 N. Causeway Blvd. • Suite 1480
Metairie, LA 70002 • (504) 830-0070 • (504) 830-0071 • FAX

BALAR CONSULTING ENGINEERS



STEVEN W. BROWN, P.E.

BALAR ASSOCIATES, INC.
401 EDWARDS ST., SUITE 815
SHREVEPORT, LA. 71101
(318) 221-8312
FAX (318) 424-6508

- CIVIL
- STRUCTURAL
- ENVIRONMENTAL

Simons-Eastern Consultants, Inc. P. O. Box 1286 • Atlanta, GA 30301-1286



STRATEGIC
PLANNING
DESIGN

Atlanta, GA (404) 370-3200
Monroe, LA (318) 387-6216

CONSTRUCTION
MANAGEMENT

McClelland consultants

A geoscience consultant serving the
commercial, industrial, civil and public works,
waste management, and offshore industries.

New Orleans Lake Charles Lafayette
(504) 733-1754 (318) 439-1731 (318) 237-5529

ERM-Southwest, inc.

ENVIRONMENTAL CONSULTING ENGINEERS
AND SCIENTISTS

3501 North Causeway Boulevard
Suite 200
Metairie, Louisiana 70002
Phone (504) 831-6700
FAX (504) 831-6742



AA ATCHLEY & ATCHLEY, INC. Consulting Civil Engineers • Land Surveyors • Planners

412 La Salle Street
Shreveport, Louisiana 71107
318-222-5821
Ben D. Atchley Sr. P.E., P.L.S.
Ben D. Atchley Jr. P.E., P.L.S.

HALLIBURTON NUS Environmental Corporation

technologies and services for a cleaner and safer world

2400 VETERANS MEMORIAL BOULEVARD
SUITE 110
KENNER, LOUISIANA 70062
(504) 469-9995
(504) 469-9996 FAX

(713) 240-4826

GEO ASSOCIATES

Geotechnical Engineering & Groundwater Consulting

Wayne S. Pollard
Ph.D., P.E.
Principal

12810 Century Drive
Stafford, TX 77477

ALLIANCE, INC.

Architecture • Engineering • Planning
Airport Consulting • Surveying

Petroleum Square, Suite 100 1324 North Hearne Avenue
Shreveport, LA 71107 FAX (318) 221-7635
Phone (318) 221-7501



Consulting Engineers

Municipal and Industrial
Consultants and Designers

P.O. Box 700, Baker, La. 70714 (504) 775-4800

MEYER, MEYER LaCROIX & HIXSON, INC.
Consulting Engineers & Land Surveyors

P. O. Drawer 5444
3666 Government St.
Alexandria, Louisiana 71301
Telephone (318) 448-0888

P. O. Drawer 1245
401 West Mississippi Ave.
Ruston, Louisiana 71270
Telephone (318) 255-7236

James L. Meyer, P.E., R.L.S. R. B. LaCroix, R.L.S.
Arthur E. Meyer, P.E., R.L.S. T. D. Hixson, P.E., R.L.S.

CONSULTING ENGINEERS pyburn & odom, inc.

RIVER CROSSINGS • WATERFRONT STRUCTURES
HYDROGRAPHY • HIGHWAYS • INDUSTRIAL SITES
ENVIRONMENTAL STUDIES • SINCE 1948

8176 GSR1 AVENUE • BATON ROUGE, LA 70820-7406 • (504) 766-6330



FORTE AND TABLADA, INC.
CONSULTING ENGINEERS



OFFICE (504) 927-9321 • FAX (504) 927-9326
P.O. BOX 64844 • BATON ROUGE, LA. 70896
9107 INTERLINE AVE. • BATON ROUGE, LA. 70809



professional engineering
consultants corporation

Consulting Engineers

1450 Seaboard Drive
Baton Rouge, La. 70810 (504) 769-2810



LOUIS J. CAPOZZOLI & ASSOCIATES, INC.
Geotechnical Engineers

Engineering Consultation
Laboratory and Field Testing
Land and Marine Site Explorations

10555 Airline Highway Baton Rouge, LA 70816-4199
Telephone (504) 293-2460 Fax (504) 293-2463

RPM ENGINEERING, INC. A PROFESSIONAL ENGINEERING CORPORATION



9969 Professional Boulevard
Baton Rouge, LA 70809
(504) 292-9901



BROWN & BUTLER, INC.
Consulting Engineers and Land Surveyors

General Civil Engineering & Land Surveying

8335 KELWOOD AVE.-SUITE D
BATON ROUGE, LA 70806-4804

PH. 504/ 924-0235
FAX: 504/ 926-1687

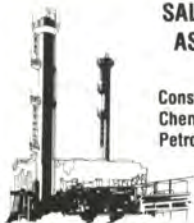


THE MEYER GROUP



Meyer and Associates, Inc.
Engineers • Planners
Vernon F. Meyer and Associates, Inc.
Surveyors
The Meyer Group, Inc.
Project & Construction Management

600 Cities Service Hwy. • P.O. Box 2149 • Sulphur, Louisiana 70664 • (318) 625-8353
5525 Mounes Street, Suite 102 • New Orleans, Louisiana 70123 • (504) 733-3770



SALMON & ASSOCIATES, INC.

