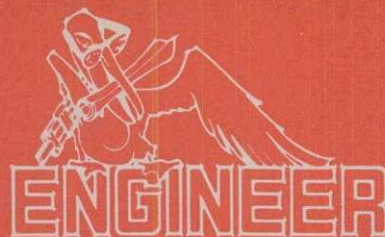




LOUISIANA



December, 1978



**LES SEEKS THE NOMINATION OF
WALDEMAR S. NELSON, P.E.,
AS PRESIDENT-ELECT OF NSPE.**

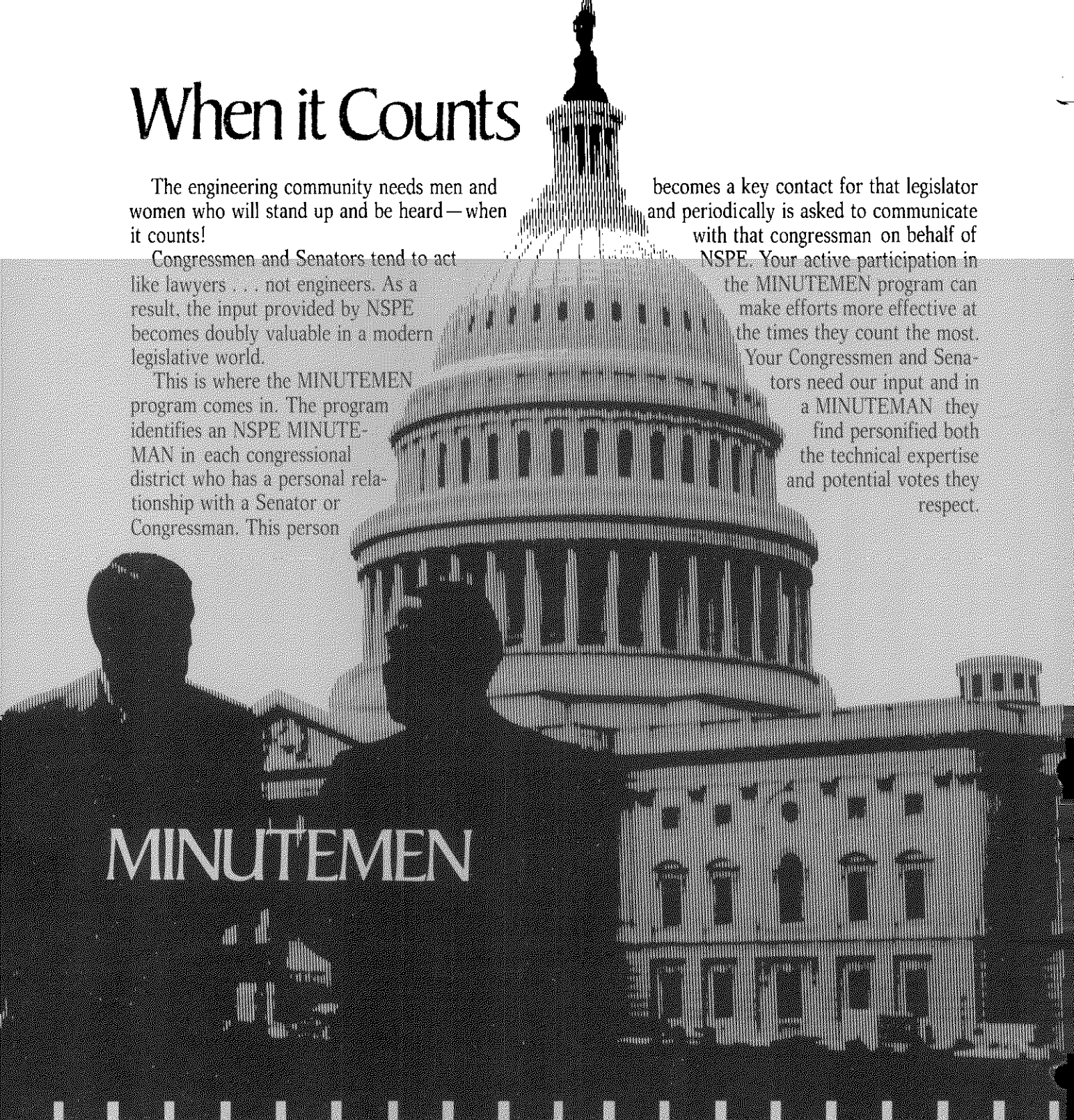
When it Counts

The engineering community needs men and women who will stand up and be heard — when it counts!

Congressmen and Senators tend to act like lawyers . . . not engineers. As a result, the input provided by NSPE becomes doubly valuable in a modern legislative world.

This is where the MINUTEMEN program comes in. The program identifies an NSPE MINUTEMAN in each congressional district who has a personal relationship with a Senator or Congressman. This person

becomes a key contact for that legislator and periodically is asked to communicate with that congressman on behalf of NSPE. Your active participation in the MINUTEMEN program can make efforts more effective at the times they count the most. Your Congressmen and Senators need our input and in a MINUTEMAN they find personified both the technical expertise and potential votes they respect.



MINUTEMEN

Please fill out and return this form to:

National Society of Professional Engineers

Legislative and Government Affairs Department, 2029 K St. NW, Washington, D.C. 20006

☐ Yes, I would like to participate in the Minuteman Program and am willing to contact my Congressman on behalf of NSPE.

I have an acquaintance with the following members of Congress or their chief aides.

- ☐ _____
- ☐ _____
- ☐ _____

Please describe the nature of your acquaintance:

Name and Address:

ZIP

Phone: _____

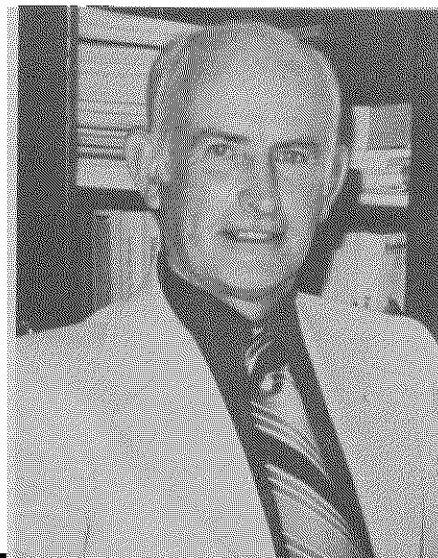
Business Address:

Phone: _____

ZIP

PRESIDENTIAL PRIVILEGE

Carl H. Thomas, P.E.
President, LES



One of the most exciting characteristics of the Louisiana Engineering Society is that its members come from practically all engineering disciplines, with little or no concern for what that discipline happens to be. Rarely are the individual disciplines mentioned during normal activities of the Society. I think this is the basis for our strength and feel that we are not taking full advantage of this peculiarity.

The LES has always stressed professionalism, and not the technical aspects of engineering, which seems to distinguish this organization from most others. We are concerned with the professionals in education, government, industry, private practice and construction, fields which include all engineering disciplines. The members relate to each other in the LES primarily through their professions, and many times don't even know the other's discipline. This is the mark of a strong professional and subsequently a strong engineering society.

Please be aware of the real difference between interdisciplinary and multidisciplinary activities. These should be further distinguished from intersociety activities, though most of our engineering societies are basically single-discipline. Interdisciplinary activities are those occurring between or among disciplines with separate inputs.

I see the multidisciplinary activities as those involving more than one discipline but performing as one unit, such as the LES. Intersociety relations is a major segment of the activities of the LES as efforts are made

to bring the various engineering societies closer together toward some common goal. This goal might be to improve the image of the engineering profession and its relation to the public.

It is a real pleasure to work with so many great engineers without being concerned about their basic disciplines. I am most interested in what the engineer is doing and not what he studied while in school. It's a known fact that more engineering is learned in the profession than in a school. The basics are learned in the classroom but the profession develops from applications in the field. Why then do we so often stress disciplines for the selection of engineers and engineering work? Is it because we are looking for an easy way out?

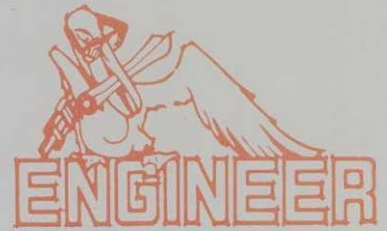
I'm strictly for an engineering profession consisting of engineers who are capable of doing the chosen engineering job. A competent engineer will not accept a job which he does not have the ability to do. It is within this atmosphere that I most enjoy my association with the Louisiana Engineering Society.

Let me take advantage of this opportunity to wish for all of my engineering friends and their families a most Merry Christmas and Happy New Year. May 1979 be the best yet for you.

May I further express my sincere appreciation to our state office staff and wish them and their families a joyous Christmas and New Year. They are the ones who make it a real pleasure to hold an executive office in this society.

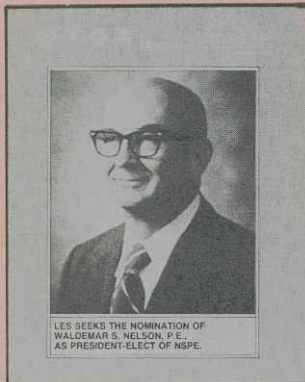
December, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. One dollar 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.

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



About the Cover:

LES is proud to announce that it seeks the nomination of Waldemar S. Nelson as president-elect of NSPE. For details on Nelson's career and accomplishments, turn to page 10.

In This Issue:

Presidential Privilege	3
The Great Flood of 1978	6
LES Seeks Nomination of Nelson as President-Elect of NSPE	10
Theis Named to Board of Registration	11
Potpourri	12
Report of Disciplinary Action ..	14
Vliet's Views	14
EngiNews	15

LES OFFICERS AND BOARD

President
Carl H. Thomas, P.E.
First Vice President
Francis C. Roy, P.E.
Second Vice President
Jerrel J. Freeman, P.E.
Secretary-Treasurer
John E. Ritter, P.E.

NSPE DIRECTOR

T. J. Hogue Jr., P.E.

STATE DIRECTORS

Arthur DeFraitres Jr., P.E.
T. Dudley Hixson, P.E.
Henry E. Markel, P.E.
John J. Guth, P.E.
E. E. "Buddy" Moncla, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Jesse A. Simmons Jr., P.E.
Baton Rouge
Harold R. Williamson, P.E.
Bayou
John W. Woodard, P.E.
Lafayette
Richard A. Dupuis, P.E.
Lake Charles
William J. Bergeron, P.E.
Monroe
James W. Spivey, P.E.
New Orleans
Regis G. Trumps, P.E.
Shreveport
Ted J. Povinelli, P.E.

PRACTICE DIVISIONS

Construction
David Edgar, P.E.
Education
Frederick J. Brown, P.E.
Government
James C. Porter, P.E.
Industry
A. J. Adoue, P.E.
Private Practice
Richard Meyer, P.E.

COMMITTEE CHAIRMEN FOR 1978-79

Engineering Education
Clarence E. Hall
Ethics & Professional Conduct
David Buck, P.E.
Honors & Awards
James L. Meyer, P.E.
Inter-Society Relations
John J. Bergeron, P.E.
Legislative
D. J. Webre Jr., P.E.
Liaison with State Board of Registration
Arthur DeFraitres Jr., P.E.
Membership
Robert P. Blanche, P.E.
Public Relations
Dale T. Hunn, P.E.
Liaison with State Board of Regents
Larry A. McKee, P.E.
Young Engineers
Douglas B. Robert, P.E.

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
James W. Reeves, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
H. L. Henry Jr., P.E.
Edward J. McNamara, P.E.
Arthur R. Theis, P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.

Managing Editor
R. C. "Doc" Spears

Publishing Consultants
Norman C. Ferachi & Associates, Inc.



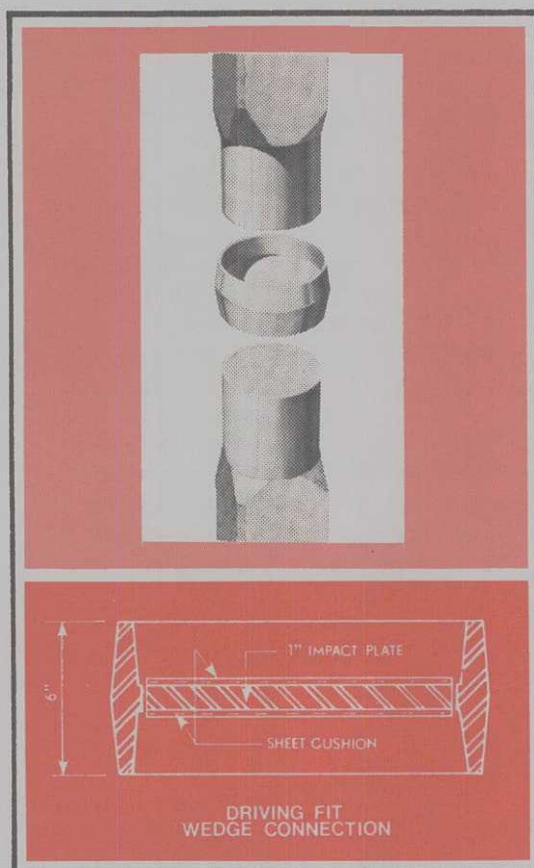
These buildings are built on Brunspiling: **1.** Louisiana Superdome; **2.** Amoco Building; **3.** Hyatt Regency Hotel; **4.** Plaza Tower; **5.** International Trade Mart Garage; **6.** International Trade Mart; **7.** One Shell Square; **8.** One Shell Square Garage; **9.** Marriott Hotel; **10.** Rault Holiday Inn; **11.** Howard Johnson Motel; **12.** NBC Bank Building; **13.** ODECO Building; **14.** Canal Motors Building; **15.** ODECO Garage; **16.** LSU Medical Center. Under Construction: **A.** Marriott Hotel Addition; **B.** Pan-American Life Insurance Building; **C.** 1250 Poydras Building.

In New Orleans, the skyline rests on cost-saving Belden Brunspile^{T.M.}

Since the development of the Belden Brunspile, more of the new buildings in the New Orleans area use this type of foundation piling than any other kind.

That's because this precast prestressed concrete piling is specially designed to reach great depths with conventional pile-driving equipment, resulting in substantial foundation savings.

Sections are easily joined in minutes at the job site by means of a cast steel connector. This creates piling of unlimited lengths.



High strength concrete makes this high capacity piling possible. 400 ton load tests are not uncommon. Thus Brunspiles can deliver an economical cost per ton of design capacity.

For more information on Brunspiling and load tests, call today.



Marine Concrete Structures, Inc.

2030 St. Charles Ave. — New Orleans, La. 70130 — (504) 523-2504

The Great Flood of 1978 — A Rainy “Sun” Day

**By Wes Busby, Engineer
Sewerage & Water Board
of New Orleans**

On the morning of May 3, 1978, a light rain began in the New Orleans area around 7:00 o'clock in the morning. This rain only lasted for approximately seven hours, but it was destined to become one of the six greatest rainfalls ever recorded in the 85 years of recorded rainfalls by the Sewerage and Water Board of New Orleans, La.

By 9:00 o'clock that morning, the light, sporadic rainfall had settled into very intense, constant precipitation, and continued without any significant decrease in intensity until noon. Heavy rainfall, with brief periods of light rainfall, continued until about 2:00 p.m. During this time, approximately 11 billion gallons of water fell on the populated area of New Orleans, La., Orleans Parish, exclusive of surrounding parishes.

This 11 billion gallons of water represents 46 million tons of water, the majority of which had to be pumped out of the area into adjacent Lake Pontchartrain. To help visualize this quantity of water, equate it to a lake of water 10 square miles in area and 5½ feet deep, being completely emptied by pumping in a period of 24 hours.

Figure 1 shows the area of New Orleans described in this report with the degree of flooding that occurred on May 3, 1978. After a brief discussion of the rain itself compared to the total pumping capacity of the drainage system, I will explain the basic drainage system.

As reported earlier, this rainfall was one of the six greatest rains recorded, and Figure 2 lists these six rains. Superimposed on this chart are the 50-year and 100-year storm curves as defined by the U. S. Weather Bureau. These curves represent a rain storm that could be expected in the New Orleans area every 50 or 100 years.

As you can see, this rainfall, though lower in total accumulated rain as compared to some of the other storms, was truly a “100-year storm” because of its intense and constant

rate of rainfall between the hours of 9 o'clock in the morning and noon.

Now, let's compare the rainfall to the Sewerage and Water Board's total pumping capacity as shown in Figure 3. Here we see that the pumping capacity of the system can handle approximately 1½ inches of rain the first hour, and one-half inch of rain per hour thereafter.

As shown, the **rate** of rain greatly exceeded this pumping capacity, and the result was flooding of streets until the system caught up with the surplus ponded water. Note that the majority of the flooded areas were drained in approximately 14 hours after the intense rains began.

Basic Drainage System

In order to appreciate some interesting events during the storm as related to the Sewerage and Water Board's drainage system, we should first review this basic system itself, as shown in Figure 4. For the moment, I will confine the discussion of the system to the area of New Orleans bounded by Lake Pontchartrain, Industrial Canal, the Mississippi River, and the Jefferson-Orleans Parish line.

This area has a contour much like that of a saucer, with the land near the Mississippi River and the lake being relatively high (approximately sea level), and the interior area around Pumping Station One near Broad Street and Washington Avenue being low (approximately four feet below sea level). Also keep in mind that levees exist along the other boundaries, the parish line and Industrial Canal, thus confining all storm water run-off.

Basically, stations one and two are relay stations, discharging to stations six and seven, respectively.

In this area, the main pumping stations (three, four, six, seven and 12) all discharge into Lake Pontchartrain. Station five also drains a portion of this area with the use of a siphon under Industrial Canal at Florida Avenue, and its discharge is into Lake Borgne via Bayou Bienvenu.

The main pumping units within the

stations are 12 feet and 14 feet diameter screw type impeller pumps. The 12-foot diameter pumps were designed by A. Baldwin Wood in 1913, while working for the Sewerage and Water Board as a mechanical engineer; in 1927 he designed the 14-foot diameter pumps. One 14-foot diameter pump can discharge approximately 450,000 gallons per minute.

All 12-foot and 14-foot diameter pumps are electric motor driven, being supplied by a 25 cycle A.C. system capable of delivering 61,000 kilowatts. This 61,000 kilowatts of power is supplied through the Sewerage and Water Board's Power House, where the electric power is generated by three steam turbine generators having a total capacity of 41,000 kilowatts, and a gas turbine generator rated at 20,000 kilowatts.

The Sewerage and Water Board also has four frequency changers capable of converting 60-cycle power from the local electric distribution company, New Orleans Public Service, to 24 cycles, the total conversion equipment being rated at 18,000 kilowatts.

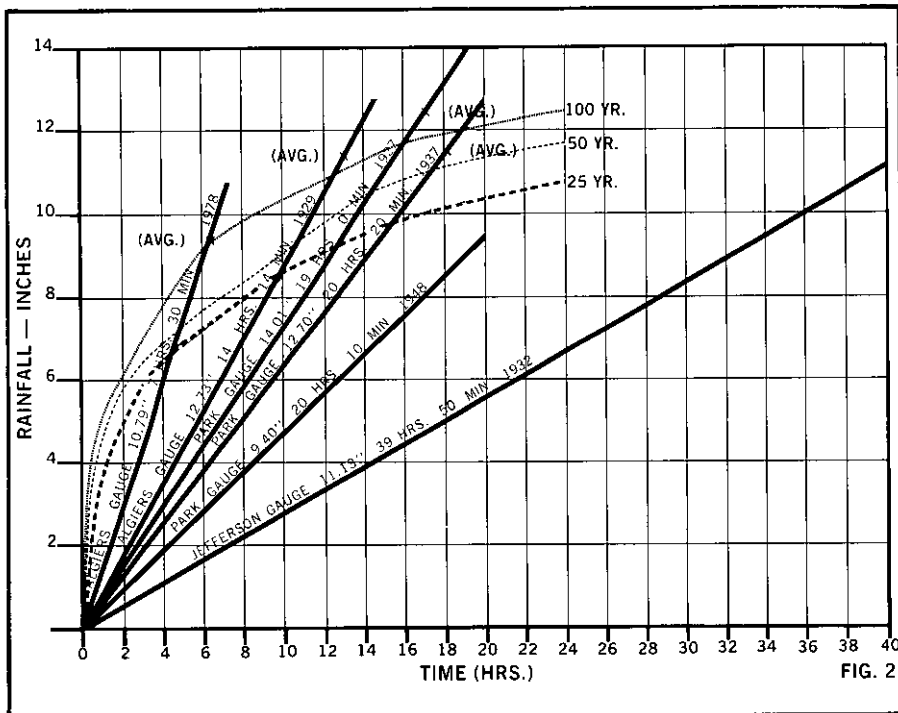
The electric power is delivered through the Sewerage and Water Board's underground electric cable supply system. The underground cable system replaced a previous overhead system because of the greater reliability during storms.

Chronology of Events

Keeping in mind the basic drainage system described above, and shown in Figure 4, we will review some of the day's events during the rain. With the start of rain around 7 a.m., and the forecast of heavy rains to follow, the power house, central control and station “D” (the location of two frequency changers) were prepared for rain. Sufficient water collected at the drainage stations to start priming the large pumping units and putting them into service.

During the early hours of the rain period, an unusual event occurred concerning the Lake Pontchartrain tide, which had a significant effect on

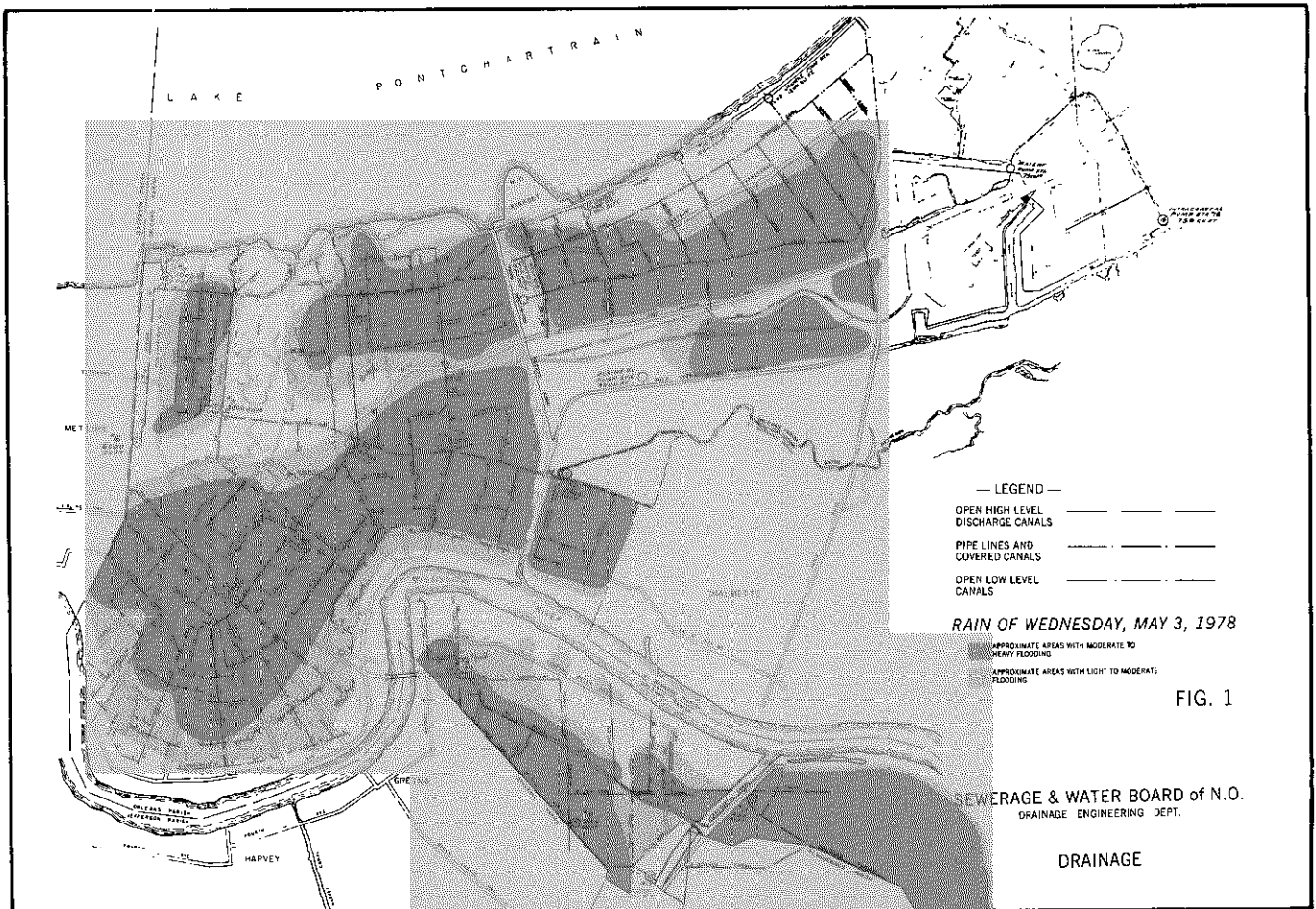
New Orleans Will Never Forget



the pumping operations later in the day. There was a tide surge of $3\frac{1}{2}$ feet in a 20-minute period around 7:30 a.m., which receded within the hour, and then surged back at 10:30 a.m. and remained throughout the day and night. This tide surge was equal to one usually associated with a hurricane.

At 10:40 a.m., New Orleans Public Service's overhead supply feeder to one of the frequency changers at station "D" lost power for approximately ten minutes. This short power outage caused one of the 14-foot diameter pumps at station six to shut down, and when power was restored this pump could not be re-started as a result of the extremely high tides.

The pumps, which are powered with large synchronous motors, require that they have no power load for starting. Thus, the pump chamber has to be de-watered, but this proved to be impossible because of the high



tides being experienced on the discharge side of pumping station six. Consequently, the 14-foot diameter pump, representing an output of 1000 cubic feet per second, was lost for service for the remainder of the day.

Although there were numerous minor incidents at various stations, the drainage system operated at near capacity throughout the day until about 4:50 p.m., when a 14-foot diameter pump at station six suffered massive internal damage and had to be taken out of service.

This pump was later inspected and found to have a broken propeller blade, the failure being attributed to the extraordinary thrust loads caused by the high tide in Lake Pontchartrain. It should be pointed out that this failure of a blade was the first to occur since the pumps were put into service in 1929.

As described previously, the area bounded by Lake Pontchartrain, Inner Harbor Navigation Canal, the Mississippi River and the Orleans Parish Line, has a dry pumping system. By "dry" system, this area has a pumping capacity designed to remove storm water at the same rate of a two-year frequency design storm. Any rainfall from a storm greater than

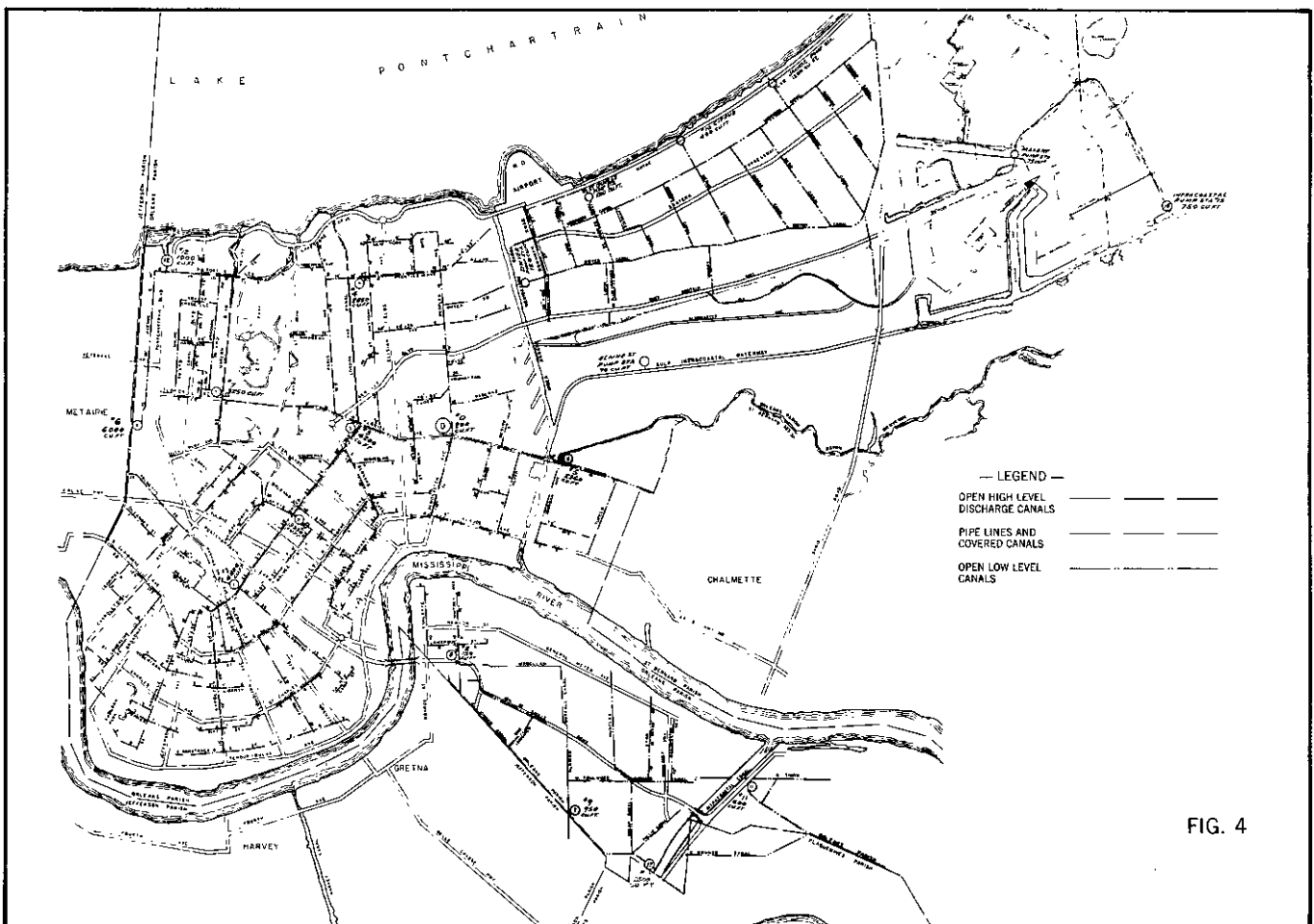
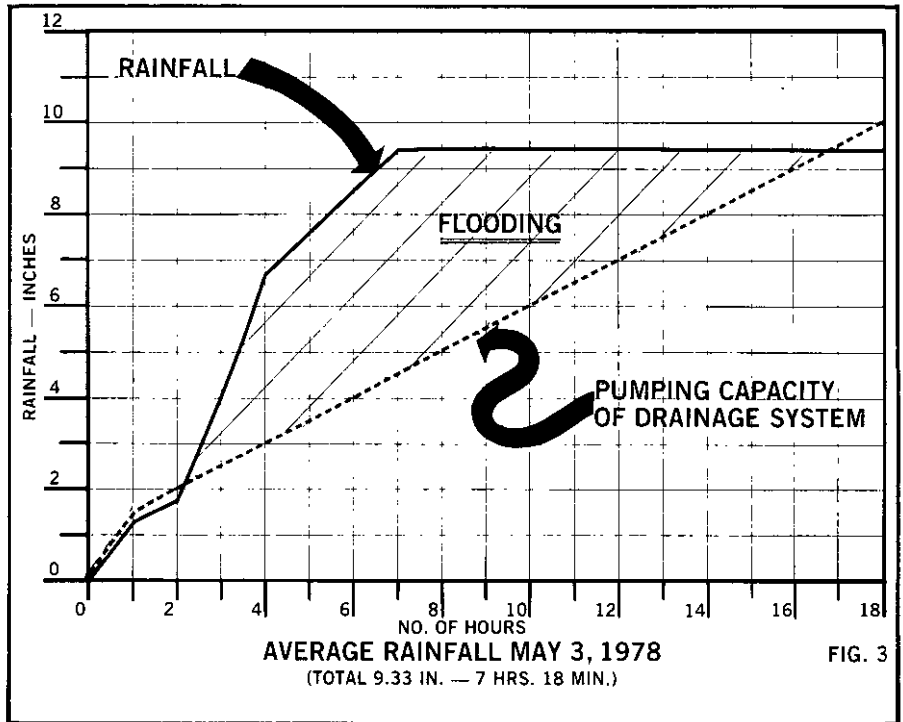
the largest storm expected every two years would be temporarily stored in street areas.

Wet vs. Dry Systems

As shown in Figure 5, the drainage system of New Orleans is divided into

various areas, each having a different rate of pumping capacity per acre. You will note that the "dry" system area has a rate of 0.8 cfs per acre as compared to the "wet" system in New Orleans East which has a rate of 0.033 cfs per acre.

The "wet" system has a very large



storage volume within the system made up of lakes, lagoons, and large drainage canals. The area between the Inner Harbor Navigation Canal and Paris Road is between a "wet" system and a "dry" system, having a pumping capacity rate of 0.3 cfs per acre.

Referring back to Figure 1, we note that the most widespread and severe flooding occurred in the "dry" system area and the least flooding, practically none at all, occurred in the "wet" system area of New Orleans East.

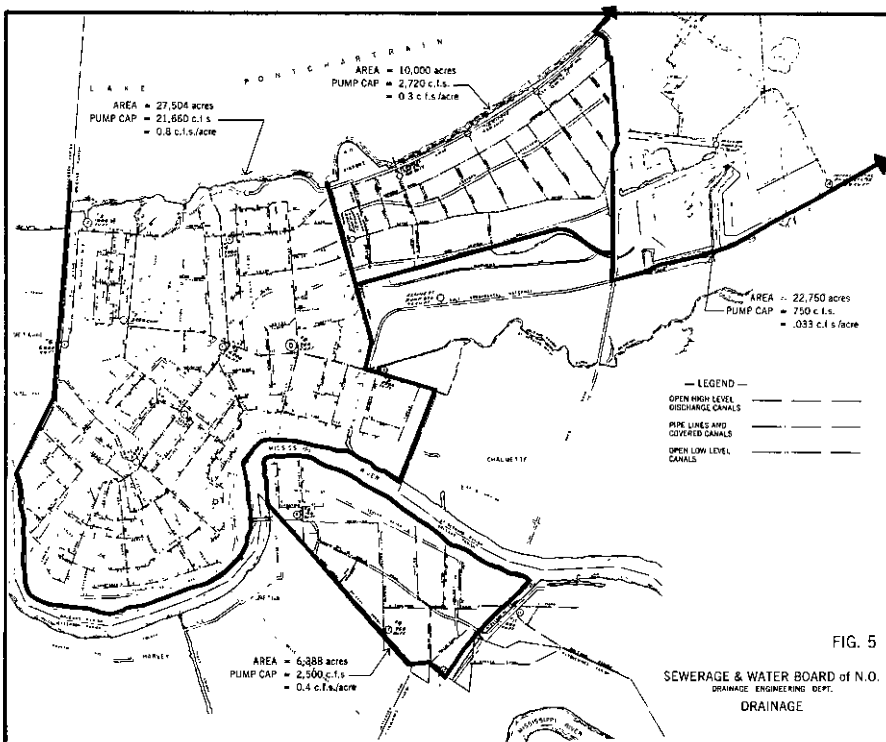
From the above statistics, it would be assumed that the best system for the New Orleans area would be a "wet" storage system. However, it should be pointed out that this type of system has some disadvantages, the most important being the dedication of large areas of land towards the drainage system for storage use. This is a problem for the New Orleans area, since land is at a premium because of the natural limitations imposed by the surrounding lake, river and marsh land.

The rains ended around 2:00 o'clock that afternoon, and the sun came out around 4:00 p.m. on that Wednesday, May 3, 1978, the day set

aside nationally for "Sun" Day in dedication of solar energy.

Although we do not think of it as such, rainfall is probably the biggest form of solar energy, and certainly one of the most rewarding, for without

it we would not have life as we know it on earth today. However, the residents of New Orleans and surrounding areas would have preferred a little more direct solar energy in lieu of the indirect form they received that day.



MUD GOTCHA?

You can avoid delays and save yourself some money by using chemical lime to stabilize clay soils.

Chemical lime is a stabilization agent which first dries the clay and makes it more friable, giving an immediate working surface. Chemical lime, when mixed with fine-grained soil, reacts with the clay to form a natural cement (or cementing agent). When this mixture is compacted, cementation of soil particles occurs which results in increased strength.

Write for your free copy of our Lime Stabilization Construction booklet.

Longview Lime Pelican State Lime
(205) 988-5615 (504) 631-2191

Divisions of SI LIME COMPANY
 P.O. Box 26223 • 205-823-6615 • Birmingham, Ala. 35226
 Subsidiary of Southern Industries Corporation

ENGINEERS & DRAFTERS

Large, long-established consulting engineering firm has openings in New Orleans for:

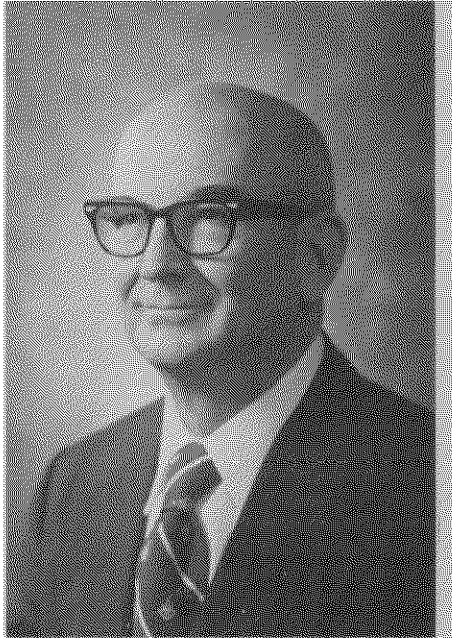
**CHEMICAL ENGINEERS
 CIVIL ENGINEERS,
 DESIGNERS & DRAFTERS
 ELECTRICAL ENGINEERS,
 DESIGNERS & DRAFTERS
 INSTRUMENTATION
 ENGINEERS & DESIGNERS
 MECHANICAL ENGINEERS**

Min. one year consulting firm, petrochemical plant, offshore or onshore oil production facilities or HVAC design experience. All replies held confidential. Send resume to:

C.H. Weatherly
 An Equal Opportunity Employer, M/F

WALDEMAR S. NELSON & CO., INC.
ENGINEERS & ARCHITECTS
 1200 St. Charles Ave.
 New Orleans, La. 70130

LES Seeks Nomination of Waldemar S. Nelson As President-Elect of NSPE



Waldemar S. Nelson, P.E.

The Louisiana Engineering Society is proud and happy to announce that it seeks the nomination of Waldemar S. Nelson, P.E., as president-elect of the National Society of Professional Engineering for the 1980-81 term of office.

We believe that his record of past and present service to the Society and to the engineering profession indicates his ability and willingness to meet the requirements of time and other sacrifices that accompany the office of president-elect, and later, that of president of the National Society of Professional Engineers.

Nelson is presently vice president of the southwestern region of NSPE, and his record of service to the engineering profession goes back many years. He has served as chairman of the NSPE Board of Ethical Review, treasurer of the National Council of Engineering Examiners and president of the Louisiana Engineering Society of which he is an honorary member.

He has also been chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, president of the Engineers Club of New Orleans, president of the Society of Tulane Engineers and president of the Tulane Alumni Association. He is presently a trustee of the Tulane Engineering Foundation.

Besides his regional duties as southwestern vice president for NSPE, he is responsible for the national society's Budget, Constitution and Bylaws, Meeting Sites, Nominating, Organization and Functions, Policy Review, Reserve Fund and Resolutions committees.

We believe that his record in overseeing the activities of these facets of NSPE activities plus his history of other engineering and managerial activities are strong indicators of his capability to serve as president-elect,

and later, president of NSPE.

Nelson is an active member in many societies and organizations including the American Society of Mechanical Engineers (of which he is a fellow and past president of the New Orleans Chapter); American Society of Civil Engineers (Fellow); Institute of Electrical and Electronics Engineers; Society of American Military Engineers; American Public Works Association; Tau Beta Pi, Pi Tau Sigma, and Eta Kappa Nu honorary engineering fraternities.

Honors granted him during his brilliant career include the Distinguished Service Award of the National Council of Engineering Examiners, Outstanding Engineering Alumnus Award for 1976 from Tulane University and the Louisiana Engineering Society's Public Relations Award (1975) and its Professional Service Award (1977).

Nelson is founder and president of Waldemar S. Nelson and Co., a New Orleans-based general engineering consulting firm employing over 150 engineers, designers and other support personnel. He is a graduate of Tulane University's School of Engineering (mechanical and electrical) and has worked in various locations and in several fields before opening his own practice in 1939. He is a registered professional engineer in 31 states.

Currently, he is president of the New Orleans City Park Improvement Association which supervises the administration of a 1500-acre municipal park.

Nelson's stature and continuing leadership will do much to enhance the operations and prestige of our Society. We know that you who have worked with Waldemar Nelson will share our views, and we hope that you will join us in promoting his candidacy for this high office.

The Louisiana Engineer

Theis Named to Board of Registration

Arthur R. Theis, P.E., has been appointed to replace Sidney L. Polynard, P.E., on the Louisiana Board of Registration for Professional Engineers and Land Surveyors.

Since 1976, Theis has been the chief engineer at the Office of Public Works, Department of Transportation and Development. He has been with the department since June, 1953.

The author of several articles published in regard to Louisiana coastal beach erosion, Theis currently serves as consultant to USCE, Chief of Engineers on the Shoreline Erosion Advising Panel. He has also represented Louisiana on numerous committees related to compact com-



Arthur R. Theis

missions and flood control.

Theis currently represents the state as commissioner on the Red River Compact, and he has served on several committees involved with water resources development, land use planning and beach erosion.

A native of Louisiana, Theis was born and raised in Shreveport. After serving in both World War II and the Korean conflict, he was graduated from Louisiana Tech with a BS in Civil Engineering.

Presently, he resides in Baton Rouge where he is a member of the Louisiana Engineering Society and the National Society of Professional Engineers.

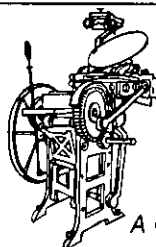
Services and Contractors



LES AUTOMOBILE INSURANCE PROGRAM

EMPLOYEES INSURANCE
REPRESENTATIVES, INC.

4815 Jamestown Ave.
Post Office Box 14697
Baton Rouge, Louisiana 70808
Telephone (504) 926-0483



PRINTING INCORPORATED

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

A COMPLETE CREATIVE PRINTING SERVICE.

RESUMES

Professionally Prepared

R & N SERVICES, LTD.

4958 Redwood Street
New Orleans, La. 70127

(504) 242-5034

PHONE (504) 387-0504



FRANKLIN PRESS, INC.

1391 HIGHLAND ROAD • P. O. BOX 1269
BATON ROUGE, LOUISIANA 70821

BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814

Phone 925-0991

ALL TYPES OF PRINTING—
BOTH BUSINESS AND PERSONAL

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

P. O. Box 23293

5524 Mounes Street

New Orleans, La. 70183

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
ELECTRICAL AND INSTRUMENTATION

Phone 292-0100

P.O. Box 15274
Baton Rouge, La. 70815

ORLEANS MATERIALS & EQUIPMENT CO., INC.

5501 France Road

New Orleans, La. 70126

CONSULT BOYCE...

Specialists in Caterpillar Power!

Big Bore Medium Speed
6.25" Industrial Engines 200 to 1300 BHP
Generator Sets 335 to 900 KW

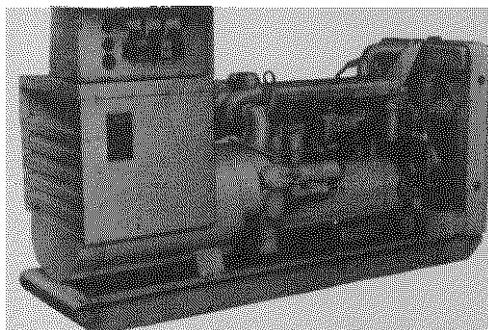
High Power Compacts
5.4" Industrial Engines 315 to 1130 HP
Generator Sets 285 to 750 KW

3400 Series
Industrial Eng. 325 to 375 HP
Generator Sets 240 KW

Heavy Duty Smaller Units
4-6 cyl. Industrial Eng. 100 to 280 HP
Generator Sets 60 to 205 KW

High Performance V8's
Industrial Eng. 175 to 210 HP

Truck Engines -16 models - 175 to 450 HP
Cat Packaged Generator Sets 50 to 375 KW
Natural Gas Engines 133 to 1115 BHP
Cat Marine Engines 125 to 1125 BHP



A Wide Variety of Cat-Plus Services to Keep
Your Caterpillar-Built Engine Products Earning
for you . . . longer life — more profits.

Service Throughout Louisiana.



CATERPILLAR
SALES, SERVICE & PARTS



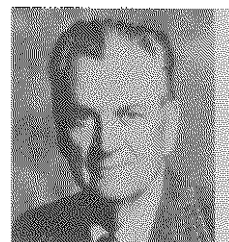
BOYCE
MACHINERY CORP.
DRAWER A J, RESERVE, LOUISIANA 70084
TELEPHONE 504-536-1121

MORGAN CITY: 504-631-0561 LAKE CHARLES 318-439-3601

Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.

Potpourri

R. C. "Doc" Spears
LES Executive Secretary



Your Legislative Committee in Action

The case, "**Mrs. Elizabeth Ann Daigreport Burmaster, Inc., vs. Gravity Drainage District No. 2 of the Parish of St. Charles, and Fromherz Engineers, Inc.,**" concerns a decision of the District Court decreeing LSA-R.S. 9:2772 unconstitutional.

LSA R.S. 9:2772 is the Louisiana Statute prescribing a 10-year prescriptive period of liability for design professionals. The case above was filed 16 years after completion of the project.

An engineer should not be subjected to such litigation more than 10 years after the work has been accepted. Under the plaintiff's theory, a design professional could be sued 35 years after completion of a project, at a time when he may be retired or his heirs may be left to fight the case.

Consequently, the Louisiana Engineering Society with support from the **Consulting Engineers Council of Louisiana** and the **American Society of Civil Engineers, Louisiana Section**, has had prepared and has submitted an "amicus curiae" brief on the case. It was not the purpose of the brief to advocate generally the appellant's position or to otherwise seek judgment in favor of Fromherz Engineers. Rather, the scope of the brief attempts to present a cursory discussion of those policy considerations weighing in favor of the proposition that the 10-year prescriptive period is **not** special legislation. To the contrary, it is a valid exercise of legislation well designed to ably serve legitimate public interests.

Oral arguments before the Louisiana Supreme Court were held November 14, 1978. Results should be forthcoming in 30 to 45 days.

Louisiana Engineer Elected Chairman-Elect of NSPE-PEC

E. E. "Buddy" Moncla, P.E., was featured in the October-November, 1978, issue of the *NSPE-PEC Reporter*, with a nice article and photograph. He was elected chairman-elect of the NSPE Professional Engineers in Construction practice division (PEC).

Moncla is currently vice president of Ford, Bacon and Davis Construction Corp., Monroe. He was president of the Louisiana Engineering Society in 1977-78. He received his BS degree in mechanical engineering from USL in 1949 and is acknowledged as an industry expert on pipeline matters in state and federal courts throughout the country.

The NSPE-PEC, one of the five practice divisions of the National Society of Professional Engineers, provides an effective forum for discussion and action on problems of common interest to engineers employed or engaged in construction.

Buddy Moncla will be an excellent leader of NSPE-PEC and the Louisiana Engineering Society congratulates him and NSPE-PEC.

NSPE Urges Congress to Include Design Professionals in Liability Legislation

The National Society of Professional Engineers urged Congress, in September 29 panel testimony before the **Subcommittee on Miscellaneous Revenues of the House Ways and Means Committee**, to include design professionals in pending legislation allowing a tax deduction on liability loss reserve accounts. NSPE was joined in its presentation by representatives of ACEC, ASCE and AIA.

The Society expressed strong support for Congress turning its attention to the liability problems of product manufacturers, but cautioned that design professionals warrant equal attention, as every product and building or structure must first be designed.

Outlining the gravity of the problem, NSPE noted that during the 1960s, professional liability insurance for building designers generally cost less than one percent of a firm's gross receipts. By the late '70s, however, premiums on this coverage skyrocketed. National average premium increases have raised the cost of such insurance 577 percent over the past eight years.

NSPE believes one of the best steps toward solution of this burgeoning problem is Rep. Whalen's (R.-OHIO) proposed legislation, H.R. 7711, which does include design professionals, in allowing for tax deductions on a liability loss reserve account.

Iowan Named NSPE Young Engineer of the Year

Dr. Max L. Porter, P.E., 36-year-old professor of civil engineering

The Louisiana Engineer

at Iowa State University, has been named **Young Engineer of the Year** for 1978 by the 80,000-member NSPE.

Highly active in the Iowa Engineering Society, affiliated with NSPE, Porter has served with the state membership committee and has chaired the professional development committee as well as holding numerous offices, including the presidency, of the Anson Marston Chapter in Ames.

Porter's accomplishments in his chosen field are impressive. He has participated in more than 25 separate profession-related conferences, courses and seminars, has assisted in the production of nine technical publications and manuals and has more than 40 individual research reports and oral presentations to his credit.

NSPE Membership Contest

In the NSPE membership contest that ended November 30, 1978, LES, as of October 31, showed a net gain of 34 new members, a statistic that puts us in third place behind Iowa and Georgia in the Group IV (881-1240 members) category. All members in arrears have been removed from the October 31 tabulation. The total LES/NSPE members was 1,256.

The chances for a third consecutive win for LES appear slim. LES won the 1976 and 1977 NSPE membership contests.

"Energy—The Effects on the Future of Louisiana"

A symposium entitled: "Energy—The Effects on the Future of Louisiana" will be held at the **University of New Orleans** January 11 and 12, 1979. It will consist of presentations by speakers of national and local expertise on the various areas, such as the availability of fuels, production and sale of energy, future costs and methods and political legislation affecting such issues. The registration fee is \$125 which includes a luncheon and literature.

The symposium is sponsored by student engineering chapters of the University of New Orleans, the Mechanical Engineering Club and the National Society of Black Engineers.

For detail information contact: Dr. Fred J. Brown, School of Engineering, University of New Orleans, New Orleans 70122, telephone (504) 283-0652.

Louisiana Engineering Foundation (LEF)

The articles of incorporation for the Louisiana Engineering Foundation were filed with the Secretary of State on November 14, 1978.

Sixteen engineers have been appointed as members of the LEF Board of Directors. They are **James L. Meyer, P.E.**, Alexandria; **Vincent A. Forte, P.E.**, Leo M. Odom, P.E., Roger W. Richardson, P.E., Baton Rouge; **Hubert G. Snead, P.E.**, Houma; **Curtis E. Dyle, P.E.**, George A. Breffilk, P.E., Lake Charles; **Jack Thigpen, P.E.**, Ruston; **Marvin Firmin, P.E.**, James S. Janssen, P.E., New Orleans; **William Klos, P.E.**, A.J. Szabo, P.E., James W. Reeves, P.E., Lafayette; **Edward M. Jolly, P.E.**, and **Lloyd Hoover, P.E.**, Shreveport.

A meeting of the Board was held on December 9 in Baton Rouge to elect officers of the Board, complete bylaws, determine dues structure, conduct a feasibility study and determine goals and objectives.

1979 Engineers Week

The 29th annual observance of **National Engineers Week**, sponsored by NSPE, will take place February 18-24. The theme for this year's observance, "**Engineers — People Bringing Purpose to Progress**," gives public recognition to the individuals behind the technological advancements of our time.

Among the promotional materials available from NSPE headquarters are radio and public service announcement scripts, posters, buttons, adhesive seals, newspaper stories, letterhead stationery, bumper stickers and glossy reproductions of the EW poster design.

LES chapters and local Engineers Week committees are urged to launch their planning activities as soon as possible, since the week provides, in many communities, the most important engineering-related activity of the year.

NSPE Meeting

The **1979 NSPE Winter Meeting** will be held **January 22-27, 1979**, at the Sheraton Century Center Hotel in Oklahoma City.

Monday, Tuesday and Wednesday are scheduled for practice divisions meetings, and Thursday, Friday and Saturday for meetings of the NSPE Board of Directors.

A special warm welcome has been extended to engineers from Louisiana. Oklahoma derives its name from two Choctaw words "Okla Humma," meaning Land of the Red Man. You won't find teepees in Oklahoma City, but rather a bustling, modern metropolis with a host of museums, stores and galleries that have preserved western heritage for you to see and enjoy.

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE
ASPHALT
SHELLS
SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE

RUSTON, LOUISIANA

JAMES BUILDING • PHONE 255-7912

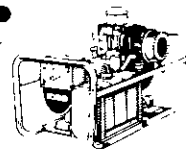
KENNER, LOUISIANA

P. O. Box 8 • PHONE 729-2511

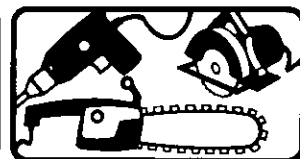
Equal Opportunity Employer

electric power wherever you need it.

At home or away, affordable power is now available from Kohler. Choose from a full line of portable models — 1750 to 5000 watts (120, 120/240 volts).



HOME STANDBY



OUTDOOR WORK



CAMPING



VACATION HOME

Kohler portable generator sets.



W. F. SURGI
SINCE 1925
Sales • Service • Parts • Rentals

EQUIPMENT CORPORATION
NEW ORLEANS, 504) 525-3142
BATON ROUGE, 504 293-0556
LAFAYETTE 318, 233-6522
The Gulf South's Best Machinery House



Report of Disciplinary Action By The Registration Board

Case 78-81

Land Surveyor guilty of gross negligence

COMPLAINT:

A complaint, in affidavit form, was filed with the Board charging a registered Land Surveyor, Person A, with unsatisfactory performance in the layout of a residential subdivision. Copies of plats of subdivision XYZ were submitted with the complaint as evidence to support the allegations that the number of errors was excessive and the magnitude of a few of these excessive.

INVESTIGATION:

The executive secretary engaged a registered Land Surveyor to investigate the complaint and report the results of his investigation. The investigator was encouraged to offer his opinions relative to possible violations of the Registration Law.

The investigation verified the complaint that there were numerous errors in the work performed by or under the supervision of Land Surveyor A. The executive secretary and the attorney for the Board decided that the hearing, which had already been scheduled, was necessary.

HEARING:

Three members of the Board served as hearing examiners to hear charges against Land Surveyor A of possible gross negligence, violation of contract, or gross incompetency as those terms are used in the Louisiana Revised Statutes 37:700 (b) (2). The hearing was convened at 9 a.m. in the Grand Jury room of the courthouse in Natchitoches, La.

The hearing examiners found that the plat of the XYZ subdivision contained over thirty incorrect measured distance calls, with mistakes ranging from a few feet to 100 feet. Person A acknowledged that the plat purported to represent to the public and to his client the true boundaries of the subdivision and the lots within it.

He admitted that a complete boundary survey was not made, that corners were set on only a few of 131 lots in the subdivision, and that he did not provide adequate supervision of the land surveying work in the field. (By law, the corners of all of the lots should have been staked.)

The testimony presented together with the plats introduced as evidence indicated that although Person A is a

competent land surveyor, he failed to use or exercise the education and experience he possesses to provide proper and adequate supervision. In addition, he had not complied with the Parish Ordinance and State Law with regard to the staking of lots in the XYZ subdivision.

The hearing examiners concluded that the supervision and control exercised by Person A in the performance of the land surveying work in the XYZ subdivision was well below the standards of performance expected of a registered Land Surveyor in the state of Louisiana. Accordingly, they recommended that in accordance with Louisiana Revised Statute 37:700 (b) (2), Person A be found guilty of gross negligence and that his certificate of registration be suspended for a period of one hundred eighty (180) days.

ACTION BY THE BOARD:

The Board accepted the findings, conclusions and recommendations of the hearing examiners and ordered that Person A be found guilty of gross negligence and that his registration as a Land Surveyor be suspended for one hundred and eighty (180) days.



Vliet's Views

Daniel H. Vliet
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors

The Reports of Disciplinary Actions by the Registration Board are published with the thought that Engineers and Land Surveyors can avoid problems in the practice of their professions by learning from the mistakes of others.

Recently, we have had two cases wherein Land Surveyors have incurred certified that a subdivision plat was laid out in accordance with the provisions of Act 34 of the 1962 Louisiana Legislature. The last is reported above on this page of the LOUISIANA ENGINEER as Case 7881. It is my opinion that at least in one of these cases the Land Surveyor

had no knowledge of his obligations under this act. I would not be surprised to learn that other Land Surveyors in Louisiana are sealing final plats of subdivisions before all of the lots in those subdivisions are staked with permanent markers.

Act 34 of the 1962 Louisiana Legislature, codified in Louisiana Revised Statute 33:5051, reads in part: "Whenever the owner of any real estate desires to lay out the same into squares or lots . . . he shall . . . cause the real estate to be surveyed and platted by a licensed surveyor or civil engineer* into lots or blocks, or both, each designated by number,

and set stakes which shall be permanent in nature at all corners of every lot and block." (Emphasis added.)

After attending the hearing of Case 7881, I am convinced that if all of the lots in subdivision XYZ had been staked, as required by law, before the final plat had been made, most of the mistakes in distance calls would have been found and corrected and the matter never presented to the Board.

Land Surveyors should not allow themselves to be pressured into submitting final plats of subdivisions until all of the land surveying work in those subdivisions is complete. It seems to me that adherence to the provisions of Act 34 of 1962 will protect not only the public but also developers and Land Surveyors.

*Prior to 1970 Civil Engineers were allowed to practice Land Surveying.

EngiNEWS

USL Graduates First Woman from College of Mechanical Engineering

Janis Simons of Lafayette will become the first woman mechanical engineering graduate of the University of Southwestern Louisiana College of Engineering, when she receives her degree this month.



Janis Simons

Since 1940, when the College of Engineering became a separate entity, approximately 1,000 men have received mechanical engineering degrees.

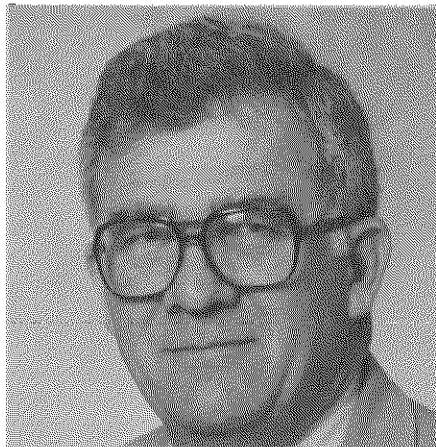
"There was some influence by my father, who is a chemical engineer," says Simon, "but I have always enjoyed math and science, and engineering seemed an interesting career to consider."

Simons is a member of Pi Mu Epsilon, the math honor society, and Tau Beta Pi, the engineering honor fraternity. Her activities include being secretary for Pi Tau Sigma, the mechanical engineering honor fraternity and secretary and vice-president for the American Society of Mechanical Engineers. She is also a member of the Louisiana Engineering Society and the USL Sailing Club.

Raymond Jenkins, mechanical engineering department head, comments: "Janis is a very fine student and a credit to our department. I wish her the best as she begins her career."

During her studies at USL, Simons received a \$250 scholarship from Dow Chemical Company and a \$150 award from CLECO Natural Gas.

Simons enjoys traveling, flying, sailing, playing tennis and sewing.



Raoul A. Levy

Louisiana Engineer Becomes ACEC Fellow

The American Consulting Engineers Council (ACEC) has announced the election of Raoul A. Levy, of Levy-Kramer & Associates, Inc., Baton Rouge, La., as a Fellow of the national organization. ACEC Fellows are elected in recognition of highly distinguished professional service and accomplishment.

Levy entered private practice as a consulting engineer in 1963 on his own, and later formed Levy-Kramer & Associates, Inc., of which he is now president. He is a graduate in electrical engineering from LSU.

He has served as president and national director of the Consulting Engineers Council of Louisiana, and is currently on a committee revising CEC/LA's articles of incorporation and bylaws.

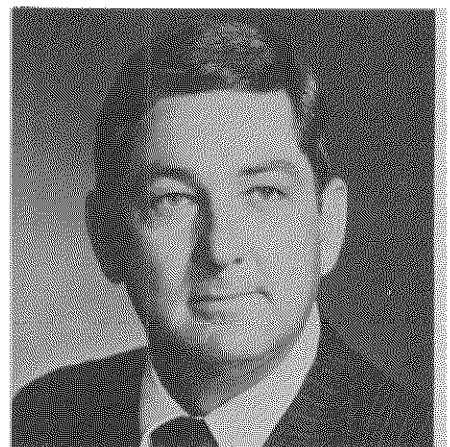
Levy is a member of the Baton Rouge Area Chamber of Commerce, and has served on the education committee.

Representing over 3,300 member firms and 100,000 employees, ACEC is the nation's largest organization devoted exclusively to the advancement of firms engaged in independent practice.

Dickinson Appointed Operations Manager of Barnard and Burk

Travis R. Dickinson has been appointed manager of operations of the Plant Services Division of Barnard and Burk, Inc. in Baton Rouge, La.

Dickinson joins Barnard and Burk with more than 20 years of experience in engineering, construction and maintenance in the chemical industry, with special expertise in rubber



Travis R. Dickinson

chemicals, agricultural chemicals, synthetic rubber and plastics.

For the past 14 years, Dickinson held a series of management positions with Uniroyal Chemical. He was involved in engineering, construction and maintenance activities in both the Geismar and Baton Rouge plants, and most recently was division manager for Uniroyal Chemical in Naugatuck, Conn.

Before joining Uniroyal, he served as maintenance manager for Geigy Chemical Corporation in McIntosh, Ala., and as maintenance engineer for Phillips Chemical Company in Pasadena, Tex.

Dickinson received his BS degree in mechanical engineering from the University of Texas. He and his family will reside in Baton Rouge.

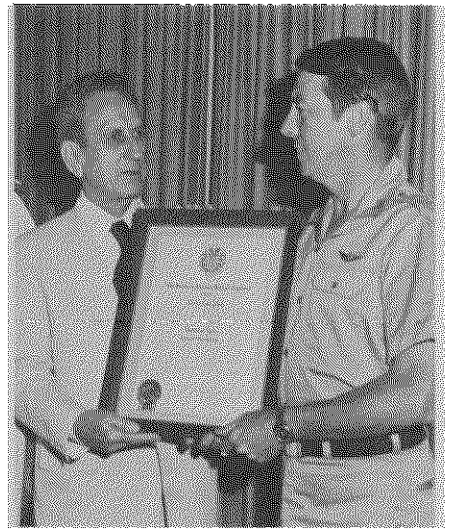
Bovay To Establish Energy Conservation Dept. in Baton Rouge

Bovay Engineers, Inc. announces it is establishing its first Energy Conservation Department in the firm's Baton Rouge office. The department will have the responsibility of providing technical services relating to energy management and conservation. Robert D. Allen, P.E., has been appointed manager of this new department.

Since joining Bovay in 1967 as a senior engineer in the Mechanical Department of the Baton Rouge office, Allen has served as lead engineer, project engineer, design division manager and business development manager. He was named associate in 1971. Allen is a registered professional engineer in Louisiana, Alabama and Oregon and is active in numerous professional organizations and civic activities.

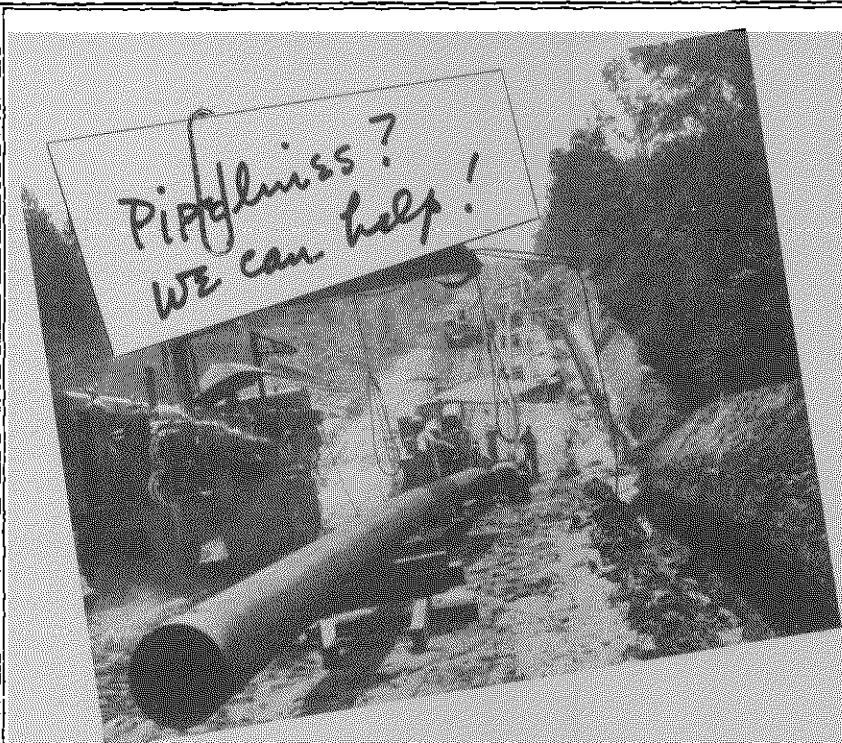


Jeannie Smith of Metairie, the recipient of LES's first scholarship in 1978, enrolled in Tulane University in the fall. Hugh Thompson, P.E., dean of Engineering, Tulane, right, presents a \$500 check to Smith. Sam Sullivan, P.E., associate dean, Tulane, observes. An additional \$500 will go to Smith, subject to her continuing enrollment in engineering classes and a sufficient grade point average. Funding for the scholarship was obtained by contributions from LES members.



The newly inducted president of the Society of American Military Engineers, Louisiana Post, Col. Thomas A. Sands, right, receives the post charter from Brig. Gen. Roy Kelly, U.S. Army, Ret., outgoing president, during installation ceremonies this week in New Orleans.

Other officers installed were Commander Joseph A. Ruscyk, 1st vice-president; Pierre C. Reeh, 2nd vice-president; Lt. Robert F. Kiesling Jr., vice-president; Capt. Ronald W. Tyree, secretary and Charles Settoon, treasurer.



- ✓ In complete engineering and construction
- ✓ In project administration and management
- ✓ In offshore construction inspection
- ✓ In location selection and R-O-W services
- ✓ In R-O-W clean-up inspection; environmental reports
- ✓ In preliminary design and cost estimating
- ✓ In design and procurement of equipment

Ford, Bacon & Davis 
Monroe and Baton Rouge
 and 18 other cities worldwide



IN MEMORIAM T. Allen Bonnet, P.E.

The Louisiana Engineering Society was saddened to receive the news of the death of T. Allen Bonnet, P.E., 73. He was injured in an automobile accident in San Antonio, Tex., on September 29 and died on October 7, 1978.

Bonnet was a native and lifelong resident of Lafayette. He attended USL and received a degree in electrical engineering in 1927. Upon graduation, he was employed by the Louisiana Public Utilities Company (now CLECO) and remained with them until retirement in 1974.

A member of the Louisiana Engineering Society for 28 years, Bonnet was an active member of the Lafayette Chapter, having served as its president.

The Society extends its deepest sympathy to his wife, two sons and family.

IN MEMORIAM

With deepest regret, we report the deaths of the following members: **N.C. Abrahamson**, Life Member, Baton Rouge — Nov. 17, 1977; **Frank P. Fischer**, Life Member, New Orleans — May 25, 1978; **Frank F. McInnis**, Member, Baton Rouge — June 7, 1978; **James V. Reuter Jr.**, Life Member, New Orleans — Aug. 23, 1978; **Richard R. O'Neill**, Privileged Member, Shreveport — Sept. 28, 1978; **Estes C. Thomas Jr.**, Privileged Member, Baton Rouge — Oct. 23, 1978; **Johnson S. Conner**, Privileged Member, Baton Rouge — Nov. 4, 1978 and **J.D. Walker**, Life Member, Pass Christian, Miss. — 1978.

New Members of L.E.S.

(Continued from October)

- Frederick E. Sistler**
Louisiana State University
Ag. Engineering Dept.
Baton Rouge, LA 70803
Education
- P. Timothy Tate, P.E.**
1759 Virgil St.
Baton Rouge, LA 70808
Private Practice
- Charles B. Wheat Jr., P.E.**
Fisk Electric, Inc.
1360 Main St.
Baton Rouge, LA 70802

BAYOU

- Jeff J. Jackson, EIT**
Santa Fe Engineering and
Construction
P. O. Box 2518
Houma, LA 70361
Construction
- Joe H. Smith, P.E.**
#14 Coronado Plaza, Rt. 1
Luling, LA 70070
Industry

LAFAYETTE

- Neal J. Adams, EIT**
121 Dove Circle
Lafayette, LA 70508
Industry
- Wade J. Artigue, P.E.**
102 Mountainside Drive
Lafayette, LA 70503
Industry
- Richard M. Bordelon, P.E.**
729 Caddo Drive
Opelousas, LA 70570
Construction
- Leslie M. Cross, P.E.**
215 Edgewater
New Iberia, LA 70560
Construction

LAKE CHARLES

- James A. Shoriak, EIT**
4202 Lake St., #6
Lake Charles, LA 70605
Construction

MONROE

- Michael R. Dragland**
La. Power & Light Co.
Main Street
Dubach, LA 71235
- Nelson J. Ozenberger, P.E.**
Ford, Bacon & Davis
P. O. Box 1762
Monroe, LA 71201
Construction
- John S. Stone, P.E.**
1909 John Circle
Monroe, LA 71201
Industry
- Kenneth L. Waldram, P.E.**
International Minerals and
Chemicals
La. Hwy. 2
Sterlington, LA 71280
Industry

NEW ORLEANS

- Michael S. Benbow, P.E.**
1108 Velma St.
Metairie, LA 70001
Private Practice
- Carlos A. Cordon, P.E.**
113 Rue Royal
Slidell, LA 70458
Private Practice
- Dennis L. Gautreau**
Chevron, USA

1111 Tulane Ave.
New Orleans, LA 70112
Industry

- G. Gordon Hebert, P.E.**
131 So. St. Patrick St.
New Orleans, LA 70119
Construction
- Ronald J. Marcomb Jr., EIT**
914 1/2 Avenue C
Westwego, LA 70094
Construction
- Barney T. Martin, P.E.**
Modjeski & Masters Engr.
1055 St. Charles Ave.
New Orleans, LA 70130
Private Practice
- Alan G. Mikell, P.E.**
3924 Post Drive
Harvey, LA 70058
Industry
- Raymond M. Ronquillo, P.E.**
2600 Vulcan St.
Harvey, LA 70058
Construction
- Y. Jo Seto, P.E.**
Tulane University
Dept. of E.E.
New Orleans, LA 70118
Education
- Bansidhar M. Shah, P.E.**
Martin Marietta
P. O. Box 29304
New Orleans, LA 70189
Private Practice
- Mark W. Tsai, P.E.**
924 Ellen St.
Gretna, LA 70053
Private Practice

SHREVEPORT

- William H. Borland Jr., P.E.**
430 Brighton Court
Shreveport, LA 71115
Industry

NON-RESIDENT

- George J. Collins Jr., P.E.**
P. O. Box 2641
Mobile, AL 36601
Government.

New Members

ALEXANDRIA

- Newton J. Gorsha Jr.**
6616 First St.
Alexandria, LA 71301
Private Practice
- S. Rodney White Jr., P.E.**
524 Azalea Lane
Pineville, LA 71360
Government

BATON ROUGE

- Wilfred B. Barry, EIT**
Simmons J. Barry & Associates
P. O. Box 1751
Baton Rouge, LA 70821
Private Practice
- Jerry D. Brammer, P.E.**
2851 Woodland Ridge Blvd.
Baton Rouge, LA 70816
Industry
- Albert N. Cameron, P.E.**
1904 Beechgrove Drive
Baton Rouge, LA 70806
Government
- John H. Cartwright, P.E.**
4210 Pine Ridge
Baton Rouge, LA 70809
Industry
- Wallace J. Frank Jr., P.E.**
15611 Elderwood Drive
Baton Rouge, LA 70816
Private Practice

- Carl Humenik**
8939 Jefferson Hwy. #513
Baton Rouge, LA 70809
Industry
- Nels R. Kjeldsen, P.E.**
1430 Montgomery Drive
Baton Rouge, LA 70815
Industry
- Bruce A. Martin, P.E.**
12630 Warwick Ave.
Baton Rouge, LA 70815
Industry
- Bruce A. McGill**
Barnard & Thomas
4440 North Blvd.
Baton Rouge, LA 70815
Private Practice
- A. J. McPhate, P.E.**
6921 Whitlow Drive
Baton Rouge, LA 70808
Education
- Percy H. Miller, P.E.**
LSU
Mech. Engr. — CEBA
Baton Rouge, LA 70803
- Stephen P. Newell, P.E.**
Dow Chemical
P. O. Box 150
Plaquemine, LA 70764
Industry
- Benjamin S. Pace, P.E.**
5020 E. Bluebell Drive
Baton Rouge, LA 70808
Industry
- Ronald Barry Pierce**
2357 Horace St.
Baton Rouge, LA 70808
Private Practice
- John D. Richard, EIT**
5445 Melrose Blvd.
Baton Rouge, LA 70806
Education

Manjit S. Sehdev
P. O. Box 14873
Baton Rouge, LA 70808
Private Practice

Tommie D. Tanner, P.E.
6021 Ridgemoor Drive
Baton Rouge, LA 70816
Industry

Kevin R. Wegener
9546 Vienna
Baton Rouge, LA 70810
Private Practice

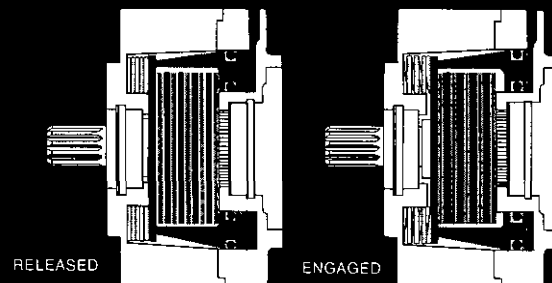
BAYOU

- Charles D. Becnel, II**
Texaco
410 S. Van
Houma, LA 70360
Industry
- George F. Kochel, EIT**
103 Skyline Drive, Rt. 5
Houma, LA 70360
Construction
- James A. Stanczak, EIT**
Diamond M. Co.
P. O. Box 1089
Morgan City, LA 70380
Industry
- William C. Williams, P.E.**
100 Chateau Rd. #82
Houma, LA 70360
Industry

LAFAYETTE

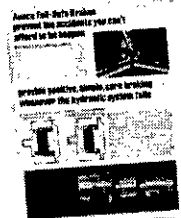
- Richard K. Allred**
Marathon Oil Company
P. O. Box 53266
Lafayette, LA 70505
Construction
- Donald C. Broussard**
315 Bourque St.
Kaplan, LA 70548
Government

Fail-Safe Braking



Whenever the hydraulic or electrical system fails

Loss of pressure causes springs in the Ausco fail-safe brake to force the multiple steel discs together, preventing further movement—often preventing serious accidents. Return of pressure releases the brake. Applications include hydraulic and electrical drives on mining, industrial, construction and agricultural equipment. Consult your local fluid power distributor; write to Auto Specialties Mfg. Co., Brake Division, P.O. Box 8, St. Joseph, Michigan 49085; or call 616/982-2373.



Send for
new bulletin
on fail-safe
braking.

AUSCO®
BRAKE DIVISION
CASTING DIVISION—Malleable & Ductile Iron Castings
JACK DIVISION—Jacks, Automotive Service Equipment

Raymond J. DeMoor, P.E.
113 Castle Row
Lafayette, LA 70506
Industry

James F. Donham, P.E.
Gilley & Associates, Inc.
P. O. Box 52358
Lafayette, LA 70505
Industry

Jeffrey J. Harwell
Pennzoil Production Co.
P. O. Box 51843
Lafayette, LA 70505
Industry

B. Joe Landry, P.E.
D.O.T.D., Office of Public Works
P. O. Box 39
Jennings, LA 70546
Government

Richard J. Primeaux
200 Oak Crest H383
Lafayette, LA 70503
Private Practice

Clarence Thibodeaux, P.E.
Rt. 1, Box 192-K
St. Martinville, LA 70582
Private Practice

Phillip Thomasee, P.E.
217 Mimosa Place
Lafayette, LA 70506
Private Practice

LAKE CHARLES

Karen R. Calvin
1020 W. McNeese #4-C
Lake Charles, LA 70605
Industry

David R. Frohn, P.E.
Camp, Carmouche, Palmer, Car-
wile & Barsh
P. O. Drawer 2001
Lake Charles, LA 70602
Industry

Marvin V. Paggen, P.E.
1320 Laura Lane
Sulphur, LA 70663
Industry

Chusukdi Temcharoen
Levingston Engineers, Inc.
Box 1865
Lake Charles, LA 70602
Industry

MONROE

Marvin D. Bell
Rt. 1, Box 60 — 38 Pinehill
Calhoun, LA 71225
Government

James H. Booksh, P.E.
Ford, Bacon & Davis
3901 Jackson St.
Monroe, LA 71201
Construction

Harry J. Farrar Jr.
Ford, Bacon & Davis
P. O. Box 1762
Monroe, LA 71201
Construction

Robert P. Kelso
2203-S Lily St.
Ruston, LA 71270
Education

Patrick R. Sparrow, EIT
S. E. Huey Co.
1309 Louisville
Monroe, LA 71201
Private Practice

Clyde G. Vidrine, P.E.
Louisiana Tech University
T.S. Box 4535
Ruston, LA 71272
Education

NEW ORLEANS

A. Jack Bartlett, EIT
3600 Dumaine St.
New Orleans, LA 70119
Industry

Linda W. Bartlett, EIT
3600 Dumaine St.
New Orleans, LA 70119
Industry

Donald L. Canavier
169 Macque Drive
Harahan, LA 70123
Industry

Rudy J. Dietrich, P.E.
McClelland Engineers, Inc.
4450 Gen. DeGaulle Drive
New Orleans, LA 70114
Private Practice

Azmy A. Ebrahim, P.E.
4640 Fairfield Ave.
Metairie, LA 70002
Industry

Betty Jo Everett, P.E.
6507 Vicksburg
New Orleans, LA 70124
Private Practice

Arthur T. Growden, EIT
Growden Bros. Inc.
P. O. Box 73308
Metairie, LA 70033
Private Practice

Robert S. Jones, P.E.
3840 Irwin Kuntz Drive
Harvey, LA 70058
Industry

Siddharth N. Munshi, P.E.
2316 Alex Kornman
Harvey, LA 70058
Private Practice

William J. Payer, P.E.
1121 Pine St.
New Orleans, LA 70118
Construction

Robert W. Phillpott, P.E.
1007 Division St.
Metairie, LA 70001
Private Practice

Terry L. Rodriguez, P.E.
1821 Woodrow Ave.
Metairie, LA 70001
Government

Lee F. Tocho, EIT
6735 Memphis St.
New Orleans, LA 70124
Industry

SHREVEPORT

Danny Q. Dorsey, P.E.
540 Rugby Place
Bossier City, LA 71111
Industry

Warren A. Giss, P.E.
Arkansas Louisiana Gas
Box 1784
Shreveport, LA 71151
Industry

New Registrations

(Continued from August)

Dooley, Louis
Lafayette, LA—Mechanical

Dooley, Michael Neal
Baton Rouge, LA—Civil

Duhon, Richard Dale
Lafayette, LA—Civil

Elkin, Ronald Colin
Baton Rouge, LA—Chemical

Ernst, Frederick George
Ft. Leavenworth, KS—Civil

Gerhardt, Donald
Charleston, SC—Electrical

Glass, Eugene Foster
Slidell, LA—Mechanical

Goff Jr., Homer Buford
Columbia, SC—Electrical

Gora, Gregory Michael
Baton Rouge, LA—Mechanical

Grace, Charles Hickory
Middlesboro, KY—Mining

Greene, Walter Skinner
Bedford, TX—Civil

Grice, Thomas Glenn
Lafayette, LA—Mechanical

Gros, Kenneth Paul
Thibodaux, LA—Mechanical

Guillot, Lind Charles
River Ridge, LA—Mechanical

Gupta, Sudhir Kumar
Madison Heights, MI—Mechanical

Hahn, Gerhard
Paramus, NJ—Civil

Hahne, William Neil
Lafayette, LA—Petroleum

Harbour Jr., Robert Louis
Baton Rouge, LA—Electrical

Hayakawa, Tatsuo George
South Pasadena, CA—Mechanical

Heintzen Jr., George Helmuth
Metairie, LA—Agricultural

Hibbeler, Russell Charles
Lafayette, LA—Civil

Hinkle Jr., William Henry
Baton Rouge, LA—Mechanical

Hintz, Marvin Leroy
St. Johns, AZ—Electrical

Hirth, Walter Francis
Richmond, CA—Civil

Holian, Thomas Edward
Evansville, IN—Electrical

Horst, William Robert
Middleton, IA—Mechanical

Houston Sr., William Douglas
Metairie, LA—Mechanical

Howard Jr., James Ellis
Gretna, LA—Mechanical

Hutchinson III, Frank David
Brightwaters, NY—Civil

James, Robert Gary
Mulberry, FL—Mechanical

Johnson, Johnny Ray
Baton Rouge, LA—Electrical

Kettler, Gerald Joseph
Dallas, TX—Mechanical

Kile, Winston Eddie
Houston, TX—Civil

Langlois Jr., Thomas Leo
Baton Rouge, LA—Mechanical

Langston, James Volney
Wichita Falls, TX—Mechanical

Lemmon, George Newton
Belle Mead, NJ—Electrical

Lin, Tung-Yen
El Cerrito, CA—Civil

Long, Donald Carl
Slidell, LA—Petroleum

Maddougall, Ian
Brampton, Ontario Canada—Electrical

Martin Jr., Barney Theodore
New Orleans, LA—Civil

Martin, Jose Lorenzo
Harvey, LA—Civil

McClure, James DeWayne
Arlington, TX—Mechanical

Middleton, Michael Edison
Sulphur, LA—Electrical

Miller, Jerome Andrew
Pearl River, LA—Civil

Milton, Jr., James Carroll
Beaumont, TX—Electrical

Modorow, Richard Robert
Tulsa, OK—Civil

Nash, Edward Alton
Tyler, TX—Mechanical

Newell, David Walter
DeRidder, LA—Civil

Padgett, Joseph Paul
Baton Rouge, LA—Civil

Paschal, Sam Beauregard
San Antonio, TX—Mechanical

Patel, Pramod Mangubhai
Metairie, LA—Civil

Pavloff Jr., Victor Nicholas
Shreveport, LA—Civil

Penfold, Gordon Everett
Mesquite, TX—Civil

Phillpott, Robert William
Metairie, LA—Electrical

Pillie, Glen Marion
New Orleans, LA—Civil

Politte, Thomas Steve
Slidell, LA—Mechanical

Prince, Charles Edwin
Luling, LA—Chemical

Pugh, Joy Dwight
Alexandria, LA—Mechanical

Rice, Randall Thomas
Humble, TX—Petroleum

Rodriguez, Jerry Wayne
Cypress, TX—Petroleum

Rosenberg, Howard Jay
Rockville, MD—Civil

Saavedra, Luis Rolando
Harvey, LA—Electrical

Sarvadi Jr., George
Houston, TX—Chemical

Scheer, William Carl
Baton Rouge, LA—Mechanical

Schiro, Michael Gerard
Baton Rouge, LA—Mechanical

Schmidt, Ellis August
Landenberg, PA—Mechanical

Schneider, Earl Jay
Metairie, LA—Electrical

Seroka, Stanley
Brooklyn, NY—Mechanical

Simmons, Jerry Otis
Lake Charles, LA—Electrical

Sintuphant, Thavisakdi
Gretna, LA—Industrial

Sloan, Norman Grady
Tulsa, OK—Mechanical

Smith Jr., Amos Calvin
New Orleans, LA—Petroleum

Snell, Robert Bruce
Springfield, MO—Electrical

Soni, Jayantkumar Chhaganlal
Lake Charles, LA—Civil

Steiner, Roberto Bernardo
Philadelphia, PA—Electrical

Sturrock, John Michael
Kenner, LA—Civil

Sullwold, Myron John
Cresskill, NJ—Mechanical

Swan III, George Alexander
Baton Rouge, LA—Chemical

Tacy Jr., William
Alexandria, LA—Mechanical

Tate, Michael Kent
Opelousas, LA—Civil

Tenney, William Paul
Houston, TX—Civil

Terrell, Thomas Jackson
Mobile, AL—Civil

Thibodeaux, Rodney Thomas
Lafayette, LA—Civil

Toups Jr., Ruel Anthony
Slidell, LA—Petroleum

Troxler, Stephen Arthur
New Orleans, LA—Electrical

Valantas, Robert Alex
Baton Rouge, LA—Mechanical

Van Eaton Jr., Harley Jamieson
Lafayette, LA—Electrical

Varino, John Francis
Monroe, LA—Industrial

Varnado, Kelly Lane
Missouri City, TX—Civil

Varnum, Arthur James
Beaumont, TX—Civil

Vaughan, Raymond Gerald
Pearland, TX—Civil

Ward, Lester Andrew
Humble, TX—Electrical

White, Samuel Ernest
Baton Rouge, LA—Chemical

Whitehead, Kenton David
Santa Rosa, CA—Mechanical

Williams III, Raleigh Joseph
Stafford, TX—Electrical

Williams, Thomas Wayne
Dickinson, TX—Electrical

Woodruff, Robert Sherman
Mobile, AL—Mechanical

Young, Grayson Scott
Baton Rouge, LA—Chemical

Cole III, Samuel Dixon
Clayton, LA—Land Surveyor

NEW REGISTRATIONS

JULY 26, 1978

Ahuja, Avinash Chander
Kenner, LA—Petroleum

Ake, James Loughry
Metairie, LA—Civil

Allen, Ward Hilton
Houston, TX—Electrical

Arnold Jr., John Robert
Sulphur, LA—Electrical

Assaf, III, David
Baton Rouge, LA—Mechanical

Ball, William Bertram
Oakland, CA—Civil

Bayard, William Joseph
New Iberia, LA—Electrical

Benbow, Michael Stephen
Metairie, LA—Electrical

Bonzer, Karl William
Kenner, LA—Mechanical

Breedlove, James Swayze
Baton Rouge, LA—Mechanical

Brock, Walter Hollis
Baton Rouge, LA—Mechanical

Calkins, Dennis Earl
Metairie, LA—Civil

Callegari, Stephen Rene
Lafayette, LA—Mechanical

Canzoneri, Raymond
Metairie, LA—Electrical

Cartwright, John Henry
Baton Rouge, LA—Chemical

Cheron, James Clinton
Metairie, LA—Mechanical

Chiao, Shang-Bao Michael
Baton Rouge, LA—Mechanical

Conner, Fountain Earl
W. Monroe, LA—Civil

Cox, John West
Missouri City, TX—Civil

Cross, Leslie Mark
New Iberia, LA—Civil

Dannenberg, III, Richard Martin
Metairie, LA—Petroleum

Dixon Jr., John Daniel
Sanford, NC—Civil

Dorsey, Danny Quinton
Bossier City, LA—Petroleum

Drake, Lawton Evans
Gretna, LA—Chemical

Dunlap, Donald Dean
New Orleans, LA—Civil

Edgecombe, Barry Paul
Slidell, LA—Mechanical

Fabre Jr., Vernon Anthony
Luling, LA—Chemical

Farnell, Jimmie Ernest
Mobile, AL—Mechanical

Fowler, James Robert
Baton Rouge, LA—Civil

Fullmer II, Donald David
Lafayette, LA—Petroleum

Garza, Severiano Adame
Austin, TX—Civil

Gomez, Eugenio Reyes
Baton Rouge, LA—Chemical

Hall Jr., Robert Clarence
Dallas, TX—Civil

Hamilton, George Bradford
Lafayette, LA—Electrical

Harrell, Mike Edward
Oklahoma City, OK—Petroleum

Havard, Elmer Lee
Lafayette, LA—Petroleum

Hinkle Jr., Robert Leslie
Audubon, PA—Mechanical

Ho, Ying
Glenview, IL—Mechanical

Howard, Donald Paul
New Orleans, LA—Electrical

Hsu, Michael Yung-Hsi
Houston, TX—Civil

Hull, Warren Richard
Dayton, OH—Mechanical

Jones, Elmer
Baton Rouge, LA—Mechanical

Jones, Robert Sperry
Harvey, LA—Civil

Konecny, Gary Wayne
Baton Rouge, LA—Mechanical

LaFleur, Durwin Keith
Marrero, LA—Mechanical

LaRoche, James Hughlett
Baton Rouge, LA—Chemical

Lawrence Jr., William
Montgomery, AL—Electrical

Lever, William Forrest
Long Beach, CA—Civil

Lorio, Warren Henry
New Orleans, LA—Mechanical

Love, Samuel Lee
Baltwin, MO—Civil

Martin, Bruce Anthony
Baton Rouge, LA—Chemical

Massey Jr., James Weston
Baton Rouge, LA—Civil

McCain, John Thomas
Denham Springs, LA—Civil

McCormick, Leo Michael
Rockville Centre, NY—Civil

McGowan, John Francis
Gretna, LA—Mechanical

Mellard, Robert Edwin
Bonneton, SC—Civil

Meredith III, Robert Frederick
Owasso, OK—Petroleum

Miesch, Edward Peter
New Orleans, LA—Petroleum

Mikell, Alan Glen
Harvey, LA—Petroleum

Miller Jr., Paul David
Morgan City, LA—Mechanical

Mitchell, Michael Ward
Lafayette, LA—Petroleum

Moore, Jasper Adolph
Lafayette, LA—Petroleum

Morrell, Robert Anthony
Kenner, LA—Civil

Morton, Bob Spencer
Columbia, SC—Civil

Munshi, Siddharth N.
Harvey, LA—Civil

Noack, Horace William
Amelia, OH—Electrical

Normand, Patrick Fabius
Luling, LA—Mechanical

Norwood Jr., Russell
Lafayette, LA—Petroleum

Ozenberger, Nelson John
Monroe, LA—Mechanical

Pace, Benjamin Skinner
Baton Rouge, LA—Chemical

Pastorek, John Joseph
Baton Rouge, LA—Chemical

Payer, William James
New Orleans, LA—Civil

Peroustianis, A. A.
Chicago, IL—Electrical

Price Jr., Charles Emmette
Shreveport, LA—Mining

Rachelson, Michael Lemann
New Orleans, LA—Civil

Ritch, Harlan J.
Covington, LA—Petroleum

Roberts, John Carroll
Frankfort, KY—Civil

Rodriguez, Oscar Grady
Baton Rouge, LA—Mechanical

Ronquillo Jr., Raymond McCullum
Harvey, LA—Mechanical

Rushing, Louis Vally
Fort Worth, TX—Mechanical

Russell, Richard Francis
Metairie, LA—Mechanical

Saarela, Thomas Charles
Baton Rouge, LA—Civil

Schull, Jerome William
Slidell, LA—Electrical

Shah, Bansidhar M.
New Orleans, LA—Mechanical

Shah, Shyam N.
Baton Rouge, LA—Civil

Sharples, Brian P. M.
Houston, TX—Civil

Simpson, Allan Thomas
Baton Rouge, LA—Electrical

Simpson, Vincent Lloyd
Baton Rouge, LA—Civil

Smith, Joe Herbert
Luling, LA—Civil

Spinks, John Lee
Rolling Hills, CA—Mechanical

Stone, John Spencer
Monroe, LA—Petroleum

Strader, William Clarence
Baton Rouge, LA—Chemical

Swekosky, Frank Joseph
Harahan, LA—Civil

Sweet, Richard George
Houston, TX—Civil

Tent, Robert Dale
Belair, TX—Mechanical

Thibaux, John Marcus
Houston, TX—Petroleum

Thompson, Leroy Joseph
New Orleans, LA—Civil

Turner, Richard Dennis
Lake Charles, LA—Petroleum

Turpin, William Craig
APO San Francisco, CA—Mechanical

Versowsky, Paul Edward
Metairie, LA—Civil

Vicidomina, Vincent
Slidell, LA—Mechanical

Villarreal, Celestino R.
San Antonio, TX—Civil

Waguespack, Otis J.
Metairie, LA—Mechanical

Waldram, Kenneth Lowell
Monroe, LA—Chemical

Wehner, Barney Scott
Baton Rouge, LA—Industrial

Weidner, David Eric
New Orleans, LA—Civil

Wheat Jr., Charles Burke
Baton Rouge, LA—Electrical

Wheeler, Lionel Harris
Houston, TX—Mechanical

Whitaker Jr., James Vernon
Lake Charles, LA—Civil

Windham Jr., Malcolm V.
Pasadena, TX—Electrical

Woods III, Roy Bickford
Metairie, LA—Civil

Young, Lester Rex
Natchitoches, LA—Electrical

Yu, Heing-Chung
Richmond, VA—Mechanical

Armstrong, Brian Thomas
Charlotte, NC—Civil

Ayres, Bruce Carroll
Shreveport, LA—Electrical

Barnes, Donald Arthur
New Orleans, LA—Civil

Barr, William Thomas
Rayville, LA—Civil

Beakley, William Douglas
Gretna, LA—Civil

Billings, Cary Morgan
Gretna, LA—Mechanical

Brammer, Jerry Douglas
Baton Rouge, LA—Civil

Broussard, Jame Emmitt
Sulphur, LA—Chemical

Browning, Jr. Robert Jackson
Houma, LA—Civil

Bryant, Robert Linton
Savannah, GA—Civil

Buchert, Jr. Cyril Arthur
Baton Rouge, LA—Industrial

Bujol, Robert Joseph
Baton Rouge, LA—Chemical

Carlisle, Jr. Dewey Madison
Baton Rouge, LA—Mechanical

Cash, Robert Lee
Vicksburg, MS—Electrical

Chadwick, Jefferson Patrick
New Orleans, LA—Chemical

Chiasson, Gary Joseph
Harvey, LA—Petroleum

Clotiaux, Michael Douglas
Baton Rouge, LA—Civil

Collins, Jr. George Joseph
Mobile, AL—Civil

Compton, Ronald Ray
Metairie, LA—Petroleum

Cosgrove, Robert Michael
Gulport, LA—Mechanical

New Registrations

SEPTEMBER, 1978

Abadie, Jr. Reynold Joseph
Chalmette, LA—Electrical

U.S. POSTAL SERVICE STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Required by 39 U.S.C. 3685)			
1. TITLE OF PUBLICATION LOUISIANA ENGINEER		2. DATE OF FILING 10-1-78	
3. FREQUENCY OF ISSUE BIMONTHLY		4. NO. OF ISSUES PUBLISHED ANNUALLY 6	
5. LOCATION OF HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers) 723 Main St., Baton Rouge, LA 70802		6. ANNUAL SUBSCRIPTION PRICE \$1.00	
7. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR			
PUBLISHER (Name and Address) LOUISIANA ENGINEERING SOCIETY 723 MAIN ST. BATON ROUGE, LA 70802			
EDITOR (Name and Address) R. C. Spears Same			
MANAGING EDITOR (Name and Address) Same			
8. 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.)			
NAME		ADDRESS	
LOUISIANA ENGINEERING SOCIETY		723 MAIN ST. BATON ROUGE, LA	
9. 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)			
NAME		ADDRESS	
NONE			
10. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.122, PSN) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)			
☐ HAVE NOT CHANGED DURING PRECEDING 12 MONTHS ☐ HAVE CHANGED DURING PRECEDING 12 MONTHS (If changed, publisher must submit explanation of change with this statement.)			
11. EXTENT AND NATURE OF CIRCULATION		AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	
A. TOTAL NO. COPIES PRINTED (Net Press Run)		15,962	
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS, AND COUNTER SALES		16,100	
2. MAIL SUBSCRIPTIONS		15,500	
C. TOTAL PAID CIRCULATION (Sum of B.1 and B.2)		15,500	
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS, SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES		180	
E. TOTAL DISTRIBUTION (Sum of C and D)		15,680	
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING		282	
2. RETURNS FROM NEWS AGENTS		---	
G. TOTAL (Sum of E, F.1 and F.2 should equal net press run shown in A)		15,962	
H. ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE		16,100	
12. I certify that the statements made by me above are correct and complete.			
SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER <i>R. C. Spears</i>			
13. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES (Section 132.121, Postal Service Manual) 39 U.S.C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4395 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates." In accordance with the provisions of this statute, I hereby request permission to mail the publication named in item 1 at the phased postage rates presently authorized by 39 U.S.C. 3626.			
SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER			

PS Form
Mar 1975 3526 (Page 1)

(See instructions on reverse)

Courtright, Otis Charles
Tulsa, OK—Civil

Crowson, Jr. Leslie Leroy
Greenville, TX—Mechanical

Davis, Charles Richard
Addison, TX—Electrical

Delahoussaye, Jr. Joseph
Kenner, LA—Civil

Denny, Richard Warren
Houston, TX—Industrial

Diehl, Robert Joel
Vivian, LA—Mechanical

Doughty, Jerry Stanley
Morgan City, LA—Civil

Drane, Jr. James Alexander
Thibodaux, LA—Civil

Dupre, Jr. Charles Wilson
New Orleans, LA—Mechanical

Dussel, III Conrad August
Lafayette, LA—Mechanical

Dutton, Gary Delane
Siloam Springs, AR—Electrical

Eichholtz, Richard Lawrence
Baton Rouge, LA—Chemical

Emmert, Robert Lee
Baton Rouge, LA—Chemical

Estes, Jr. Edward Richard
Youngstown, OH—Civil

Fancher, Michael Wayne
Baton Rouge, LA—Electrical

Fox, Meredith George
Houston, TX—Electrical

Freeman, Louis Starr
Baton Rouge, LA—Mechanical

Garretson, III Harry Forno
Starkville, MS—Civil

Grafton, III John Tate
Baton Rouge, LA—Electrical

Graham, Jr. Henry Thomas
Harvey, LA—Industrial

Guarino, David Paul
Macon, GA—Industrial

Gullot, Michael Wade
Baton Rouge, LA—Mechanical

Hackett, Denis Parnell
St. Louis, MO—Civil

Haring, Alexander Edmund
Glenolden, PA—Mechanical

Hassenboehler, Jimmy Charles
Marrero, LA—Mechanical

Hebert, Wayne James
Lafayette, LA—Civil

Henderson, John David
Sulphur, LA—Mechanical

Hohns, Henry Murray
Marlton, NJ—Civil

Hotze, Ernest George
Houston, TX—Petroleum

Humphreys, Jr. William Stewart
Harahan, LA—Civil

Jackson, Byron Everett
Baker, LA—Electrical

Jackson, Carey Marvin
Baton Rouge, LA—Chemical

Johnson, Terry Lee
Vicksburg, MS—Civil

Kubala, Michael Ray
Lafayette, LA—Chemical

Kauffman, Frederick Folsom
Atlanta, GA—Civil

Kirkwood, Jeffri Lin
Natchez, MS—Petroleum

Krick, James Hyett
Ann Arbor, MI—Civil

LaBauve, Kim Anthony
Harvey, LA—Petroleum

LaFon, James Henry
Bossier City, LA—Civil

Landry, Jr. Floyd Joseph
Kenner, LA—Petroleum

Lane, Carson James
Breaux Bridge, LA—Mechanical

Larkin, Michael Frank
Metairie, LA—Mechanical

LeJeune, James Joseph
Harvey, LA—Civil

Locantro, III John
Metairie, LA—Mechanical

Markway, Robert Charles
Kenner, LA—Petroleum

Marsh, Raymond Edward
Houston, TX—Civil

Martin, Allen Leo
Opelousas, LA—Civil

McManus, John Lawrence
Galveston, TX—Civil

McMillin, James Allan
Henderson, TX—Mechanical

Mech, George Joseph
Davenport, IA—Civil

Miller, John Anthony
Kingwood, TX—Chemical

Monroe, Gary Ellis
Jackson, MI—Electrical

Moore, Robert Wade
Baton Rouge, LA—Chemical

Morrow, William Stephen
Pelham, AL—Mechanical

Narenfort, Leroy Bennie
Houston, TX—Mechanical

Newell, Stephen Phillip
Baton Rouge, LA—Mechanical

Oliver, James Madison
Baton Rouge, LA—Agricultural

Oliver, Michael Smith
Lafayette, LA—Mechanical

Olsen, Harold Jerome
Northville, MI—Civil

Owens, Benson Jet
Baton Rouge, LA—Electrical

Pacquer, Kenneth Francis
Seattle, WA—Civil

Paggen, Marvin Vernon
Sulphur, LA—Chemical

Pandit, Ashvini Yedathore
New Orleans, LA—Civil

Paschal, Jr. John Myron
Houston, TX—Electrical

Pepper, III Russell John
Slidell, LA—Petroleum

Pittman, Homer Ernest
Baton Rouge, LA—Electrical

Porter, Byron William
Gretna, LA—Civil

(Continued in February)

Professional Listings



burk and associates, inc.

engineers planners environmental scientists

4176 CANAL ST. NEW ORLEANS, LA. 70119 504-486-5901
525 SECURITY BLDG. GULFPORT, MS. 39501 601-864-0854



ASHTON and ASSOCIATES, INC.