Consulting Engineers serving the
Chemical, Petrochemical,
Petroleum and Metallurgical Industry

626 HIGHLANDIA
BATON ROUGE, LA 70810
(504) 752-7250

Office Ph. 868-1050
N.O. Ph. 586-8222
Home Ph. 872-6003

T. BAKER SMITH & SON, INC.
CIVIL ENGINEERS & SURVEYORS
LAND OFFSHORE HYDROGRAPHIC

550 South Van Ave
P.O. Box 2266
Houma, La. 70361

WM. CLIFFORD SMITH, P.E., L.S.
President

QED

Quest Engineering & Development Corp.



Specializing In:

STRUCTURAL & EQUIPMENT DESIGN,
REDESIGN, FAILURE ANALYSIS, &
COMPUTER FEM SIMULATION.

7500 North Belt-Humble (Houston) TX. 77396

Call: SAM BROWN, Ph.D., P.E.

(713) 441-2525



WALK, HAYDEL & ASSOCIATES, INC.

Project Managers
Engineers
Construction Managers

600 Carondelet St. New Orleans, LA 70130
(504) 586-8111

Baton Rouge Mobile Little Rock



LaBauve and Company

CONSULTING ENGINEERS
CIVIL STRUCTURAL

3717 GOVERNMENT ST.
ALEXANDRIA, LA 71302

318-445-8910

RODI & SONGY

CONSULTING ENGINEERS AND LAND SURVEYORS

5800 One Perkins Place, Suite 9-A
Baton Rouge, LA 70808
(504) 769-0546

Ronald J. Rodi, P.E. Michael B. Songy, P.E., P.L.S.

COYLE ENGINEERING CO., INC.



CHARLES G. COYLE, P.E.

P.O. BOX 6177
BOSSIER CITY, LOUISIANA 71171-6177

3925 BENTON RD.
PHONE (318) 746-8987

DAVID VOLKERT & ASSOCIATES, INC.

ENGINEERS • ARCHITECTS • PLANNERS
3500 N. Causeway Blvd • Suite 1240
Metairie, LA 70002

(504) 837-6234 • FAX (504) 837-6237
Major offices in Metro Washington, D.C.
Mobile, AL • Tampa & Miami, FL

Office (504) 632-5596

Res. (504) 632-5646

J. W. P., INC.

J. Wayne Plaisance, Inc.

Civil Engineers • Land Surveyors

JOHN J. PLAISANCE, II
President

Post Office Drawer 730
Galliano, Louisiana 70354

Aillet, Fenner, Jolly & McClelland, Inc.

Consulting Civil & Structural Engineers
Robert R. Aillet, Robert D. Fenner, Leland H. Carter
Richard R. Aillet, Gary W. Fenner

Planning feasibility studies, land surveys, design, plans and
specifications and construction inspection for bridges, streets
and highways, airfields, water systems, sewage treatment and
disposal, drainage, military construction, land development, and
structural and foundation systems

1055 Louisiana Avenue
Shreveport, Louisiana 71101
AC 318 425-7452

MODJESKI AND MASTERS

CONSULTING ENGINEERS

Bridges • Highways • Structures
Mass Transit • Special Foundations
Reports Inspections Design
Inspection of Construction

1055 St. Charles Ave., New Orleans, La. 70130
(504) 524-4344

3701 Williams Boulevard
Suite 261
Kenner, LA 70065-3060
504 443 3437



Engineers, Architects
and Planners



TRAFFIC ENGINEERING • HIGHWAY DESIGN
TRANSPORTATION PLANNING
SITE ENGINEERING & DESIGN
STRUCTURAL ENGINEERING • WATER RESOURCES

8338 SUMMA AVENUE, BATON ROUGE, LOUISIANA 70809
(504) 769-6981

HNTB

HOWARD NEEDLES TAMMEN & BERGENDOFF
ARCHITECTS ENGINEERS PLANNERS

Comprehensive Services in

• Aviation • Construction Management
• Bridges and Structures • Environmental Services
• Civil Engineering • Transportation and Planning

CATFISH TOWN, SUITE J-200 • 100 ST. JAMES STREET
BATON ROUGE, LA 70802 • 504 346-0006



Metallon, Inc.