**CONSULTING ENGINEERS
ELECTRICAL/INSTRUMENTATION**

717 South Foster Drive, Suite 210 P.O. Box 65144
Baton Rouge, Louisiana 70896 (504) 927-9920



**DEMOPULOS
AND FERGUSON, INC.**
CONSULTING ENGINEERS

600 Petroleum Tower
Shreveport, La.
318/221-7117

3637 West Alabama
Houston, Texas
713-622-2151

BTU'S BHP's GOR's GPM's

WRIGHT ENGINEERING CO., INC.

P. O. Box 430 — Floerke Road
Portland, Texas 78374

Petroleum Engineers — Laboratory Analysis

J. F. "Bud" WRIGHT
Petroleum Engineer
Res. A/C 512 643-6287

Portland - A/C 512 643-7559
Laredo - A/C 512-723-7711
Radio - A/C 512 884-3257



**LEVY-KRAMER
& ASSOCIATES INCORPORATED**
CONSULTING ENGINEERS

422 Colonial Drive
Baton Rouge, Louisiana 70806

Phone (504) 923-2334

GRANTHAM ENGINEERING SERVICES

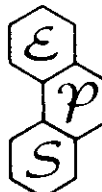
144½ W. MAIN STREET
P.O. BOX 2052
NEW IBERIA, LOUISIANA 70560

OFFSHORE OILFIELD ELECTRICAL
& FABRICATION CONSULTANTS
DRAFTING & ON-SITE INSPECTION

JESSE A. GRANTHAM, P.E.
PRESIDENT

318-364-1000

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
- Air and Water Quality Sampling and Surveys
- Environmental Assessments
- Industrial Waste Treatability Studies

106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2635
808 BECK BLDG., SHREVEPORT, LA. 71101 (318) 227-8254

**RACKLE & SON
COMMUNICATIONS INC.**



PHONES: 833-2748
833-6134
HOME: 454-1588

**SYSTEM DESIGN
TELECOMMUNICATIONS
AUTOMATION — TELEMETRY**

E. EMILE RACKLE - P.E.
Chairman of the Board

723 Papworth Avenue
Metairie, Louisiana 70005



Guillot-Vogt Associates
CONSULTING ENGINEERS

CIVIL-STRUCTURAL
ELECTRICAL
MECHANICAL

• INSTITUTIONAL
• COMMERCIAL
• INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4256



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

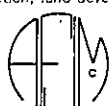
INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harrod H. McClelland
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.



1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612

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

**Ford, Bacon & Davis
Engineers • Constructors**



Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND INTERNATIONAL
BUILDERS, INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA, NEW YORK, NY 10001
P. O. BOX 22718, HOUSTON, TEX. 77027

Phone (212) 239-4656
Phone (713) 623-1500

**WALDEMAR S. NELSON AND COMPANY
Incorporated**

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave.

New Orleans, La. 70130

523-5281



Brown & Root, Inc.
And Associated Companies/Serving Progress the World Over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

**DENSON ENGINEERS
INCORPORATED**

Consultants

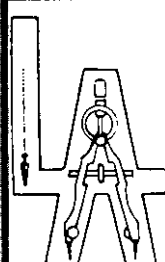
SUITE 800

COMMERCE BUILDING



NEW ORLEANS 70112

504 • 561-1131



**LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.**

Industrial & Marine Consultants and Designers

Bulk Terminals
Materials Handling
Foundations

Docks and Wharves
Offshore Structures
Buildings
Reports and Investigations
Construction Management

801 Marengo St.

New Orleans, La. 70115

(504) 895-0368



louisiana

ENGINEERS-PLANNERS-ENVIRONMENTAL SCIENTISTS

SPECIALIZING IN

Environmental Studies and Reports

Governmental, Commercial and Residential Land Development

Design Plans, Specifications and Construction Inspection
for Airports and Roadways

2701 INDEPENDENCE STREET/METAIRIE/LA/70002/504-455-3881

PETROLEUM ENGINEERS, INC.

Drilling, Completion &
Workover Programs & Designs
Property Management

Office and Field Supervision
Total Operations

P. O. Box 52588

Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell

Engineers, Architects & Planners

2000 North 7th

Post Office Box 728

WEST MONROE, LA. 71291

Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street
Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.

Phone 447-4017

J. David Bergeron, L.S. & P.E.

P. O. Box 1203

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills:

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings, and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash 98119
206 285-4411

5615 Corporate Blvd.
Baton Rouge, La 70808
504 927-4724

MARRERO, COUVILLON & ASSOC.



ELECTRICAL ENGINEERS

- * GENERATION
- * DISTRIBUTION
- * INSTRUMENTATION
- * INDUSTRIAL
- * COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA. 70806 PH 504/926-0005

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS
(713) 842-0414

SHREVEPORT, LOUISIANA
(318) 222-0783

Beaumont - Houston - Morgan City - Monroe - Shreveport



ASSOCIATES, INC.
CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002
(504) 885-0500

Frank Nicoladis, President

PSC PROFESSIONAL SERVICES

GROUP, INC.

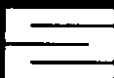
3035 Directors Row, Suite 416
Memphis, TN 38131
Telephone 901-345-5224



SEWER SYSTEM EVALUATIONS
WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING, DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines



WALK, HAYDEL & ASSOCIATES, INC.
ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants,
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111
Telex 58-7302

Branch Offices: Baton Rouge, La. Mobile, Ala.

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

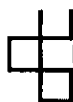
1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130

THE FRANTZ co.

Complete Engineering Design Services
Chemicals - Petrochemicals - Petroleum

Suite 400
Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- OSHA Noise Compliance
- Hearing Conservation
- Computer Analysis
- Environmental Noise Studies
- Architectural Acoustics
- Room Acoustics Studies

1015 Elm Street, Suite 2001, Dallas, Texas 75202
214/741-7701 Telex: 730796

An Equal Opportunity Employer

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.

HNTB

HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70808

MOHR & ASSOCIATES, INC.*Consulting Civil Engineers*

NO. 8 FAIRWAY FOREST PLAZA
7700 PINES ROAD
SHREVEPORT, LOUISIANA 71109
BUS. PHONE 686-7190

JAMES MOHR, P.E.
Res. 686-3558

DESMOND SPRAWLS, P.E.
Res. 687-5260

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.
Arthur E. Meyer, P.E., R.L.S.

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

**BARNARD AND BURK, INC.
ENGINEERS AND
CONSTRUCTORS**

Pasadena, CA • Mountainside, NJ • Merrillville, IN
P.O. Box 15648 Baton Rouge, LA 70895 (504) 293-4000

MARINE ENGINEERS NAVAL ARCHITECTS
PROFESSIONAL ENGINEERS

DU BOIS, CARMAN & ASSOCIATES, INC.

4100 WALNUT DR.
NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983

**PYBURN & ODOM, INC.***CONSULTING ENGINEERS*

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 766-6330

8178 GSRI Rd. • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY

Foundation and Soil
Mechanics Investigations

Soil Borings • Foundation Analyses
Laboratory Tests • Reports

834-0157

3011 28th Street

Metairie, La. 70002

BARNARD & THOMAS ENGINEERING, INC.

Consulting Engineers
Municipal and Industrial Engineering
Comprehensive City Planning

4440 North Boulevard
P. O. Box 64853
Baton Rouge, La. 70806
(504) 927-8323

Suite 101
3100 Ridgelake Drive
Metairie, La. 70002
(504) 837-5588

CHEMICAL
MECHANICAL
CIVIL
ELECTRICAL

3114 Cities Service Hwy.
Lake Charles, La. 70669
318/625-8212

LEVINGSTON ENGINEERS, INC.

INDUSTRIAL PLANT DESIGN

JOHN C. COPES*Consulting Engineers*

1956 Wooddale Court

Phone—926-7690 - 926-4842—Area Code 504

BATON ROUGE, LA. 70806

**McClelland engineers, inc.
geotechnical consultants**

4450 General DeGaulle Drive
New Orleans, Louisiana 70114
Tel: 504/393-6666 Telex 584-103
Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.*CONSULTING ENGINEERS*

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

SUITE 204, 7456 EXCHANGE PLACE
BATON ROUGE, LA. 70806
TELEPHONE (504) 927-8309

DYER & MOODY

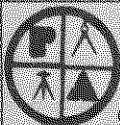
INC.

Consulting Engineers

Municipal and Industrial
Consultants and Designers

P. O. Box 700, Baker, La. 70714

(504) 775-4800

**PICCIOLA & ASSOCIATES, INC.
CONSULTING ENGINEERS & SURVEYORS**

M. J. PICCIOLA, II, P.E., L.S.
L. J. PICCIOLA, P.E., L.S.

P.O. BOX 758
GALLIANO, LOUISIANA 70334

PHONE 504-632-5786
4514-C LA. HWY. NO. 1

**The Rust
Engineering Company**

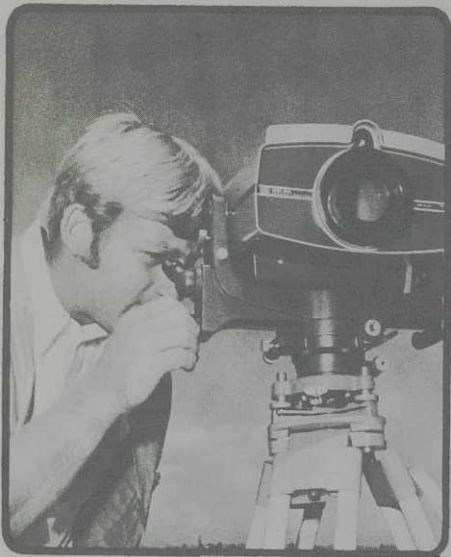
A Subsidiary of Wheelabrator-Frye

Engineering • Construction • Analytical Reports and
Surveys • Systems Engineering • Energy and
Environmental Engineering

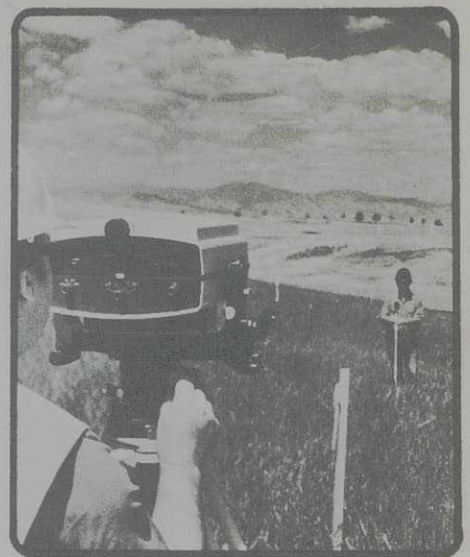
P.O. Box 3077

Baton Rouge, Louisiana 70821 (504) 927-4190

Portland • Birmingham • Stamford • Affiliates in Montreal •
Brussels • Sao Paulo



**ONE DAY
(24 HR.)
DELIVERY
TIME
NATIONWIDE**



NEW

MOTOROLA MINI-RANGER

NEW

HEWLETT-PACKARD MODEL 3820A ELECTRONIC TOTAL STATION

The One Instrument
That Does It All

RENTAL CHARGES:
\$100.00 per/day
Portal to Portal

HEWLETT-PACKARD MODEL 3810A TOTAL STATION

Industrial & Subdivision Layout
Topographic Surveys

RENTAL CHARGES:
\$60.00 per/day 1-10 days
\$50.00 per/day thereafter

NOTE: All EDM Equipment is complete with the following accessories at no extra charge.

- (1) Recharger
- (2) Battery Pods
- (1) or (2) Triple Prism Assemblies

MOTOROLA MINI-RANGER NAVIGATIONAL POSITIONING SYSTEM (40 miler)

RENTAL CHARGES:
\$125.00 per/day
(5) Day Minimum

HEWLETT-PACKARD MODEL 3805 (1 miler) DISTANCE METER

Slope Measurement
Backpack

RENTAL CHARGES:
\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

- (1) Tripod & Tribrach
- (1) Layout Range and Prism Pole

HEWLETT-PACKARD MODEL 3800A (2 miler) Distance Meter

Slope Measurement

RENTAL CHARGES:
\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

HEWLETT-PACKARD MODEL 9815A CIVIL-SURVEY CALCULATOR

With All Survey Programs

RENTAL CHARGES:
\$15.00 per/day

HEWLETT-PACKARD MODEL 3808A (6 miler) DISTANCE METER

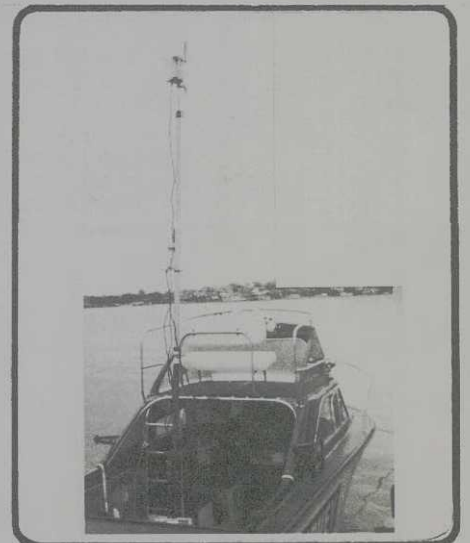
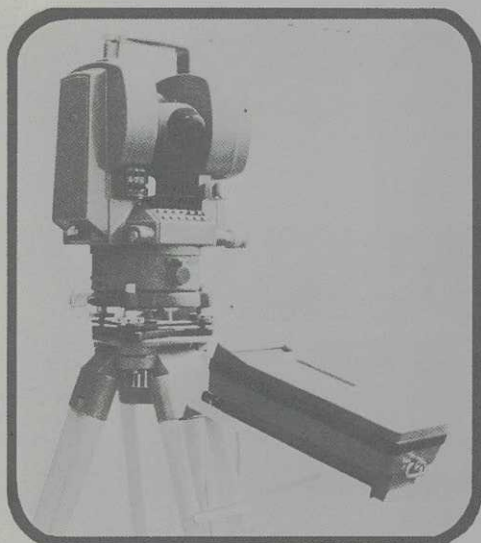
Medium Range
20'' Angle Base

RENTAL CHARGES:
\$60.00 per/day for 1-10 days
\$50.00 per/day thereafter

The Bearded Oak CIVIL SURVEY RENTAL

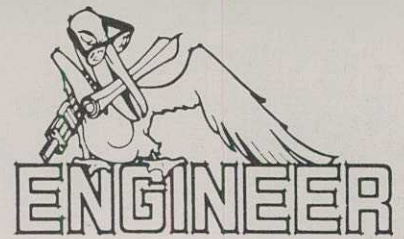
125 E. Chimes — Baton Rouge, La. 70802 — (504) 926-9515 (24 Hr. Service)

Thank You for Your Interest in Our Service and Hewlett-Packard Products





LOUISIANA



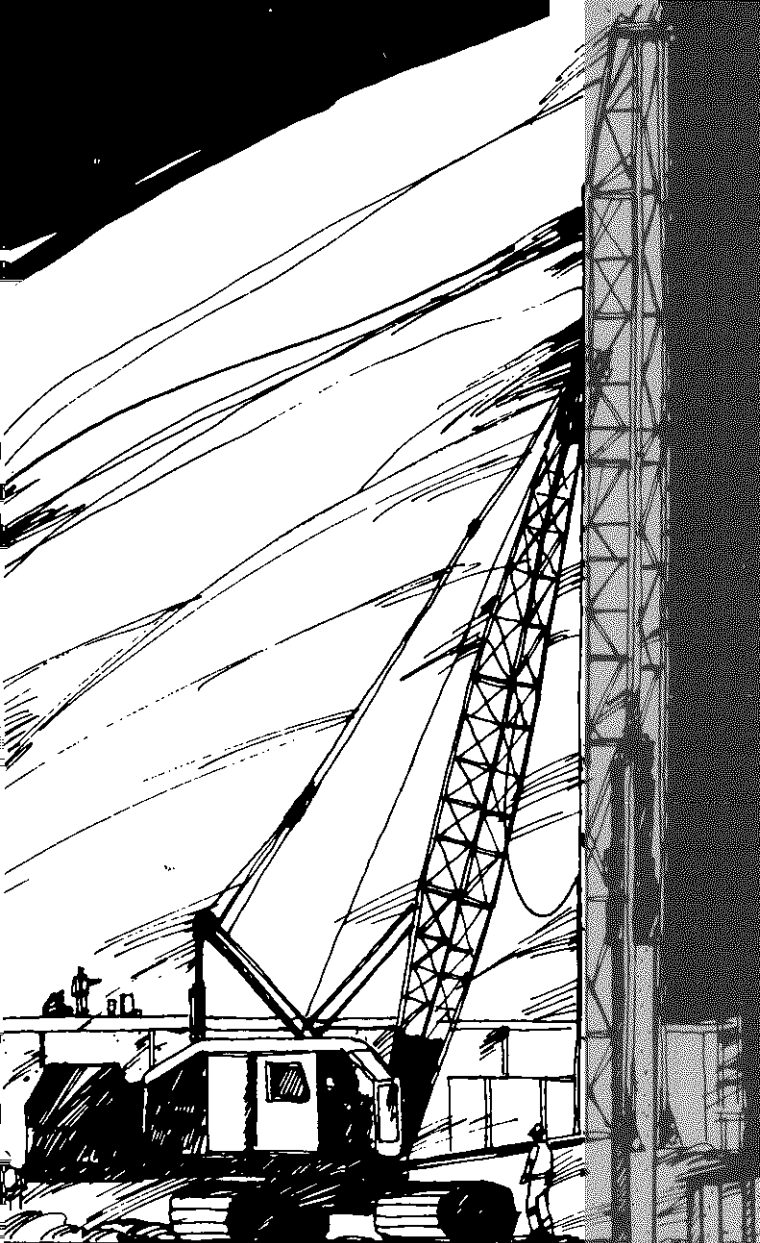
February, 1978

ENGINEERS
STRENGTH IN CRISIS

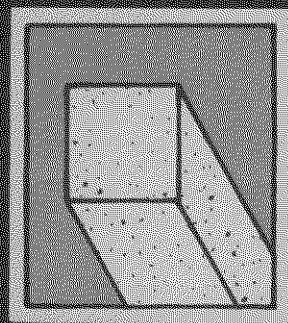
national engineers week • feb 19-25



SPONSORED BY: NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS



A LOW-COST CONCRETE PILE FOR LOW-RISE CONSTRUCTION



Belden 10-in. square
precast, prestressed concrete pile
handles bearing loads up to 70 tons.
Immediately available in 30', 40', 50'
and 60' lengths

STOCKPILED IN QUANTITIES FOR IMMEDIATE DELIVERY

Ideal Foundation Piling for

- Shopping Centers
- Apartment Complexes
- Schools
- Warehouses
- Motels
- Water Treatment Plants
- Sewage Disposal Plants
- Buildings up to 4 Stories

Fewer Pilings to Drive. Load bearing ability of Belden precast, prestressed concrete piling exceeds wood, so fewer pilings are needed.

Won't Rot or Deteriorate. Belden precast, prestressed concrete piling is not affected by water. Consequently, it can't rot or rust. This is an important consideration where piling must extend above the permanent water table.

Modern Foundation of Proven Performance. Belden precast, prestressed concrete piling

is today's foundation for all modern buildings. Larger and high load capacity pilings of this same type were supplied by Belden Concrete Products for the Louisiana Superdome, One Shell Square, International Trade Mart, Marriott Hotel, Regency-Hyatt Hotel, and many other buildings that form the New Orleans skyline.

No special equipment needed. Drive Belden precast, prestressed concrete piling with the same equipment you use for wood pipe piling.

For the full story, call (504) 833-5593

Belden Concrete Products

division of Marine Concrete Structures, Inc.
P. O. Box 607, Metairie, La. 70004—Tel. (504) 833-5593

ENGINEERS WEEK: 'STRENGTH IN CRISIS'



State of Louisiana

Edwin Edwards
Governor

WHEREAS, National Engineers Week, February 19-25, 1978, directs public attention to the accomplishments and responsibilities of the engineering profession; and

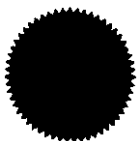
WHEREAS, perhaps at no time in our history have we faced so many crises from so many quarters: vanishing mineral resources, energy shortages, accelerating environmental deterioration, questionable water supplies, and

WHEREAS, Engineers over the years have been in the forefront in opening frontiers and prevailing over adverse conditions. The knowledge, skill and ingenuity of engineers has truly been strength in crisis; and

WHEREAS, it is apparent that all Louisianians should honor those talented and dedicated engineers in the state.

NOW, THEREFORE, I, EDWIN EDWARDS, Governor of the State of Louisiana, do hereby proclaim the week of February 19-25, 1978, as

ENGINEERS WEEK IN LOUISIANA



Attest By
The Treasurer

Paul J. Hardy
Treasurer of State

In Witness Whereof, I have caused this
my hand officially and caused to be affixed the
Great Seal of the State of Louisiana at the
Capital in the City of Baton Rouge on the
19th day of February, 1978.

Gov. Edwin W. Edwards, center, presents a proclamation declaring National Engineers Week to R. C. "Doc" Spears, executive secretary of LES, while LES President E. E. Moncla looks on.

THE WHITE HOUSE
WASHINGTON

National Engineers Week
February 19 - 25, 1978

In a year that marks the two hundredth anniversary of George Washington's call for formal education in engineering, the traditional observance of National Engineers Week takes on added significance. I extend warm greetings to all the members of the National Society of Professional Engineers who sponsor this annual event.

The creativity and hard work of America's engineers have been instrumental in every phase of our national development. Engineers helped build human settlements in a hostile land, to unite people across vast distances, to develop farms and factories to provide the necessities of life and to create agricultural and industrial systems that now support this country and contribute to the economic and social well-being of a good part of the world.

The need for such creativity and productivity continues today. But it also takes on new aspects which enlarge the challenge to the engineer. Because of the previous growth he has helped to provide, the engineer must now bridge the gap between our resources and expectations with ever-greater efficiency and care. He must help us to use our resources in the most productive ways, with increased emphasis on reducing waste and minimizing the possibility of any harmful impact on the environment.

In this era of concern for conservation and continued need for economic growth, we look more than ever to the engineer -- to his knowledge, skill and ingenuity -- in the continuing task of building a viable economy and a healthy society.

All of us should welcome this opportunity to salute our country's engineers and to express appreciation for their pivotal role in ensuring our national well-being.

Jimmy Carter

The National Society of Professional Engineers began sponsoring National Engineers Week in February 1951, and the Louisiana Engineering Society, an affiliated state society of NSPE, since 1958, has been promoting and celebrating the week. The purpose of the week is to familiarize the public with the work of engineers and to honor outstanding members of the profession. The week of George Washington's birthday is traditionally observed as National Engineers Week because our nation's first

president was himself a land surveyor and a designer of roads, fortifications and other structures. He also had the educational background of a civil engineer in the 18th century. Moreover, 1978 marks a special observance: it will be the 200th anniversary of Washington's call for engineering education.

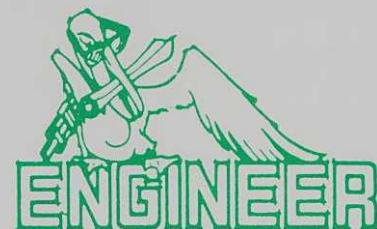
In the 27 years of NSPE sponsorship, the annual observance has grown from a few scattered proclamations, dinners and speeches to elaborate programs and week-long

activities in urban and rural areas throughout every state of the union.

All eight chapters of the Louisiana Engineering Society promote engineering and get deeply involved with Engineers Week by proclaiming the observance; releasing news articles to the press; giving speeches at high schools; participating in radio and TV interviews; honoring outstanding engineers; conducting tours; and climaxing each week with a banquet where a notable speaker is heard.

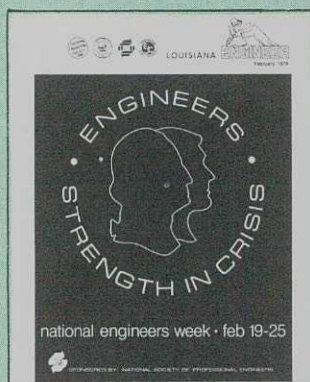
February, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. 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.

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



About the Cover

The Louisiana Engineering Society joins NSPE in observing National Engineers Week February 19-25. For a discussion of the history of the LES and how it came to join NSPE, turn to page 8.

In This Issue

Engineers Week: Strength In Crisis	3
Presidential Privilege	5
Preparations Under Way for Louisiana Superport	6
LES: 80 Years of Service	8
Potpourri	12
EngiNews	15
Vliet's Views	22

LES OFFICERS AND BOARD

President
E. E. "Buddy" Moncla, P.E.
First Vice President
Carl H. Thomas, P.E.
Second Vice President
Francis C. Roy, P.E.
Secretary-Treasurer
John E. Ritter

NSPE DIRECTORS

John F. Vogt, P.E.
James S. Janssen, P.E.
T. J. Hogue, Jr., P.E.

STATE DIRECTORS

James W. Reeves, P.E.
Robert Blanche, P.E.
Arthur DeFraithe, Jr., P.E.
Thomas D. Hixson, P.E.
James L. Meyer, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Cecil Raggio, P.E.
Baton Rouge
Wendell P. Shiflett, P.E.
Bayou
James F. Guion, P.E.
Lafayette
Larry F. Lafleur, P.E.
Lake Charles
James W. Stevens, P.E.
Monroe
D. D. Reneau, P.E.
New Orleans
Clare M. Foreman, P.E.
Shreveport
James H. Bradley, P.E.

PRACTICE DIVISIONS

Construction
Jesse C. Odom, P.E.
Education
Hugh A. Thompson, P.E.
Government
Gerald L. Ray, P.E.
Industry
Carroll J. Fuselier, P.E.
Private Practice
Frank Jenkins, P.E.

COMMITTEE CHAIRMEN FOR 1977-78

Engineering Education
E. Ray DesOrmeaux, P.E.
Ethics & Professional Conduct
Harold P. LeRay, P.E.
Honors & Awards
Malcolm L. Hurstell, P.E.
Inter-Society Relations
H. L. Henry, P.E.
Legislative
Glynn P. Gautreau, P.E.
Liaison With State Board of Registration
John F. Vogt, Jr., P.E.
Membership
Henry E. Markel, P.E.
Public Relations
David Edgar, P.E.

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
Ben T. Bogard, P.E.
Jesse Coates, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
Sidney L. Poleynard, P.E.
Roy T. Sessums, P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.
Managing Editor
R. C. "Doc" Spears
Publishing Consultants
Norman C. Ferachi & Associates

PRESIDENTIAL PRIVILEGE

E. E. Moncla, P.E.
President, LES

The month of February should take on added significance for all Louisiana engineers. Our Louisiana Engineering Society's charter was signed in New Orleans this month, 80 years ago on February 2, 1898, and 200 years ago George Washington's call for formal education in engineering created our traditional observance of National Engineers Week during the week of his birthday.

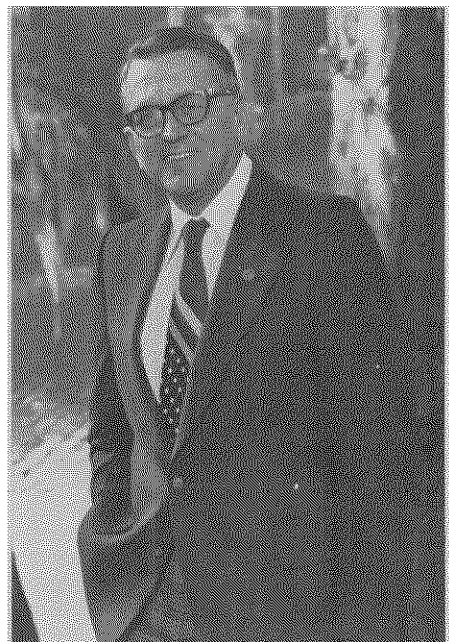
In this spirit we hosted the National Society of Professional Engineers' Annual Meeting in New Orleans the week of January 23, 1978. LES won the national membership contest in our division this past year and the plaque was presented to us in New Orleans. We thank all fellow engineers from around the nation for coming to New Orleans and joining us in these celebrations. To have all of these functions sandwiched between the Super Bowl and the New Orleans Mardi Gras was a thrill to all of us, and we will be forever indebted to the people in our New Orleans Chapter who performed all of the work. A special thanks to Al Adoue, our convention chairman, and to Mrs. Ronald Cressy and Mrs. Larry Grundmann from our Ladies Auxiliary and to everyone who worked to make this a successful annual convention.

To further promote our NSPE membership contest, Louisiana, through its Membership Chairman, Henry Markel, is willing to challenge all other states in our division to a membership race and will donate 25 pounds of shrimp or crawfish to any other state capable of beating us out and winning the division contest for

the coming year. We would be pleased to accept a counter offer from any other state in our division. We have faith in Louisiana engineers joining us and honoring their professional responsibilities, so we know that we can improve our membership standing.

The *LOUISIANA ENGINEER* has devoted this month to Engineers Week in keeping with both our national theme, "Engineering-Strength in Crisis" and the proclamations signed by President Carter and Gov. Edwards. As your LES President, I am indeed proud to participate in all of these significant events, and we are most fortunate and thankful for all of these accomplishments. Our chapters should be cognizant of this important time and are asked to please exert a special effort to make Engineers Week, February 20, a memorable time in all of our eight chapter locations. It is most important that we have the general public and our young engineers in particular join with us in celebrating these events.

The Engineer has been instrumental in all technological developments from the early settlement of America to the many comforts we enjoy today, and in the words of President Carter "has created an even greater need for engineering creativity and productivity to bridge the gap between our resources and expectations." Regardless of the reason for the potential energy dilemma, we accept the challenge and look forward to an even better America.



Preparations Under Way for Louisiana Superport

Shepard F. Perrin, Jr., P.E.¹

By 1980 a privately owned Deep-water Superport, the first in the United States, will be in operation off the coast of Louisiana. LOOP, Inc., the corporation that will own, construct and operate the Superport, has issued letters of intent to eight Louisiana engineering firms for design and construction management of various portions of the project.

Fluor Ocean Services will be the lead contractor for all offshore design and construction work. Brown & Root is assigned the design, fabrication and installation of offshore platforms. Eagleton Engineering Company has responsibility for design and construction of onshore pipelines. Walk-Haydel & Associates is assigned the design and construction of the terminal storage facilities of Clovelly Dome. Fenix and Scisson becomes involved with design and leaching of crude oil storage cavities at Clovelly Dome. PAGE Communications Engineers are assigned design and installation of all communications equipment. Control Applications has the responsibility for design and selection of supervisory equipment and preparation of required software for supervisory control. Preparation and implementation of the Quality Assurance Program will be administered by Petro-Marine Engineering.

The Superport will consist of a marine terminal for unloading deep draft crude oil tankers, large diameter buried pipelines from the marine terminal to an onshore storage facility, and the onshore storage facility with various pipelines for transmission of the oil.

The overall facility will be built in three stages. The first stage provides for a receiving and handling capacity of 1.4 million barrels of oil per day (MMB/D), the second will add one MMB/D, the third, another MMB/D, totaling 3.4 MMB/D. The first stage should be in operation by 1980 and will enable the Superport to receive supertankers up to 500,000 tons in capacity.

The Superport will be composed of six single-point mooring (SPM) buoys located in deep water (105-115 feet), so that deepdraft tankers can moor without difficulty. The SPM concept has been proven in over 100 worldwide applications since the first single-point mooring buoy was installed in 1959. The SPM floating buoy, which is attached to the floor of the seabed by anchors or pilings, can withstand very extreme sea and weather conditions. Vessel approach and departure from SPM's are relatively simple maneuvers for tankers of all sizes. Ships approach the SPM directly, and mooring is accomplished in a short time with the aid of a mooring launch. The vessel is secured to the SPM buoy with bow lines only and is free to rotate around a 36° arc, like a weathervane, always heading into the wind, sea and current. When the tanker finishes unloading, hoses which had been connected to the tanker's manifold are capped and placed in the water. Mooring lines are slipped and the tanker leaves the berth without the aid of tugs or launches. Figure 1 shows the SPM in operation.

Lines to the salt dome storage facility would be three in number and 44 to 48" in diameter. Two lines of approximately 44" would transport oil from the salt dome area to the St. James Terminal where the crude oil would be shipped by pipeline to refineries in Louisiana and in the mid-west. Figure 2 shows the pipeline routes and other locations of interest. One of the major facilities will be for the storage of some 56 million barrels of crude oil inside the Clovelly Salt Dome in 14 separate storage caverns.

Protecting the Environment

Various experts have expressed concern over the safe storage of oil by the U.S. Department of Energy in the Bayou Choctaw Salt Dome near Plaquemine. But the questions raised over the Bayou Choctaw Dome and potential problems of leakage were

mainly brought about by the irregular shapes of the dome cavities, which were primarily developed to leach out brine as raw material for various chemical processes. The LOOP facility will have carefully controlled solution mined caverns to store the oil, meeting all the requirements of the Louisiana Department of Conservation.

At present the Offshore Terminal Authority, Wildlife and Fisheries, the LSU Center for Wetland Resources, and LOOP Inc. are starting to implement an environmental monitoring program in the Superport corridor from St. James, on the Mississippi River, to the site of the offshore facility, some 20 miles below Grand Isle. This environmental program will continue through the construction and operation phases of the project to insure that the state's environment is disturbed to a minimum and that any detrimental actions can be corrected as soon as possible.

LOOP, Inc., composed of shareholders, Marathon, Texaco, Shell, Ashland and Murphy oil companies, formally accepted the federal and state licenses required to own, build and run the Superport on August 1, 1977, but the permits were a long time in coming.

In February of 1972 Gov. Edwards appointed an ad hoc task force to study the offshore superport concept. A recommendation to proceed resulted from the task force work. After extensive state and federal legislation activity, LOOP, Inc. applied to state and federal authorities for the license in December of 1975. After a 13-month review, the U.S. Department of Transportation issued a license to LOOP and to SEADOCK, another private company, in mid-January of 1977. The Board of Commissioners of the Offshore Terminal Authority issued a state license to LOOP late in January of 1977.

Many conditions of the federal license were found to be onerous and unworkable. LOOP negotiated with the federal government and the Sec-

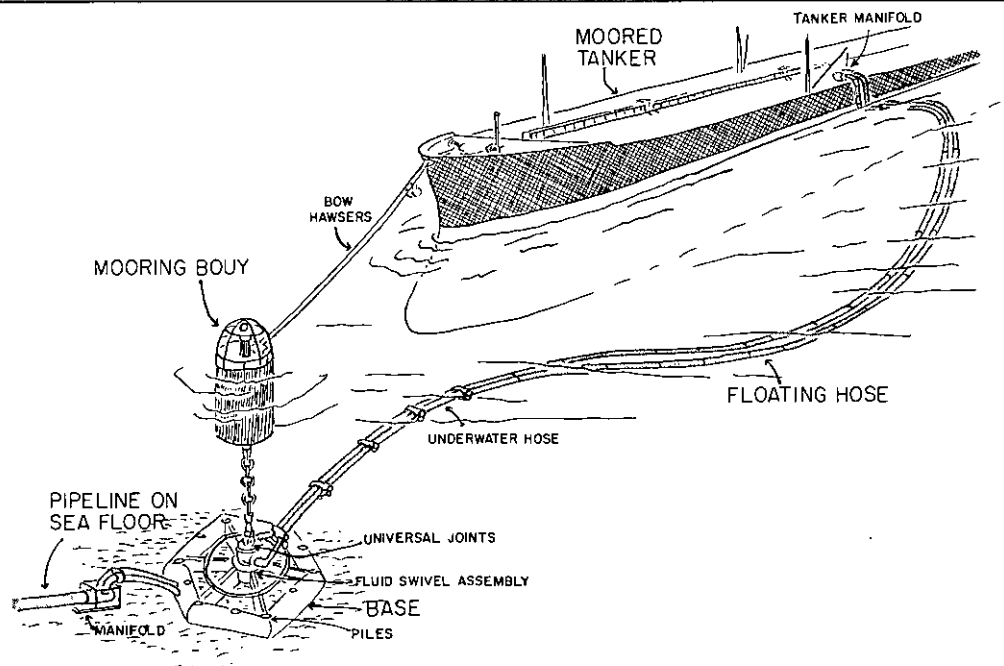


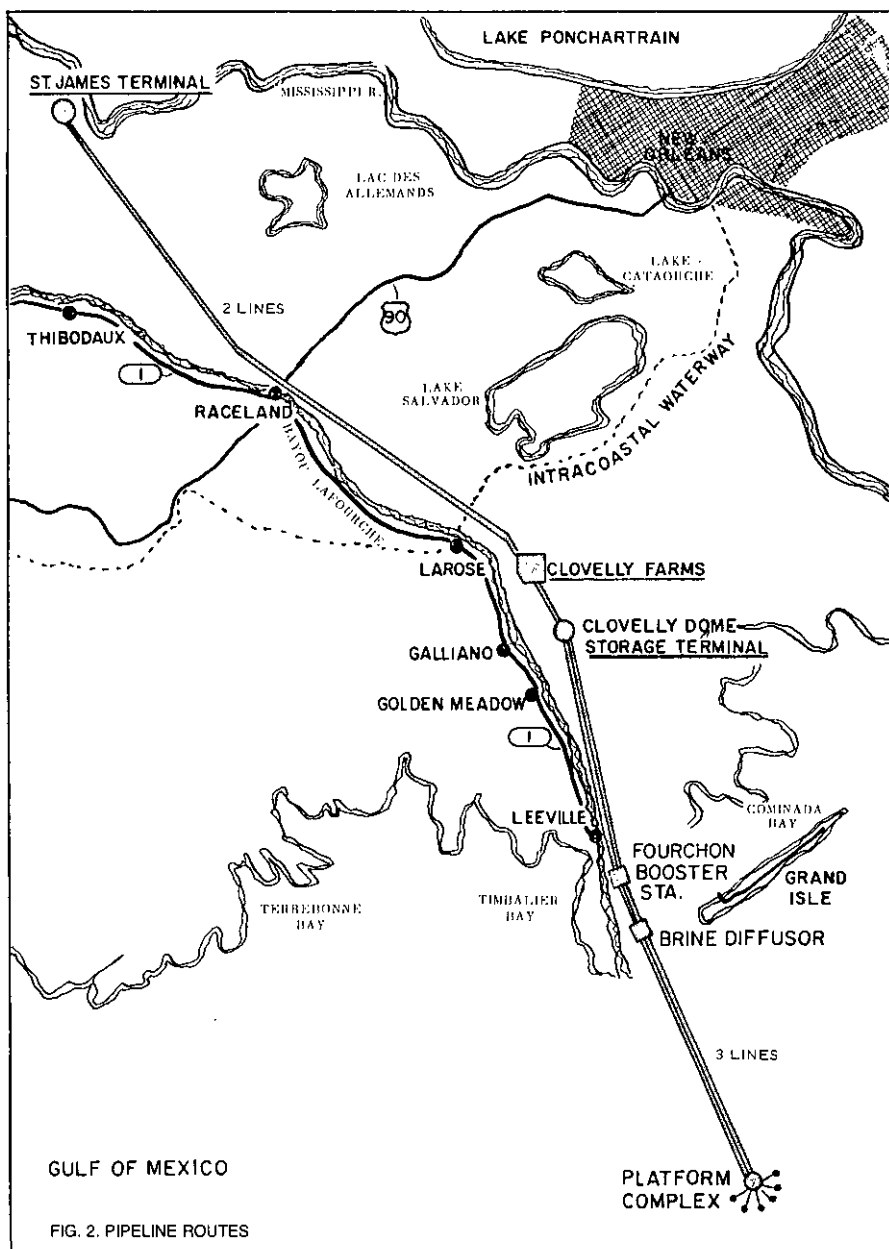
FIG. 1. SINGLE-POINT MOORING BUOY IN USE

retary of Transportation, Brock Adams, to obtain clarification and correct interpretations of the Deepwater Port Act license. By August of 1977, these interpretations were sufficient for LOOP shareholders to accept the federal and state licenses. SEA-DOCK, however, was unable to accept the federal license; it was granted an extension and may accept later.

The major reason for the state's support of the Superport project is to maintain and improve the manufacturing and refining capacity of plants located within its boundaries. Imports of foreign oil amount to more than 8 MMB/D at this time and are expected to reach 12 to 13 MMB/D in 1990. It is necessary to assure existing refineries and petrochemical companies sufficient low-cost crude imports and also to encourage the location of grass roots refining and petrochemical facilities in the state.

A report developed by Kaiser Engineers for the Authority indicates that the economic impact of the LOOP project will be significant and that by 1990, approximately 30,500 jobs will have resulted from the project, both on direct and on induced bases. This, of course, assumes that the existing and future air quality and water quality standards will be met by existing industries and by new industry which would locate in Louisiana.

¹Perrin has been the executive director of the Offshore Terminal Authority of the State of Louisiana since August of 1975. He was graduated from Tulane University with a B.S. in Chemical Engineering.



GULF OF MEXICO

FIG. 2. PIPELINE ROUTES

L.E.S.: 80 Years of Service

**Starting primarily as a technical library for engineers,
L.E.S., 80 years later, serves the profession in the state and nation.**

The idea of creating the Louisiana Engineering Society was conceived in the mind of J. F. Coleman in the fall of 1897. He proposed the idea to a group of fellow engineers because he believed it was the duty of a professional engineer to keep abreast of his profession, but on his salary of \$135 a month, he couldn't afford it. It occurred to him that engineers could pool their resources to avail themselves of expensive journals and publications that were beyond their individual means.

Besides building an extensive library, the society worked to enact a Louisiana registration law as early as 1898. Although a law regulating the practice of Civil Engineering and Land Surveying was not enacted until 1908, it was the first state law of its kind. This law created the Louisiana State Board of Engineering Examiners and provided that the board members be appointed by the Governor from a list of names submitted by the LES. This provision is still in our present law.

Magazine Is Born

In 1914 it was decided that the LES should undertake the publication of its own journal. The first issue of the "Proceedings of the Louisiana Engineering Society" was published in February 1915. In 1959 its title was changed to "The Louisiana Engineer."

Dean Douglas Anderson was the Society's first editor. He exemplified the hard working professional-minded leaders characteristic of the LES. Five years after serving as president, Dean Anderson accepted editorship of the publication and remained editor for 16 consecutive years.

Our publication has grown throughout the years and much credit

goes to Douglas Anderson, James M. Robert and Arthur M. Hill the editors who nurtured and guided its first 40 years.

The Golden Era

In June 1920 the American Council of Federated American Societies was organized. The first president of this body was the Honorable Herbert Hoover, and the LES was one of its charter members. Hoover was so impressed by the caliber and type of workers the LES had that when he became President of the United States he appointed three of our members to important positions. Col. Marcel Garsaud was appointed a member of the Federal Power Commission, Prof. W. B. Gregory became a member of the Advisory Committee of the National Hydraulic Laboratory, and of course Ernest Lee Jahncke was appointed Assistant Secretary of the Navy. Late in Hoover's administration, A. M. Lockett became local chairman of the Industrial Rehabilitation Committee, a committee appointed by the President to study the grave unemployment problem. In August 1932 President Hoover appointed J. F. Coleman to the Engineers' Advisory Board of the Reconstruction Finance Corporation. As a matter of note, Coleman in 1938 was asked to return to Washington to the same position and remained in that capacity until his death in 1944.

Chapters Established

As early as 1925, efforts were made to establish a Baton Rouge Chapter, but it was not until November 20, 1939 that this was accomplished through the efforts of Prof. B. W. Pegues and Dean Leo J. Lassalle. The Lake Charles Chapter came next on November 3, 1947 under the guidance of F. Tackett

Clarke and Ray E. Burgess. At this point I would like to pay tribute to two beloved past presidents of the Society — Charles M. Kerr and Hermann L. Lehmann, who were largely responsible for our chapter development and the tremendous increase in membership that took place in the late forties and early fifties.

1949 saw the establishment of both the Shreveport and Monroe chapters. In 1948 Ernest M. Freeman, who was then serving as our 4th District Contact Representative, decided to carry the ball personally and bring about the establishment of a chapter at Shreveport. He enlisted the help of the 5th District Contact Representative, Dean Roy T. Sessums, and together they obtained enough new members to petition for the formation of the Shreveport Chapter. Their charter was granted on July 3, but Dean Sessums was informed he could not belong to the chapter he helped organize, because his domicile was in another Congressional District. This did not perturb the Dean, who was ready by August with another petition for the Monroe Chapter. The Monroe Chapter was established on October 3, exactly three months after the Shreveport Chapter. Then to the chagrin of Jiggs Freeman, the Monroe Chapter beat the expert expeditor and received its charter at a meeting held at the Hollywood Restaurant in Monroe on October 25 while the Shreveport Chapter did not formally receive its charter until November 11.

Through the efforts of Prof. Hiram Mason and J. E. Jarman the Lafayette Chapter was formed and their charter was presented on October 10, 1950. On February 15, 1951 Alexandria received its charter and Soule Butler, the 8th District Contact Representative, became their first president. And

finally, as a result of our recent reorganization, New Orleans became a chapter in January of 1965 and its first president was Edward J. McNamara.

Affiliation

1957 was a year of decision. The issue before the Society was whether or not to affiliate with a national organization and, if such affiliation appeared desirable, whether that organization should be NSPE or EJC or both. In the latter part of 1956 two

committees were appointed to investigate the desirability of affiliating with these organizations. A copy of the two committee reports were mailed to the entire membership in March. During 1957 president Waldemar S. Nelson and the secretary met with every chapter to discuss the reports. Many questions were asked about the activities of the national organizations. These were collected and forwarded to the national offices of NSPE and EJC. The list of questions and

answers were published in our journal and mailed to the voting membership.

Your 1957 board supported the Functional Plan, in which it was proposed that EJC would coordinate technical matters, ECPD would coordinate educational matters, and NSPE would coordinate professional matters. Accordingly your board recommended that we affiliate with both organizations and that an effort be made to bring the two together. As you know, our membership voted to

PAST PRESIDENTS AND SECRETARIES OF THE LOUISIANA ENGINEERING SOCIETY

Year	Presidents	Secretaries	Year	Presidents	Secretaries
1898	Sidney F. Lewis	J. F. Coleman	1938	Bernard H. Grehan	A. M. Hill
1899	Thos. L. Raymond	J. F. Coleman	1939	David W. Godat	A. M. Hill
1900	Henry J. Malochee	Gervais Lombard	1940	William H. Rhodes	A. M. Hill
1901	Frank M. Kerr	J. F. Richardson	1941	David W. Stewart	J. K. Mayer
1902	Alfred F. Theard	G. W. Lawes	1942	C. Glenn Cappel	J. K. Mayer
1903	Alfred Raymond	G. W. Lawes	1943	Karl P. Kammer	J. K. Mayer
1904	J. F. Coleman	G. W. Lawes	1944	Charles M. Kerr	J. K. Mayer
1905	W. B. Wright	G. W. Lawes	1945	Reinhard A. Steinmayer	J. P. Fernandez
1906	W. H. Hoffman	M. Garsaud	1946	Leo Jos. Lassalle	J. P. Fernandez
1907	G. W. Lawes	L. C. Datz	1947	Clayton L. Nairne	J. P. Fernandez
1908	C. W. Wood	L. C. Datz	1948	W. Stone Leake	J. P. Fernandez
1909	J. T. Eastwood	L. C. Datz	1949	Hermann L. Lehmann	J. P. Fernandez
1910	W. B. Gregory	L. C. Datz	1950	Lionel L. Cucullu	J. P. Fernandez
1911	J. C. Haugh	Datz and	1951	Harry P. Newton	J. P. Fernandez
		J. M. Robert	1952	John A. McNiven	J. P. Fernandez
1912	D. S. Anderson	J. M. Robert	1953	Michael C. Abraham	J. P. Fernandez
1913	A. M. Shaw	J. M. Robert	1954	Frank W. MacDonald	J. P. Fernandez
1914	W. H. Williams	W. T. Hogg	1955	R. Mallard Seago	J. P. Fernandez
1915	L. C. Datz	W. T. Hogg	1956	Wayne P. Wallace	J. P. Fernandez
1916	Samuel M. Young	W. T. Hogg	1957	Waldemar S. Nelson	J. P. Fernandez
1917	A. T. Dusenbury	J. M. Robert	1958	Ernest M. Freeman	J. P. Fernandez
1918	John Klorer	J. M. Robert	1959	Roy T. Sessums	J. P. Fernandez
1919	Ole K. Olsen	J. M. Robert	1960	Edward A. McLellan	J. P. Fernandez
1920	John Riess	J. M. Robert	1961	Ben T. Bogard	J. P. Fernandez
1921	R. S. Manley	J. M. Robert	1962	James S. Janssen	J. P. Fernandez
1922	Donald Derickson	J. M. Robert	1963	Calvin T. Watts	J. P. Fernandez
1923	J. S. Bareli	F. A. Muth	1964-65	*John T. Knight, Jr.	J. P. Fernandez
1924	J. M. Robert	F. A. Muth	1965-66	Charles W. Stokes	J. F. Vogt, Jr.
1925	Marcel Garsaud	F. A. Muth	1966-67	Louis Duclos	J. F. Vogt, Jr.
1926	Farrar P. Hamilton	F. A. Muth	1967-68	Edw. J. McNamara	T. J. Hogue, Jr.
1927	Edward S. Lamphier	F. A. Muth	1968-69	Leo M. Odom	T. J. Hogue, Jr.
1928	John L. Porter	F. A. Muth	1969-70	John F. Vogt, Jr.	J. J. Thigpen
1929	Frederick H. Fox	F. A. Muth	1970-71	A. J. Szabo	J. J. Thigpen
1930	James M. Todd	F. A. Muth	1971-72	T. J. Hogue	Malcolm Hurstell
1931	Frank G. Frost	F. A. Muth	1972-73	Hoyt W. Brown	Malcolm Hurstell
1932	F. N. Billingsley	F. A. Muth	1973-74	J. J. Thigpen	James L. Meyer
1933	John H. O'Neill	F. A. Muth	1974-75	Fred C. Culpepper	Carl H. Thomas
1934	A. L. Dunlap	F. A. Muth	1975-76	James L. Meyer	Francis C. Roy
1935	Edward S. Bres	Muth and	1977-78	E. E. Moncla	John E. Ritter
		A. M. Hill			
1936	Allen S. Hacket	A. M. Hill			
1937	C. S. Williamson	A. M. Hill			

*Due to a change in the administrative year, Col. Knight's term was lengthened to eighteen months.

join both, and the implementation of the Functional Plan led to the formation of the Board of Engineering Cooperation, consisting of the presidents and vice presidents of EJC, ECPD and NSPE.

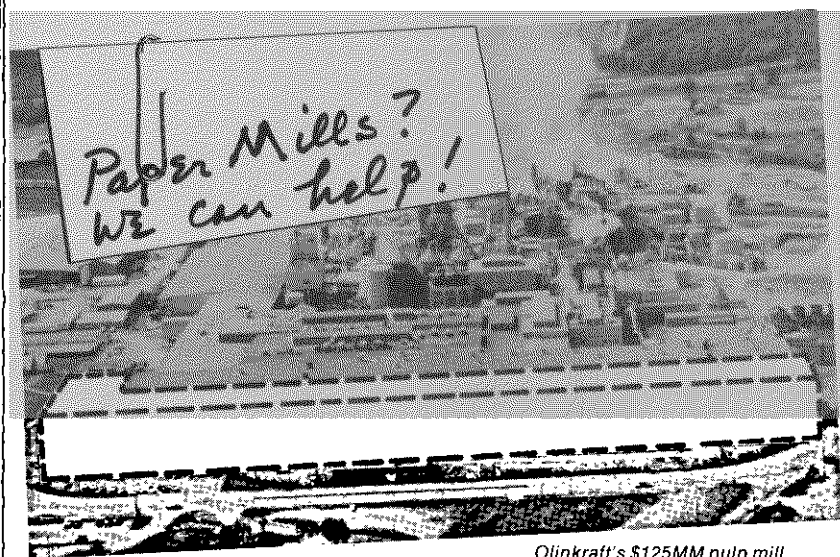
Awards

Our Society has always desired to give recognition to engineers for outstanding service or accomplishment. With this in mind, James M. Todd proposed that an annual award be given to a Louisiana Engineer for dis-

tinguished civic service performed without compensation to himself. The development of this idea resulted in the "LES-Civic Activities Medal." When the A. M. Lockett Company offered to underwrite all of the expenses entailed in the design and preparation of the medal in honor of its illustrious civic-minded founder, it became known as the Andrew M. Lockett Award.

President Lionel J. Cucullu was so enthused with the idea of medal awards that he suggested using the

"Our Society has always given recognition to engineers for outstanding service."



Olinkraft's \$125MM pulp mill expansion; West Monroe; 1977

- ✓ Complete design and construction services
- ✓ Preliminary planning and feasibility studies
- ✓ Site development; environmental studies
- ✓ Process design and detailed engineering
- ✓ Specifications and selection of equipment
- ✓ Procurement; Cost Estimating and Control
- ✓ Project scheduling (CPM; PERT); quality assurance

Ford, Bacon & Davis
Monroe and Baton Rouge
 and 18 other cities worldwide



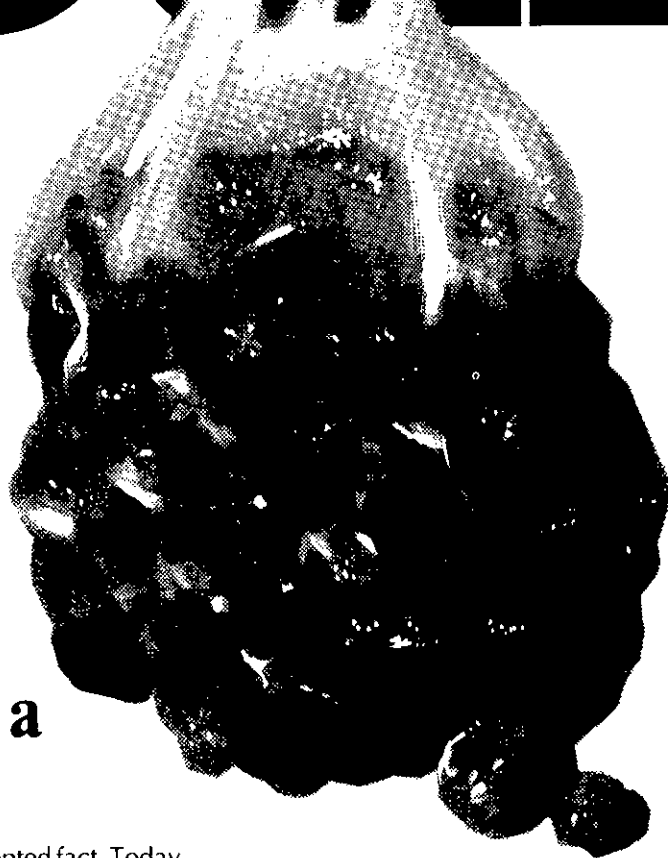
funds allocated for the Civic Activities Medal to establish the LES Technological Accomplishment Medal. Both medals were awarded for the first time in 1951. Cucullu and Todd did such fine work in setting up these two medals that when the A. B. Paterson—Engineer in Management Award was suggested, President Knight requested those two past presidents to handle the arrangements for its preparation. The A. B. Paterson—Engineer in Management medal was presented for the first time in January of 1965. All three medals were designed by an accomplished sculptress — Angela Gregory, who happens also to be the daughter of one of our past presidents. The Charles M. Kerr Award, a plaque presented annually to a member for outstanding service in the promotion of public relations to benefit the profession, was established in July 1965.

The Young Engineer Award of Merit was founded in 1967. This award was underwritten through the generosity of F. Hugh Coughlin, P.E., Alexandria. It is presented to an engineer not over 35 years of age who has demonstrated to a high degree capabilities in his chosen field of engineering.

In 1972, an award was inaugurated for professional service by an engineer member of the Society. Leo M. Odom, P.E. was the first recipient, and the award is now appropriately named the Leo M. Odom Award. Through contributions from 40 friends of Odom's, the award has been underwritten in perpetuity.

This article is an elaboration of a paper presentation by J. P. Fernandez.

Coal



...burning brightly as a future energy source.

The importance of electricity to Americans is an accepted fact. Today, electricity represents 25% of all the energy used in the United States. And by the year 2000, it will represent almost 50% of all energy used. Clearly, electricity will become increasingly important in the years to come, and clearly we should not rely on a single source of fuel to provide it. That's why your investor-owned utility companies are sponsoring research and development programs to find better ways to generate electricity.

An important factor in any solution would be the use of coal. Unlike our oil and gas reserves, coal is in plentiful supply. In fact, many geologists say that at the present rate of consumption there is enough coal to last our country 500 years. Even though all energy costs are going up, environmentally clean nuclear power combined with coal will be the most reliable and economic means of providing electricity for many decades into the future. And your investor-owned electric utility companies think that's important in order to insure you of dependable electric service at a reasonable cost.

Supporting The Wise and Efficient Use of Energy

YOUR FIVE LOUISIANA 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

CONSULT BOYCE...

Specialists in Caterpillar Power!

Big Bore Medium Speed
6.25" Industrial Engines 200 to 1300 BHP
Generator Sets 335 to 900 KW

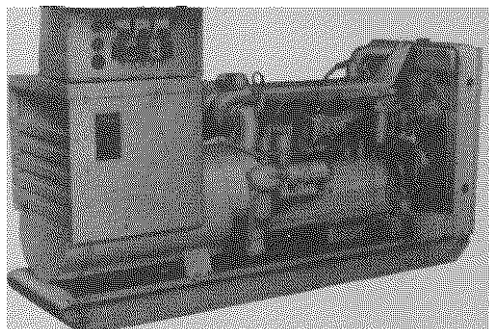
High Power Compacts
5.4" Industrial Engines 315 to 1130 HP
Generator Sets 285 to 750 KW

3400 Series
Industrial Eng. 325 to 375 HP
Generator Sets 240 KW

Heavy Duty Smaller Units
4-6 cyl. Industrial Eng. 100 to 280 HP
Generator Sets 60 to 205 KW

High Performance V8's
Industrial Eng. 175 to 210 HP

Truck Engines -16 models - 175 to 450 HP
Cat Packaged Generator Sets 50 to 375 KW
Natural Gas Engines 133 to 1115 BHP
Cat Marine Engines 125 to 1125 BHP



A Wide Variety of Cat-Plus Services to Keep Your Caterpillar-Built Engine Products Earning for you . . . longer life — more profits.

Service Throughout Louisiana.



BOYCE
MACHINERY CORP.

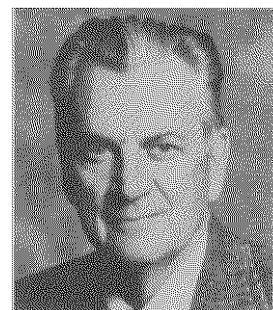
DRAWER A J, RESERVE, LOUISIANA 70084
TELEPHONE 504-536-1121

MORGAN CITY: 504-631-0561 LAKE CHARLES 318-439-3601

Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.

Potpourri

From Your
Executive Secretary
R. C. "DOC" SPEARS



State Winners—NSPE Scholarship Program

On January 12, 1978, Dr. Paul Hale, P.E. and Dr. D. D. Reneau, P.E., chairmen of the LES Scholarship Committee reported applications for scholarships from Louisiana high school students have been mailed to NSPE for consideration in the national competition. Announcement of national winners is scheduled to be made in late February 1978.

Twenty-eight high school student nominations were considered by the LES committee. The state winners whose applications were submitted to NSPE are listed by chapter:

New Orleans Chapter

Mark R. Drews	ARMCO
Charlene Marie Armagnac	Neptune International
Anne Marie Baribault	Rice University
Michael V. Doran	University of Texas
Lee Francis Merrill	Virginia Polytechnic Institute
Brian A. Yokum	NSPE
Norma Jean Smith	Ladies Auxiliary
Cynthia Michelle Russell	Ladies Auxiliary
Dwayne Patrick Jolly	Racial Minority Grant

Baton Rouge Chapter

Kevin Lane Moore	Ashland Oil
-------------------------	-------------

Monroe Chapter

Ahmad M. Farahani	Burroughs
Harold C. Maxey	Rice University

Alexandria Chapter

Christian John Clowers	Neptune International
-------------------------------	-----------------------

Determination of the \$1,000 LES scholarship will be made to one of the thirteen winners listed above after NSPE names the national winners.

Congratulations to these students and the scholarship committee, and we applaud the chapter member involvement in this most worthwhile program.

LES 1978 Award Winners

The Honors & Awards Committee met December 9, 1977 in Baton Rouge to select nominees for recommendation to the Board of Directors for the six LES awards. After carefully considering the nominees for each award, the following were unanimously recommended for the award indicated:

A. B. Paterson Engineer in Management Award
E. J. McNamara, P.E. - New Orleans
Leo M. Odom Professional Service Award
J. J. Thigpen, P.E. - Ruston
F. Hugh Coughlin Young Engineer Award
John J. Bergeron, P.E. - New Orleans
Andrew M. Lockett Civic Activities Award
Paul W. Murrill, P.E. - Baton Rouge
James M. Todd Technological Accomplishment Award
Lou Capozzoli, P.E. - Baton Rouge
Charles M. Kerr Public Relations Award
Daniel H. Vilet, P.E. - New Orleans

The LES Board of Directors approved the selections of the Honors and Awards Committee on January 27, 1978. Congratulations to each of these outstanding engineers. The presentation ceremony will be held April 14 at the LES spring meeting, Baton Rouge. Biographical data on each award recipient will be carried in the April LOUISIANA ENGINEER.

Recommended Income Ranges for 1977-78

NSPE has recently released "Recommended Income Ranges for 1977-78." This revised chart, which lists engineering positions from

Intern to Chief Engineer and includes recommended income ranges for each position, shows an income base rate of \$15,400, a 7.6 percent increase over the base rate for 1976-77.

Single copies of the chart can be obtained from NSPE headquarters and from the LES state office.

LES Wins 1977 NSPE Membership Contest

In the NSPE membership contest that ended November 30, 1977, LES won in Group IV (states with 851 to 1220 members) with 173 new NSPE members for the year. Our nearest competitor in the contest was Maryland with a gain of 97 new members. This is LES's second year in a row to win, and all chapters, membership committees, members and especially **Dudley Hixson, P.E.** and **Henry Markel, P.E.**, Membership Committee chairmen 1976-77 and 1977-78, who have done an outstanding job bringing this well-deserved recognition to the Society, are to be congratulated. The NSPE membership plaque was presented to **E. E. "Buddy" Moncla, P.E.**, LES President at the January meeting in New Orleans.

The winners of the other five groups in the contest were Puerto Rico, Hawaii, Iowa, North Carolina and Ohio. Thirty-six state societies were in the plus column (membership gains) this year.

1977 Engineering Graduates In Demand at Higher Salaries

Engineering and technology graduates of the class of '77 encountered one of the most favorable job markets since the heydays of the 1960s, according to the results of the 18th annual placement survey conducted by the Engineering Manpower Commission of EJC.

Starting salaries continued to move upward at about the same rate as the consumer price index. The averages varied from 5.1 percent for PhDs to 11.3 percent for associate degree technology graduates, while the cost of living rose by 6.7 percent during the year. The results are summarized in the chart below.

AVERAGE MONTHLY STARTING SALARIES 1976-1977

	1976	1977	%Incr
Engineering Graduates			
BS	\$1191	\$1286	7.6
MS	1332	1429	7.3
PhD	1737	1825	5.1
Technology Graduates			
AS	779	867	11.3
BS	1030	1111	7.9
Consumer Price Index (July)	171.1	182.6	6.7

Source: Engineering salary averages derived from starting salary offers compiled by The College Placement Council, Inc. Technology starting salaries from the Engineering Manpower Commission placement survey. Consumer price index from MONTHLY LABOR REVIEW, U.S. Department of Labor.

PEG Survey

A questionnaire was mailed to all LES professional engineers in government on February 1, 1978. Information is needed from the PEG membership to help promote a better statewide organization. Please complete the questionnaire and use the franked envelope for return.

The LES audit of September 1977 shows that LES had 332 PEG members. **Gerald L. Ray, P.E.**, LES PEG chairman, reports the anonymity of each response will be respected, and the information will be used to produce a statistical profile of professional engineers in government for the Louisiana Engineering Society.

Tennessee Man Named "Young Engineer" of 1977

Dr. James E. Beavers, 33-year-old department head of the Y12 Plant Structural and Architectural Engineering Department of Union Carbide's Nuclear Division At Oak Ridge, Tenn. was named "Young Engineer of 1977" by the National Society of Professional Engineers. Formal presentation of the award was made at the NSPE meeting in New Orleans on January 19, 1978.

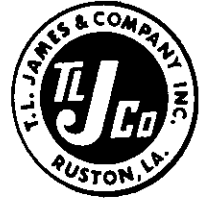
Beavers was selected for the national award from among young engineers nominated by state engineering societies. **John W. "Billy" Moore** of Alexandria was LES's nomination for the coveted award.

EJC President to Speak To LES

The Engineers Joint Council is composed of 36 professional engineering societies. LES has been an associate member society of

February, 1978

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE
ASPHALT
SHELLS
SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE

RUSTON, LOUISIANA

JAMES BUILDING • PHONE 255-7912

KENNER, LOUISIANA

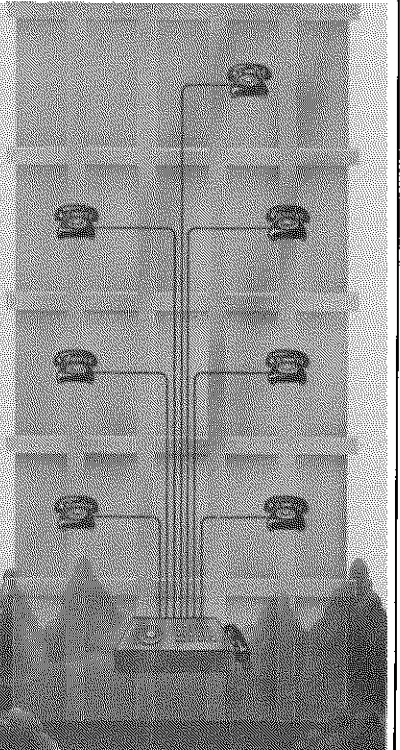
P. O. Box 8 • PHONE 729-2511

Equal Opportunity Employer

Talk with us about your communications system before you build.

We'll show you the advantages of including Bell Communications Services in the early stages of your planning. Advantages such as the most efficient telephone service possible. And ease of expanding your system as your business grows. Call South Central Bell's Building Industry Consulting Service and plan now for the phones you'll need initially - and eventually.

 South Central Bell



EJC since 1958. The goals of EJC are:

- to advance the art and science of engineering in the public interest
- to provide communications among societies
- to act as an advisory and coordinating agency for member societies
- to identify opportunities for service in the engineering community
- to recommend programs of study and research
- to undertake mutually agreed-to activities and projects

Bryce I. MacDonald, P.E., president of EJC, will speak at the LES spring meeting in Baton Rouge on April 14.

Leo M. Odom Appointed to Summer Jobs Program

Leo M. Odom, P.E., Baton Rouge, has been selected Career Representative in the LSU Alumni Federation Student Summer Job Program. The program is designed to assist employers in satisfying one of the critical requirements they have in assuring the future success of their firms, namely, their need to provide a continuous supply of qualified, well-educated employees.

Odom was selected because he is an LSU alumnus and for his prominence in the career area of engineering.

Corps of Engineers to Develop Navigational Facilities On Red River

The New Orleans District U.S. Army Corps of Engineers, has launched a program to develop navigational facilities on the Red River from its entry into the Mississippi below Natchez up to Shreveport.

According to the Corps of Engineers, five locks and dams are required. Portions of three locks and dams have been assigned to the St. Louis District, Corps of Engineers, for engineering and design. The St. Louis District has retained Stanley Consultants, Inc., to develop hydrology and hydraulic engineering design for Lock and Dam No. 3 located near Colfax, Louisiana, and to provide similar work for lock and Dam No. 4 above Natchitoches, when the Corps establishes final alignment for that facility.

Prior to final design and construction, the Corps of Engineers will build a hydraulic model at the Vicksburg Waterways Experiment Station to test the design recommendations for Lock No. 3.

Transportation, Generation and Conservation of Energy Seminar

Ford, Bacon and Davis will hold its 12th annual invitational seminar covering transportation, generation and conservation of energy on March 1-3, 1978 at the Ramada Inn and FB&D offices in Monroe.

LES Member Participates In ASME National Meeting

L. L. Denson, P.E., president of Denson Engineers, Inc., New Orleans, participated in a panel discussion on the topic "The Engineer as an Expert Witness" at the 98th American Society of Mechanical Engineers' annual winter meeting in Atlanta on November 28-30, 1977.

Denson is past chairman of the Louisiana Engineering Society Ethics Committee, and has published numerous papers on the subject of engineering ethics. His remarks were focused on ethical guidelines for the engineer in his role as an expert witness.

Denson is a long-time member and supporter of the American Society of Mechanical Engineers, Louisiana Engineering Society, American Society of Petroleum Engineers, Society of Automotive Engineers and Tau Beta Pi.

NSPE Government Professional Development Award

The Engineering Division of the City of Tulsa, Oklahoma Water and Sewer Department was chosen winner of the National Society of Professional Engineers 1978 GPDA. The department was selected from 22 state nominees.

NSPE's award is rotated annually among federal, state and local agencies. The 1978 award, designated for local governmental units, honors an organization showing outstanding achievement in adopting and implementing progressive, professional employment policies for its engineering personnel. In determining the 1978 award recipient, the Society GPDA committee considered employment practices relating to education, professional registration, recruitment and indoctrination, salary, participation in professional and technical society activities, professional environment, position classification and engineer-management classification.

The award was presented by NSPE President **Delbert A. Schmand, P.E.**, during a special luncheon on January 27 at NSPE's winter meeting in New Orleans.

LSU to Host 1979 ASEE Conference

The LSU College of Engineering will host the annual conference of the American Society of Engineering Education (ASEE) in June 1979. The conference is the main forum for engineering educators and employers of engineers. It is held to discuss and consider general trends in engineering education as well as specific areas of education and research. Approximately 3,000 are expected to be on the LSU campus for the four-day conference June 24-28, 1979.

Aluminum Welding Seminar

The latest developments in the welding of aluminum will be described during a two-day seminar at the Sheraton-Palace, San Francisco, on May 17-18, 1978.

The meeting, sponsored by the Aluminum Association, the American Welding Society, the American Society for Metals and Welding Design and Fabrication Magazine, is the 15th in a series of aluminum welding seminars scheduled in different parts of the United States.

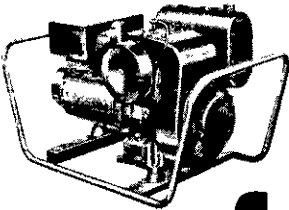
Registration for the seminar is \$85. The fee includes all sessions, copies of the technical papers and a reception on the night of the first session. Complete registration information is available from the Aluminum Association, 818 Connecticut Ave, N.W., Washington D.C. 20006.

Energy Technology Conference Slated for Houston

The second annual Energy Technology Conference and exhibition will be held November 5-9, 1978 at the Albert Thomas Convention Center, Houston, Tex. This broadly based conclave will feature related and overlapping technologies in a comprehensive program of technical sessions and an exhibition of equipment and services representing leading suppliers to the energy industries under one roof.

The 1978 ETCE will be sponsored by six divisions of the American Society of Mechanical Engineers: Petroleum, Diesel and Gas Engine Power, Ocean Engineering, Society & Technology, and Safety and Materials. The National Association of Corrosion Engineers will co-sponsor the event with ASME.

model 5MMS65
5000 watts
120/240 volts AC



powerful.

5000 watts of building power from a portable generator set — that's powerful performance. Kohler performance.

- Heavy-duty, cast iron KOHLER industrial engine with stellite faced valves and positive valve rotator — extends valve life by hundreds of hours. And ball bearing crankshaft for long engine life.
- Kohler Econo-Throttle — automatic engine speed control saves on fuel, reduces engine wear.
- Excellent surge capacity for fast motor starting.
- Kohler Automatic Compression Release for fast, sure starting.
- 120 volt models also available.

Just one of Kohler's full line of powerful portable/mobile generator sets . . . from 1500 to 45,000 watts. (Kohler builds generator sets up to 500,000 watts.)
Kohler power for the men who build America.

Sales • Service • Parts • Rentals



W.M.F. SURGI

EQUIPMENT CORPORATION
New Orleans 525-3142
Baton Rouge 293-0556
Lafayette 233-6322



"The Gulf South's Best Machinery House"

EngiNEWS

Courses Planned For Engineers

Three courses of particular interest to engineers will be offered this spring. One will be in Baton Rouge, and two will be held in New Orleans.

Louisiana State University will offer the course, Basic Engineering Refresher, which is designed to review engineering disciplines included on the semi-annual Engineer in Training examination to be administered in April. Passage of the EIT exam is required by state law for professional registration.

The course is comprised of 10 three-hour sessions, from Feb. 8 to March 1, 7-10 p.m. on Monday, Wednesday and Friday evenings. Sessions will review mathematics, statistics, dynamics, thermodynamics, and strength of materials as well as five other areas.

Practicing engineers as well as new graduates preparing for the examination are expected to participate in the course which will be taught by 10 members of the LSU faculty. The fee is \$150.

Registration fees should be sent at least 10 days prior to the date of the first class to the Office of Professional Services, Pleasant Hall, LSU, Baton Rouge 70803. Checks should be made payable to LSU.

Offshore Safety

The Department of Mechanical Engineering of the University of New Orleans is going to conduct a four-day short course on safety and anti-pollution devices used on offshore production platforms. The

course will follow the guidelines of API RP-14C - "Analysis, Design, Installation and Testing of Basic Surface Safety Systems on Offshore Production Platforms."

The objectives of this course are to provide for the qualification of personnel engaged in installing, inspecting, testing and routinely maintaining devices that are used to insure safety and prevent pollution during the production of oil and gas. U. S. Geological Survey OCS Order No. 8 "requires" that by not later than October 1978 offshore operators shall insure that all personnel must be qualified. Documented evidence of the qualification must be available to the U. S. G. S. This course will fulfill the above mentioned requirements.

For further information, please contact Dr. E. P. Russo at UNO, 283-0652.

Pressure Vessels

The engineering and design fundamentals required for the application of the ASME Pressure Vessel Code, Section VIII, Division 1, will be covered in the course, Pressure Vessel Design. A typical vessel will be designed highlighting the general requirements of the code, such as, pressures, temperatures, allowable stresses, nozzle reinforcement, etc. Inspection and quality control techniques will be discussed. This course will not be a "history of the code."

The course will be conducted through Engineering Education Consultants and will be held in the New Orleans area. The registration fee is \$100.00. The course will be offered in the evenings from 7:00 to 10:00 p.m. on March 20, 21 and 22, 1978. For further information please contact Dr. E. P. Russo, U.N.O.

P.O. Box 1207, New Orleans, Louisiana 70122. Phone 242-3381 (home) or 283-0652 (office).

Nelson To Head City Park Board

Waldeman S. Nelson, a past president of the Louisiana Engineering Society, has been elected president of the Board of Commissioners of the New Orleans City Park Improvement Association. Nelson, who has served on the City Park board since 1968, began this one-year presidential term in January.



O. Landon Miles

Ford, Bacon & Davis Elects Miles to Vice Presidential Post

O. Landon Miles has been elected vice president of Corporate Marketing by the board of directors of Ford, Bacon & Davis.

Miles, a member of LES, was graduated from Louisiana Tech University in 1940 and joined Ford, Bacon & Davis in 1941. In 1961 he was the first manager of their Sealants Department and in 1967 was elected a vice president. His many assignments with Ford, Bacon &

BETZ ENGINEERING SALES CO.

"Service is the Betz Policy"

7979 Earhart Blvd.

P. O. Box 13248

Phone 486-5452

New Orleans, La. 70185

CROLL-REYNOLDS CO.
Steam & Vacuum Jets
Fume Scrubbers

IDEAL ELECTRIC
Motors, Generators &
Controls

DCE, VOKES
Dust Collecting
Systems

SPRACO
Nozzles & Spraying
Equipment

FMC, ENVIRONMENTAL
EQUIPMENT DIVISION
Sewage Equipment &
Pumps

D. O. JAMES
Gears, Reducers,
Couplings

RELIANCE ELECTRIC
A.C. & D.C. Motors

U. S. ELECTRICAL
Motors, Gear
Reducers, Varidrives

LAMSON
Vacuum Systems

LIMA ELECTRIC
Brushless Generators

WALLACE & TIERNAN
Chlorinators,
Chemical Pumps &
Rotameters

Davis have ranged from heavy industrial plants to pipelines, including the first coal slurry pipeline.

Miles is also a director of Ford, Bacon & Davis, Ltd. of Sao Paulo, Brazil and Sealants International, Inc. of West Chester, Pennsylvania.

Walk Named Vice President of Am. Military Engineers

Lt. Col. Frank H. Walk, USAR, has been elected vice president of the Lower Mississippi Region of the Society of American Military Engineers. The Lower Mississippi Region includes posts of the Society located in New Orleans, Biloxi, Vicksburg, Memphis, Shreveport, Little Rock, Tulsa and Oklahoma City.

Col. Walk is president of Walk-Haydel and Associates, Inc., a prominent engineering firm in the South, headquartered in New Orleans and with offices in Baton Rouge and Mobile. It has consistently been among the largest engineering firms in the country for the past 10 years.

Frank Walk, P.E. is a long-time member of the Louisiana Engineering Society and was the recipient of LES's Andrew M. Lockett Medal for Civic Activities in 1977.

Naquin Joins Local A-E-P Firm

Gordon M. Naquin, a registered civil engineer, recently joined the Shreveport office of HTB, Inc., a national architectural-engineering-planning firm. The announcement was made today by William L. Bailey, vice president and director of HTB's Shreveport office.

Naquin is also a member of the American Society of Civil Engineers, the Louisiana Section-Shreveport Branch of the American Society of Civil Engineers, the Shreveport Chapter of the Louisiana Engineering Society and the Society of American Military Engineers.

The Louisiana Engineering Society extends its deepest sympathy to his wife, Joan S. Harrell and his two sons and a daughter.

IN MEMORIAM

Charles Vincent Jenkinson

Charles V. Jenkinson, P.E., an expert in the correctional field designing and engineering industries in Federal Institutions, died on December 19, 1977 at Lafayette General Hospital. He was buried at St. John's Cemetery in Jeanerette. He was a privileged member of the Louisiana Engineering Society.

A native of Wednesbury, Staffordshire, England, he came to America upon graduating from college as an industrial engineer and became an American citizen. He was associated with the J. R. Ward Company of Huntingdon, Pa. and spent most of his career with the U. S. government.

He was the civilian advisor to the Marine Headquarters in Arlington, Va. and was the research and development engineer in the Federal Postal System. He supervised the engineering of the first mechanized parcel post system in Miami, Fla. Upon retirement from the Federal Government he was employed as the Consultant Engineer for B. F. Trappey's Sons, Inc.

He was a member of the Federal Correctional Association, of which he was past president, the National Society of Professional Engineers, the Louisiana Engineering Society and a life member of the B. P. O. Elks Lodge No. 976 of Huntingdon, Pa.

He is survived by his wife, the former Maud Trappey, of Lafayette and a cousin, Mrs. Stanley French of Stratham, N.H.

The Louisiana Engineering Society extends its deepest sympathy to Mrs. Jenkinson. He loved the profession of engineering and his loss is regretted.

IN MEMORIAM

John H. Wolf, P.E.

With the death, on December 18, 1977, of John H. Wolf, P.E., the Louisiana Engineering Society shares, with his devoted family, many friends and the engineering profession, a sincere and deep feeling of loss.

John Wolf, a native of McPherson, Ark., has lived in Lake Charles for the past 34 years. He was president of John H. Wolf and Associates, Inc., and a member of the Downtown Rotary Club, the Greater Lake Charles Chamber of Commerce and the National Advisory Board of the National Security Council.

He has been a member of the Louisiana Engineering Society and the National Society of Professional Engineers since 1966. The Louisiana Engineering Society extends its deepest sympathy to his wife, Mrs. Pearl Wolf and his daughter, Mrs. Earl Richard of Lake Charles.

IN MEMORIAM

Frank C. Gault, P.E.

When Frank C. Gault died on December 25, 1977, the Louisiana Engineering Society suffered the loss of a Life Member and a loyal worker.

He joined the Society in 1938 and reached Life Membership in 1968. He was the senior member of the Lake Charles Chapter at the time of his death. He was an operating engineer for six years with the Louisiana Irrigation and Mill Company, Lake Charles; process engineer for one year with Pineland Naval Stores

Company, Lake Charles; and a sales engineer for 20 years with A.M. Lockett Company, New Orleans until his retirement.

The 83-year-old native of Illinois lived in Lake Charles for over 60 years.

The Society extends its deepest sympathy to his wife, Mrs. Edna Gault and his son and daughter.

New Members of L.E.S.

ALEXANDRIA

Harry D. Ray, Jr., P.E.
1400 King Richard Blvd. #239
Alexandria, LA 71301
Industry

BATON ROUGE

Richard B. Adams, P.E.
Soil Testing Engineering, Inc.
2872 Crater Lake Drive
Baton Rouge, LA 70814
Private Practice

Gary H. Caldwell, P.E.
12521 Country Ridge
Baton Rouge, LA 70816
Industry

Charles A. Copes, P.E.
Rust Engineering
P. O. Box 3077
Baton Rouge, LA 70821
Construction

James E. Gutierrez, P.E.
Walk, Haydel & Asso.
10550 Airline Hwy.
Baton Rouge, LA 70816
Industry

Stephen W. Hazlip, EIT
Barbay Engineers, Inc.
P. O. Box 66424
Baton Rouge, LA 70896
Private Practice

Richard B. Robertson, P.E.
Bovay Engineers, Inc.
10305 Airline Hwy.
Baton Rouge, LA 70895
Private Practice

BAYOU

Keith M. Huber, Jr., P.E.
Diamond M. Co.
P. O. Box 1089
Morgan City, LA 70380
Industry

Harry R. Jukes, P.E.
Gulf Energy & Minerals - U.S.
P. O. Box 431
Morgan City, LA 70380
Industry

LAFAYETTE

James B. Collins, Jr., EIT
709 Kaliste Saloom Road
Lafayette, LA 70505
Private Practice

LAKE CHARLES

Anthony P. Carcich
4200 Maplewood Drive #212
Sulphur, LA 70663
Industry

MONROE

Daniel G. Christie, P.E.
Ford, Bacon & Davis
P. O. Box 1762
Monroe, LA 71201
Construction

IN MEMORIAM

Eugene Harrell

Eugene Harrell, P.E., president of his own firm, Harrell Engineers and Associates of Baton Rouge, died on January 6, 1978, at the age of 38. He was a member of the Louisiana Engineering Society and the Consulting Engineers Council of Louisiana. Originally from Goldsboro, N.C., he attended LSU and was graduated with a BSEE degree in 1969.

Ben J. Clary, P.E.
1911 Knowles Drive
Ruston, LA 71270
Private Practice

Stephen B. Densford, P.E.
Guide Division, GMC
P. O. Box 4707
Monroe, LA 71201
Industry

Robert R. Little, P.E.
Dept. of Industrial Engineering
& Computer Science
Louisiana Tech
P. O. Box 4875, Tech Station
Ruston, LA 71272
Education

Elward S. Willis, P.E.
1401 Erin #208-3
Monroe, LA 71201
Private Practice

NEW ORLEANS

W. J. Allen, P.E.
Professional Engineering
Services, Inc.
405 Gretna Blvd., Suite 106
Gretna, LA 70053
Industry

Henry A. Boese, P.E.
1161 Lake Ave. #210
Metairie, LA 70005
Government

James Earl Booth, Jr., EIT
717 Rural St.
River Ridge, LA 70123
Industry

Larry W. Campbell, P.E.
1154 St. Joseph Drive
Slidell, LA 70458
Industry

Charles H. Coates, Jr., P.E.
5826 S. Galvez
New Orleans, LA 70125
Construction

Dwight T. Coles, EIT
4433 Bundy Road
New Orleans, LA 70127
Industry

Hal J. Drez
4008 Berot Drive
Metairie, LA 70002
Industry

Cynthia A. Haestad, EIT
3443 Edenborn Ave. #301
Metairie, LA 70002
Private Practice

George W. Hurtt, P.E.
G. W. Hurtt Company, Inc.
737 Robert Road, Suite #2
Slidell, LA 70458
Engineering Sales

Roy P. Kreider, P.E.
1441 Aztec Ave.
Metairie, LA 70005
Industry

Larry E. Manship, SIT
319 Brett Drive
Gretna, LA 70053
Industry

Thomas T. Miller, Jr., EIT
3301 W. Esplanade #61B
Metairie, LA 70002
Industry

Stephen A. McLeod, P.E.
South Central Bell
3500 N. Causeway, Rm. 410
Metairie, LA 70001
Industry

Francis E. Rose, Jr., P.E.
5721 Chopin Ct.
Metairie, LA 70003
Industry

Richard H. Ross, EIT
Texaco, Inc.

P. O. Box 7
Harvey, LA 70058
Industry

Sidney L. Seiler, P.E.
4671 Perelli Drive
New Orleans, LA 70127
Industry

Otis J. Waguespack, P.E.
3201 Clifford Drive
Metairie, LA 70002
Private Practice

John W. Waters, P.E.
Southport Construction
Company, Inc.
P. O. Box 4326
New Orleans, LA 70178
Construction

SHREVEPORT

Clarence L. Apple, P.E.
381 Albany
Shreveport, LA 70515
Private Practice

John J. Echols, P.E.
Western Electric
P. O. Box 31111
Shreveport, LA 71130
Industry

NON-RESIDENT

C. Larry Johnson, P.E.
Michael Baker, Jr., Inc.
4151 Southwest Freeway
Suite 740
Houston, TX 77027
Private Practice

Donald L. Watson, P.E.
16075 Cornell Court
Brookfield, WI 53005
Industry

New Registrations

DECEMBER 9, 1977

Allgood Jr., Joseph Charles
Livingston, LA.—Mechanical

Alvarez, Jose Luis
Sugar Land, TX.—Civil

Andraos, Wagih Sadek
Morris Plains, NJ.—Civil

Argintar, Herbert
Teaneck, NJ.—Mech. & Elec.

Berguson, John Wallace
Houston, TX.—Electrical

Bilek, Glenn Edward
Darien, IL.—Chemical

Bolt Jr., Donald Bennett
Hobbs, NM.—Petroleum

Boothe, Otto Keyton
Tulsa, OK.—Electrical

Boshears, Jimmy Lee
Hammond, LA.—Civil

Broussard, Blaine Leo
Loreauville, LA.—Mechanical

Brown, Roy Lee
Birmingham, AL.—Electrical

Bruns, Billy Lee
Ferguson, MO.—Electrical

Buckner, Clyde Dale
Baton Rouge, LA.—Civil

Byrd, Harry Floyd
Harvey, LA.—Electrical

Call, Peter Rosario
Metairie, LA.—Civil

Clay, Richard Lewis
Metairie, LA.—Mechanical

Clement Jr., Christy Anthony
Kenner, LA.—Electrical

Coartney, Charles Richard
Baton Rouge, LA.—Civil

Cole, Robert Wallace
Cadillac, MI.—Civil

Conrad, Earl Thompson
Reston, VA.—Civil

Conradi, Leroy Edgar
Metairie, LA.—Electrical

Corley, Melvin Roy
Atlanta, GA.—Mechanical

Couvillion, Mark Allen
Carlsbad, NM.—Chemical

Davis, Todd Dunford
Shreveport, LA.—Electrical

deGeneres, John Lawrence
Slidell, LA.—Mechanical

Denson, Jack McVay
Tyler, TX.—Petroleum

Dessloch, Hans Manfred
Sewickley, PA.—Civil

DeWitt, William Russell
New Orleans, LA.—Civil

Disario, Paul Carmen
Old Greenwich, CT.—Civil

Donnelly, Lawrence Allen
Centerport, NY.—Chemical

Drewry Jr., Joseph Samuel
Atlanta, GA.—Civil

Duncan, Leroy Lewis
El Dorado, AR.—Petroleum

Ebrahim, Azmy A.
New Orleans, LA.—Civil

Eppink, Dan Carl
Monroe, LA.—Mechanical

Fenton Jr., Edward Arthur
Pittsburgh, PA.—Mechanical

Flansbaum, Richard Himan
Kenner, LA.—Industrial

Flettrich, Carl Flaspoller
New Orleans, LA.—Civil

Forsyth, Randolph Lucius
DeRidder, LA.—Electrical

Franton, Bobby Joe
Slidell, LA.—Chemical

Friederich, Garland Carl
St. Louis, MO.—Civil

Haire Jr., Huey Presely
Shreveport, LA.—Electrical

Hardee, Joseph Earleton
Asheboro, NC.—Civil

Harlan, David Carl
New Orleans, LA.—Electrical

Harlan, Douglas Stanley
Lafayette, LA.—Mechanical

Hart, James Albert
Denver, CO.—Electrical

Haug, Robert Theodore
Lakeland, FL.—Civil

Hebert, Andre Lane
Baton Rouge, LA.—Industrial

Heffner, Stephen Ralph
Harvey, LA.—Chemical

Hendricks, Thomas Wyatt
Lafayette, LA.—Electrical

Hendrickson, Merts Jay
New Orleans, LA.—Chemical

Herseim, Clifford Frank
Baton Rouge, LA.—Civil

Herzog, Raymond Alan
Baton Rouge, LA.—Mechanical

Hollifield III, Joseph Andrew
Mobile, AL.—Electrical

Holman, Wendell Wayne
Harvey, LA.—Civil

Jahnke, David Harold
New Orleans, LA.—Civil & Industrial

Jadeja, Kirit Sajjansinh
West Berlin, NJ.—Civil

Johnson, David Edsel
Baton Rouge, LA.—Electrical

Kelly III, Frank Ansley
Lake Charles, LA.—Civil

Killins, Joe Dean
Lafayette, LA.—Electrical

Kirkland, George Lynan
Broussard, LA.—Civil

Kweller, Morris
Flushing, NY.—Civil

Leng Jr., Robert Bryan
New Orleans, LA.—Electrical

LaRose, David Edward
Sulphur, LA.—Chemical

Leaber, Jr., Robert James
Metairie, LA.—Electrical

Leavenworth, Jeffrey Mark
Bossier City, LA.—Electrical

Lester, Dan Jackson
Texarkana, TX.—Electrical

Lewis, Oliver Kenneth
Albany, GA.—Mechanical

Lillie, Kenneth Robert
Kenner, LA.—Civil

Mallareddy, Harapanahalli
Lafayette, LA.—Civil

Manson, Hugh Provosty
New Orleans, LA—Mechanical

McCall, Malcolm Nolan
Metairie, LA—Chemical

McConnell, Wayne William
Gretna, LA—Mechanical

McCormick, Ralph Hamilton
Hammond, LA—Electrical

McCoy, Virgil Wayne
Brentwood, TN—Civil

McIntyre, Dennis Charles
Springfield, LA—Mechanical

McLaughlin, Kenneth Henry
Gretna, LA—Electrical

Minn, Howard Shik
Lake Charles, LA—Electrical

Mooney, Cloise Lee Robert
New Orleans, LA—Mechanical

Morrow II, James Walton
Wichita, KS—Electrical

Newsom, Robert Clyde
Baton Rouge, LA—Electrical

North, James Craig
Brentwood, TN—Civil

Norwood, Ronald Leon
Rockville, MD—Civil

O'Kon, James Alexander
Atlanta, GA—Civil

Olivier Jr., Eddie
Baton Rouge, LA—Civil

Palliser Jr., Lester Phillip
Gretna, LA—Mechanical

Pan, Ching-Shan
River Ridge, LA—Civil

Parks, Charles Moody
Metairie, LA—Industrial

Patton, James Orris
Dallas, TX—Civil

Peddada, Anandarao Venkata
Alexandria, LA—Civil

Pho, Cuong Minh
Baton Rouge, LA—Electrical

Pitalo, Gerald Alexander
Biloxi, MS—Industrial

Pitts, Frederick Henry
Beaumont, TX—Chemical

Poe, James Harry
Sulphur, LA—Electrical

Pons, Dennis Henry
New Orleans, LA—Mechanical

Members dropped

ALEXANDRIA
Wilford S. Baker
George R. Boulden
Walter F. Earl
Clayton C. Webb
BATON ROUGE
Clyde M. Badon, Jr.
Johnnie J. Broussard

Dewey M. Cartisle, Jr.
Sik-Jun Chan
John D. Coffey
Reynaldo O. del Castillo
Harville C. Eaton
M. S. Guilvezan
Gerald L. Giahn
Robert S. Hall, Jr.
Thomas A. Harrell
Thomas L. Henderson
Amar Jindal
Virgil D. Joffrion
Vernell T. Montgomery
Calvin E. Pepper
Ulysse L. Pitre, Jr.
Hemant H. Shah
Ronald G. Thomas
Julian F. Tablada

BAYOU

Dennis C. Hebert
William H. Hidalgo
James E. Kiesler
Robert J. Machen
Daniel P. Sullivan

LAFAYETTE

August W. Endris
Gerald J. Fontenot
Michael P. Guidry
Roland G. Harper, Jr.
Michael T. Kinniff
Earl J. Martel
Albert Pierre Olivier
Ferdinand K. Varrelman

LAKE CHARLES

John F. Allen, Jr.
Robert P. Cummins
Ralph C. Elliott
Walton W. Hooter
A. Carl O'Bryan
Peter A. Pugh
Joseph R. Thibodeaux

MONROE

Aubra A. Braddock
Richard E. Crawford
Burley DeVille
Kenneth R. Duckworth
Robert E. Hanna
Carl D. Ingram
Alton C. Ryals
Robert S. Shively
Carl H. Trichel, Jr.
NEW ORLEANS
Alfred J. Africh
Woodrow E. Alford
Alanson J. Arnold
Paul W. Boudra
Henry G. Buse
Francis P. Clark
Ronald C. Clarkson

Robin L. Dahlberg
Gary L. Darnsteadt
Bruce A. Duco
Robert F. Eve
Richard T. Finch
J. Alfred Frick
Edward C. Gremillion
Daniel L. Hebert
James H. Kostmayer, Jr.
Robert B. Lang, Jr.
Russell T. LeBlanc
James R. LeSaicherre
William G. Lilly, Jr.
Joseph C. Lusher
John L. Moreau
Danny W. McCarthy
Curtis Lee McNeer
Glenn Edward Orr, Jr.
Frank H. Patterson
August L. Richard, Jr.
Charles G. Rhinehart
Lawrence J. Ringel
Enrique C. Saladrigas
Edward R. Sherwood, II
William G. Swofford, Jr.
Ronald W. Thomas
Manas Thongpreda
Louis P. Verges, Jr.
Charles F. Wallis
Robert H. Wegener
William D. Weidmer
K. Frederick Weikert
J. Phil Wilbourn
Patricia Young Yates

SHREVEPORT

Dan P. Cason
Boris T. Dyba
C. B. Isom
Eugene R. Marshall
Robbie C. Oliver
Henry A. Page

NON-RESIDENT

Scott T. Assenheimer
Frederick A. Backus
John M. Crump, Jr.
Arthur M. Ellis
Joseph O. Evans
Jerald N. Linsley
Clifford J. Rabalais
Ghanshyam C. Shah
Warren H. Spurge, II
Douglas A. Tuma
David W. Walton
Stephen R. Wilson
Julius F. Wise, Jr.
Gary S. Woodard
Robroy M. Young
John L. Zirkle

Professional Listings



LEVY-KRAMER
& ASSOCIATES INCORPORATED
CONSULTING ENGINEERS

Phone (504) 923-2334

422 Colonial Drive
Baton Rouge, Louisiana 70806

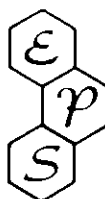
FLUOR OCEAN SERVICES, INC.