Metallurgical Testing Laboratories

2524 Sutherland
Houston, Texas 77023
(713) 923-7761

Mechanical Testing
Specimen Machining

Chemical Analysis
Metallographic Evaluation



DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 PINHOOK RD/P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 232-5182
FAX (318) 237-7132
TOLL FREE 1-800-737-5182

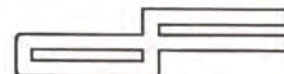


SWL SOUTHWESTERN LABORATORIES

Materials, environmental and geotechnical engineering,
nondestructive, metallurgical and analytical services.

Four Louisiana Locations

HOUSTON • DALLAS • AUSTIN • BEAUMONT • GALVESTON COUNTY
RIO GRANDE VALLEY • ALEXANDRIA • SAN ANTONIO • FORT WORTH • MIDLAND
MONROE • SHREVEPORT • TEXARKANA • DENISON • BATON ROUGE



DEMOPULOS & FERGUSON, INC.

CONSULTING ENGINEERS
SINCE 1953

• ENGINEERS • ARCHITECTS • PLANNERS

401 Edwards - Suite 1600 - Shreveport, Louisiana 71101-5530 - (318) 221-7117
2603 Augusta - Suite 880 - Houston, Texas 77057-5638 - (713) 783-7117

AREA CODE 318
433-0561

D. W. JESSEN & ASSOCIATES
CIVIL & CONSULTING ENGINEERS

440 KIRBY ST.
D. WALTER JESSEN, JR. LAKE CHARLES, LA

BURK-KLEINPETER, INC.

ENGINEERS ARCHITECTS PLANNERS ENVIRONMENTAL SCIENTISTS

• CIVIL	• HIGHWAY	• TRANSPORTATION PLANNING
• STRUCTURAL	• STRUCTURES	• ENVIRONMENTAL ASSESSMENT
• MECHANICAL	• DRAINAGE	• PORT / MARINE FACILITIES
• ARCHITECTURE	• FLOOD CONTROL	• CONSTRUCTION MANAGEMENT
• PLANNING	• WATER AND WASTEWATER	
• LANDSCAPE ARCHITECTURE	• SOLID WASTE	

4176 CANAL STREET, NEW ORLEANS, LOUISIANA 70119
TEL 504 - 486-5901 FAX 504 - 488-1714



GERAGHTY & MILLER, INC.

Environmental Services

2900 West Fork Drive, Suite 540
Baton Rouge, Louisiana 70827
(504) 292-1004
Offices Located Nationwide

CDM environmental engineers, scientists,
planners, & management consultants

CAMP DRESSER & McKEE INC.

3445 North Causeway Boulevard, Suite 600
Metairie, Louisiana 70002
504 832-7272

236 Third Street, Suite 200
Baton Rouge, Louisiana 70801
504 387-3822

offices nationwide



CONSULTING ENGINEERS
SERVING THE PETRO-
CHEMICAL AND OIL & GAS
INDUSTRIES

OFFICE (504) 835-2577
FAX (504) 837-5924

3330 WEST ESPLANADE AVE. • SUITE 300 • METAIRIE, LOUISIANA 70002

LANIER & ASSOCIATES
Consulting Engineers, Inc.

Industrial • Marine • Environmental
Nederland New Orleans Mobile

gregory c. rigamer & associates, inc.
professional consulting services

3230 W. Esplanade, Suite A
Metairie, LA 70002 (504) 836-6166

Michael W. Flores, P.E., P.L.S.
David C. Murla, P.E.
André DeHaan, P.E.
Gary Burt, P.L.S.



CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS • CONSULTANTS

**PETROLEUM ENGINEERS
INTERNATIONAL, INC.**

Drilling Completion & Workover Programs
Office and Field Supervision
Property Management - Total Operations
Turnkey Operations
Reservoir Engineers
Industry Training Schools

P.O. Box 52588
Lafayette, Louisiana 70505 (318) 233-5346

WOODWARD-CLYDE CONSULTANTS
engineers • geologists • environmental scientists

Recognized leaders in:

- earth & environmental sciences & engineering
- geotechnical engineering
- waste management
- environmental regulatory issues & applications

2822 O'Neal Lane • Baton Rouge, LA 70816 • (504) 751-1873



BERGER, BARNARD & THOMAS, INC.
ENGINEERS, ECONOMISTS, and PLANNERS

MUNICIPAL AND INDUSTRIAL ENGINEERING
COMPREHENSIVE PLANNING AND ENVIRONMENTAL ANALYSIS

8281 GOODWOOD BLVD.
P.O. BOX 64853
BATON ROUGE, LA 70896
PH. 504/927-8323

2138 STUMPF BLVD.
SUITE 10
TERRYTOWN, LA 70056
PH. 504/364-1637

Numerical Modeling of Mechanical Systems



- Finite Element Analysis
- Computational Fluid Dynamics
- Pipe Stress Analysis

In the areas of:

Mechanical Troubleshooting
Failure Analysis
Vibration Analysis
Machine Design

Stress Analysis
Pressure Vessel/Heat Exchanger Design
Heat Transfer
Risk Assessment

8126 One Calais Ave., Suite 1B • Baton Rouge, LA 70809
Phone (504) 767-0591 • FAX (504) 766-5765



VICTOR R. DONALD, P.E. CHARLES R. FURLOW, P.E.
SAMUEL K. WILEY

A Subsidiary of Osca, Inc.
12021 Lakeland Park Blvd., Suite 120
Baton Rouge, Louisiana 70806
Office: (504) 756-2555 Fax: (504) 756-2562



JONES AND NEUSE, INC.
Environmental and Engineering Services

Preliminary Planning
Engineering Design
Facilities Permitting
Construction Management
Process and Ambient
Monitoring

Regulatory Compliance
Hydrogeologic and Geotechnical
Investigations
Risk Assessments
Remediation and Field Services
Environmental Litigation

11924 COURSEY BLVD., STE. A
BATON ROUGE, LOUISIANA 70816

PHONE: (504) 291-3055
FAX: (504) 291-4801

EUSTIS ENGINEERING
GEOTECHNICAL ENGINEERS

CONSTRUCTION QUALITY CONTROL
AND MATERIALS TESTING
MONITORING WELL INSTALLATION
(504) 834-0157



3011 28TH STREET METAIRIE, LA 70002

MARVIN L. ZOCHERT, P.E.

MECHANICAL ENGINEER
318-448-8470

1614 MILITARY HWY.
PINEVILLE, LOUISIANA 71360

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers & Land Surveyors

6025 Buncomb Road
Shreveport, Louisiana 71129
Telephone: 318/686-7190



JAMES D. MOHR
PROFESSIONAL ENGINEER
PROFESSIONAL LAND SURVEYOR

MAHL AND ASSOCIATES, INC.
CONSULTING ENGINEERS

GEORGE J. MAHL, III, P.E.

800 HICKORY AVENUE, SUITE 100
HARAHAN, LOUISIANA 70123
(504) 737-8904
FAX (504) 738-7770

Poché Associates
LIMITED
CONSULTING ENGINEERS • ENERGY MANAGEMENT CONSULTANTS

224 Rue Dejean, Suite 200 • Lafayette, LA 70508 (318) 237-6517

ENGINEERS • ARCHITECTS • PLANNERS • SURVEYORS



GULF SOUTH ENGINEERS, INC.
ENGINEERING CONSULTANTS

1700 GRAND CAILLOU RD.
HOUMA, LA 70363
(504) 876-6380
FAX 876-0621

1000 LEONIDAS ST.
NEW ORLEANS, LA 70178
(504) 866-1821
FAX 866-1781

*Balancing The Needs Of Business
With Those Of The Environment*

- Geotechnical
- Environmental
- Marine
- Construction Materials



1-800-743-0092 25 Offices Nationwide

Lazenby & Associates, Inc.

CONSULTING ENGINEERS AND LAND SURVEYORS

JERRY G. LAZENBY, P.E., P.L.S.
FOY B. GADBERRY, P.E.
PAUL D. FRYER, P.E.

2000 North 7th
P. O. Box 728
West Monroe, La. 71291
Phone 318/387-2710



SOIL TESTING ENGINEERS

GEOTECHNICAL CONSULTANTS

EOTECHNICAL
IL BORINGS
LABORATORY TESTS
ENGINEERING REPORTS

ENVIRONMENTAL
GEOHYDROLOGY
GROUNDWATER MONITORING
SUBSURFACE PROTECTION

QUALITY CONTROL
FILL INSPECTION
MATERIAL TESTING
FIELD LOAD TESTS

16 HIGHLANDIA DR.
4100 LOUISIANA AVE.

BATON ROUGE, LA
LAKE CHARLES

504-752-4790
318-474-1340

**BADEAUX &
ASSOCIATES**
INCORPORATED
CONSULTING ENGINEERS
STRUCTURAL/CIVIL
115 EAST SIXTH STREET (504) 447-2317
P. O. BOX 1056 THIBODAUX, LA 70302

J. Alvin Badeaux, P.E.
President

ABMB
ENGINEERS
INCORPORATED

Civil/Structural Engineers

2237 South Acadian Thruway, Suite 601
Baton Rouge, LA 70808
504-925-1161

ENGINEERS ■ PLANNERS ■ ECONOMISTS ■ SCIENTISTS



Professionalism. Technology. Quality.

Rick K. Marotte, P.E.
Area Office Manager
Department LOUIS;92
8550 United Plaza Boulevard, Suite 503
Baton Rouge, Louisiana 70809
504-922-4650