PROVIDING WORLDWIDE ENGINEERING AND
CONSTRUCTION MANAGEMENT SERVICES

OIL AND GAS PRODUCTION FACILITIES
PIPELINES
HARBORS, PORTS, TERMINALS

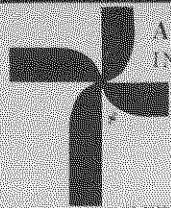
6200 HILLCROFT • HOUSTON, TEXAS 77036 • (713) 776-4100

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
- Air and Water Quality Sampling and Surveys
- Environmental Assessments
- Industrial Waste Treatability Studies

106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2835
506 BECK BLDG., SHREVEPORT, LA. 71101 (504) 227-8254



**ALBERT SWITZER & ASSOCIATES, INC.
CONSULTING ENGINEERS**

P.O. BOX 14329
3150 VALLEY STREET
BATON ROUGE, LOUISIANA 70808 (504) 343-7447

Guillot Sullivan & Vogt
CONSULTING ENGINEERS

CIVIL-STRUCTURAL
ELECTRICAL
MECHANICAL

• INSTITUTIONAL
• COMMERCIAL
• INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4255



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

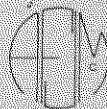
11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harrod H. McClelland

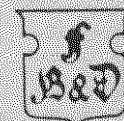
Planning feasibility studies, land surveys, design, plans and specifications and construction inspection for bridges, streets and highways, airfields, water systems, sewage treatment and disposal, drainage, military construction, land development, and structural and foundation systems.



1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612

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

Jford, Bacon & Davis
Engineers • Constructors



Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND TECHNICAL
FACILITIES INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA, NEW YORK, NY 10001
P. O. BOX 227318, HOUSTON, TEX 77027

Phone: (212) 579-4656
Phone: (713) 623-1900

WALDEMAR S. NELSON AND COMPANY
Incorporated

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave. New Orleans, La. 70130

523-5281



Brown & Root, Inc.

And Associated Companies/Serving Progress the World Over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

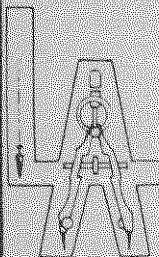
**DENSON ENGINEERS
INCORPORATED**

Consultants

SUITE 800
COMMERCE BUILDING



NEW ORLEANS 70112
504 • 561-1131



**LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.**

Industrial & Marine Consultants and Designers

Bulk Terminals
Materials Handling
Foundations
Industrial Site Selection

Docks and Wharves
Offshore Structures
Buildings
Reports and Investigations
Construction Management

801 Marengo St. New Orleans, La. 70115
(504) 895-0368



ENGINEERS - PLANNERS - ENVIRONMENTAL SCIENTISTS

IRVINE • VENTURA • VAN NUYS • SACRAMENTO • SAN BERNARDINO
SAN DIEGO • DENVER • ORLANDO • CORAL GABLES • HONOLULU
BOSTON • BEAVERTON • BELLEVUE • CHARLESTON • SHERIDAN
CONCORD • VERNAL • PANAMA • GUATEMALA • ECUADOR

2701 INDEPENDENCE ST. • METAIRIE, LA. • 70002 • 504/455-3881

PETROLEUM ENGINEERS, INC.

Drilling Programs & Designs
Completion Programs & Designs
Workover Programs & Designs

Geothermal Programs & Designs
Property Management
Field Supervision

P. O. Box 52588
Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell
Engineers, Architects & Planners

2000 North 7th
Post Office Box 728
WEST MONROE, LA. 71291
Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street
Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.
J. David Bergeron, L.S. & P.E.

Phone 447-4017
P. O. Box 1203

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills:

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings, and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash. 98119
206 285-4411

5615 Corporate Blvd.
Baton Rouge, La. 70808
504 927-4724

MARRERO, COUVILLON & ASSOC.



ELECTRICAL ENGINEERS

- * GENERATION
- * DISTRIBUTION
- * INSTRUMENTATION
- * INDUSTRIAL
- * COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA. 70806 PH. 504/926-0005

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS
(713) 842-0414

SHREVEPORT, LOUISIANA
(318) 222-0783

Beaumont • Houston • Morgan City • Monroe • Shreveport

N-Y ASSOCIATES, INC.

CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002
(504) 885-0500

Frank Nicoladis, President

AMERICAN CONSULTING SERVICES

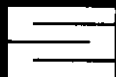
3035 DIRECTORS ROW SUITE 416
MEMPHIS, TENNESSEE 38131
TELEPHONE 901-345-5224



SEWER SYSTEM EVALUATIONS WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING, DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines



WALK, HAYDEL & ASSOCIATES, INC.

ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants,
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111
Telex 58-7302

Branch Offices: Baton Rouge, La. Mobile, Ala.

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130

THE FRANTZ CO.

Complete Engineering Design Services
Chemicals - Petrochemicals - Petroleum

Suite 400
Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- OSHA Noise Compliance
- Hearing Conservation
- Computer Analysis
- Environmental Noise Studies
- Architectural Acoustics
- Room Acoustics Studies

1015 Elm Street, Suite 2001, Dallas, Texas 75202
214/741-7701 Telex: 730796

An Equal Opportunity Employer

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.

HNTB

HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70808

MOHR & ASSOCIATES, INC.*Consulting Civil Engineers*

NO. 8 FAIRWAY FOREST PLAZA
7700 PINES ROAD
SHREVEPORT, LOUISIANA 71109
BUS. PHONE 686-7190

JAMES MOHR, P.E.
Res. 686-3558

DESMOND SPRAWLS, P.E.
Res. 687-5260

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

P. O. Box 5444
Telephone 448-0888

3666 Government St.
Alexandria, Louisiana 71301

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

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

DEMOPULOS and FERGUSON, INC.
CONSULTING ENGINEERS*MUNICIPAL AND INDUSTRIAL**Design, Construction Inspection, Studies and Reports*

3637 West Alabama
Houston, Texas
(713) 622-2151

600 Petroleum Tower
Shreveport, Louisiana
(318) 221-7117

MARINE ENGINEERS**NAVAL ARCHITECTS****PROFESSIONAL ENGINEERS****DU BOIS, CARMAN & ASSOCIATES, INC.**

4100 WALNUT DR.
NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983

**PYBURN & ODOM, INC.****CONSULTING ENGINEERS**

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 • 766-6330

8178 GSRI Rd • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY**Foundation and Soil
Mechanics Investigations**

Soil Borings • Foundation Analyses
Laboratory Tests • Reports

834-0157**3011 28th Street****Metairie, La. 70002****BARNARD & THOMAS ENGINEERING, INC.***Consulting Engineers*

*Municipal and Industrial Engineering
Comprehensive City Planning*

4440 North Boulevard
P. O. Box 64853
Baton Rouge, La. 70806
(504) 927-8323

Suite 101
3100 Ridgelake Drive
Metairie, La. 70002
(504) 837-5588

CHEMICAL
MECHANICAL
CIVIL
ELECTRICAL

3114 Cities Service Hwy.
Lake Charles, La. 70669
318/625-8212

LEVINGSTON ENGINEERS, INC.**INDUSTRIAL PLANT DESIGN****JOHN C. COPES***Consulting Engineers*

1956 Wooddale Court

Phone—926-7690 • 926-4842—Area Code 504

BATON ROUGE, LA. 70806**McClelland engineers, inc.**
geotechnical consultants

4450 General DeGaulle Drive
New Orleans, Louisiana 70114
Tel: 504/393-6666 Telex 584-103
Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.**CONSULTING ENGINEERS**

117 CALCO BLVD. / P.O. BOX 52115
LAFAYETTE, LA. 70505
TELEPHONE (318) 234-4566

SUITE 204, 7465 EXCHANGE PLACE
BATON ROUGE, LA. 70806
TELEPHONE (504) 927-8309

*Consulting Engineers*

*Municipal and Industrial
Consultants and Designers*

P. O. Box 700, Baker, La. 70714

(504) 775-4800

**R.W. BOOKER
& ASSOCIATES, INC.**
ENGINEERS ARCHITECTS PLANNERS**1139 OLIVE ST. • ST. LOUIS, MISSOURI 63101****FRANK J. JACKSON & ASSOCIATES****CONSULTING ENGINEERS
INDUSTRIAL**

(504) 241-5258

P. O. Box 26457
5921 Mendez Street
New Orleans, La. 70126

Vliet's Views

Daniel H. Vliet
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors



would be taken against the Board should it overstep its authority.

The Board has been advised by the Attorney General of the State of Louisiana that it has no legal authority to enforce a code of ethics. Nevertheless, the attorney for the Board believes that the Board has the legal power to define words in the Registration Law, such as "fraud" and "deceit," and to cite examples of acts that could result in charges of fraud and deceit against a Professional Engineer or Land Surveyor. You may recall that in the recent past I mentioned that a committee of the Board has been active in this area and that readers of the *LOUISIANA ENGINEER* were invited to submit suggestions and comments. After the Board develops this set of definitions and examples, interested parties will have an opportunity to provide comments and suggestions in accordance with the provisions of the Administrative Practice Act of Louisiana.

Last year I received several telephone calls from Professional Engineers who were concerned about political scandals involving engineers and persons who were called "Engineers" by newspapers. What was the Board doing about these matters, and what can it do?

We have been rather successful in having the newspapers refrain from using the title "Engineer" to identify persons who are not registered. A letter to the editor usually solves the problem. On the other hand, the Board is powerless, under the law, to take any action against a registered Professional Engineer involved in a political scandal until he

has been convicted of a felony unless there is evidence of fraud, deceit, gross negligence, misrepresentation, violation of contract or gross incompetency in his practice. On the basis of such evidence the Board can conduct an investigation that could result in a hearing. If after the hearing the professional engineer is found guilty of the charges made against him, he can be disciplined by the Board. Such action by the Board is subject to appeal in the District Court of the Parish of Orleans.

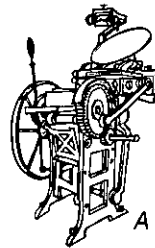
The only authority the Board has to discipline registrants is that specified in the registration law. Legal action could and probably

Services and Contractors

We specialize in developing professional brochures for engineers and architects



**NORMAN C. FERACHI
 & ASSOCIATES, INC.**
 603 Europe St.
 Baton Rouge, LA 70802
 Call (504) 387-3261



**PRINTING
 INCORPORATED**

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

A COMPLETE CREATIVE PRINTING SERVICE.

PHONE (504) 387-0504



FRANKLIN PRESS, INC.

1391 HIGHLAND ROAD • P. O. BOX 1269
 BATON ROUGE, LOUISIANA 70821

BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

P. O. Box 23293

5524 Mounes Street

New Orleans, La. 70183

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814

Phone 925-0991

ALL TYPES OF PRINTING—
 BOTH BUSINESS AND PERSONAL

**ORLEANS MATERIALS & EQUIPMENT
 CO., INC.**

5501 France Road

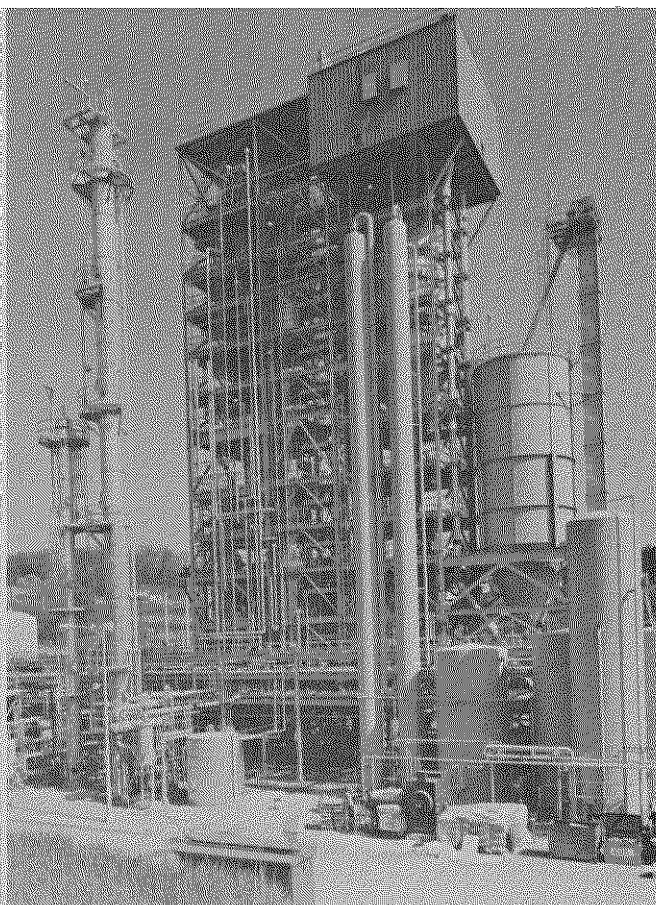
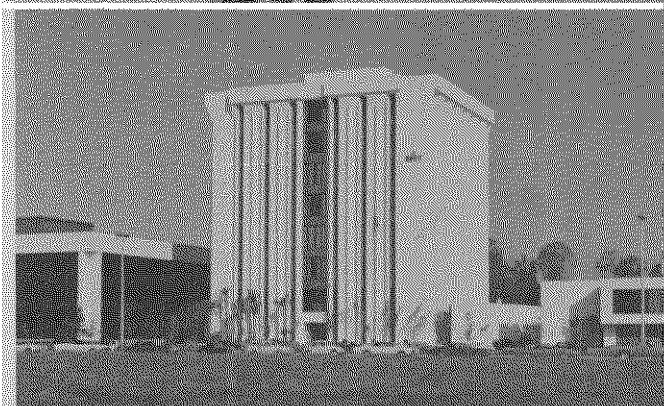
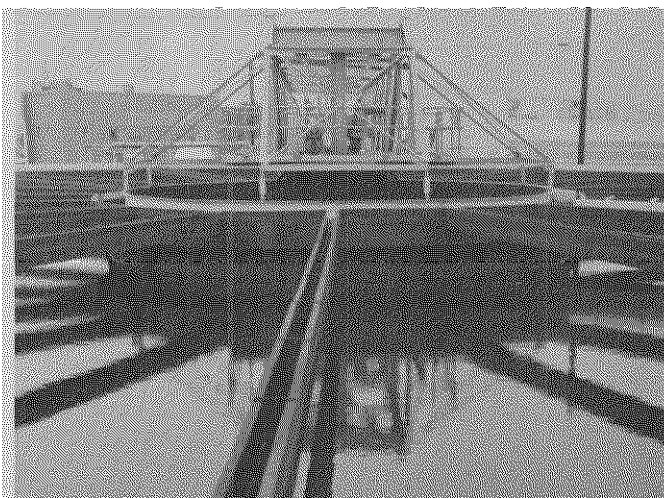
New Orleans, La. 70126

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
 ELECTRICAL AND INSTRUMENTATION

Phone 292-0100

P.O. Box 15274
 Baton Rouge, La. 70815



THE RUST ENGINEERING COMPANY IS ONE OF THE WORLD'S LARGEST DESIGNERS AND BUILDERS OF INDUSTRIAL PLANTS AND RANKS AMONG THE TOP FIRMS IN ENGINEERING NEWS-RECORD. "WHEN YOU ARE READY

... HAND IT TO RUST."

ENGINEERING • CONSTRUCTION

- PLANNING AND SCOPING SERVICES
- PROJECT ORGANIZATION, ENGINEERING, AND PROCUREMENT SERVICES

- PROJECT CONTROL
- PROJECT CONSTRUCTION SERVICES

- OPERATIONS AND FACILITIES MANAGEMENT, MAINTENANCE AND OTHER SERVICES.

Fields of Expertise

Cement
Chemicals
Clean Fuels
Energy
Environmental

Fats and Oils
Fertilizer
Food and Beverage Processing
General Industrial
Metals—Ferrous

Metals—Nonferrous
Power Generation
Petroleum/Petrochemical
Pulp and Paper
Refuse-to-Energy

Rubber
Sludge Incineration
Synthetic Fibers
Transportation
Water Treatment

Call or write for further information on how Rust can assist to achieve your investment objectives.



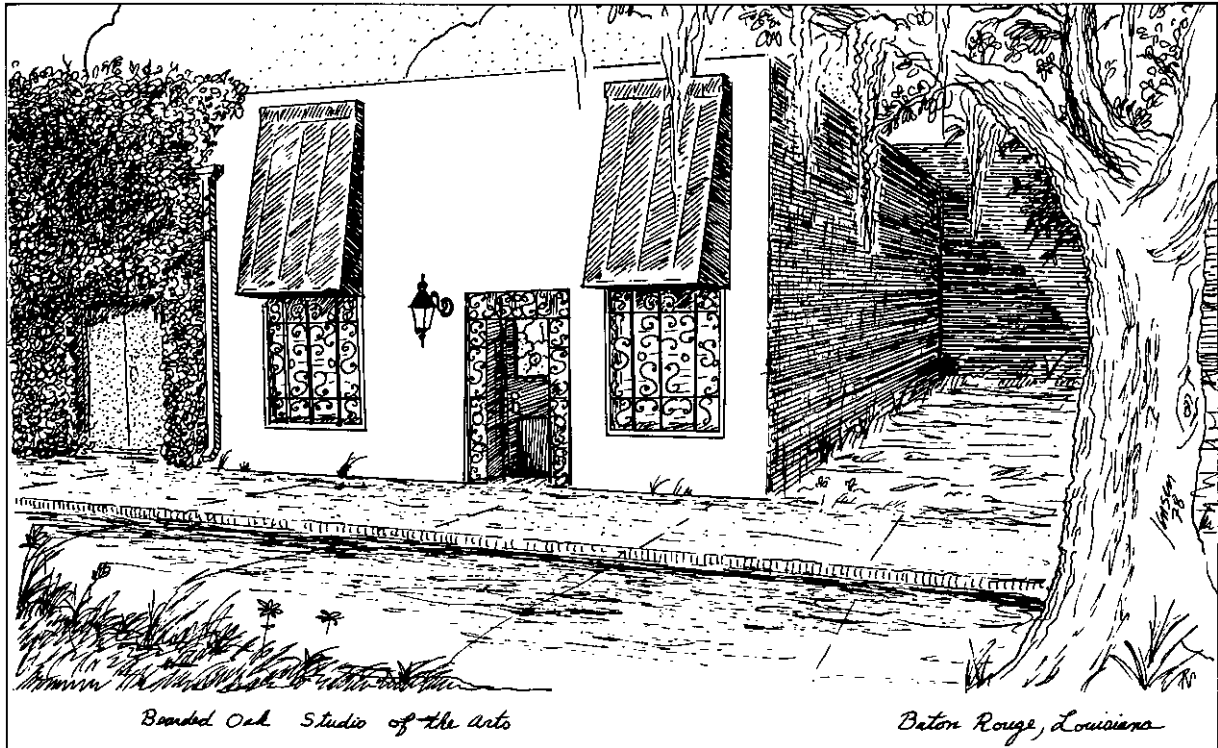
The Rust Engineering Company

A Subsidiary of Wheelabrator-Frye Inc.

5615 Corporate Boulevard, Baton Rouge, Louisiana 70808 (504) 927-4190
Offices in Birmingham, Alabama and Portland, Oregon

Come Visit Our New Office

125 E. Chimes



Survey Peacefully Beneath the Shade of the Bearded Oak

Rent the Finest Electronic Survey & Layout Equipment on the Market Today

INCREASE PROFITS WITH RENT ON NEED

HEWLETT-PACKARD MODEL 3810

**New HP Total Station
Angle & Automatic
Horizontal Distance**

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Tripod with Wild GDF-6 Tribrach
- (1) Layout Range & Prism Pole

RENTAL CHARGES:

\$50.00 per/day for 1-10 days

\$40.00 per/day thereafter

RATES are inclusive of shipping time (1 day guaranteed)

FREE FREIGHT CHARGES for 10-day minimum lease

HEWLETT-PACKARD MODEL 3805

Distance Meter

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Kern Centering Tripod
- (1) Adjustable Prism Pole

RENTAL CHARGES:

\$25.00 per/day for 1-10 days

\$15.00 per/day thereafter

HEWLETT-PACKARD MODEL 3800

**Distance Meter
Range: 2 Miles**

Complete with Following Accessories

- (1) Power Unit
- (1) Triple Prism Assembly
- (1) Wild or Kern Tripod
- (1) Wild Tribrach
- (1) Adjustable Prism Pole
- (1) Accessories Carrying Case

RENTAL CHARGES:

\$25.00 per/day for 1-10 days

\$15.00 per/day thereafter

The Bearded Oak

EQUIPMENT RENTAL DIVISION

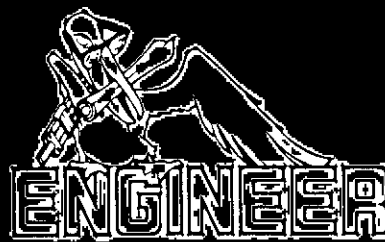
125 E. Chimes -- Baton Rouge, La. 70802 -- (504) 926-9515 (24 Hr. Service)

Thank You for Your Interest in Our Service and Hewlett-Packard Products

PEACE FROM A BEARDED OAK



LOUISIANA



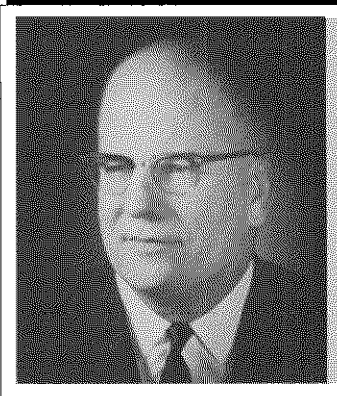
April, 1978



John J. Bergeron, P.E.



Dr. Paul W. Murrill, P.E.



Edward J. McNamara, P.E.



Dr. Louis J. Cadezurot, P.E.



Dr. J. J. Thigpen, P.E.

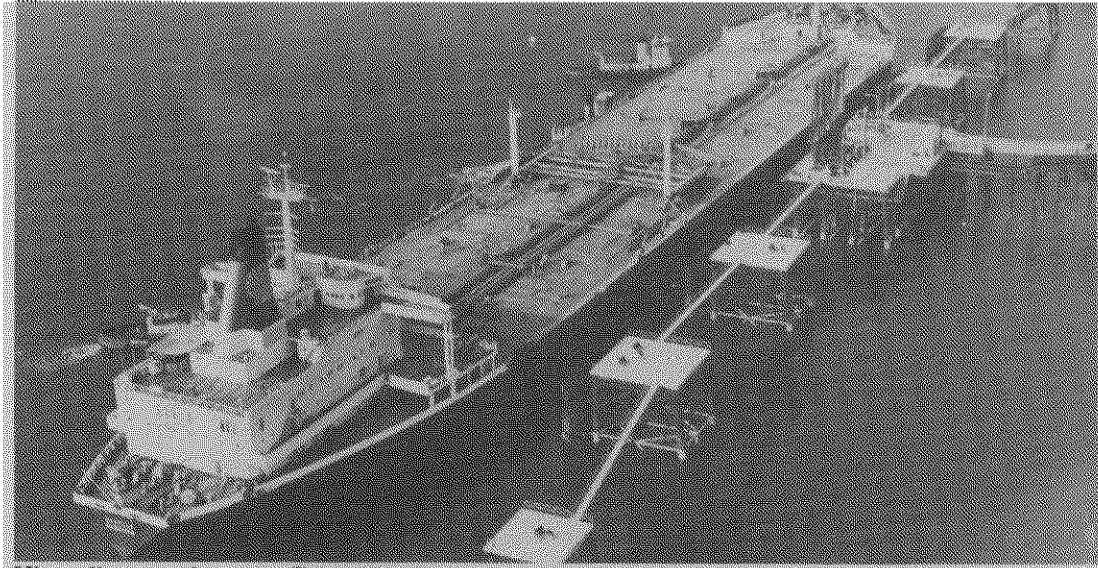


Dr. Daniel H. Viet, P.E.

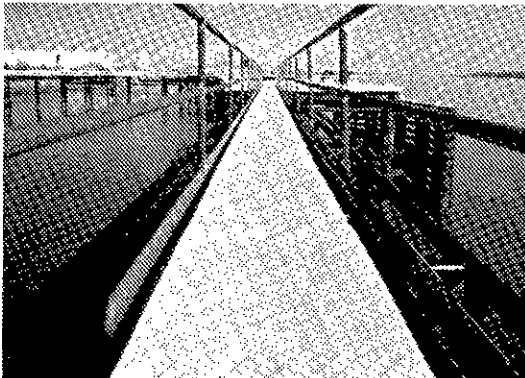
1978
LES
AWARDS

Concrete Platforms pave the way to save time...money

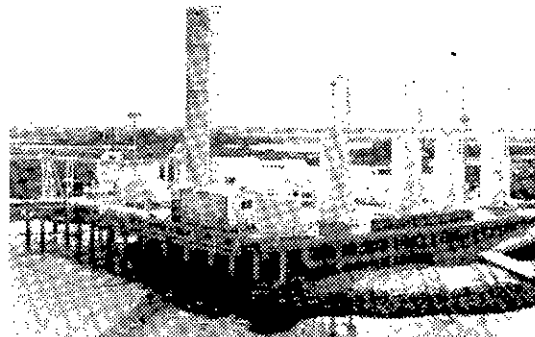
Precast prestressed concrete deck platforms and piling by Marine Concrete Structures are helping to achieve major economies for the oil and gas industry.



Virtually ever-lasting. Concrete platforms and walkways, as recently installed at the new ECOL refinery on the Mississippi River, are maintenance-free, unaffected by water and fire-proof as well. No paint or other protection needed.



Readily available. Walkways are produced in standard forms for further economy, and assuring delivery on schedule. Or, MCS will design to your needs—no matter how complex—and still meet your deadlines.



Modern Foundations. Belden precast, prestressed concrete piling add further economies to platform construction. They meet all load-bearing requirements, won't rot or rust. This is important where piling extends above the permanent water-table.

Call our pros for the whole story:
Don Payne, Bill Ingraham, or Frank Anastasio—(504) 833-5593.



Marine Concrete Structures, Inc.

P.O. Box 607 — Metairie, La. 70004

PRESIDENTIAL PRIVILEGE

E. E. Moncla, P.E.
President, LES

During my long involvement with the LES, I have been asked many times, particularly by prospective new members, "What will LES do for me?" Several years ago, as State Membership Chairman I wrote an article which was published in the Louisiana Engineer expressing my views on this subject. Since I feel that this is a very important area of concern, particularly to our young engineers, I would like to share with you an excellent article prepared by our Executive Secretary, R. C. "Doc" Spears.

• • • • •

LES belongs to its members, in fact, it is its members. Therefore, it will achieve only those goals and objectives in which members show interest and concern. It leads to the point that each one should express his opinion, or offer suggestions as to the area for LES involvement.

There seems to be considerable talk about dues. Many members have asked, "What do I get from the money I pay in dues?" Brother, you DON'T GET NOTHING. The dues are your share to carry on the work of the engineering profession.

You cannot buy professionalism. The many benefits you enjoy as a Professional Engineer are the results of the work and efforts of those who have gone before you. There are very few now living who helped promote the laws which protect the public and engineers in today's society.

It was those public spirited citizens who saw the need for laws to compel the unscrupulous to abide by rules which the professional engineer comes by naturally. The Engineers' Creed is not new; it is only a restatement of the Golden Rule. There are those who would make a fast buck by cashing in on the ignorance of the victim. It is the duty of the Profes-

sional Engineer to protect the public.

There is not much that one engineer can do by himself for the promotion and protection of the profession of engineering as a social and economic influence vital to the affairs of man. A group of men can do much. That is the purpose of LES and NSPE.

By uniting with a society of like minds and purpose, one man can accomplish many things. You have a voice which can be heard. You have many ears to listen to the myriad proposals affecting the welfare of the state and nation. You have the ability to do something about any of these proposals.

The officers of LES and NSPE spend many hours determining the desires of the membership and acting on the same. This is service above the call of duty. There is no personal reward except to know that you have had a part and done your best in this work.

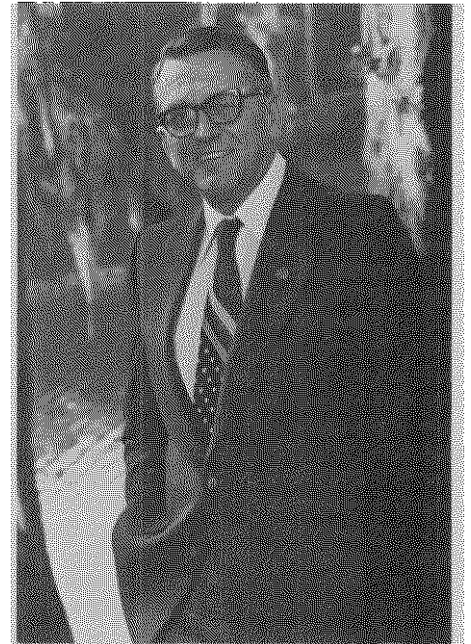
The work needs to be done. There is no one else to do it. Each must do his share. Are you doing yours?

If you are a member, become involved. If not a member, you should become one.

• • • • •

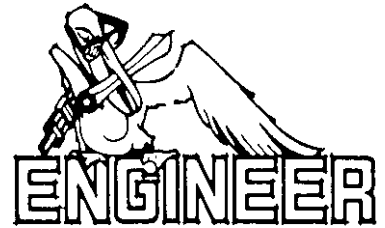
I think "Doc" has done an excellent job of expressing the thoughts of many engineers, particularly your state and local chapter officers. Following Doc's article it is appropriate that I restate our main theme for this year - Get Involved, You Can't Afford Not To.

In closing, I would like to congratulate the recipients of this year's LES awards. You have worked hard to further the engineering profession and it is appropriate that we recognize your accomplishments. You were selected by your peers and we in LES are proud of each one of you.



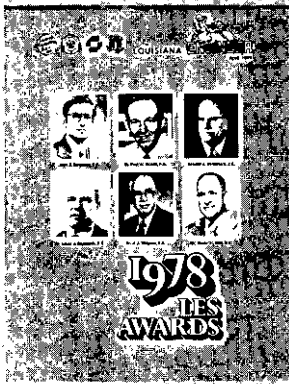
April, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. 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.

Address LES Communications and Change of Address Forms to LOUISIANA ENGINEERING SOCIETY, P. O. Box 2683, Baton Rouge, La. 70821. Telephone 504/344-3418.



About the Cover

Six LES members are being recognized this month at the Spring Meeting in Baton Rouge for their outstanding contributions to the engineering profession. For details, turn to page 5.

In This Issue

Presidential Privilege	3
LES Awards	5
NSPE Winter Meeting	8
Potpourri	11
Ben T. Bogard	14
Surveyor's Corner	15
EngiNews	16

LES OFFICERS AND BOARD

President
E. E. "Buddy" Moncla, P.E.
First Vice President
Carl H. Thomas, P.E.
Second Vice President
Francis C. Roy, P.E.
Secretary-Treasurer
John E. Ritter, P.E.

NSPE DIRECTORS

John F. Vogt, P.E.
James S. Janssen, P.E.
T. J. Hogue, Jr., P.E.

STATE DIRECTORS

James W. Reeves, P.E.
Robert Blanche, P.E.
Arthur DeFraites Jr., P.E.
Thomas D. Hixson, P.E.
James L. Meyer, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Cecil Raggio, P.E.
Baton Rouge
Wendell P. Shiflett, P.E.
Bayou
James F. Guion, P.E.
Lafayette
Larry F. Lafleur, P.E.
Lake Charles
James W. Stevens, P.E.
Monroe
D. D. Reneau, P.E.
New Orleans
Clare M. Foreman, P.E.
Shreveport
James H. Bradley, P.E.

PRACTICE DIVISIONS

Construction
Jesse C. Odom, P.E.
Education
High A. Thompson, P.E.
Government
Gerald L. Ray, P.E.
Industry
Carroll J. Fuseller, P.E.
Private Practice
Frank Jenkins, P.E.

COMMITTEE CHAIRMEN FOR 1977-78

Engineering Education
E. Ray DesOrmeaux, P.E.
Ethics & Professional Conduct
Harold P. LeRay, P.E.
Honors & Awards
Malcolm L. Hurstell, P.E.
Inter-Society Relations
H. L. Henry, P.E.
Legislative
Glynn P. Gautreau, P.E.
Liaison With State Board of Registration
John F. Vogt Jr., P.E.
Membership
Henry E. Markel, P.E.
Public Relations
David Edgar, P.E.
Liaison With State Board of Regents
Larry A. McKee, P.E.

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
James W. Reeves, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
Sidney L. Poleyndard, P.E.
Roy T. Sessums, P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.

Managing Editor
R. C. "Doc" Spears

Publishing Consultants
Norman C. Ferachi & Associates

LES Honors Six Members with Awards

The Louisiana Engineering Society is recognizing six outstanding members this month at the Spring Meeting in Baton Rouge. Each award is named after a present or former outstanding engineer member of the Society.

J. 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. Mr. Todd, president of LES in 1930, was very active in the affairs of the Society. His suggestion in 1950 of an award for engineering ingenuity prompted the adoption of the Technological Accomplishment Award in 1951. His name was added to the award in 1975.



Louis J. Capozzoli Jr., P.E.

Louis J. Capozzoli Jr., P.E., is president of his own firm, Louis J. Capozzoli and Associates, Inc., Baton Rouge. He is a native of New York and is married to the former Laura Broussard from Cow Island, Louisiana. He received a BSEE, cum laude, from New York University in 1947, MS from Harvard University in 1948, and Doctor of Science degree from Massachusetts Institute of Technology in 1950.

Registered as a professional engineer in Louisiana, Florida, New Jersey, New York, Texas, Alabama and Mississippi, Dr. Capozzoli is a member of the Louisiana Engineering Society and former president of the Baton Rouge chapter; former national director of Consulting Engineers Council of Louisiana; former president of the Baton Rouge Branch of

the American Society of Civil Engineers; and a member of the Society of Harvard Engineers and Scientists. He is a member of Tau Beta Pi and a recipient of the Senior Merit Award from the United States Power Squadron.

Dr. Capozzoli's use of controlled loading procedures to achieve economical shallow support of structures on soft soils; development of computer programs for performing slope stability analyses; use of laboratory testing to simulate actual field loading conditions and failure modes for precise soil property determinations; work on pile loadings; and development of an automatic laboratory in these areas have been outstanding technological advancements in the field of engineering.

One specific achievement in the technological field is the floating foundation of the Louisiana National Bank building in Baton Rouge, designed by Dr. Capozzoli. The LNB building is the tallest (24 stories) commercial building in Baton Rouge which has a floating foundation. Most tall buildings in Baton Rouge are supported by either drilled and poured in-place concrete piling or driven pilings. The bank building floats on the soil in the same way heavy ships float. The structure has been in operation for almost 10 years, attesting to the sound foundation.

Dr. Capozzoli's outstanding achievements in soil mechanics make him a worthy recipient of the James M. Todd Technological Accomplishment Medal. The Louisiana Engineering Society is proud to honor Dr. Capozzoli for his outstanding engineering achievements.

Leo M. Odom Award for Professional Services

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 over a period of long duration, who has demonstrated leadership in technical societies and other professional engineering groups.



J. J. Thigpen, P.E.

J. J. Thigpen, P.E., Dean of Engineering, Louisiana Tech University, was born in Ruston. He attended schools in his home town, graduating from Louisiana Tech with a BS degree in mechanical engineering in 1936. He entered the U. S. Military Academy in 1937 and was commissioned a second lieutenant in the Corps of Engineers in 1941. His six years service as an officer in the regular army included 27 months in the Southwest Pacific Theater in the early part of World War II and three years as an instructor in military history at West Point. In 1947 he became a member of the faculty of the School of Engineering at Louisiana Tech. He became Head of the Mechanical Engineering Department in 1953 and Dean of Engineering in 1976.

On two occasions he took academic leave to earn his MS and PhD degrees in mechanical engineering from the University of Texas. He took military leave for two years during the Korean War and taught at the U.S. Military Academy.

To illustrate Dr. Thigpen's wide involvement in the engineering profession, he is a member and has held various offices in the Louisiana Engineering Society, the National Society of Professional Engineers, the American Society of Mechanical Engineers, the American Society of Engineering Educators and the Louisiana Teachers Association.

He has been very active in the Louisiana Engineering Society. In 1964 he was state chairman of National Engineers Week and president of the Monroe Chapter in 1965. During his term as president of LES in 1973-74, the Society grew in strength and much was accomplished for the engineering profession in Louisiana.

Dr. Thigpen received the Tau Beta

Pi Outstanding Teachers Award for 1962 and the Engineering Achievement Award from the Engineering Scientific Council of Shreveport in 1970. He is listed in *Who's Who in America*, *Outstanding Educators of America*, *Who's Who in Engineering* and *American Men and Women of Science*. He is a Fellow, ASME, and a member of Tau Beta Pi, Pi Tau Sigma, and Sigma Xi.

Dr. Thigpen is married to the former Ruth Ensley from Alexandria, and they have two children, Jack Jr. and Sally. He is a deacon in the First Baptist Church of Ruston and is presently serving as chairman of the Building Committee.

Dr. Thigpen's involvement and service to the engineering profession is in keeping with the highest ideals of the Leo M. Odom Professional Service Award.

A. B. Paterson Medal for An Engineer in Management

The Louisiana Engineering Society has a special award for the 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.



Edward J. McNamara, P.E.

Edward J. McNamara was born in Thibodaux, Louisiana, and attended schools there. He was graduated from Tulane University in 1939 with a BE degree in civil engineering, and from the Harvard Graduate Business School of Advanced Management in 1966. He served two tours of duty with the Naval Civil Engineer Corps in World War II and the Korean War, in the ranks of Ensign to Commander. He was awarded the Navy Commendation Medal with Combat "V" for outstanding construction achievements during the invasion and occupation of Okinawa.

He has been employed in industry

and construction activities since his graduation, advancing from field engineer to corporate vice president, responsible for engineering, Freeport Minerals Company. He also serves as a corporate vice president of four subsidiary companies. His work as project manager for the design and construction of the first offshore sulphur mine at Grand Isle merited its nomination by the district ASCE committee as the outstanding civil engineering achievement for that year and placed third in the national ASCE competition.

Mr. McNamara has the management responsibility for engineering projects by Freeport Minerals Company throughout the world. His worldwide travels and foreign residency, working with foreign engineering companies and contractors to accomplish these projects indicate his company's confidence in his ability to manage these projects. He has authored several papers and has had these published in technical journals and in the proceedings of international symposiums.

Mr. McNamara has served in all offices of the LES and was elected the first president of the New Orleans Chapter. In 1966, he was president of the state society.

He is a registered professional engineer in several states, a member of NSPE, a fellow in the ASCE and the SAME. He served four years on the Board of Advisors to the College of Engineering, Tulane University and is an active member of the Rotary Club of New Orleans and the New Orleans International House. Mr. McNamara has worked actively in fund raising drives for the Boy Scouts, the United Fund and the Hotel Dieu Hospital. He was a member of the 1977 Trade Mission to South America.

Mr. McNamara's outstanding management ability and his achievements in his professional and civic activities certainly warrant his selection for the A. B. Paterson Medal for an engineer in management.

F. Hugh Coughlin Young Engineer Award

This award is given to an engineer not over 35 years of age who has demonstrated to a high degree capabilities in his chosen field. Mr. Coughlin has been a member of LES since 1944. 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.



John J. Bergeron, P.E.

John J. Bergeron, P.E., is a native of Louisiana and received his BS and MS degrees in electrical engineering from Tulane University.

His professional experience has been with New Orleans Public Service Inc., New Orleans, as summer engineering student in electrical engineering; assistant engineer, electrical engineering division; assistant electrical engineer, associate electrical engineer, and electrical engineer, power engineering division.

As a member of the Louisiana Engineering Society, National Society of Professional Engineers and Institute of Electronics and Electrical Engineering, he has been very active. Mr. Bergeron has been involved in student work since his graduation from college and is responsible for developing a student chapter at UNO. He is presently involved with reactivation of the student chapter at Tulane and has been on the LES education committee since 1974. He is presently chairman of the Young Engineers Committee of LES. His activities in IEEE include serving as a director in 1976-77 and chairman of the Attendance, Fellowship, Inter-society Relations and Student Activities committees.

Since joining the New Orleans Public Service in 1970, he has been assigned responsibility for design and implementation on a number of projects. He has participated in the company's program to meet Federal Water Pollution Control Act and Louisiana Air Control Commission requirements.

He was named company representative to IEEE and the Power Engineering Society in 1972. In 1975, he was elected to the Main Committee of Transformers, a technical committee of the Power Engineering Society. Membership on the Main Committee is by invitation, after participation in a working group and

The Louisiana Engineer

showing initiative and understanding of the complexities of the topic.

He is married to the former Joan Jennaro of Abbeville. They have three children.

Clearly, John Bergeron exemplifies the "climbing the ladder of professionalism" program recommended by NSPE. His outstanding contributions have demonstrated to a high degree capabilities in engineering indicating great potential for further advancement and leadership as a professional engineer, thus representing the ideals and fully meeting the criteria of the F. Hugh Coughlin Young Engineer Award.

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.



Paul W. Murrill, P.E.

Paul W. Murrill, P.E., is Chancellor and Professor of Chemical Engineering at Louisiana State University, Baton Rouge.

Born in St. Louis, Missouri, he completed twelve years of public school in Clinton, Mississippi, later receiving a BS degree in chemical engineering from the University of Mississippi, and MS and PhD degrees in chemical engineering from LSU. He is married to the former Nancy Williams from Lexington, Mississippi and they have three sons.

He is a member of the Louisiana Engineering Society, American Society for Engineering Education, American Institute of Chemical Engineers and the Instrument Society of America. His honorary credentials include Omicron Delta Kappa, Tau Beta Pi, Pi Kappa Pi, Phi Eta Sigma, Upsilon Pi Epsilon, Society of Sigma Xi, Gamma Sigma Epsilon and Phi Lambda Epsilon. He has been active in Rotary International, United Givers, Boy Scouts of America, Muscular

Distrophy Association, Baton Rouge Civic Center Commission, University Baptist Church, International Hospitality Foundation and some twenty other directorships and trusteeships of corporations, associations, commissions and foundations.

Dr. Murrill is listed in virtually every national directory of scientists, educators and leaders. He has received numerous awards, including the 1970 LES Technological Accomplishment Medal; the 1975 Coates Award of ACS-AIChE; and the 1976 National Donald Eckman Award of the Instrument Society of America.

He has authored and co-authored a number of text books, and his contributions to books in the field of instrumentation, computer programming and his authorship of articles for professional journals number in the hundreds. He has authored or co-authored 41 articles for presentation before national and international level meetings. In addition, he presents about 100 talks each year to local and regional gatherings such as professional societies, service clubs, church groups and alumni meetings. He has participated in over 100 workshops and short courses held all over the United States.

Dr. Murrill's service to his community and profession have truly qualified him for the Andrew M. Lockett Award. His involvement is an inspiration to the engineering profession. The Louisiana Engineering Society is proud to honor this distinguished engineer.

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.



Daniel H. Vliet, P.E.

Daniel H. Vliet, P.E., Professor of Electrical Engineering, Tulane University and Executive Secretary of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, received his BSEE degree from Tulane University in 1949; MSEE degree from the University of Michigan in 1952; and PhD in electrical engineering from the University of Wisconsin in 1965.

His professional experience includes: Tulane University instructor, assistant professor and professor from 1964 to date; summer work and part time consulting for New Orleans Public Service Inc., Pan American Southern, Bedell & Nelson, Louisiana Power and Light and Westinghouse; and director of Electrical Laboratory, Tulane Riverside Research Laboratory. He has been executive secretary of the State Board of Registration since 1966.

Dr. Vliet has been active in many professional and technical societies. He is a senior member of IEEE, and an active member of Power Engineering Society, ASEE, LES, NSPE, NCEE, Tau Beta Pi and Eta Kappa Nu.

Besides administering the engineer in training examination for young engineers, he has created special courses for engineering students planning to apply engineering principles and practices to other fields such as pre-med, pre-law, computer science, engineering management and other specialized fields. He is a spokesman for engineering in Louisiana, and his column "Vliet's Views," which appears regularly in the LOUISIANA ENGINEER, keeps engineers throughout the state up-to-date in engineering registration matters.

Dr. Vliet is a recipient of the 1970 AICE Western Electric Award of Excellence in the Instruction of Engineering Students and the 1976 Award for Teaching Excellence by the Society of Tulane Engineers.

He is married to the former Jane Conery of New Orleans and they have three children, two daughters and one son. He is a member of St. Andrews Episcopal Church.

Dr. Vliet has given freely of his time 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.

New Orleans Chapter Hosts NSPE Winter Meeting

More than 500 delegates, representing 54 states and territorial regions, attended the NSPE Winter Meeting at the Marriott Hotel In New Orleans on January 23-28, 1978.

Many calls and letters have been received expressing appreciation for the outstanding arrangements made for the delegates and their families. The New Orleans Chapter of LES hosted the meeting. The Convention Committee, composed of Al Adoue, Jr., P.E., Chairman; Lawrence Grundmann Jr., P.E.; Henry E. Markel, P.E.; Marvin L. Firmin, P.E.; DeWitt Morris, P.E.; John Bergeron, P.E.; Jerrel Freeman, P.E.; Martin Maier Jr., P.E.; Richard Beckham, P.E.; Mrs. Betty Grundmann; Mrs. Adele Cressy; and James Janssen, P.E., are commended for a job "Well Done."

The following poem was read by Del Schmand, P.E., President of NSPE, in his state of the union address at the meeting:

Welcome all to New Orleans
Basin Street and Land of Dreams,
Roaming Place for "Cajun" folks
Made alive by Bovay's jokes.

Protected by levees
Of Corps design,
To protect you physically
And relieve your mind.

Developed by Waldemar
And Al Adoue,
Constructed by Moncla
For me and you

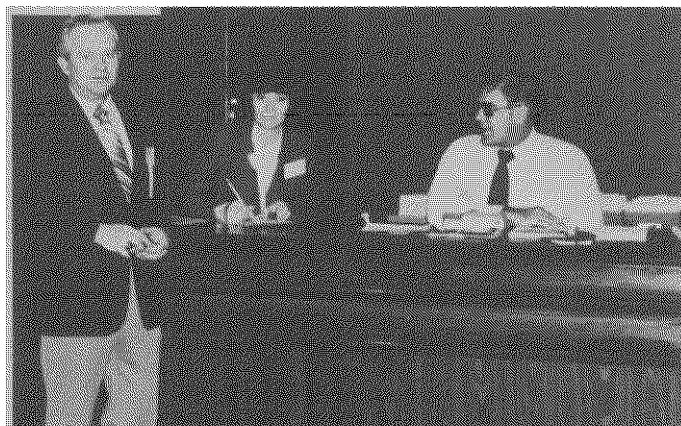
And sidewalk supers
Like Doc Spears,
And nautical ones
Marine Engineers

Those that observe
The plimsoll line,
And those that work
At dock design

It's a place that offers
More than your share,
As the cajuns say
Dere's lagniappe dere!



Del Schmand, P.E., President of NSPE, congratulates and presents plaque to E.E. "Buddy" Moncla, P.E., President of LES. LES won the 1977 NSPE membership contest in Group VI.



Al Adoue, Leta Bueto and Jerrell Freeman.



Ed Slowter, Bruce Baty, Jim Janssen and Waldemar Nelson.



Beryl Moncla and Betty Grundmann.



General Chairman Al Adoue and Mrs. Adoue.



Jerrell Freeman and Mary Sudduth.



Ladies from the New Orleans Chapter who modeled: Connie Walk, Joycelyn Goode, Linda Fergason, Marilyn Carriere, Pat Prewitt, Catherine Louviere, Melva Jacob, Marion Jensen, Liz Cespedes.



Adele Cressy, co-chairman; Eda McNamara, style show co-ordinator; Betty Grundmann, co-chairman; and Mel Stevenson, commentator.



Ladies enjoying lunch at Gallier Hall.

G-H-A makes a Concrete Pressure Pipe for every water works need.

SUPPLY

TREATMENT

INDUSTRIAL

SEWAGE FORCE MAINS

DISTRIBUTION

PLANTS LOCATED IN
GRAND PRAIRIE, HOUSTON
VICTORIA AND LUBBOCK

And, custom wraps it...to give it class!

G-H-A makes several types of Concrete Pressure Pipe in diameters from 10-inches thru 144-inches, for classes from 50 psi thru 400 psi, all in accordance with American Water Works Association Standards. Each is a proven product, carefully designed to efficiently and economically serve a specific water works need.

When G-H-A builds a section of pipe, it is for a particular project and will be fabricated for the working conditions (internal pressure and external load) that it will experience when installed and put in service. It will receive a steel wire wrap...the gauge, tensile strength, tension and spacing of which have been computer planned...to give it the class needed.

Look to G-H-A for your water works needs and discover the ideal Concrete Pressure Pipe...**a product with class that is exactly what you need, section by section.**

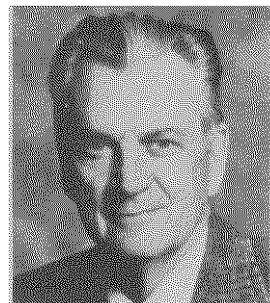


Gifford-Hill-American, Inc.
MANUFACTURER OF CONCRETE PRESSURE PIPE

POST OFFICE BOX 47127 DALLAS, TEXAS 75247

Potpourri

R. C. "Doc" Spears
LES Executive Secretary



Leo M. Odom Honored

A certificate of appreciation was presented to **Leo M. Odom, P.E.**, on February 24, 1978 by the Association of Levee Boards of Louisiana at their 37th annual meeting in New Orleans.

The citation reads: "for distinguished service and exceptional leadership while serving as the first chief engineer of the Department of Public Works, State of Louisiana, where he organized, set professional standards, and supervised engineering services for flood control, drainage, navigation, and water resources improvement projects while working closely with levee boards, U.S. Corps of Engineers, and agencies of the state of Louisiana from 1941 through May 1948, and since for continuing support and interest of the Association of Levee Boards, of which he is a co-founder."

Congratulations to one of LES's outstanding members.

William McCollam Jr., P.E., Leaving NOPSI

William McCollam Jr., P.E., has resigned as President of New Orleans Public Service, effective April 15, to assume the presidency of the Edison Electric Institute, the major association of the nation's investor-owned electric utilities.

James M. Cain, president of Middle South Services, Inc., New Orleans, has been elected president of NOPSI to succeed McCollam.

McCollam's departure is a great loss to NOPSI, LES and Louisiana. In his new assignment, he will be instrumental in establishing policies in Washington that will set the energy course for the nation and the utility industry for better or worse in the years ahead. He is an excellent man for the position.

He was graduated from both LSU and the U. S. Military Academy with BS degrees and earned an MS degree from MIT. He has been active in community affairs in New Orleans and is a registered professional engineer and a member of the Louisiana Engineering Society. McCollam was awarded the Society's A.B. Paterson Award in 1975, its highest recognition for managerial achievement by an engineer.

11,000 Scholarship Applications Received

Paul N. Hale, P.E., LES Scholarship Chairman, attended the NSPE Educational Foundation Selection Committee meeting on February 23-24, 1978 in St. Louis. He reports 18 people reviewed 11,000 student nominations and made selections for the 87 scholarships offered by NSPE, Universities, and Industrial Companies. LES submitted 13 state winners for consideration by this committee. Since each winner is being asked whether he or she accepts the scholarship, official publication of winners must be held in abeyance for the time being.

Board Meeting Activities, March 3, Monroe

1. Membership grade study approved for presentation to general meeting April 14.
2. Liaison with Board of Regents Committee officially organized.
3. Amendments to Article X, LES Constitution, approved for presentation to general meeting April 14.
4. LES Scholarship Guidelines approved.
5. Procedures under way for replacements for **Dean Ben Bogard**, deceased, and **Roy Sessums**, expiring term, on the State Board of Registration.
6. Nominations for State Engineers Selection Board to be made by March 20.
7. Letter of complaint to State Board of Registration regarding possible ethics violations approved.
8. LES 1978-79 Nominating Committee appointed and approved.
9. **Carl Thomas, P.E.**, LES President-Elect, will attend the NSPE State Presidents Conference, Columbus, Ohio on April 12-13.
10. The heavy workload at the LES office prompted hiring of **Ms. Gerianne Chustz** full time.

11. Chapter presidents reported on the varied activities in their areas during Engineers Week, February 19-25, 1978.
12. **Paul Hale, P.E.**, gave an interesting report on the NSPE Foundation Selection Committee for picking NSPE scholarship winners which he attended February 23-24, 1978.

Engineers Week Huge Success in Louisiana

Engineering societies all over the United States observed Engineers Week February 19-25, 1978 with special meetings, social and professional gatherings and public information programs. Each of the special events helped to further this year's theme, "Engineering . . . Strength in Crisis."

Members of the Louisiana Engineering Society observed the week with a flurry of special activities including:

Alexandria Chapter - proclamation signed by the mayor, selected engineer for a day, high school students attended banquet, members spoke at high schools, and appropriate news releases.

Baton Rouge Chapter - proclamation signed by mayor-president, news releases, presented distinguished service to **Ray W. Burgess, P.E.**, at annual banquet. **Gerald Carr**, former astronaut, was the featured speaker at the banquet.

Bayou Chapter - printed newspaper supplements in three local papers, member participation in radio talk shows, news releases, and 30 students attended annual banquet.

Lafayette Chapter - proclamation signed by mayor, NACE, IEEE and LES Lafayette chapter co-sponsored banquet; **Frank Iddings** spoke at annual banquet, news releases and students attended banquet.

Lake Charles Chapter - news releases, presented taped radio interviews, students participated in banquet, **Del Schmand, P.E.**, President of NSPE, spoke at banquet, an engineering queen was selected and scholarships were awarded by WALES.

Monroe Chapter - held industrial tours for high school students, presented talks to students, TV coverage, news releases, proclamation signed by mayor, and held annual banquet.

New Orleans Chapter - posters were placed in libraries and other public places; stickers were placed on mail from various offices; annual joint banquet held with LES, IEEE, ASME, ASCE, IES, Electrical Association of New Orleans and International Association of Electrical Inspectors, **Floyd Lewis**, president of Middle South Utilities, spoke to 330 members and guests at the banquet on the subject of energy.

Shreveport Chapter - news releases, proclamations signed by mayors of Shreveport and Bossier City, presentation of awards, coordinated banquet with Engineering and Scientific Council of Shreveport, and administered JETS tests to area high school students.

NSPE Names New Directors for Legislative and Membership Departments

Michael M. Schoor has been named director of NSPE legislative and government affairs, replacing **James Hughes**, who resigned in November 1977. James Dalton is the new director of membership services, the position formerly held by **William Gager**, who resigned to join the staff of the Automotive Parts Rebuilders Association.

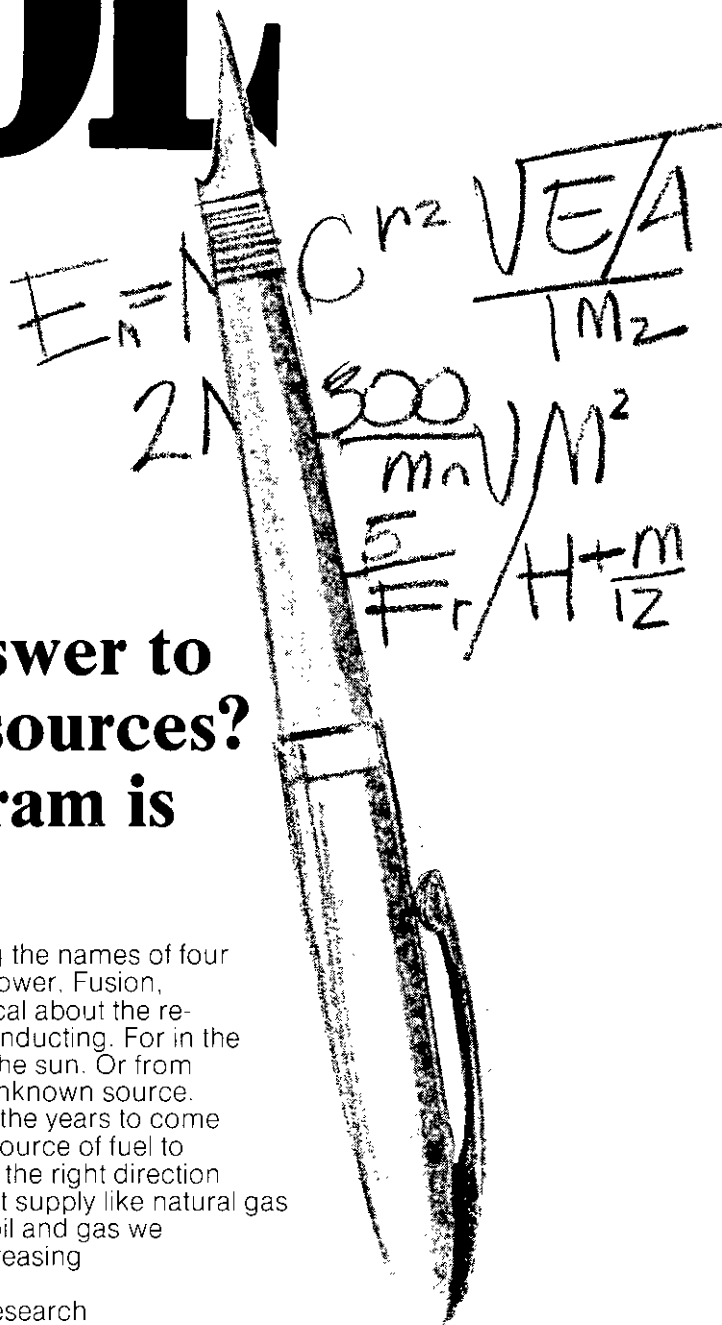
Schoor, who holds a law degree from Georgetown University Law Center, has been employed by the U.S. House of Representatives as assistant counsel in the office of the law revision counsel. Dalton joined the NSPE staff in 1976 as communications coordinator, a position he still holds. He has a BS in communications from Kent State University and a master's degree in organizational communications from the University of Maryland.

NSPE Dues Amendment Passes

More than 71 percent of the NSPE members voting in the special

Continued on page 13

THERFU- FISOL



**Will this be the answer to
our future energy sources?
Our research program is
trying to find out.**

"Therfufisol" is just a whimsical way of combining the names of four possible energy sources of the future: Thermal Power, Fusion, Fission and the Sun. But there is nothing whimsical about the research programs your electric companies are conducting. For in the future much of our energy may well come from the sun. Or from beneath the sea. Or from inner earth. Or some unknown source.

Electricity will become increasingly important in the years to come and it is obvious that we cannot rely on a single source of fuel to provide this electricity. Nuclear power is a step in the right direction in that it lessens our dependency on fuels in short supply like natural gas and oil. But along with nuclear power and coal, oil and gas we must find new sources of energy to meet the increasing needs for the home, business and industry.

That's why we're helping sponsor accelerated research programs to find new ways to generate electricity in the future.

Supporting the wise and efficient use of energy.



LOUISIANA 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

balloting this past fall on the constitutional amendment to raise the Society's dues ceiling approved the proposed amendment. It provides for a new dues ceiling of \$45, with no actual dues increase before 1979 and no increase of more than \$5 in any one year.

With 36 percent of the eligible members casting votes, 71.5 percent, or 13,833 approved the amendment, and 5518 disapproved. A total of 19,351 ballots were cast.

Sun Day - Louisiana

On May 3, 1978, the entire nation will celebrate Sun Day. The message of this day is modern, urgent and exciting: solar energy is here; the solar age begins.

Governor Edwards has issued a proclamation designating May 3 as Sun Day in Louisiana and has called on the citizens of Louisiana to participate in our nation's celebration of the world's most nearly inexhaustible, nonpolluting, safe and free energy source — the sun.

Events and projects planned for Sun Day in Louisiana include: solar arts and science fairs in the schools; energy speakers; tours of solar facilities and equipment; panel discussions on solar energy; and wide news coverage.

R. C. Spears, Executive Secretary, LES, and **Warren Wilder**, Executive Director of CEC/L, are members of the state-wide steering committee of Sun Day in Louisiana.

From the August 1936 Louisiana Engineer Definitions.

An Engineer is said to be a man who knows a great deal about very little and who goes along knowing more and more about less and less until finally he knows practically everything about nothing; whereas

A Salesman, on the other hand, is a man who knows a very little about a great deal and keeps knowing less and less about more and more until he knows practically nothing about everything.

Now one of our Purchasing Agents comes along with the following additional description (which sounds logical, assuming the truth of the above):

A Purchasing Agent starts out knowing practically everything about everything but ends up knowing nothing about anything due to his association with engineers and salesmen.

Ford, Bacon & Davis Completes Olinkraft Project

Ford, Bacon & Davis of Monroe, has completed the engineering on Olinkraft's \$125 million pulp and paper mill expansion project in West Monroe. The project included a 540 ton per day low density folding carton board machine, two-vessel Kamyr continuous digester with diffusion washing and high density storage system, expansion of chemical preparation system, power facilities expansion and effluent treatment additions.

George D. Pickering, P.E., served as project manager for Ford, Bacon & Davis.

Engineers Public Affairs Forum

The 1978 Engineers Public Affairs Forum has been scheduled for June 19, 20 and 21 at the Capital Hilton Hotel in Washington, D.C.

Sponsored by the National Society of Professional Engineers, the American Consulting Engineers Council and 17 other engineering societies, the Forum provides attendees opportunities to meet some of the most influential people in Washington, to familiarize themselves with the legislative process, gain insights into important legislation and governmental trends affecting the engineering profession and, in personal visits, to discuss issues of immediate, local concern with their own representatives in Congress.

A Very Important 200th Anniversary

June 9, 1978 is an important date for every American engineer: the 200th anniversary of George Washington's call, while still at his outpost in Valley Forge, for engineering education in this country.

All engineers proud of their profession are strongly encouraged to attend. And because Valley Forge is so beautiful in the spring, it may be a good idea to turn this memorable occasion into a family event.

For immediate further details, contact: Kenneth Wells at (215) 933-8825. Written inquiries may be addressed: Kenneth Wells, The Freedoms Foundation, Valley Forge, Pa. 19481.

CONSULT BOYCE...

Specialists in Caterpillar Power!

Big Bore Medium Speed

6.25" Industrial Engines	200 to 1300 BHP
Generator Sets	335 to 900 KW

High Power Compacts

5.4" Industrial Engines	315 to 1130 HP
Generator Sets	285 to 750 KW

3400 Series

Industrial Eng.	325 to 375 HP
Generator Sets	240 KW

Heavy Duty Smaller Units

4-6 cyl. Industrial Eng.	100 to 280 HP
Generator Sets	60 to 205 KW

High Performance V8's

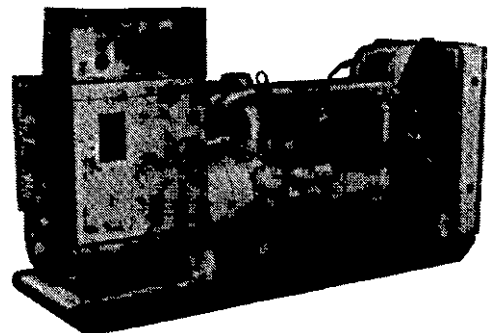
Industrial Eng.	175 to 210 HP
-----------------	---------------

Truck Engines -16 models -

Cat Packaged Generator Sets	175 to 450 HP
	50 to 375 KW

Natural Gas Engines

Cat Marine Engines	133 to 1115 BHP
	125 to 1125 BHP



A Wide Variety of Cat-Plus Services to Keep Your Caterpillar-Built Engine Products Earning for you . . . longer life — more profits.

Service Throughout Louisiana.



CATERPILLAR
SALES, SERVICE & PARTS



BOYCE
MACHINERY CORP.
DRAWER A J, RESERVE, LOUISIANA 70084
TELEPHONE 504-536-1121

MORGAN CITY: 504-631-0561 LAKE CHARLES 318-439-3601

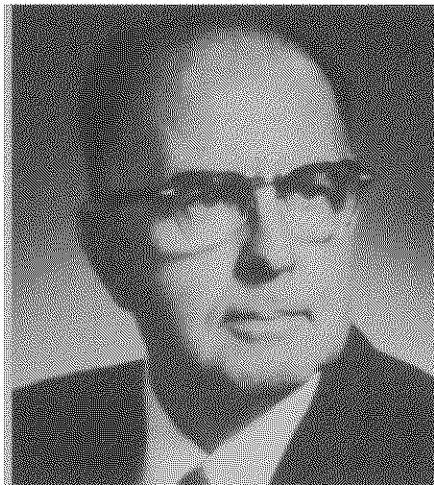
Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.

Ben T. Bogard, Former LES President, Dies After Illness

Ben T. Bogard, Dean Emeritus, College of Engineering, Louisiana Tech University, died February 19, 1978, following a lengthy illness.

Dean Bogard received his BS degree in Mechanical Engineering from Louisiana Tech in 1935 and the MS degree from Louisiana State University in 1937. The same year he joined the faculty of the College of Engineering at Louisiana Tech and in 1952 was named Dean, a position his father held for many years. He served as Dean from 1952-76 and was designated Dean Emeritus at the time of his retirement.

During his lifetime Dean Bogard served the engineering profession with great distinction. Under his leadership the College of Engineering at Louisiana Tech made great strides. Academic standards were strengthened, several undergraduate programs were started, graduate programs at both the master's and doctoral levels were initiated and research activities were promoted and expanded.



Ben T. Bogard, P.E.

Dean Bogard was appointed a member of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors in 1950 when the state legislature established that Board and continued as a member twice serving as Chairman until his death.

He served for more than twenty years as a member of the National

Council of Engineering Examiners and recently was awarded the Certificate of Distinguished Service by that organization. Previously, the Southern Zone of NCEE awarded him the Certificate of Recognition for Outstanding Service to the Engineering Profession.

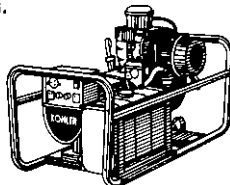
Dean Bogard was an active member of the Louisiana Engineering Society and in 1961 served as the state president. In 1970 he received the LES Andrew M. Lockett Civic Activities Medal. He was a member of the American Society for Engineering Education and a Fellow of the American Society of Mechanical Engineers.

In addition to his professional activities, Dean Bogard was active in civic affairs. He served as President of the Ruston Jaycees, President of the Ruston Chamber of Commerce, President of the Ruston Kiwanis Club, and President of the Board of Trustees of the Lincoln General Hospital. He was active in his church and was an Elder Emeritus of the Ruston Presbyterian Church.

dependable power whenever you need it.

Kohler's full line of portable generators
— from 1750 to 5000 watts (120 or 120/240 volts)
— in both lightweight and heavy-duty models.
Kohler—the dependable power source
that goes wherever the work is.

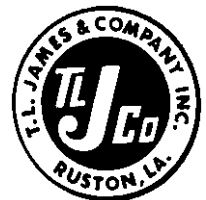
Kohler portable generator sets.



W.M. F.
SURGIT
Sales • Service • Parts • Rentals

EQUIPMENT CORPORATION
NEW ORLEANS (504) 525-3142
BATON ROUGE (504) 293-0556
LAFAYETTE (318) 233-6322
The Gulf South's Best Machinery House

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE
ASPHALT
SHELLS
SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE
RUSTON, LOUISIANA
JAMES BUILDING • PHONE 255-7912

KENNER, LOUISIANA
P. O. Box 8 • PHONE 729-2511

Equal Opportunity Employer

Surveyor's Corner

Jack Laws
Chairman
Joint Committee Continuing
Education, LLSA & ACSM

Lately, there has been a lot of talk about the need for continuing education programs for professionals. At least one state, Iowa, has made continuing education a legal requirement for professional engineer and land surveyor license renewal. But regardless of any legal requirement, there is a practical need for such programs to improve the quality of service to clients or employers.

The Louisiana Land Surveyors Association (LLSA) and the American Congress on Surveying and Mapping (ACSM) have formed a joint committee to plan and implement a long-range ongoing continuing education program geared to the needs of the surveyors in the state. The first meeting, held in October 1977, established some long- and short-range



Five of the participants of the LLSA and ACSM seminar, "Surveyors and the Law," held February 11, 1978 in Baton Rouge pose for a photograph. Left to right are: John King, New Orleans, Attorney; Bill McClendon, Baton Rouge, Attorney; Steve Dart, St. Francisville, Attorney; Jack Laws, Port Allen; and Delos Johnson Jr., Franklinton, Attorney.

goals for the formulation of a continuing education program on both the professional and sub-professional levels. Programs and seminars on both statewide and district-wide levels will be presented on topics ranging from law, business, sophisticated surveying practices and procedures, etc., for the professional to traversing, leveling, field and office procedures, calculations, etc., for the sub-professional. The establishment of a recognized C.E.U. point system is also included in the plans.

The first seminar, entitled "Surveyors and the Law," was held in Baton Rouge on February 11, 1978. Steve Dart, an attorney from St. Francisville, acted as moderator and put together an excellent panel of speakers for the program. The topics covered were boundary actions and servitudes, prescription, liability and current litigation and the flood insurance program. The response of the one hundred participants was excellent.

The next seminar will deal with the state plane coordinate system and is

MORE POWERFUL THAN A BUSINESS LETTER! FASTER THAN A SALES TRIP...

Dial Long Distance to contact more sales prospects with the least cost, time, and effort. You get the advantage of a personal two-way conversation and instant response.



South Central Bell



Ausco fail-safe brake for hydrostatic drives

**Bolts directly
into power
train—no
alignment
problems**

No extra brackets,
no shimming needed

Complete
self-contained
package

Spring loaded,
hydraulically
released.

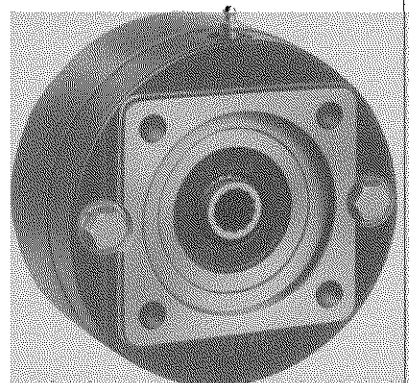
SAE motor mounts

Fits SAE J744c
Standard.

Either charge or
full line pressure

Rugged cast iron
construction

Bearing-supported
shaft



SAE Motor Mount	Torque Capacity, lb. in.	Size Overall, Dia. x Length
A/B	2,400	7.00 x 4.50
B	2,400	7.00 x 4.00
C	8,400	8.00 x 4.86
D/E	20,000	11.02 x 6.65
F	40,000	16.20 x 5.42

Write or phone for complete information. Auto Specialties Manufacturing Company, St. Joseph, Michigan 49085. Phone 616/982-2373

AUSCO
DISC BRAKES / CLUTCHES

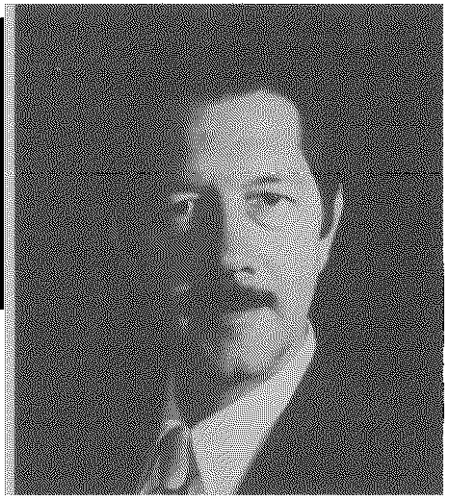
tentatively scheduled to be held near the end of August in Lafayette. The topics will include general and historical applications, legal requirements, calculations, field procedures and practical applications.

The joint committee of LLSA and ACSM, state section, believes that we have a viable program, one that will benefit all the surveyors of Louisiana. We have already found a great interest in the seminars and have also discovered one small difficulty in offering the programs to all those who wish to participate. Only members of LLSA

and ACSM were sent notification of the first seminar, and several non-members complained because they were not notified in time to participate. We welcome any and all participants and supporters of the programs, but in order to insure notification of upcoming programs, you should become a member of either LLSA and ACSM or both.

If you have any questions or desire more information on upcoming programs you may contact: John K. Laws Jr., Rt. 2, Box 293B, Port Allen 70767.

EngiNEWS



James W. Reeves, P.E.

Reeves Appointed to State Board

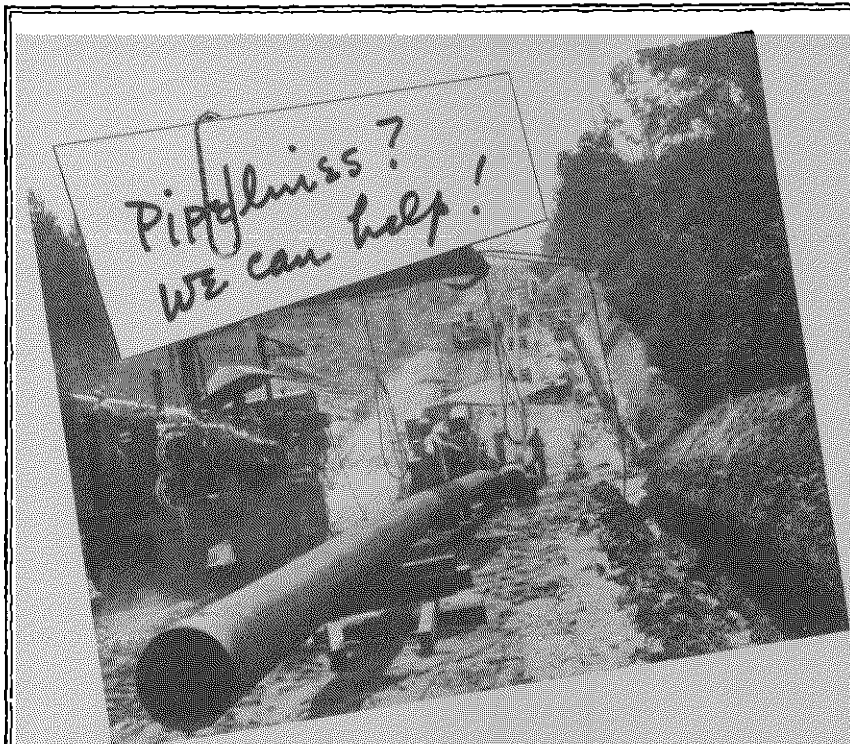
James W. Reeves, P.E., Dean of Engineering, University of Southwestern Louisiana, has been appointed by Gov. Edwards to the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. The appointment became effective January 25, 1978 and is for a period of nine years.

Reeves replaces Dr. Jesse Coates, P.E., who completed his term on July 31, 1977 but served during the interim until Dr. Reeves was appointed.

Reeves was born in Covington, Louisiana and attended elementary and high school there. He received BS and MS degrees in civil engineering from LSU and a PhD in civil engineering from the University of Arizona.

He has had a varied employment experience: Chance Vought Aircraft; Civil Engineering Corps of the U.S. Navy in the Philippines and Corpus Christi, Texas; Louisiana Department of Public Works; George Covert & Associates, consulting engineers, Baton Rouge; and assistant professor, associate professor, head of Civil Engineering Department, acting Dean of Engineering, and Dean of Engineering, USL since 1972.

Reeves is a registered professional engineer and land surveyor in Louisiana and a certified fallout shelter analyst, U.S. Department of Defense. He was president of the Lafayette Chapter, LES, in 1973-74 and has



- ✓ In complete engineering and construction
- ✓ In project administration and management
- ✓ In offshore construction inspection
- ✓ In location selection and R-O-W services
- ✓ In R-O-W clean-up inspection; environmental reports
- ✓ In preliminary design and cost estimating
- ✓ In design and procurement of equipment

Jford, Bacon & Davis
Monroe and Baton Rouge
and 18 other cities worldwide



served LES as a state director since 1972.

Dr. Reeves is an outstanding engineer and gentleman. We believe his appointment to the Board of Registration will be a great asset for the engineering profession in Louisiana. LES is proud to wish him "God Speed" in his new duties.

Design of Solar Energy Systems

The objective of the course, Design of Solar Energy Systems, is to introduce the fundamentals of solar thermal energy utilization including: insolation, collection and end-use as it applies to the Louisiana environment. This introduction to solar energy will involve both analytic and experimental presentations.

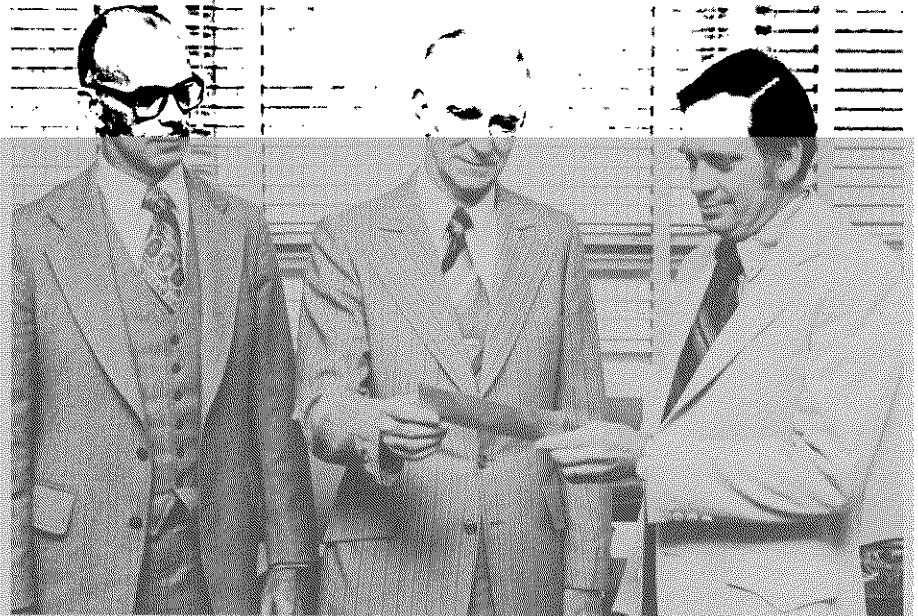
The material to be covered will be useful for engineers, architects and contractors. Topics to be covered will include: Solar Radiation Availability, Solar Energy Systems, Design and Performance of Collectors, Heating Systems, Cooling Systems, Storage Systems and Auxiliary Power, End-Use Components and Rough-sizing of Solar Heating Systems. A flat plate solar collector will be available for examination.

The course will be sponsored by Engineering Education Consultants. Dr. Edwin P. Russo will conduct the lectures. He is chairman of Mechanical Engineering at the University of New Orleans and a consultant for the Solar Power Corporation. He has taught courses on solar energy and has worked on the installation of solar systems in the New Orleans area.

The course will be presented at the Grace King High School, 4301 Carthage Street, Metairie, Louisiana, in the evenings from 7 to 10 p.m. on May 22, 23 and 24, 1978. The registration fee is \$100.00. For additional information, please contact Dr. Edwin P. Russo, University of New Orleans P. O. Box 1207, New Orleans, LA., 70122; phone 283-0652 or 242-3381.

Past Presidents List Corrected

The past presidents and secretaries of LES chart in the February issue showed errors. The corrected list includes: Malcolm L. Hurstell, President 1975-76; James L. Meyer, President 1976-77; and Carl H. Thomas was secretary under both administrations.



William Vaughn, center, Pittsburgh Plate Glass Industries Foundation, Lake Charles, presents a \$5,000 gift to Tulane University's School of Engineering for an on-going program designed to recruit women and other minority students. Accepting the check are Dr. Hugh A. Thompson, left, dean of the school, and Dr. Sam Sullivan, associate dean.



Fred C. Culpepper Jr., right, president of Ford, Bacon & Davis, Inc., New York City, turns the gavel over in San Diego to V. Gerald Wright, vice president of Catalytic, Inc., Philadelphia, for his new term as chairman of the National Constructors Association.

The National Council of Engineering Examiners publishes a quarterly devoted to items of interest relating to engineering and land surveying registration. Subscriptions are available to individuals at \$5.00 per year.

If you would like to receive this publication, please fill out this order envelope, enclose your check, and mail to NCEE.

Please enter my subscription to the REGISTRATION BULLETIN. My check for \$5.00 is enclosed.

Name (please print) _____

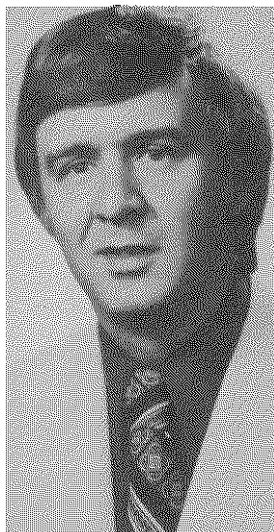
Address _____

City _____

State _____

Zip _____

MAIL TO: NCEE, P.O. Box 5000, Seneca, S.C. 29678



T. Dudley Hixson, P.E.

Hixson Appointed to GSA Panel

Dudley Hixson, P.E., has been selected to serve as one of the distin-

guished members of the Regional Public Advisory Panel on Architectural and Engineering Services for Region 7, which has responsibility for the states of Arkansas, Louisiana, New Mexico, Oklahoma and Texas.

Architects and engineers who have distinguished themselves in their profession representing the geographical area of each GSA Region serve on the panel. Hixson's term of service expires December 31, 1978.

IN MEMORIAM

F. Tackett Clarke, P.E.
Died September 23, 1977

The Society was saddened to receive a belated notification of the death of F. Tackett Clarke. He was a native of Meridian, Mississippi. Mr. Clarke was graduated from LSU in civil engineering and worked for the Louisiana Department of Highways, Louisiana Sulphur Company and the Allied Chemical Company for many years. He retired in the early '50s and moved to Houston in 1952.

Mr. Tackett joined the Louisiana Engineering Society in 1945 and was a member of the Lake Charles Chapter, prior to his move to Houston.

The Louisiana Engineering Society extends its deepest sympathy to his wife, Mrs. Esther Clarke, and family.

IN MEMORIAM

James M. Fourmy
Died January 13, 1978

James M. Fourmy, P.E., was a member of LES from 1916 to 1931 and from 1940 until his death in Hammond. He became a Life Member of the society in 1967 and was one of LES's oldest living members.

After graduation from LSU in 1904, Mr. Fourmy surveyed for the Missouri Pacific Railroad and made the first survey of the railway along the Atchafalaya swamp. After marriage to the former Mertie Dameron in 1910, he became civil engineer for the Tennessee, Alabama and Georgia railroad in Chattanooga, where he built the original electric line railroad on Signal Mountain. Other assignments included: city engineer for New Orleans; engineer for Tangipahoa Parish, Louisiana Department of Highways; and city engineer, Hammond.

Mr. Fourmy was a member of the Grace Memorial Episcopal Church, Hammond, and a former vestryman. He was a life member of ASCE.

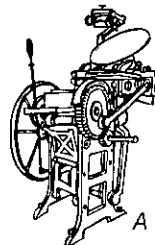
The Louisiana Engineering Society extends its deepest sympathy to his wife and family.

Services and Suppliers

We specialize in developing professional brochures for engineers and architects



NORMAN C. FERACHI & ASSOCIATES, INC.
603 Europe St.
Baton Rouge, LA 70802
Call (504) 387-3261



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

A COMPLETE CREATIVE PRINTING SERVICE.

PHONE (504) 387-0504



FRANKLIN PRESS, INC.
1391 HIGHLAND ROAD • P. O. BOX 1269
BATON ROUGE, LOUISIANA 70821

BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

P. O. Box 23293

5524 Mounes Street

New Orleans, La. 70183

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814

Phone 925-0991

ALL TYPES OF PRINTING—
BOTH BUSINESS AND PERSONAL

ORLEANS MATERIALS & EQUIPMENT CO., INC.

5501 France Road

New Orleans, La. 70126

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
ELECTRICAL AND INSTRUMENTATION

Phone 292-0100

P.O. Box 15274
Baton Rouge, La. 70815

New Members of L.E.S.

BATON ROUGE
James A. Ragland, P.E.
 543 Oakford Drive
 Baton Rouge, LA 70815
 Private Practice

Rafael A. Arco, P.E.
 3725 Pine Park Drive
 Baton Rouge, LA 70809
 Private Practice

Robert J. Burch, EIT
 9370 Old Hammond Hwy. #108
 Baton Rouge, LA 70806
 Industry

Adolfo Cano, P.E.
 11888 Longridge Drive #1087
 Baton Rouge, LA 70816
 Private Practice

Wayland P. Marcombe, P.E.
 4155 Essen Lane #11
 Baton Rouge, LA 70809
 Industry

Thomas B. Schexnayder, P.E.
 935 Aberdeen Ave.
 Baton Rouge, LA 70808
 Industry

Don R. Schmieder, P.E.
 8300 Old Hammond Hwy.
 Baton Rouge, LA 70809
 Private Practice

Paul W. Shryock, EIT
 11888 Longridge Drive #1027
 Baton Rouge, LA 70816
 Industry

Michael P. Underwood, P.E.
 Barbay Engineers, Inc.
 P. O. Box 66424
 Baton Rouge, LA 70896
 Private Practice

BAYOU
Michael W. Bechtold, P.E.
 218 B. Henderson
 Houma, LA 70360
 Government

Martin Cart
 Martech International
 P. O. Box 2964
 Morgan City, LA 70380
 Industry

Albert I. Guidry Jr.
 Rt. 1, Box 303
 Oak Alley Drive
 Houma, LA 70360
 Private Practice

Allen J. Hamilton, EIT
 1259 East Main St.
 Houma, LA 70360
 Industry

Charles L. McDonald, L.S.
 213 Ziegler
 Houma, LA 70360
 Private Practice

LAFAYETTE
James E. Bowie Jr.
 404 Guilbeau Rd. #J151
 Lafayette, LA 70506
 Education

Mohammad A. Ebadian
 P. O. Box 4-4447, USL
 Lafayette, LA 70504
 Education

John A. Freshwater, P.E.
 146 N. Arlington Drive
 Lafayette, LA 70503
 Industry

Russell C. Hibbeler
 Box 4-0141 (USL)
 Lafayette, LA 70504
 Education

LAKE CHARLES
Kurt E. Bleikamp
 Cities Service Co.
 P. O. Box 1562
 Lake Charles, LA 70602
 Industry

Henry W. Theiling
 Westvaco
 P. O. Box 836
 De Ridder, LA 70634
 Industry

MONROE
Harold D. Thomas, P.E.
 Louisiana Power and Light Co.
 Rt. 2, Box W-2C
 Bastrop, LA 71220
 Industry

NEW ORLEANS
Lloyd J. Arbo Jr.
 921 Mayfair Lane
 Kenner, LA 70062
 Private Practice

Marshall P. Austin
 Woodward-Clyde Consultants
 1440 Canal, Suite 1913
 New Orleans, LA 70112
 Private Practice

Donald E. Barbe, P.E.
 4744 Maid Marian Drive
 New Orleans, LA 70128
 Private Practice

Raymond Canzoneri
 5029 Hearst Ave.
 Metairie, LA 70001
 Construction

Richard J. Clow Jr., P.E.
 6414A Derbyshire Drive
 New Orleans, LA 70126
 Industry

Stephen C. Cowin, P.E.
 1545 Exposition Blvd.
 New Orleans, LA 70118
 Education

Roger J. Maduell
 1616 Ridgelake Drive
 Metairie, LA 70001
 Industry

Mervin B. Morehiser, P.E.
 W. S. Nelson and Co.
 1200 St. Charles Ave.
 New Orleans, LA 70130
 Private Practice

Kenneth H. Nelson
 Waldemar S. Nelson & Co., Inc.
 1200 St. Charles Ave.
 New Orleans, LA 70130
 Private Practice

Kim P. Orgeron
 406 20th St.
 Gretna, LA 70053
 Industry

Robert E. Rood, P.E.
 Freeport Minerals Co.
 821 Gravier St.
 New Orleans, LA 70112
 Industry

Peter M. Smith
 W. S. Nelson and Co.
 1200 St. Charles Ave.
 New Orleans, LA 70130
 Private Practice

Thomas R. Thurmond, EIT
 Power Enterprises, Inc.
 P. O. Box 6261
 New Orleans, LA 70174
 Construction

SHREVEPORT
W. Sherwood Bailey Jr.
 2014 Lovers Lane
 Shreveport, LA 70115
 Private Practice

NON-RESIDENT
Jones H. Austen, III
 Stone & Webster Engineering Corp.
 Garner Lake Route
 Gillette, WY 82716
 Construction

New Registrations

DECEMBER 9, 1977

Repasky, Michael Walter
 Columbia, NJ—Civil

Resweber, Kirk Anthony
 Baldwin, LA—Mechanical

Rieter, William Karl
 Jackson Heights, NY—Civil

Riley, John Murrow
 Pleasant Garden, NC—Civil

Rohde, Douglas
 Metairie, LA—Civil

Rose, Laston James
 Monroe, LA—Mechanical

Rotter, James Jerome
 Sulphur, LA—Mechanical

Rouen III, Lawrence Thomas
 Baton Rouge, LA—Civil

Schexnayder, Thomas Bryan
 Baton Rouge, LA—Civil

Senften, Theodore Merritt
 Gretna, LA—Chemical

Smith, Johnnie Larry
 Houston, TX—Civil

Smith, Raymond Ralph
 Houston, TX—Petroleum

Song, Kun Kyu
 New Orleans, LA—Mechanical

Spears Jr., Cecil Cabot
 Montgomery, AL—Civil

Sperry, Michael Davis
 New Orleans, LA—Electrical

Sroka, Henry Marlon
 Lake Bluff, IL—Mechanical

Stagg, William Winfield
 Lafayette, LA—Civil

Stalder, John Lowell
 New Orleans, LA—Petroleum

Stocker, Gerard Craig
 Union, NJ—Chemical

Sump, Gary Dean
 Houston, TX—Chemical

Tanner, James Jerrel
 Little Rock, AR—Civil

Tench, Truman Harwood
 Gretna, LA—Mechanical

Tetreault, Emil Albert
 Farmington Hills, MI—Civil

Thalheimer Jr., Marcus Edwin
 Baton Rouge, LA—Civil

Thibaux, Jerome Francis
 Sugar Land, TX—Civil

Thibodeaux, Byron Kurt
 Baton Rouge, LA—Electrical

Thomas, Charles William
 Arkansas City, KS—Civil

Thomas, Larry Charles
 Pensacola, FL—Electrical

Thompson, David Hart
 New Orleans, LA—Civil

Trowbridge, James Edward
 Terrytown, LA—Civil

Ulczyński, Ronald Joseph
 Baton Rouge, LA—Electrical

Underwood, Michael Page
 Baton Rouge, LA—Electrical

Venable, Roger Harold
 Baton Rouge, LA—Electrical

Virtue, John Clive
 New Orleans, LA—Civil

Wadsworth, William Matthew
 Morgan City, LA—Mechanical

Waggener Jr., John Ethridge
 Gallatin, TN—Civil

Waldsmith, Richard Weldon
 New Orleans, LA—Chemical

Ward Jr., Albert Allen
 Baton Rouge, LA—Industrial

Wesson, James Wade
 Lafayette, LA—Civil

White Jr., Kenneth Edward
 Kingwood, TX—Mechanical

Whitesell, Charles Randolph
 Monroe, LA—Electrical

Whiteside, Albert Eugene
 Tulsa, OK—Electrical

Willis, Charles Henry
 Metairie, LA—Civil

Wintle, Thomas Herbert
 Mobile, AL—Petroleum

Worfel, Dale Nyles
 Moylan, PA—Civil

Wozniak, Thomas Carl
 Houston, TX—Civil

Wust Jr., John Phillip
 Kenner, LA—Mechanical

Zinn, Marshall Hays
 Harvey, LA—Civil

Griswold, Richard Folden
 Bossier City, LA—Land Surveyor

FEBRUARY 1, 1978

Angelo, Gary John
 Kenner, LA—Civil

Anthony, Spate Reggie
 Mooringsport, LA—Electrical

Arias, Richard Arthur
 Metairie, LA—Mechanical

Arnold, Tapley George
 Tulsa, OK—Electrical

Atchley, Ronald Wesley
 Gretna, LA—Petroleum

Aucouin Jr., Lindsey John
 Eunice, LA—Civil

Ballinger Jr., Joseph Parker
 Cody, WY—Petroleum

Barbe, Donald Edward
 New Orleans, LA—Civil

Bankston Jr., Joseph David
 Hammond, LA—Mechanical

Batten, Phillip Neal
 Ocean Springs, MS—Civil

Beaumont Jr., Edgar Chetwyn
 Gretna, LA—Chemical

Bendelius, Arthur G.
 Dunwoody, GA—Mechanical

Bingham Jr., Billy
 Lafayette, LA—Industrial

Boyd Jr., R.V.
 Baton Rouge, LA—Electrical

Bowen, Donald Albert
 Tulsa, OK—Mechanical

Broussard, Peter Allen
 Lake Charles, LA—Mechanical

Burton, Robert William
 Lake Charles, LA—Mechanical

Capetanakis, George Andrew
 New Orleans, LA—Mechanical

Cassell, James Raynor
 Baton Rouge, LA—Civil

Chander, Prabhat
 Metairie, LA—Civil

Chatelain, Robert John
 Gretna, LA—Electrical

Chester, Lynn Gray
 Houston, TX—Electrical

Coppedge, Earl Pride
 Metairie, LA—Civil

Courter, David Michael
 Baton Rouge, LA—Chemical

Crochet Jr., Sandy Joseph
 New Iberia, LA—Electrical

Crumley, Winfred Harvey
 Atlanta, GA—Civil

Cutt, Peter John
 New Orleans, LA—Civil

Dean, James Dudley
 Aiken, SC—Electrical

Dearmond, Bobby Eugene
 St. Louis, MS—Civil

Delestatis, Mark
 New Orleans, LA—Petroleum

Dickey, Jerome Rae
 Prattville, AL—Mechanical

Dutcher, William George
 Humble, TX—Chemical

Eberts, Robert Douglas
 Lafayette, LA—Petroleum

Ehni, Thomas Kenneth
 Lafayette, LA—Chemical

Eldridge, Daniel Paul
 Jeanerette, LA—Civil

Ellis, Charles Faison
 Lafayette, LA—Electrical

Fennel, Lawrence
 Kenner, LA—Mechanical

Finch, Karl Junius
 Baton Rouge, LA—Mechanical

Fischer, Kenneth Allen
Brecksville, OH—Mechanical

Floyd, Eddie Thomas
Brusly, LA—Chemical

Fujii, Richard Kiyoshi
Aurora, IL—Mechanical

Goodheart, Gary Frederick
Gretna, LA—Civil

Gray, Joseph Rembrandt
Baton Rouge, LA—Mining

Green, Bobby Jack
Lake Charles, LA—Mechanical

Hagner III, William Joseph
Cotton Valley, LA—Mechanical

Halepeska, Gary Dennis
Victoria, TX—Civil

Hall, Richard Lee
Little Rock, AK—Mechanical

Hazel, Richard Aubrey
Lafayette, LA—Petroleum

Hazmark, Frank Joseph
Beaumont, TX—Electrical

Henry, Robert Charles
Lafayette, LA—Mechanical

Juneau, Ronald Joseph
Baker, LA—Civil

Jenkins, John Lee
Columbia, SC—Mechanical

Jofre, Ricardo Jesus
New Orleans, LA—Mechanical

Joiner, Bernard Vincent
Arlington, VA—Electrical

Jones, Lawrence Stephen
Hueytown, AL—Mechanical

Jovanovich, Kim Dayne
New Orleans, LA—Electrical

Kazokas Jr., William Cypras
Tulsa, OK—Civil

Kelly, John Joseph
Baton Rouge, LA—Chemical

Kopecky, Johnny Anthony
Lafayette, LA—Mechanical

Kolb, James John
Jackson, MI—Electrical

Kroeger, Harry Martin
Schaumburg, IL—Civil

Langlinais, Julius Patrick
New Orleans, LA—Petroleum

Langlois Sr., Gerard Wayne
Baton Rouge, LA—Civil

Lawless, William Frere
Baton Rouge, LA—Mechanical

Lechtenberg Jr., Wendel Joseph
Lake Charles, LA—Electrical

Lemons, Curtis Harvey
Belle Chasse, LA—Petroleum

Lively Jr., Selser Morgan
Baton Rouge, LA—Mechanical

Long, Jack Allen
Cleveland, OH—Civil

Mann, David Richard
Houston, TX—Civil

Martin, Charles Hubert
San Antonio, TX—Mechanical

Mata, Carlos Alberto
League City, TX—Mechanical

Mauel, Edward
Palatine, IL—Civil

McCaughy, Michael Paul
Baton Rouge, LA—Electrical

McCleskey Jr., Robert Walter
Houston, TX—Petroleum

McCoy Jr., Leonard Leslie
Evergreen, CO—Civil

McLain, Douglas Jackson
Baton Rouge, LA—Chemical

McWhorter, James Olan
Tyler, TX—Chemical

Meek, James Milton
Silver Spring, MD—Mechanical

Mehta, Bharat Ochhavalal
Baton Rouge, LA—Mechanical

Melancon Jr., Howard Charles
Broken Arrow, OK—Electrical

Melancon, Stephen Paul
Crystal River, FL—Electrical

Mello, John Joseph
Kenner, LA—Mechanical

Moore, Edwin Dyer
Rayne, LA—Petroleum

Morgan, Larry Glenn
Pineville, LA—Chemical

Mosley, Jr., Mark Kimbrough
Lake Charles, LA—Mechanical

Mujumdar, Vilas Sitaram
Santa Rosa, CA—Civil

Olson, John Edwin
Oakbrook, IL—Mechanical

O'Rourke, Frederick C.
Lafayette, LA—Chemical

Overall Jr., Robert Clyde
Baton Rouge, LA—Civil

Phillips, Kenyon Wayne
Houston, TX—Civil

Pillie Jr., Ellsworth John
Metairie, LA—Civil

Porrell, Frank
Pittsburgh, PA—Civil

Pritchard, William Edwin
Morgan City, LA—Petroleum

Pyle, Forrest Bruce
Akron, OH—Mechanical

Rao, Sundararaja C.
Baton Rouge, LA—Civil

Raymond, Douglas Dwaine
Kenner, LA—Mechanical

Reedy, Roger Dale
Luling, LA—Electrical

Rogers, Marc Jonathan
Gibson, LA—Civil

Ross, William James
Lake Charles, LA—Electrical

Routon, Steven Arnold
Baton Rouge, LA—Civil

Santry Jr., Israel Wootan
Dallas, TX—Civil

Scott, Jack Calvin
Tyler, TX—Chemical

Seelye, Paul Randall
Lake Charles, LA—Petroleum

Sheldon, Lynn C.
Baton Rouge, LA—Civil

Shukla, Mulshankar B.
Metairie, LA—Civil

Sidrony, George Timothy
Stafford, TX—Mechanical

Smith, Edward James
Lafayette, LA—Mechanical

Sodha, Chandrakant Vallabhdas
Metairie, LA—Civil

Stein, Frederick Charles
New Orleans, LA—Petroleum

Stewart, Carl T.
Kountze, TX—Electrical

Stewart, Robert Allen
Natchez, MS—Civil

Sutton Jr., Russell Franklin
Slidell, LA—Mechanical

Terrell, Bruce Arnold
Chalmette, LA—Civil

Theaker, James Robert
Gretna, LA—Civil

Thomas, Earl Hardy
Gretna, LA—Civil

Tiller, Paul Clayton
Houston, TX—Mechanical

Tingley, John William
Schaumburg, IL—Civil

Tumay, Mehmet Taner
Baton Rouge, LA—Civil

Verma, Shiv Parkash
Houston, TX—Mechanical

Vicknair, Michael Anthony
Metairie, LA—Electrical

Walker, Johnnie Patrick
Metairie, LA—Electrical

Wallentine, Craig Crockett
Baton Rouge, LA—Civil

Webb Jr., George M.
New Orleans, LA—Chemical

Weems, Lanier Jackson
Atlanta, GA—Civil

Whitehead, Walter Richard
Baton Rouge, LA—Petroleum

Wood Jr., Robert Benjamin
Memphis, TN—Mechanical

Sprawls, Desmond Courtney
Shreveport, LA—Land Surveyor

Professional Listings



LEVY-KRAMER
& ASSOCIATES INCORPORATED
CONSULTING ENGINEERS

Phone (504) 923-2334

422 Colonial Drive
Baton Rouge, Louisiana 70806

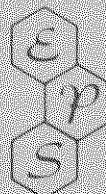
FLUOR OCEAN SERVICES, INC.

PROVIDING WORLDWIDE ENGINEERING AND
CONSTRUCTION MANAGEMENT SERVICES

OIL AND GAS PRODUCTION FACILITIES
PIPELINES
HARBORS, PORTS, TERMINALS

6200 HILLCROFT • HOUSTON, TEXAS 77036 • (713) 776-4100

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
- Air and Water Quality Sampling and Surveys
- Environmental Assessments
- Industrial Waste Treatability Studies

106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2635
808 BECK BLDG., SHREVEPORT, LA. 71101 (818) 227-8254



**ALBERT SWITZER & ASSOCIATES, INC.
CONSULTING ENGINEERS**

P.O. BOX 14329
3150 VALLEY STREET
BATON ROUGE, LOUISIANA 70808 (504) 343-7447



Guillot-Vogt Associates
CONSULTING ENGINEERS

CIVIL-STRUCTURAL • INSTITUTIONAL
ELECTRICAL • COMMERCIAL
MECHANICAL • INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4256



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harrod H. McClelland

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.

1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612



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

Jford, Bacon & Davis
Engineers • Constructors



Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND TECHNICAL
FACILITIES INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA NEW YORK, NY 10001
P.O. BOX 22716 HOUSTON, TEX 77027

Phone (212) 239-4656
Phone (713) 523-1500

WALDEMAR S. NELSON AND COMPANY
Incorporated

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave.

New Orleans, La. 70130

523-5281



Brown & Root, Inc.

And Associated Companies/Serving Progress the World Over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

**DENSON ENGINEERS
INCORPORATED**

Consultants

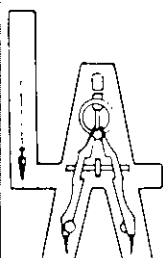
SUITE 800

COMMERCE BUILDING



NEW ORLEANS 70112

504 - 561-1131



LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.

Industrial & Marine Consultants and Designers

Bulk Terminals Docks and Wharves
Materials Handling Offshore Structures
Foundations Buildings
Industrial Site Selection Reports and Investigations
Construction Management

801 Marengo St. New Orleans, La. 70115
(504) 895-0368



ENGINEERS-PLANNERS-ENVIRONMENTAL SCIENTISTS
SPECIALIZING IN

Environmental Studies and Reports

Governmental, Commercial and Residential Land Development

Design Plans, Specifications and Construction Inspection
for Airports and Roadways

2701 INDEPENDENCE STREET/METairie/LA/70002/504-455-3881

PETROLEUM ENGINEERS, INC.

Drilling Programs & Designs
Completion Programs & Designs
Workover Programs & Designs

Geothermal Programs & Designs
Property Management
Field Supervision

P. O. Box 52588
Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell

Engineers, Architects & Planners

2000 North 7th
Post Office Box 728
WEST MONROE, LA. 71291

Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street
Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.
J. David Bergeron, L.S. & P.E.

Phone 447-4017
P. O. Box 1203

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills:

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings, and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash. 98119
206 285-4411

5615 Corporate Blvd.
Baton Rouge, La. 70808
504 927-4724

MARRERO, COUVILLON & ASSOC.



ELECTRICAL ENGINEERS

- GENERATION
- DISTRIBUTION
- INSTRUMENTATION
- INDUSTRIAL
- COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA. 70806 PH. 504/926-8005

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS
(713) 842-0414

SHREVEPORT, LOUISIANA
(318) 222-0783

Beaumont - Houston - Morgan City - Monroe - Shreveport



ASSOCIATES, INC.
CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002
(504) 885-0500

Frank Nicoladis, President

AMERICAN CONSULTING SERVICES

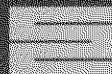
3035 DIRECTORS ROW SUITE 416
MEMPHIS, TENNESSEE 38131
TELEPHONE 901-345-5224



SEWER SYSTEM EVALUATIONS WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING, DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines



WALK, HAYDEL & ASSOCIATES, INC.

ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111
Telex 58-7302

Branch Offices: Baton Rouge, La. Mobile, Ala.

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130

THE FRANTZ CO.

Complete Engineering Design Services
Chemicals - Petrochemicals - Petroleum

Suite 400
Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- OSHA Noise Compliance
- Hearing Conservation
- Computer Analysis
- Environmental Noise Studies
- Architectural Acoustics
- Room Acoustics Studies

1015 Elm Street, Suite 2001, Dallas, Texas 75202
214/741-7701 Telex 730796

An Equal Opportunity Employer

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.



HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70808

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers
 NO. 8 FAIRWAY FOREST PLAZA
 7700 PINES ROAD
 SHREVEPORT, LOUISIANA 71109
 BUS. PHONE 686-7190

JAMES MOHR, P.E.
 Res. 686-3558

DESMOND SPRAWLS, P.E.
 Res. 687-5260

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.
 Arthur E. Meyer, P.E., R.L.S.

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

DEMOPULOS and FERGUSON, INC.
 CONSULTING ENGINEERS
 MUNICIPAL AND INDUSTRIAL
 Design, Construction Inspection, Studies and Reports

3637 West Alabama
 Houston, Texas
 (713) 622-2151

600 Petroleum Tower
 Shreveport, Louisiana
 (318) 221-7117

MARINE ENGINEERS
 NAVAL ARCHITECTS
 PROFESSIONAL ENGINEERS

DU BOIS, CARMAN & ASSOCIATES, INC.
 4100 WALNUT DR.
 NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983



PYBURN & ODOM, INC.

CONSULTING ENGINEERS

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 - 756-6330
 5178 GSRI Rd. • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY
 Foundation and Soil
 Mechanics Investigations

Soil Borings • Foundation Analyses
 Laboratory Tests • Reports

834-0157

3011 28th Street

Metairie, La. 70002

BARNARD & THOMAS ENGINEERING, INC.
 Consulting Engineers
 Municipal and Industrial Engineering
 Comprehensive City Planning

4440 North Boulevard
 P. O. Box 64853
 Baton Rouge, La. 70806
 (504) 927-8323

Suite 101
 3100 Ridgelake Drive
 Metairie, La. 70002
 (504) 837-5588

CHEMICAL
 MECHANICAL
 CIVIL
 ELECTRICAL

3114 Cities Service Hwy.
 Lake Charles, La. 70669
 318 625-8212

LEVINGSTON ENGINEERS, INC.

INDUSTRIAL PLANT DESIGN

JOHN C. COPES
Consulting Engineers

1956 Wooddale Court

Phone—926-7690 • 926-4842—Area Code 504

BATON ROUGE, LA. 70806



McClelland engineers, inc.
geotechnical consultants

4450 General DeGaulle Drive
 New Orleans, Louisiana 70114
 Tel: 504-393-6666 Telex 584-103
 Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 CALCO BLVD. / P.O. BOX 52115
 LAFAYETTE, LA. 70505
 TELEPHONE (318) 234-4566

SUITE 204, 7465 EXCHANGE PLACE
 BATON ROUGE, LA. 70806
 TELEPHONE (504) 927-8309



Consulting Engineers

Municipal and Industrial
 Consultants and Designers

P. O. Box 700, Baker, La. 70714

(504) 775-4800



PICCIOLA & ASSOCIATES, INC.
 CONSULTING ENGINEERS & SURVEYORS

M. J. PICCIOLA, II, P.E., L.S.
 L. J. PICCIOLA, P.E., L.S.

P.O. BOX 758
 GALLIANO, LOUISIANA 70354

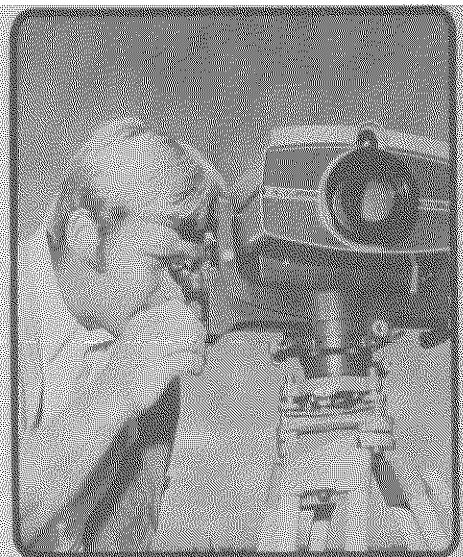
PHONE 504-632-5786
 4514-C LA. HWY. NO. 1

FRANK J. JACKSON & ASSOCIATES

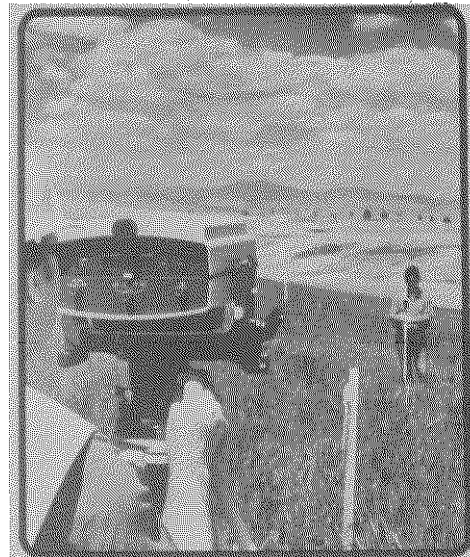
CONSULTING ENGINEERS
 INDUSTRIAL

(504) 241-5258

P. O. Box 26457
 5921 Mendez Street
 New Orleans, La. 70126



**ONE DAY
(24 HR.)
DELIVERY
TIME
NATIONWIDE**



HP 3810A Total Station.

HEWLETT-PACKARD MODEL 3810 New HP Total Station Angle & Automatic Horizontal Distance

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Tripod with Wild GDF-6 Tribrach
- (1) Layout Range & Prism Pole

RENTAL CHARGES:

\$50.00 per/day for 1-10 days

\$40.00 per/day thereafter

RATES are inclusive of shipping time (1 day guaranteed)

FREE FREIGHT CHARGES for 10-day minimum lease

HEWLETT-PACKARD MODEL 3805 Distance Meter

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Kern Centering Tripod
- (1) Adjustable Prism Pole

RENTAL CHARGES:

\$25.00 per/day for 1-10 days

\$15.00 per/day thereafter

HEWLETT-PACKARD MODEL 3800 Distance Meter Range: 2 Miles

Complete with Following Accessories

- (1) Power Unit
- (1) Triple Prism Assembly
- (1) Wild or Kern Tripod
- (1) Wild Tribrach
- (1) Adjustable Prism Pole
- (1) Accessories Carrying Case

RENTAL CHARGES:

\$25.00 per/day for 1-10 days

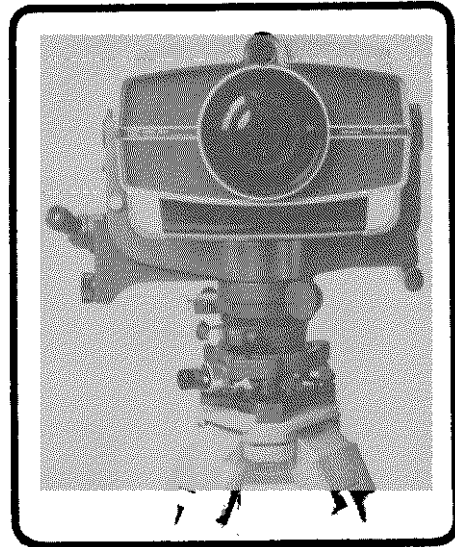
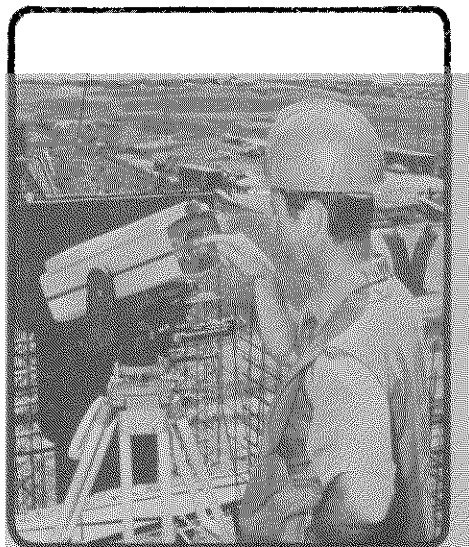
\$15.00 per/day thereafter

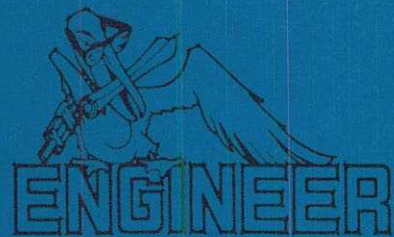
The Bearded Oak

CIVIL SURVEY RENTAL

125 E. Chimes — Baton Rouge, La 70802 — (504) 926-9515 (24-Hr. Service)

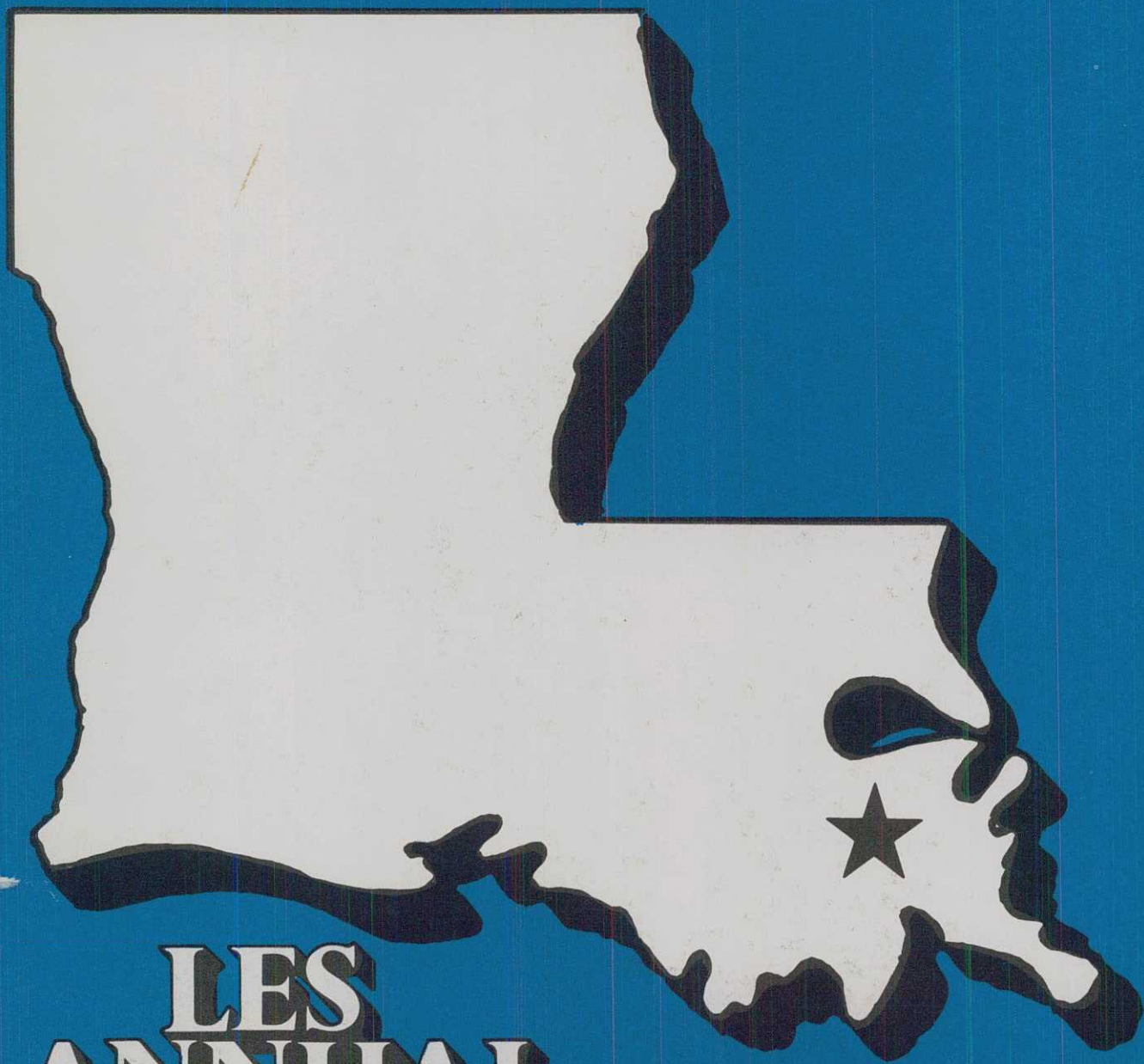
Thank You for Your Interest in Our Service and Hewlett-Packard Products





LOUISIANA

June, 1978



LES ANNUAL CONVENTION

JULY 13-15 • NEW ORLEANS
Details on Page 3.

new orleans



the French Quarter...there's only one

New Orleans begins in the lobby of the Monteleone Hotel—the great restaurants, fun and excitement that have made the French Quarter world famous are just outside.



the
Monteleone



INTERFEST '78
International Food and Jazz Festival
New Orleans, July 22-August 15, 1978

Call your Travel Agent or Monteleone Toll Free La., 800/462-9616, U.S., 800/535-9596

LOUISIANA ENGINEERING SOCIETY

LES ANNUAL MEETING—July 13-14-15, 1978 MONTELEONE HOTEL, NEW ORLEANS

The 1978 installation of officers meeting is sponsored by the New Orleans Chapter.

MAKE PLANS TO ATTEND. USE THE HOTEL AND REGISTRATION COUPONS PROVIDED. Hotel Reservations must be made with the Hotel by July 1, 1978.

PROGRAM

Thursday, July 13, 1978

Noon- 5:00 p.m. Registration
2:00 p.m. PRACTICE DIVISION MEETINGS
PEPP, PEI, PEC, PEG, PEE
6:30- 9:30 p.m. Early-Bird Cocktails and Dance,
Engineers Club, New Orleans

Friday, July 14, 1978

8:00-11:30 a.m. Registration
9:00 a.m. LES COMMITTEE MEETINGS
10:00 a.m. Council of Deans Meeting
11:30 a.m. Lunch On Your Own
Recreation Golf and Tennis, Audubon Park
5:30- 6:30 p.m. Registration
6:30 p.m. Cocktails (cash bar)
7:30 p.m. LES INSTALLATION BANQUET
Presiding: E.E. Moncla, P.E.
Address and Installation of LES
1978-79 Officers: Del Schmand,
P.E., President NSPE
Presentation of Awards and
Prizes

Saturday, July 15, 1978

7:30 a.m. Breakfast
8:30 a.m. LES General Meeting
9:30 a.m. LES Board of Direction Meeting

LADIES' PROGRAM

Thursday, July 13, 1978

1:45- 4:00 p.m. Tour of Historic New Orleans
Collection - Museum and Homes,
533 Royal Street

Friday, July 14, 1978

11:00 a.m.- 5:00 p.m. Steam Boat Natchez - Ride and
Lunch
1:00- 3:00 p.m. Golf and Tennis with Men

Saturday, July 15, 1978

9:00-10:00 a.m. Food Demonstration with Paul
Prudhomme, Executive Chef of
Commander's Palace and Presi-
dent of Chefs of Louisiana.

Information on current tourist attractions and new shopping
centers available in Hospitality Room.

REGISTRATION COUPON

LES ANNUAL MEETING,
Monteleone Hotel, New Orleans, July 13-15, 1978

CLIP AND MAIL TO: LES, P.O. Box 2683
Baton Rouge 70821

NAME _____ P.E.: YES _____ NO _____
WIFE'S NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

	No. Tickets FREE	Amount FREE
Early-Bird Party		
Registration (Men) \$10.00		
Registration (Wives) \$2.00		
Installation Banquet \$12.50		
Breakfast, July 15 \$5.50		
Ladies' Tour Thursday (\$2.25)		
Steam Boat Natchez-Lunch (\$9.75)		
Check plans of you and your wife for Golf _____ Tennis _____		
Fees for golf and tennis will be handled separately.		
MAKE CHECKS PAYABLE TO LES.		

☐ Payment Enclosed
☐ Will Pay at Registration Desk

GUEST ROOM RESERVATION

for LES ANNUAL MEETING
July 13-15, 1978

CLIP AND MAIL TO: **Reservation Manager**
The Monteleone Hotel
New Orleans, LA. 70140

Reservations must be received by July 1.

Please reserve accommodations as indicated:

NAME _____
ADDRESS _____
CITY _____ STATE _____ Zip _____

Reservations will be held only until 4 p.m. on the day of arrival. Later arrivals
must have first night's deposit.
(Checkout time is 1:00 p.m.)

DATE ARRIVING _____ HOUR _____ AM
DATE DEPARTING _____ HOUR _____ AM
Circle your choice.

Room for one—Per Day \$28.00
Double Bedroom for two—Per Day \$34.00
Twin Bed Room for two—Per Day \$34.00
For each additional person more than two in a Double or
Twin Bed room, the extra charge is \$8 per day.
If a room at the rate requested is unavailable, one at the
nearest available rate will be reserved.



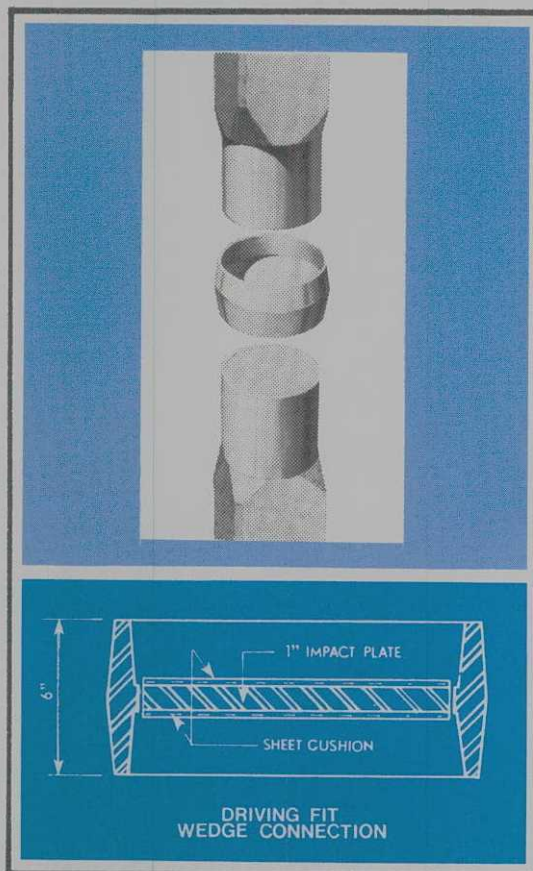
These buildings are built on Brunspiling: **1.** Louisiana Superdome; **2.** Amoco Building; **3.** Hyatt Regency Hotel; **4.** Plaza Tower; **5.** International Trade Mart Garage; **6.** International Trade Mart; **7.** One Shell Square Garage; **8.** One Shell Square Garage; **9.** Marriott Hotel; **10.** Rault Holiday Inn; **11.** Howard Johnson Motel; **12.** NBC Bank Building; **13.** ODECO Building; **14.** Canal Motors Building; **15.** ODECO Garage; **16.** LSU Medical Center. Under Construction: **A.** Marriott Hotel Addition; **B.** Pan-American Life Insurance Building; **C.** 1250 Poydras Building.

In New Orleans, the skyline rests on cost-saving Belden Brunspile^{T.M.}

Since the development of the Belden Brunspile, more of the new buildings in the New Orleans area use this type of foundation piling than any other kind.

That's because this precast prestressed concrete piling is specially designed to reach great depths with conventional pile-driving equipment, resulting in substantial foundation savings.

Sections are easily joined in minutes at the job site by means of a cast steel connector. This creates piling of unlimited lengths.



High strength concrete makes this high capacity piling possible. 400 ton load tests are not uncommon. Thus Brunspiles can deliver an economical cost per ton of design capacity.

For more information on Brunspiling and load tests, call today.



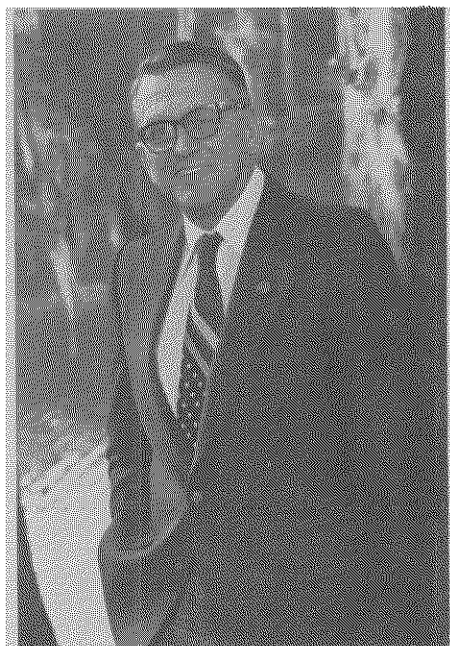
Marine Concrete Structures, Inc.

P.O. Box 607—Metairie, La. 70004—(504) 833-5593

Brunspile is trademark of Brunspile Corporation—U.S. Pat. No. 2983104

PRESIDENTIAL PRIVILEGE

E. E. Moncla, P.E.
President, LES



With the administrative year drawing to a close, it has been a real privilege and pleasure to have been afforded the opportunity to serve as your president. There was much accomplished that I was proud to be a part of. All of our Board meetings were extremely well attended, and I am satisfied with all of the actions taken. It has been a rewarding year, and I thank each of you for your contributions, work and efforts to improve our Engineering Society.

For those of you who may not know it, LES is not an organization where all of the actions are by presidential direction. Instead they are the will of our 25-member Board. These Board members are your chapter presidents, practice division chairmen and state and national directors. These are the people elected by the membership, which means that all Board action or actions of the Society are the desires of the LES membership.

We held Board meetings this past year in Biloxi, Alexandria, Lake Charles, New Orleans, Monroe and Baton Rouge. Our final Board meeting was held in Shreveport on Friday, June 9, 1978. This activity was scheduled accordingly to allow the Board members to attend the Shreveport Chapter outing and officer installation ceremony.

Shreveport is our third largest chapter in the state and has the greatest membership growth potential. Our LES nominating committee has selected John Guth for state director next year, who along with the incoming Shreveport Chapter President, Ted Povinelli, will provide Shreveport with two voting members on the Board of Direction next year.

I am very pleased that this has been a most productive and rewarding year, particularly in our hosting of the National Meeting for the National Society of Professional Engineers and the long overdue necessary revisions to our State Constitution and Bylaws. The latter changes our

structure and aligns membership classifications with the rest of the states in the nation, strengthens our professional membership obligations and upgrades our constitution. All of these changes were submitted to the membership for voting. With the considerable committee work in all of these areas, I solicit your support.

Among other highlights of the year, Louisiana's hosting of the NSPE meeting in New Orleans was an outstanding event for which we are still receiving praise from other states and the national officers. While LES is being recognized for this function, Al Adoue and his committee from the New Orleans Chapter and the Ladies Auxiliary are the people who performed all of the work and are responsible for the convention's success. I guess the privilege of working with such a dedicated group as this, our LES State Office, your LES Board of Direction, and involvement in other functions around the state are some of the joys of being your LES President.

New Orleans will also host our state meeting at the Monteleone Hotel on July 13, 14 and 15, 1978. This is the installation of officers for next year. I again solicit your help with the request that you join me in giving your support to our incoming State President Dr. Carl Thomas and next year's officers.

Please give them the support that you have so graciously given to all of us this past year. As the outgoing president, my commitment to Carl Thomas is to be available for Board meetings and for whatever assistance he desires. Our intent is to make the officer transition as smooth and orderly as possible, and it is suggested that the chapter officers do likewise.

Another accomplishment for the year was the establishment of an LES Committee for Liaison with the State Board of Regents. For our members, future engineers and Council of

Deans this is part of our involvement and assistance in promoting engineering education in the state. This committee consists of the following LES members:

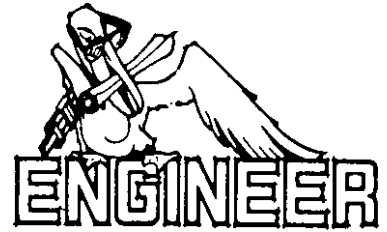
Larry A. McKee, Chairman, Baton Rouge
E. J. McNamara, New Orleans
A. E. Meyer, Alexandria
A. J. Szabo, Lafayette
John Guth, Shreveport

My plans next year are to lend all support possible to our membership people, since this is the area of most concern to me today. Our young engineers through their State Chairman John Bergeron have been reorganized in full committee status this year; they have been active in the state, are becoming active on the national scene, and I personally thank John for all of his efforts in behalf of the young engineers. This is one area, young engineers on the college level, where membership has the potential to flourish.

Our motto at the beginning of the year was, "Involvement—You Can't Afford Not To." Much was done by more people than we have space to recognize individually, except to say thanks to each of you. In summary, I deeply appreciate the opportunity you gave me to serve as your president, and to Carl Thomas and the elected officers for 1978-79 I pledge my support.

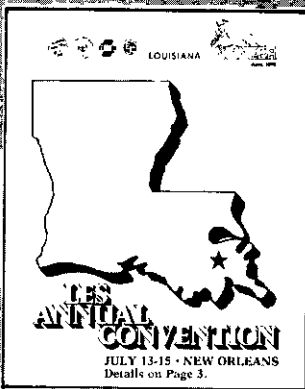
June, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. 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.

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



About the Cover

Members of the Louisiana Engineering Society will gather in New Orleans July 13-15 for their annual meeting. To register, please use the forms on page 3.

In this issue:

LES Convention Program	3
Presidential Privilege	5
LES Spring Meeting	7
Contractual Liability	
Professional Responsibility	10
Engineers Week Banquet	12
Vliet's Views	14
Potpourri	15
H. L. Henry Appointed to	
Registration Board	17
EngiNews	18

LES OFFICERS AND BOARD

President
E. E. "Buddy" Moncla, P.E.
First Vice President
Carl H. Thomas, P.E.
Second Vice President
Francis C. Roy, P.E.
Secretary-Treasurer
John E. Ritter, P.E.

NSPE DIRECTORS

John F. Vogt, P.E.
James S. Janssen, P.E.
T. J. Hogue, Jr., P.E.

STATE DIRECTORS

James W. Reeves, P.E.
Robert Blanche, P.E.
Arthur DeFraithe Jr., P.E.
Thomas D. Hixson, P.E.
James L. Meyer, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Cecil Raggio, P.E.
Baton Rouge
Wendell P. Shiflett, P.E.
Bayou
James F. Guion, P.E.
Lafayette
Larry F. Lafleur, P.E.
Lake Charles
James W. Stevens, P.E.
Monroe
D. D. Reneau, P.E.
New Orleans
Clare M. Foreman, P.E.
Shreveport
James H. Bradley, P.E.

PRACTICE DIVISIONS

Construction
Jesse C. Odom, P.E.
Education
Hugh A. Thompson, P.E.
Government
Gerald L. Ray, P.E.
Industry
Carroll J. Fuselier, P.E.
Private Practice
Frank Jenkins, P.E.

COMMITTEE CHAIRMEN FOR 1977-78

Engineering Education
E. Ray DesOrmeaux, P.E.
Ethics & Professional Conduct
Harold P. LeRay, P.E.
Honors & Awards
Malcolm L. Hurstell, P.E.
Inter-Society Relations
H. L. Henry, P.E.
Legislative
Glynn P. Gautreau, P.E.
Liaison With State Board of Registration
John F. Vogt Jr., P.E.
Membership
Henry E. Markel, P.E.
Public Relations
David Edgar, P.E.
Liaison With State Board of Regents
Larry A. McKee, P.E.

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
James W. Reeves, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
Sidney L. Poleynard, P.E.
Roy T. Sessums, P.E.
H. L. Henry Jr., P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.

Managing Editor
R. C. "Doc" Spears

Publishing Consultants
Norman C. Ferachi & Associates

LES Spring Meeting

The Baton Rouge spring meeting held April 13-14-15 was a success. It was not as well attended as the 1977 meeting, but 99 engineers and 54 wives registered for the three-day event.

The early-bird cocktails and hors d'oeuvres on Thursday evening were enjoyed by more than 80 people. This event was sponsored by 21 Louisiana organizations.

Bryce I. MacDonald, P.E., president of the Engineers Joint Council (EJC) and director of engineering, Kennecott Copper Corporation, New

York, gave an informative talk about the EJC and its activities. LES has been affiliated with EJC since 1957.

The LES awards banquet was attended by 160 people. Malcolm L. Hurstell, P.E., Honor and Awards Committee chairman, presided. Six engineers were honored for their outstanding service to the profession.

Engineering students from Louisiana Tech, Tulane, LSU, University of New Orleans and Southern presented interesting and well-prepared papers. Ray DesOrmeaux, P.E.,

chairman of the Engineering Education Committee, moderated the student meeting.

Nineteen golfers and 15 tennis enthusiasts participated in the Friday afternoon tournaments at Sherwood Country Club. John E. Ritter, P.E., won low net, and Wendell P. Shiflett, P.E., won low gross in the golf tournament. Jim Guion, P.E., was first in men's tennis, with R.C. Spears second. Betty LeFevre won first in ladies' tennis, and Juana Woodard took second.



James L. Meyer, P.E., left, presenting the Charles M. Kerr plaque to Dan H. Vliet, P.E.



Leo M. Odom, P.E., left, and Waldemar S. Nelson, P.E., right, presenting the Leo M. Odom plaque to J.J. Thigpen, P.E.



Edward J. McNamara, P.E., left, receiving the A.B. Patterson certificate from E.E. Moncia, P.E.



John C. Copes, P.E., left, presenting the James M. Todd Technological Accomplishment certificate to Louis J. Capozzoli, P.E.

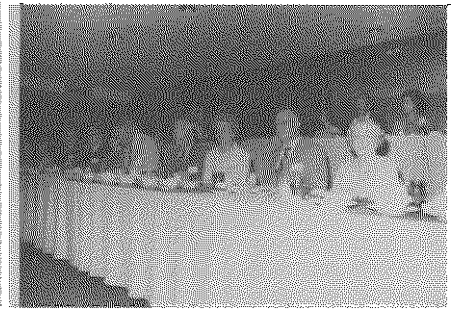


Paul W. Murrill, P.E., left, receiving the Andrew M. Lockett certificate from Frank Walk, P.E.

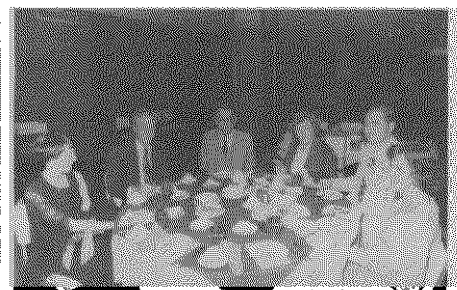
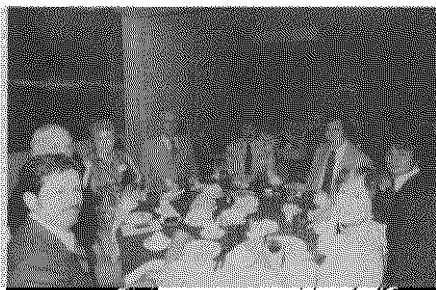
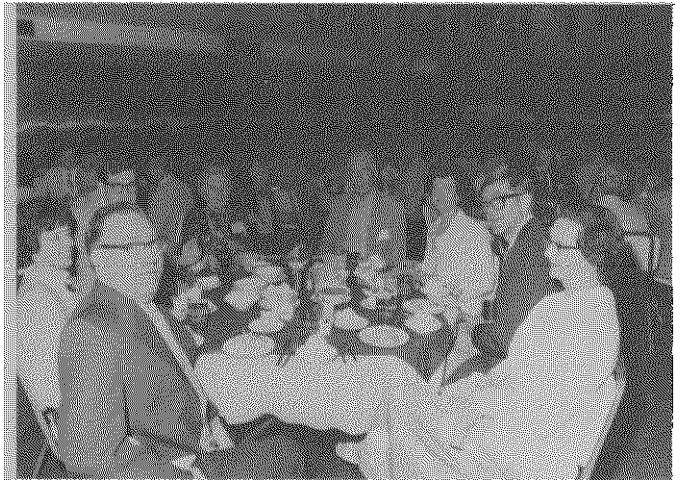
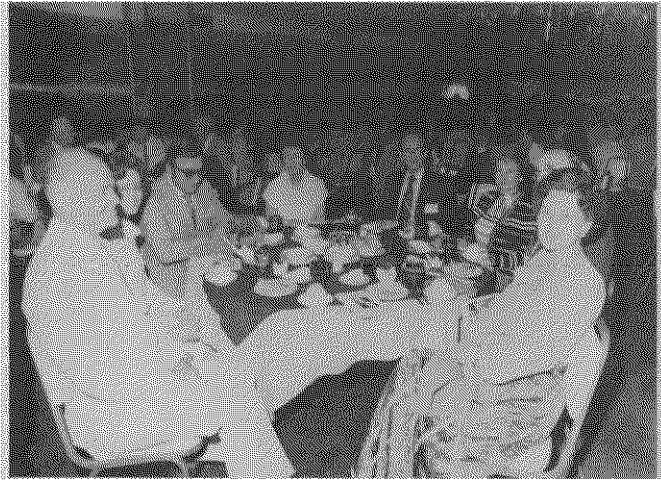


John J. Bergeron, P.E., left, receiving the F. Hugh Coughlin Young Engineer certificate from John W. Moore, P.E.

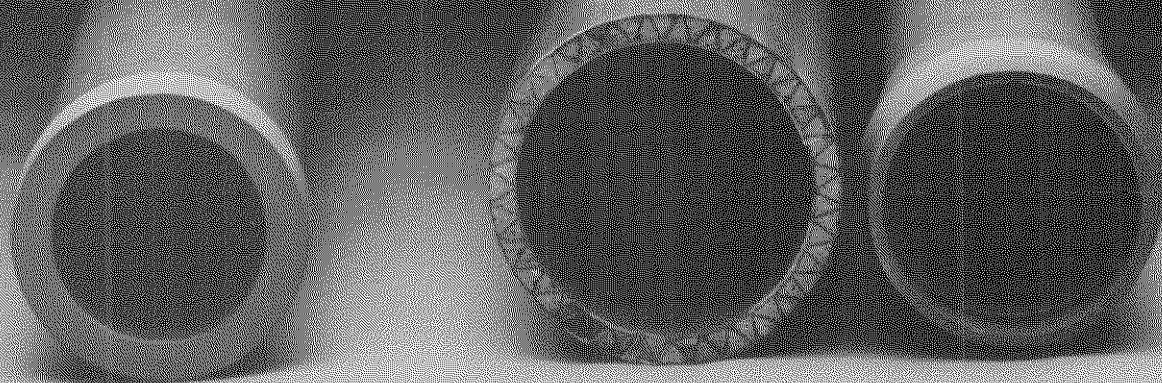
Continued on next page



LES Spring Meeting



The century vs. the decade.



Clay makes the longest lasting pipe in the world.

That's why we can offer a 100-year guarantee on our clay sewer pipe. No other material used for pipes can make that claim.

In fact, with other underground sewer piping materials, some municipalities have had to invest in expensive repairs or even completely replace piping within 10 years.

Clay lasts so long because of a unique property: chemically speaking, it's dead. It's an inert material found in nature, so it cannot react with sewer gases or acids.

It's virtually indestructible.

And clay has greater load bearing capabilities than other pipe materials. Structural integrity is built in.

Today you can choose Dickey PEP—Plain End Pipe—with a flexible coupling, which provides tighter joints and the cost-saving advantages of simpler on-site installation.

There's not much in this world that's guaranteed to last a hundred years.

There's no other sewer pipe.

Consider the advantages of the century versus

the decade.

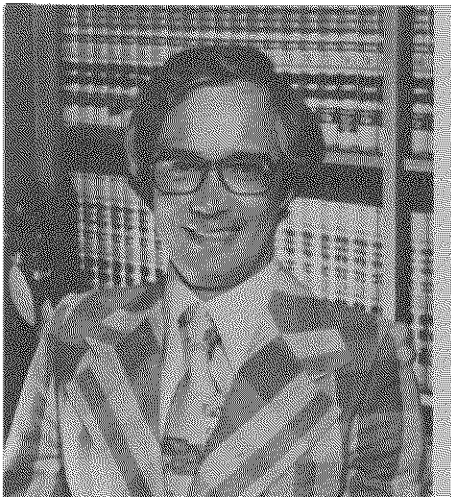
Call your Dickey sales representative. He's listed in the yellow pages under Pipe.

Or call or write for more information to W. S. Dickey Clay Manufacturing Company, Post Office Box 6, Pittsburg, Kansas 66762, 316/231-1400.

Dickey Clay.

Contractual Liability—Professional Responsibility of

By R. Gray Sexton



R. Gray Sexton

EDITORIAL NOTE: This article traces the recent developments in Louisiana law regarding the contractual liability—professional responsibility of design professionals.

R. Gray Sexton of the firm Wilson and Sexton is counsel for the Louisiana Engineering Society, Consulting Engineers Council of Louisiana, Inc. and others and Amicus Curiae in *Lafourche Parish Water District Number 1 vs. Carl Heck, Engineers, Inc.*

Louisiana courts have recently resolved unanswered questions regarding the ethical and contractual standards of engineers and architects in public works.

In *Lafourche Parish Water District Number 1 vs. Carl Heck Engineers, Inc.*,¹ suit was brought by the Lafourche Parish Water District Number 1 seeking to declare null and void and against public policy, a contract previously entered into between the Water District and the engineering firm of Carl Heck Engineers, Inc.

Among the causes of action as-

serted by the Lafourche Parish Water District was the argument that the contract for engineering services previously executed was in violation of Louisiana's Public Bid Law and accordingly, void.

In the district court, the issues were resolved in favor of the engineering firm, and the Water District appealed.

Because of the delicate and important issues of public law posed by the appeal, the Louisiana Engineering Society, the Consulting Engineers Council of Louisiana, the Louisiana Section, ASCE and the National Society of Professional Engineers filed briefs, *amicus curiae*.

In affirming the decision of the Trial Court, the Court of Appeal resolved a number of theretofore unanswered questions regarding the professional conduct of engineers and architects in public works and clarified applicable state law in a manner consistent with present standards of practice.

Before considering thoroughly the implications of the *Lafourche* case, one must first consider the prior case law and the resultant confusion that was substantially settled by the court in *Lafourche*.

In *Lafourche*, the court's attention was focused on whether or not engineers in public works are required to receive their engineering contracts as a result of "competitive bidding."

Thirty-five years ago in *McIlhenny*,² the Supreme Court considered the then existing public bid law and concluded that "... contracts for professional services, such as the service of physicians or attorneys, and contracts with services requiring special skills or training, are not required to be let on bids under a statutory or constitutional provision ... an architect is an artist. His work

requires taste, skill, technical learning, ability of a high and rare kind. Advertising might bring many bids, but it is beyond pre-adventure that the lowest bid would be least capable and most inexperienced and absolutely unacceptable. . . ." (Emphasis added.)

Though these words seem clear and unambiguous, the previously tranquil waters of competitive bidding were substantially muddled by the decision in *Fisher vs. Department of Labor*.³ Though the *Fisher* decision dealt with a contract for the manufacturing of furniture, loose language in the reported decision at least arguably supported the proposition that all contracts for services to public bodies, including professional services, must be handled on a lowest bid basis.

Court of Appeal

The issues settled by *McIlhenny* and resurrected by *Fisher* were again buried in the *Lafourche Parish Water District* case. After thoroughly reviewing the existing case law in the area of "competitive bids," the Court of Appeal reaffirmed the thrust of the *McIlhenny* decision, distinguished *Fisher* and concluded that engineers are not required to engage in competitive bidding and are free to negotiate contracts for public works.

In reaching this conclusion, the court couched its determination on the proposition that contracts for engineering and architectural services are not public works contracts within the meaning of the public bid law.

Relying on *Wallace Stevens, Inc. vs. Lafourche Parish Hospital District*,⁴ the court quoted with approval the language therein to the effect that public works contracts include only

The Louisiana Engineer

contracts for "... labor and materials, or purchase of materials or supplies ... exceeding the sum of \$1,000.00." Further, the court in *Lafourche* declared that "... the public bid law applies only to the purchase of materials or supplies for the doing of public work."

Other conclusions reached by the court in *Lafourche* are of interest to engineers and architects dealing with public contracts.

The Water District, in its zeal to break the engineering contract, attacked its provisions arguing that the contract was on a "cost-plus" basis and accordingly in violation of appropriate statutory law.

Admittedly, the legislature has provided a clear prohibition against cost-plus contracts in public works.⁵

In wrestling with this difficult problem, the court in *Lafourche* relied on the earlier expressions of the Supreme Court in the *Fontenot*⁶ case and concluded "... a cost-plus contract is one where the contracting party receives all of the costs and all of the plus." (Emphasis added.)

In *Lafourche*, the court, after reviewing the contract between the engineering firm and the Water District, of course concluded that the "(engineer) receives only the 'plus' which is determined as a percentage of the cost which he does not receive, but which goes to whatever contractor is awarded the job."

Moreover, and perhaps most importantly, the court noted that some portions of the standard engineering contract then being utilized did seem to contain some minor "cost-plus" features but concluded that even these features were not sufficient to render the contract for engineering services null and void because, in the

opinion of the court, the statutory prohibition against cost-plus contracts provided, in the title to the statutes, that the statute was applicable only to contracts for public works.

Cost-Plus Contract

In short, the court concluded that even if the contract for engineering services was a "cost-plus" contract, there was no statutory prohibition against that sort of fee arrangement.

It is also of considerable interest to note that the court reviewed, and commented upon, the provisions of ASCE-Manuals and Reports on Engineering Practices—Number 45, and concluded that the contract between the Lafourche Parish Water District and the engineering firm tracked closely the guidelines established in the ASCE Manual. In tacitly approving of the form suggested by the profession, the court dictated that the contract in question was "... almost as basic an engineering contract as the standard notarial forms used by lawyers ... and if these engineering contracts are invalid because of form, the courts can be prepared for an onslaught of cases involving such contracts."

The final argument asserted by the Lafourche Water District in its effort to abrogate the engineering contract was that the contract for engineering services created a "monopoly in restraint of trade. . . ."

In *Lafourche* the court had little trouble in brushing aside this argument, noting that the statutory powers of the Water District were such as to clearly render it capable of contracting with a civil engineering firm for the rendition of professional services.

In conclusion, *Lafourche* is indeed helpful to the engineering profession

in that it settled (in a manner consistent with existing professional practices) issues such as whether or not engineers must submit to competitive bidding in public works, whether their contracts are valid as to form, whether such engineering contracts are public works, and whether or not such exclusive contracts for services are in restraint of trade or otherwise create a prohibited monopoly.

Unfortunately, the court side-stepped the burning issue, now raging in the Supreme Court of the United States, over whether or not the Professional Standards prohibitions against soliciting public works by fee bidding now prevailing in Louisiana and elsewhere constitute a "per se" violation of the Sherman Antitrust Act. This issue is now pending in this nation's highest court⁷ and its resolution will undoubtedly have a profound effect on the practice of engineers in public works for years to come.

In the meantime, design professionals in Louisiana can rest assured that this state's tribunals have, in *Lafourche*, articulated a standard of governmental conduct consistent with existing practices.

Notes:

1. 346 So. 2d 769 (La. App., 1st Cir., 1977).
2. *Louisiana, et al vs. McIlhenny, et al*, 201 La. 78, 9 So. 2d 467 (194).
3. 265 So. 2d 817 (La. App. 3rd. Cir., 1972).
4. 323 So. 2d 794 (La., 1975).
5. LSA-R.S. 33:2217 provides "No contract shall be let on a cost-plus basis (in public works)."
6. *Standard Oil Company of Louisiana vs. Fontenot*, 4 So. 2d 634 (1941).
7. *United States of America vs. National Society of Professional Engineers*, was discussed at length in an article by Milton F. Lunch, NSPE General Counsel, appearing in the March issue of PROFESSIONAL ENGINEERS.

Engineers Week Banquet Held in Lake Charles

On February 23, 1978, the Lake Charles chapter of the Louisiana Engineering Society held its annual Engineers Week banquet at the Sheraton Chateau Charles in Lake Charles. More than 300 engineers, students and guests attended the gala affair. The guest speaker for the event was Delbert A. Schmand, P.E., President NSPE.

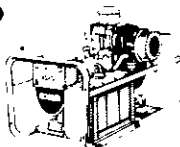
Members of the committee who planned this outstanding event were W.J. Lechtenberg Jr., P.E., chairman; Don Scallan, ASME, publicity; Curtis Dyle, P.E., contributions; Don Rigler, AIChE and Phil Rhunon, ISA, ticket sales; Billy Rentrop, P.E., speaker arrangements; David Eccles, IEEE, banquet arrangements; Bob Doty, P.E., McNeese Coordinator; Phil Richardson, student activities; John Singleton, ASME, photographer; and Mrs. Raymond Clawson, ladies' activities.



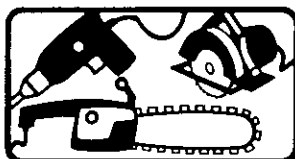
Del Schmand, P.E., NSPE President.

electric power wherever you need it.

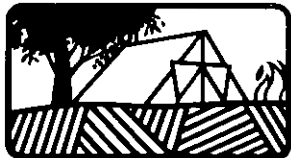
At home or away, affordable power is now available from Kohler. Choose from a full line of portable models — 1750 to 5000 watts (120, 120/240 volts).



HOME STANDBY



OUTDOOR WORK



CAMPING



VACATION HOME

Kohler portable generator sets.



WM. F. SURGI
SINCE 1925
Sales • Service • Parts • Rentals

EQUIPMENT CORPORATION
NEW ORLEANS • 504-525-3142
BATON ROUGE 504-293-0556
LAFAYETTE 318-233-6322
The Gulf South's Best Machinery House

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE
ASPHALT
SHELLS
SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE
RUSTON, LOUISIANA
JAMES BUILDING • PHONE 255-7912

KENNER, LOUISIANA
P. O. Box 8 • PHONE 729-2511

Equal Opportunity Employer



Curtis Dyle, P.E. presenting the Senior Student Award to Jeanne Hutsell.



John Caruthers presenting the Mechanical Engineer's Award to Pat Alexander.



Mrs. Raymond Clawson presenting the Junior Student Award to Jeff Sims.



Reigning queen Jeanne Hutsell crowning new queen, Debbie Derouen.

WE OFFER. . . .

- ☐ GENERAL CONTRACTING
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ PILEDIVING
- ☐ FOUNDATIONS
- ☐ TREATMENT PLANTS
- ☐ PRE-ENGINEERED BUILDINGS

—competitive bids on any individual item, a combination of items or as prime contractor with total project responsibility.

**A Competitive, Quality-Oriented, Time-Conscious Company
in Business since 1956**

LANDIS CONSTRUCTION CO., INC.

P.O. Box 4278, New Orleans, LA 70178 (504) 837-4123



Vliet's Views

Daniel H. Vliet
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors

At its March meeting the Board acted to revoke the authority of the firm ECA Engineers and Constructors, Inc. to provide or to offer to provide engineering services in the State of Louisiana. The Board found that

the plans and specifications prepared by ECA in connection with projects in Lake Providence and Ferriday, Louisiana were so far below the standard of practice for a reasonably competent engineer that they constitute

gross negligence, gross incompetency and violation of contract as those terms are used in Louisiana Revised Statutes 37:700 B(2). The work involved the design of sidewalks, playgrounds, tennis courts and storm drainage.

The above action by the Board followed hearings, at its February meeting, on charges against three registered Professional Engineers who were involved with ECA projects at Lake Providence and Ferriday. After the hearing, the Board found two of the engineers guilty. One was found guilty of gross negligence and gross incompetence and his certificate of registration to practice engineering was revoked. After a period of six months he will be asked to appear before the Board.

The other was found guilty of deceit, gross negligence and misrepresentation. His certificate of registration was suspended for a period of six months. The engineer who had his certificate revoked was not an employee of ECA. His major contribution to the project at Lake Providence seemed to be that he allowed his seal to be used on plans and specifications that he had not carefully checked to be certain that they were satisfactory.

The certificates of registration of two persons, each registered as Professional Engineers and Land Surveyors, were revoked at the May meeting of the Board. Ray L. Condon Jr. and Walter G. Frey had previously been convicted of felonies in connection with drainage projects in Jefferson Parish.

In an effort to better protect the public from wrongdoings by persons registered as Professional Engineers and Land Surveyors, the Board intends to consider the adoption of definitions and interpretations of terms and phrases used in Section 37:700 of the Louisiana Revised Statutes. This section of the statutes gives the Board the authority to discipline registrants.

Copies of the proposed definitions and examples of acts that could be considered fraud, deceit, gross negligence, misrepresentation, violation of contract or gross incompetency have been sent to the professional and technical societies in Louisiana for comments and suggestions.

The Board intends to take action to make these definitions and examples



On balance, our engineering and construction capabilities afford the optimum combination for U.S. pulp and paper and chemical facilities.

Ford, Bacon & Davis
Monroe and Baton Rouge
and 18 other cities worldwide

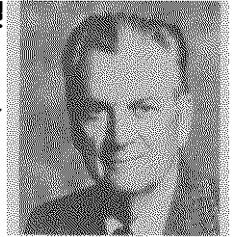


Continued on page 18

The Louisiana Engineer

Potpourri

R. C. "Doc" Spears
LES Executive Secretary



LES Limited To One National Director

The vote of the NSPE Constitutional amendment to provide a limit of 150 national directors did not receive the necessary two-thirds majority vote for passage. The voting on the amendment was 6,983 for approval and 6,528 against.

This means LES is allowed only one national director because its NSPE membership total falls between 1001 and 1500. The present rule states the number of national directors is limited to one for the first 1500, or fraction thereof, members in good standing and one additional director for each 1500, or fraction thereof, additional members.

Preliminary Information From Supreme Court Decision in NSPE case

Milt Lunch, NSPE General Counsel, has forwarded preliminary information regarding the Supreme Court decision on the NSPE case:

1. Louisiana will be required to delete from the code of ethics Section 11 (c) on competitive bidding and Section 9 (b) on not accepting work at a fee below the accepted standards of the profession in the area.
2. The decision makes clear that no individual or firm is required to submit bids for engineering services.
3. The decision makes clear that no client is required to seek bids for engineering services.
4. The decision does not affect the Federal A E law (Brooks Act).
5. The state societies and chapters are entirely free to seek legislation at state or local levels for a professional selection and negotiation procedure. The decision does not affect existing state or local laws setting a procurement procedure for engineering services.
6. The decision does not affect the right of state registration boards to adopt rules of professional conduct, including rules dealing with procurement of engineering services. The rules adopted by state licensing boards are exempt from the Federal antitrust laws.

1978 NSPE Annual Meeting

NSPE will hold its annual meeting on July 17-22, 1978 at Stouffer's Riverfront Towers hotel in St. Louis, Missouri.

A brief schedule:

July 17-18-19	Practice Division meetings
July 20	NSPE Board of Directors meeting
July 20, p.m.	Seminar on Continuing Professional Development
July 21-22	NSPE Board of Directors meetings

Social events for men and ladies in conjunction with the business meetings include: tour of McDonnell-Douglas Corporation; PEI-PEG-PEE; Dinner, Washington University Club, PEC; PEPP dinner; State of Society banquet; family outing at Grant's Farm, German food, music, tours and entertainment at the home of the famous Anheuser-Busch "Clydesdales"; social hour, Monsanto World Headquarters.

The ladies' program includes: mini-auto tours by and for engineers' wives; Mississippi River cruise on Tom Sawyer; ladies' bus tour, champagne brunch and shopping, University Club and Frontenac Plaza; and fashion show and luncheon, Sunset Country Club.

Let's Build Up, Not Down In Coastal Louisiana

The recent flooding caused by heavy rains in the New Orleans area and vicinity should emphasize in the minds of engineers, architects, builders and property owners that designing and building residences, office buildings, shops and the like at or only slightly above the sur-

rounding grade is not good practice.

This is not the first nor will it be the last flood to damage buildings, furnishings and stock that proper design would have kept high, dry and safe. The construction of an underground non-flood proof basement to house vital and expensive equipment is inexcusable.

Previous generations recognized the hazards. When all the sites on the high land (10 feet or so above sea level) near the river had been occupied, buildings on the lower land were built three or more feet above the ground line. Few of these have ever been flooded. And the ventilation thus provided gave a bonus in year-around reduced moisture problems.

With all coastal Louisiana sinking at the rate of one or more feet per 100 years, the flood potential will inevitably become greater. Authorities agree that the entire deltaic area (generally south of U. S. Highway 190) is settling approximately one to four feet per century. This is due to the slow compression of alluvia hundreds of feet thick and is in addition to local subsidence caused by land drainage and other subsidence caused by extractions from oil or deep water strata.

The possible savings of a few dollars in original construction costs is short-sighted economy in view of the potential losses from flood waters, the hazards of trapped gases and ruptured plumbing underground level slabs. The public officials and building professions along the Mississippi Gulf Coast learned a costly lesson from hurricane flooding, and now their designs recognize that what has happened will sooner or later happen again. Are we going to ignore our lesson?

Energy: The Great Debate

This was the descriptive title of a symposium jointly sponsored by the New Orleans Federal Executive Board and the Chamber of Commerce of New Orleans and the River Region on May 10. The four-hour presentation and exchange of ideas, opinions and positions pertaining to the national energy situation saw six leaders in their respective fields addressing a mixed audience of engineers, scientists, utility executives, other businessmen and concerned citizens at the New Orleans Hyatt Regency Hotel.

The speakers were **Fred W. Goldberg**, HEW Office of Consumer Affairs; **Floyd W. Lewis**, Middle South Utilities, Inc.; **William C. Huls**, Louisiana Department of Natural Resources; **Martin Belsky**, U.S. House of Representatives Committee on Outer Continental Shelf; **William C. Bailey**, Mid-Continent Oil and Gas Association; and **R. Dobie Langenkamp**, Department of Energy. **Tom Purdy**, executive director of the Chamber of Commerce, presided. Six representatives of the local news media questioned the speakers after each presentation.

It was brought out that consumers want fair treatment and truth from government officials and from utilities, but opinion was that these were not always received. Lewis, speaking for the utilities, refuted this, pointing out that for years the electric industry has been doing research and development to produce and augment conventional fuel sources and to investigate and promote alternate sources.

While the "exotic" sources have long-range potential, we have to depend, for the present and near future, on natural gas, oil, coal, and nuclear energy, he explained. He emphasized that new power plants require more investment, design and construction time than formerly, and that those exercising control over rates were not doing the consumer a service by refusing to grant realistically required increases.

He further explained that industry and commerce were consumers too, and that shifting legitimate costs from the small user to producers of goods and services might be good politics but was not of any ultimate benefit to individual residential users.

Other speakers referred to the frequently heard statement that hydrocarbon fuels are now running out but added that they have been running out ever since we started using them. While there are no world shortages, there may be local deficiencies that can be corrected

CONSULT BOYCE...

Specialists in Caterpillar Power!

Big Bore Medium Speed
6.25" Industrial Engines 200 to 1300 BHP
Generator Sets 335 to 900 KW

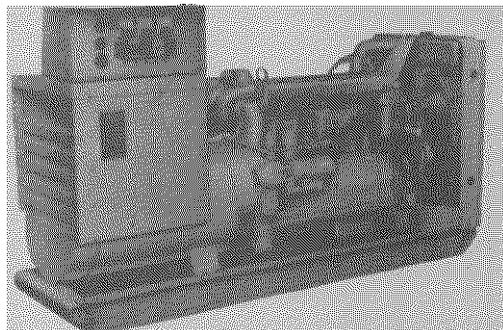
High Power Compacts
5.4" Industrial Engines 315 to 1130 HP
Generator Sets 285 to 750 KW

3400 Series
Industrial Eng. 325 to 375 HP
Generator Sets 240 KW

Heavy Duty Smaller Units
4-6 cyl. Industrial Eng. 100 to 280 HP
Generator Sets 60 to 205 KW

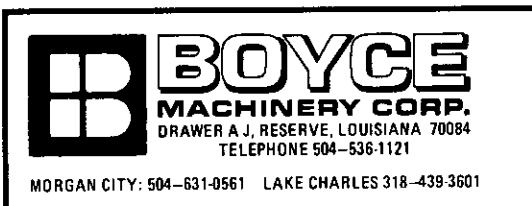
High Performance V8's
Industrial Eng. 175 to 210 HP

Truck Engines -16 models - 175 to 450 HP
Cat Packaged Generator Sets 50 to 375 KW
Natural Gas Engines 133 to 1115 BHP
Cat Marine Engines 125 to 1125 BHP



A Wide Variety of Cat-Plus Services to Keep
Your Caterpillar-Built Engine Products Earning
for you . . . longer life — more profits.

Service Throughout South Louisiana.



Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.

through economically sound development. This can be brought about by fewer government controls. The free system is the best system of regulation, some speakers added.

From an environmental standpoint, there is little cause for alarm from operating offshore oil rigs. There have, of course, been offshore oil rig accidents which created newsmaking oil spills. But the more frequent and most damaging oil spills involve tankers. This is a reason for developing our own resources.

The U.S. is using oil and gas at a rapid rate. One way to keep pace with this growth is to develop offshore oil and gas fields in new areas. We cannot permit frivolous lawsuits to delay these efforts to prove out these reserves, nor can we ignore the oil and gas which is recoverable in secondary and tertiary wells.

We must always be prudent with these resources and conserve them in every way we can. We must also develop storage facilities for emergency supplies of fuel oil in Gulf Coast salt domes. Such storage could provide a five-to-six-month cushion against a petroleum shortage brought on by either war or Arab embargo.

These are some steps needed to make us energy independent.

Learn To Think

Learning to think is the most important part of a college education, **Clare M. Foreman, P.E.**, president of the New Orleans chapter of the Louisiana Engineering Society, told participants of a University of New Orleans School of Engineering honors convocation.

Foreman said if college educators can teach their students to think for themselves, they have done their jobs well because few things are "black and white" in the working world. There are a lot of "grey areas" about which interpretations and decisions must be made, he said.

"You learn the basic technical aspects of your job here in the university," Foreman told the UNO honor students. "Once you get out into industry, government, or construction, you learn how your boss wants things done. Most employers will give you a lot of latitude as to how you do your work. You will be given a task and certain parameters that must be met. Since engineering is not an exact science there may be several ways to arrive at a correct solution."

Ten Outstanding Engineering Achievements - 1977

NSPE has announced the ten outstanding engineering achievements for 1977, an impressive roster characterized by wide geographic diversity and even wider innovations in engineering technology.

The ten achievements are:

1. **Space Shuttle**
2. **Trans Alaska Pipeline, Alaska**
3. **Movable Stands-Denver Stadium, Colorado**
4. **Reef Runway-Honolulu International Airport, Hawaii**
5. **New River Gorge Bridge, West Virginia**
6. **The Square Butte Project, North Dakota and Minnesota**
7. **375,000 BBL Floating Liquefied Petroleum Storage Facility, Tacoma, Washington**
8. **Daniel Webster Hoan Highway Bridge Complex, Milwaukee, Wisconsin**
9. **Advanced Wastewater Treatment Plant, Spokane, Washington**
10. **Amhoist Shipmounted Revolving Crane, St. Paul, Minnesota**

NSPE Award To General Frederick J. Clarke

NSPE announced on April 21 that **Lt. General Frederick J. Clarke, U.S.A. (RET.)**, P.E. will receive the 1978 NSPE Award, the Society's highest honor to an individual.

Upon his retirement in 1973 as Chief of Engineers, Clarke joined the New York engineering and architectural firm of Tippetts, Abbott, McCarthy and Stratton. By special arrangement with the Federal government, the firm provided his services full-time as executive director of the National Commission of Water Quality through 1976. Since completion of the commission's work, he has served as a natural resources and energy programs consultant with the New York firm.

A registered professional engineer in Washington, D.C. and New Jersey, Clarke is a member of the National Society of Professional Engineers, the National Academy of Engineering, the American Society of Civil Engineers, Society of American Military Engineers and the American Academy of Environmental Engineers.

The NSPE Award will be presented to Clarke during the Society's annual meeting in St. Louis, July 17-22.

H. L. Henry Appointed to Registration Board

Herman Luther Henry Jr., P.E., Associate Dean of the College of Engineering at Louisiana Tech University, has been appointed to replace Dean Bogart on the Louisiana Board of Registration for Professional Engineers and Land Surveyors.

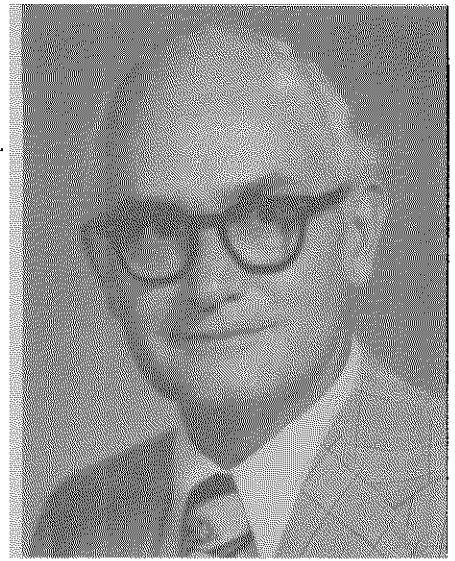
Henry, who has a master's degree from the Illinois Institute of Technology, has held his present position since 1976, moving to that post from his previous one at the university as head of Industrial Engineering and Computer Science.

Before going to Louisiana Tech, Henry taught Engineering at Louisiana Polytechnic Institute for 15 years, serving as head of the Industrial Engineering Department from 1963-1970.

He also spent four years as a Construction Engineer, Design Engineer and Project Engineer for Dow Chemical Company in Freeport, Texas.

Henry has been active in many professional and technical societies. He is a member of LES, NSPE, the American Society for Engineering Education, the American Institute of Industrial Engineers, the Louisiana Association of Educators and the National Educational Association.

In 1972 he was named an Outstanding Educator in America, and he is listed in Who's Who in America, Who's Who in Engineering and Personalities of the South. He is a member of Alpha Pi Mu and Tau Beta Pi.



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

Services and Contractors

We specialize in developing professional brochures for engineers and architects



NORMAN C. FERACHI & ASSOCIATES, INC.
603 Europe St.
Baton Rouge, LA 70802
Call (504) 387-3261

PHONE (504) 387-0504



FRANKLIN PRESS, INC.
1391 HIGHLAND ROAD • P. O. BOX 1269
BATON ROUGE, LOUISIANA 70821

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

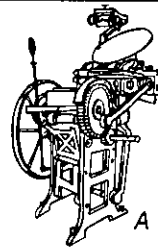
P. O. Box 23293

5524 Mounes Street

New Orleans, La. 70183

FOUNDATION TESTING LABORATORIES, INC.
414 West California Ave.
Ruston, Louisiana 71270
Phone (318) 255-7256

Robert W. Flournoy, Ph.D.
President
Testers Of
Asphaltic Concrete, Concrete and Soil



PRINTING INCORPORATED

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

A COMPLETE CREATIVE PRINTING SERVICE.

BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814

Phone 925-0991

ALL TYPES OF PRINTING—
BOTH BUSINESS AND PERSONAL

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
ELECTRICAL AND INSTRUMENTATION

Phone 292-0100

P.O. Box 15274
Baton Rouge, La. 70815

ORLEANS MATERIALS & EQUIPMENT CO., INC.

5501 France Road
New Orleans, La. 70126

EngiNEWS

Harry Bovay Named Member of National Academy of Engineering



H.E. Bovay Jr., P.E.

H.E. Bovay Jr., P.E., Chairman and Chief Executive Officer of Bovay Engineers, Inc., has won this nation's top recognition for engineering,

membership in the National Academy of Engineering.

On April 3, the Academy announced its new members, who were chosen by distinguished engineers. The honor means that Bovay becomes one of a select few to answer federal government questions about engineering. The group also sponsors engineering programs aimed at solving national needs, encourages engineering research and recognizes outstanding engineers.

The Academy cited as meritorious Bovay's contribution to energy knowledge, petrochemical plant development and especially power-generation and use.

Bovay served as President of the National Society of Professional Engineers in 1975-76.

The Louisiana Engineering Society extends him its heartiest congratulations.

IN MEMORIAM Tom L. Cox, P.E. Died February 18, 1978

Tom L. Cox Jr. of Metairie, a registered professional engineer in Louisiana, was formerly of Berwick, Louisiana.

Mr. Cox was graduated from New Mexico State University in 1952 with a BS degree in

mechanical engineering. He joined the Louisiana Engineering Society in 1971 from the Bayou Chapter and transferred to the New Orleans Chapter in 1976.

The Louisiana Engineering Society is saddened by this loss and extends its deepest sympathy to his wife and family.

IN MEMORIAM Louis H. Roeger, P.E. Died March 2, 1978

Louis H. Roeger was born in Cleveland, Ohio in 1895, and has lived in Shreveport for many years. He was a registered civil engineer and a member of LES and NSPE.

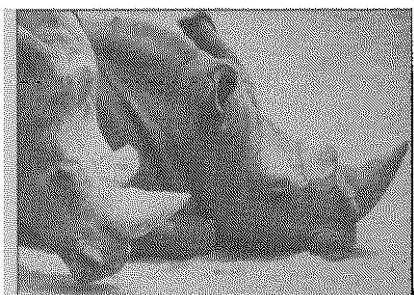
Mr. Roeger was a charter member and past president of the Shreveport Chapter of LES. He was a member of the Dunlap Presbyterian Church, where he had served as deacon and elder. He was a veteran of World War I, a Mason and a member of the Scottish Rite.

In his death, Shreveport, LES and the engineering profession suffered a great loss. The Louisiana Engineering Society extends its deepest sympathy to his wife, Lillian Z. Roeger, and his family.

VLIT'S VIEWS

Continued from page 14

a part of its Rules and Regulations at its meeting on July 26, 1978. At this same meeting the Board intends to amend its rules to call attention to the fact that Section 37:700 is applicable to corporations and partnerships that provide or offer to provide engineering services in Louisiana.



From Two To Two Thousand. Meetings and Banquets.

You want your meetings to be productive. So do we. That's why our staff of professional meeting coordinators attend to every detail to insure satisfaction and a worry-free working environment. No matter how large or small the group.

We are not at all intimidated by handling a group of two thousand. Nor are we blasé about planning a private meeting for two. Our expansive meeting facilities can handle it all with ease. Choose from meeting rooms of all sizes and configurations, a 12,000 square foot grand ballroom and smartly appointed hospitality suites. After all, Capitol House is the largest hotel meeting center in Baton Rouge.

Capitol House is an ideal location for regional and local meetings, large or small. Finding us is no problem. We're downtown. Parking is no problem . . . we've got you covered.

At Capitol House, we're convention and meeting specialists, and we want your business. Make a note of it!



CAPITOL HOUSE

Downtown on the Mississippi / Baton Rouge / 383-7721

Ausco fail-safe brake for hydrostatic drives

Bolts directly into power train—no alignment problems

No extra brackets, no shimming needed

Complete self-contained package

Spring loaded, hydraulically released.

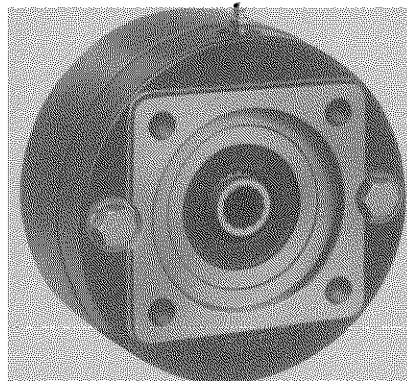
SAE motor mounts

Fits SAE J744c Standard.

Either charge or full line pressure

Rugged cast iron construction

Bearing-supported shaft



SAE Motor Mount	Torque Capacity, lb. in.	Size Overall, Dia. x Length
A/B	2,400	7.00 x 4.50
B	2,400	7.00 x 4.00
C	8,400	8.00 x 4.86
D/E	20,000	11.02 x 6.65
F	40,000	16.20 x 5.42

Write or phone for complete information. Auto Specialties Manufacturing Company, St. Joseph, Michigan 49085. Phone 616/982-2373

AUSCO
DISC BRAKES / CLUTCHES

New Members of L.E.S.

ALEXANDRIA
Jeffrey M. Harris, EIT
 4141 Jackson St. #211
 Alexandria, LA 71301
 Private Practice
John C. Pickels, P.E.
 Stafford, Randow,
 O'Neal & Smith
 628 Murray St.
 Alexandria, LA 71301
 Private Practice

BATON ROUGE

Jose N. German
 Rt. 3, Box 481D
 Amis Road
 Baton Rouge, LA 70808
 Industry
James W. Hipps, EIT
 Moore Gardner & Associates
 P. O. Box 14327
 Baton Rouge, LA 70808
 Private Practice
Elmer Jones, EIT
 Elite Engineering, Inc.
 P. O. Box 53
 Baker, LA 70714
 Private Practice
J. J. "Jack" Kelly, P.E.
 Earle Enterprises
 P. O. Box 14388
 Baton Rouge, LA 70808
 Private Practice
Russell T. Kracht, EIT
 11226 Flamingo
 Baton Rouge, LA 70814
 Industry
Michael P. McCaughey, P.E.
 1235 East River Oaks
 Baton Rouge, LA 70815
 Industry
Jack P. Miller
 9482 Grand Teton
 Baton Rouge, LA 70814
David A. Renshaw, P.E.
 Dow Chemical U.S.A.
 P. O. Box 150
 Plaquemine, LA 70764
 Industry
Jesse W. Stubblefield Jr., P.E.
 Rust Engineering Co.
 P. O. Box 3077
 Baton Rouge, LA 70821
 Private Practice
Lester A. Ward, P.E.
 SCR Company
 P. O. Box 45264
 Baton Rouge, LA 70895
 Construction
Larry H. White, EIT
 Walk, Haydel & Associates
 10550 Airline
 Baton Rouge, LA 70816
 Private Practice

BAYOU

Nolan P. Dugas, EIT
 Delta Fabrication
 P. O. Box 7036
 Houma, LA 70361
 Construction
Ronald J. Harvey
 #6 South Bell
 Houma, LA 70361
 Construction
Ray J. Hutchinson, EIT
 130 Glenhill Drive
 Houma, LA 70360
 Industry

Johnny A. Marino, P.E.
 305 Hogan St.
 Berwick, LA 70342
 Construction
Bruce E. Ponson
 110 Project Road
 Thibodaux, LA 70301
 Construction
David K. White
 386 Mobil Camp
 Morgan City, LA 70380
 Industry

LAFAYETTE

Wesley J. Broussard, EIT
 521 Harrell Drive
 Lafayette, LA 70503
 Industry
Harapanahalli Mallareddy, P.E.
 333 Orangewood Drive
 Lafayette, LA 70503
 Education
Robert S. C. Wang, P.E.
 Starline, Inc.
 P. O. Box "G"
 Carencro, LA 70520
 Construction

LAKE CHARLES

David E. LaRose, P.E.
 PPG Industries, Inc.
 P. O. Box 1000
 Lake Charles, LA 70601
 Industry
Jayant C. Soni, P.E.
 820 Magazine St.
 Lake Charles, LA 70605
 Private Practice
Darrell T. Taylor, EIT
 Box 1347
 Lake Charles, LA 70602
 Industry
James V. Whitaker Jr., P.E.
 2980 Lake St. #158
 Lake Charles, LA 70601
 Private Practice

MONROE

Dr. Charles R. Horton
 Louisiana Tech University
 Dept. of Biomed Engr.
 Ruston, LA 71272
 Education

NEW ORLEANS

George W. Fortenberry
 1504 Evergreen Drive
 LaPlace, LA 70068
 Government
Ferdinand C. Goodrich
 New Orleans Public Service
 1600 St. Peters St.
 New Orleans, LA 70130
 Industry
M. Jay Hendrickson, P.E.
 Walk, Haydel & Assoc.
 762 Baronne
 New Orleans, LA 70113
 Industry
David H. Jahnke, P.E.
 7019 Crowder Rd. #122
 New Orleans, LA 70127
 Industry
John A. Julian
 Allen-Bradley Co.
 3320 Hessmer
 Metairie, LA 70004
 Industry
Larry W. King, EIT
 733 Hazel Place
 Gretna, LA 70053
 Construction

James B. Lane, EIT
 Waldemar S. Nelson & Co.
 1200 St. Charles Ave.
 New Orleans, LA 70130
 Industry
Robert J. Leaber Jr., P.E.
 W. S. Nelson & Co., Inc.
 1200 St. Charles Ave.
 New Orleans, LA 70130
 Industry

Paul M. LeGrand, II, EIT
 Power Enterprises, Inc.
 P. O. Box 6261
 New Orleans, LA 70174
 Industry

Richard F. Mason, P.E.
 5524 Lorraine St.
 Metairie, LA 70003
 Industry

Fred P. Poffenbarger, EIT
 C-E NATCO
 P. O. Box 567
 Harvey, LA 70059
 Industry

Lance J. Priez, EIT
 New Orleans
 Public Service, Inc.
 317 Baronne
 New Orleans, LA 70112
 Industry

Richard W. Waldsmith, P.E.
 48 Swallow
 New Orleans, LA 70124
 Private Practice

SHREVEPORT

Todd D. Davis, P.E.
 10117 Hanover Drive
 Shreveport, LA 71115
 Industry

Jerry G. Hanson, P.E.
 Morrisin-Knudsen, Inc.
 P. O. Box 30010
 Shreveport, LA 71130
 Construction

Kyle G. Ristig
 Arkansas Louisiana Gas Co.
 P. O. Box 21734
 Shreveport, LA 71151
 Industry

NON-RESIDENT

C. "Pat" M. Ashby
 204 Biscayne Blvd.
 Seabrook, TX 77586
 Private Practice

Barnes E. Brooks, P.E.
 2516 Hillford Drive
 Baltimore, MD 21234
 Industry

New Registrations

MARCH, 1978

Adams, James Richard
 Baton Rouge, LA—Electrical
Adams, Terry Ross
 Twin Falls, ID—Electrical
Barker, William DeWane
 Baton Rouge, LA—Civil
Barton, Johnie Wesley
 Sulphur, LA—Chemical
Beech, Jack
 Merrick, NY—Mechanical
Bonomo, John Michael
 Bossier City, LA—Electrical
Borland Jr., William Henry
 Shreveport, LA—Mechanical
Bowie, Ralph Scott
 Pensacola, FL—Chemical
Braddock, Charles Edward
 Burleson, TX—Mechanical

THE MAGAZINE COLLECTOR



At last! A magazine collector that will keep all your special issues of free from dog-eared corners and other damage. This heavy duty, rich brown vinyl magazine collector will store and protect your magazines, making it simple to find that informative article or unusual photograph when you want it. Our sturdy collector features a modern slash cut, allowing easy removal of any issue. It measures 4" across on the inside and will hold publications up to 8½" x 11¾". For easy identification, our publication's name is stamped in gold at the top of the collector's backbone. You can order these collectors now for the special price of \$4.95 each. (plus applicable sales tax.)

Send your order to _____
 Box 29, Vincent, Alabama 35178

Please send me _____ collector(s)

Name _____

Address _____

City _____ State _____ Zip _____

☐ Check with order ☐ Master Charge ☐ BankAmericard (VISA)

Expiration Date _____
 Mo Yr

Master Charge includes 4 digits above your name.

Bradshaw, Don Martin
Lake Charles, LA—Civil

Brooks, Barnes Elwood
Baltimore, MD—Mechanical

Black, William Lewis
Houston, TX—Civil

Brendgen, Harry Lee
Houston, TX—Civil

Burton, Joe Lynn
Baton Rouge, LA—Mechanical

Canale, Thomas Anthony
Metairie, LA—Mechanical

Carlat, James Keith
Franklin, TN—Civil

Causey, Roger Dale
Zachary, LA—Mechanical

Chaffee, James Newton
Fairfax, VA—Civil

Chandra, Tapan Kumar
Gretna, LA—Civil

Chatterjee, Apurba Kumar
Metairie, LA—Civil

Cotrone, Vincent Frank
Metairie, LA—Civil

Crenshaw, William Finch
Shreveport, LA—Mechanical

Crim, Benjamin Edward
Lufkin, TX—Mechanical

Crozler, Terry Ernest
Kountze, TX—Civil

Dartez Jr., Leo Ralph
Lafayette, LA—Civil

Davis, William Lewis
Jena, LA—Petroleum

DeBardleben Jr., Newton Hanson
Birmingham, AL—Mechanical

DeHaven, William Kenneth
Akron, OH—Mechanical

Donnel, Logan Lancaster
Lafayette, CO—Civil

Ellington, Dennis Lee
Metairie, LA—Civil

Faucheux, Guy Norman
Wright-Patterson AFB, OH—Industrial

Fessenden, Royce Malcolm
Shreveport, LA—Electrical

Fontana, Joseph Charles
College Station, TX—Mechanical

Fransen, Billy Gary
Longview, TX—Industrial

Freeman, Raymond Gene
Dallas, TX—Electrical

Godwin, Wesley Randolph
Springfield, MO—Civil

Gustafson, Eric Anders
Buras, LA—Chemical

Hodge, Edward Alvis
New Orleans, LA—Agricultural

Holloway, Ronald Joe
Dhahran, Saudi Arabia—Civil

Hughes, Robert Harvey
Overland Park, KS—Mechanical

Hutchinson, Cecil Elliott
Annapolis, MD—Civil

Keller, Ronald Raymond
New Orleans, LA—Mechanical

Kennison, James Thomas
Baton Rouge, LA—Chemical

Kinchen, Duncan Wesley
Houston, TX—Industrial

Kozich, Allan Alfred
Ft. Lauderdale, FL—Civil

LaFleur, Dennis Wayne
Lafayette, LA—Civil

Landrum, Thomas Harold
Lafayette, LA—Electrical

Lay Jr., Leo Joachim
New Orleans, LA—Civil

LeBlanc, Ronald Wilton
Sulphur, LA—Mechanical

Ledet Jr., Raymond Joseph
Gonzales, LA—Mechanical

Long Jr., Robert Burney
Mt. Pleasant, MI—Civil

Martin, Ernest Harrington
Lafayette, LA—Civil

Mason, Richard Fitzgerald
Metairie, LA—Electrical

Maxwell, Hays
Texarkana, TX—Chemical

McDowell Jr., Clifton Ailor
Shreveport, LA—Petroleum

Meltzen, James Allen
Beaumont, TX—Mechanical

Miller Jr., Thomas Tobin
Metairie, LA—Electrical

Millet III, Walter Edgar
Ticklaw, LA—Mechanical

Mitchell, Michael Ward
Lafayette, LA—Mechanical

Murphy, John Claire
Pittsburgh, PA—Civil

Murphy, Leonard Swinney
Baton Rouge, LA—Electrical

Nesslinger, Roland A.
Baton Rouge, LA—Civil

Neve, Trevor Leonard
Lafayette, IN—Industrial

Nguynen, Nga Van
Metairie, LA—Electrical

Peery Jr., Robert Henry
Austin, TX—Electrical

Peyton, Jr., Robert Lee
Bellaire, TX—Civil

Pockras, Laurence Malvin
Cincinnati, OH—Civil

Racine Jr., Frank Armon
Shreveport, LA—Electrical

Renshaw, David Anderson
Baton Rouge, LA—Civil

Reynolds, Thomas Jay
Baton Rouge, LA—Chemical

Riggs, David Allan
Ruston, LA—Mechanical

Roberts Jr., Elbert Mason
Metairie, LA—Mechanical

Scott, Clyde Ray
Vicksburg, MS—Civil

Sloan Sr., James Thomas
Ormond Beach, FL—Civil

Smith, Norman Ray
Lafayette, LA—Petroleum

Sterling Jr., Harry Joseph
Lexington, KY—Civil

Suhren, Glen David
New Orleans, LA—Electrical

Tucker, Paul
Fort Worth, TX—Agricultural

Wambegans, III, Alphonse Henry
Lafayette, LA—Petroleum

Wheat, Doyle Pierce
Bastrop, LA—Electrical

White, Stanley Martin
River Ridge, LA—Civil

Woglom, James Russell
Medfield, MA—Civil

Wolf, Dennis Melvin
Sulphur, LA—Civil

Hixson, Thomas Dudley
Alexandria, LA—Land Surveyor

Orr, Charles Randall
Jefferson, LA—Land Surveyor

Professional Listings



ASHTON and ASSOCIATES, INC. CONSULTING ENGINEERS ELECTRICAL/INSTRUMENTATION

717 South Foster Drive, Suite 210 P.O. Box 65144
Baton Rouge, Louisiana 70896 (504) 927-9920

BTU's

BHP's

GOR's

GPM's

WRIGHT ENGINEERING CO., INC.

P.O. Box 430 — Piberke Road
Portland, Texas 78374

Petroleum Engineers — Laboratory Analysis

J. F. "Bud" WRIGHT
Petroleum Engineer
Res. A/C 512 643-6287

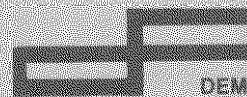
Portland - A/C 512 643-7559
Laredo - A/C 512 723-7711
Radio - A/C 512 884-3257

FLUOR OCEAN SERVICES, INC.

PROVIDING WORLDWIDE ENGINEERING AND
CONSTRUCTION MANAGEMENT SERVICES

OIL AND GAS PRODUCTION FACILITIES
PIPELINES
HARBORS, PORTS, TERMINALS

6200 HILLCROFT • HOUSTON, TEXAS 77036 • (713) 776-4100



DEMOPULOS AND FERGUSON, INC. CONSULTING ENGINEERS

600 Petroleum Tower
Shreveport, La.
318/221-7117

3637 West Alabama
Houston, Texas
713-622-2151

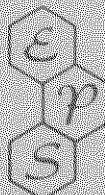


LEVY-KRAMER & ASSOCIATES INCORPORATED CONSULTING ENGINEERS

Phone (504) 923-2334

422 Colonial Drive
Baton Rouge, Louisiana 70806

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
 - Air and Water Quality Sampling and Surveys
 - Environmental Assessments
 - Industrial Waste Treatability Studies
- 106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2635
808 BECK BLDG., SHREVEPORT, LA. 71101 (318) 227-8254



**ALBERT SWITZER & ASSOCIATES, INC.
CONSULTING ENGINEERS**

P.O. BOX 14329
3150 VALLEY STREET
BATON ROUGE, LOUISIANA 70808 (504) 343-7447



Guillot-Vogt Associates
CONSULTING ENGINEERS

CIVIL-STRUCTURAL
ELECTRICAL
MECHANICAL

• INSTITUTIONAL
• COMMERCIAL
• INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4256



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harrod H. McClelland

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.

1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612



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



Ford, Bacon & Davis
Engineers • Constructors

Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND TECHNICAL
FACILITIES INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA, NEW YORK, NY 10001
P. O. BOX 22718, HOUSTON, TEX. 77027

Phone (212) 239-4656
Phone (713) 623-1500

WALDEMAR S. NELSON AND COMPANY
Incorporated

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave.

New Orleans, La. 70130

523-5281



Brown & Root, Inc.

And Associated Companies/Serving Progress the World over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

**DENSON ENGINEERS
INCORPORATED**
Consultants

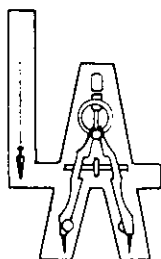
SUITE 800

COMMERCE BUILDING



NEW ORLEANS 70112

504 - 561-1131



LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.

Industrial & Marine Consultants and Designers

Bulk Terminals
Materials Handling
Foundations

Docks and Wharves
Offshore Structures
Buildings
Reports and Investigations
Construction Management

801 Marengo St.

New Orleans, La. 70115

(504) 895-0368



ENGINEERS-PLANNERS-ENVIRONMENTAL SCIENTISTS

SPECIALIZING IN

Environmental Studies and Reports

Governmental, Commercial and Residential Land Development

Design Plans, Specifications and Construction Inspection
for Airports and Roadways

2701 INDEPENDENCE STREET/METAIRIE/LA/70002/504-455-3881

PETROLEUM ENGINEERS, INC.

Drilling Programs & Designs
Completion Programs & Designs
Workover Programs & Designs

Geothermal Programs & Designs
Property Management
Field Supervision

P. O. Box 52588

Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell

Engineers, Architects & Planners

2000 North 7th

Post Office Box 728

WEST MONROE, LA. 71291

Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street
Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.

Phone 447-4017

J. David Bergeron, L.S. & P.E.

P. O. Box 1203

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills.

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings, and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash. 98119
206 285-4411

5615 Corporate Blvd
Baton Rouge, La. 70808
504 927-4724

MARRERO, COUVILLON & ASSOC.



ELECTRICAL ENGINEERS

- * GENERATION
- * DISTRIBUTION
- * INSTRUMENTATION
- * INDUSTRIAL
- * COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA. 70806 PH. 504/926-0005

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS
(713) 842-0414

SHREVEPORT, LOUISIANA
(318) 222-0783

Beaumont - Houston - Morgan City - Monroe - Shreveport



ASSOCIATES, INC.
CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002
(504) 885-0500

Frank Nicoladis, President

AMERICAN CONSULTING SERVICES

3085 DIRECTORS ROW SUITE 416
MEMPHIS, TENNESSEE 38131
TELEPHONE 901-345-5224



SEWER SYSTEM EVALUATIONS WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING, DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines



WALK, HAYDEL & ASSOCIATES, INC.

ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants,
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111
Telex 55-7302

Branch Offices: Baton Rouge, La. Mobile, Ala.

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

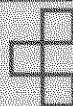
1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130

THE FRANTZ CO.

Complete Engineering Design Services
Chemicals • Petrochemicals • Petroleum

Suite 400
Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- Computer Analysis
- OSHA Noise Compliance
- Environmental Noise Studies
- Hearing Conservation
- Architectural Acoustics
- Room Acoustics Studies

1015 Elm Street, Suite 2001, Dallas, Texas 75202
214-741-7701 Telex 730796

An Equal Opportunity Employer

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.

HNTB

HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70808

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers
 NO. 8 FAIRWAY FOREST PLAZA
 7700 PINES ROAD
 SHREVEPORT, LOUISIANA 71109
 BUS. PHONE 686-7190

JAMES MOHR, P.E.
 Res. 686-3558

DESMOND SPRAWLS, P.E.
 Res. 687-5260

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.
 Arthur E. Meyer, P.E., R.L.S.

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



Enviro-Med Laboratories, Inc.

Environmental, Bio-Medical, and Chemical Specialists

ROBERT W. FLOURNOY, Ph.D.
 President

414 W. California
 Ruston, Louisiana 71270

Office: 318-255-0060
 Home: 318-255-5637

MARINE ENGINEERS
 PROFESSIONAL ENGINEERS

NAVAL ARCHITECTS

DU BOIS, CARMAN & ASSOCIATES, INC.
 4100 WALNUT DR.
 NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983



PYBURN & ODOM, INC.

CONSULTING ENGINEERS

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 - 766-6330
 8178 GSRI Rd. • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY
 Foundation and Soil
 Mechanics Investigations

Soil Borings • Foundation Analyses
 Laboratory Tests • Reports

834-0157

3011 28th Street

Metairie, La. 70002

BARNARD & THOMAS ENGINEERING, INC.
 Consulting Engineers
 Municipal and Industrial Engineering
 Comprehensive City Planning

4440 North Boulevard
 P. O. Box 64853
 Baton Rouge, La. 70806
 (504) 927-8323

Suite 101
 3100 Ridgelake Drive
 Metairie, La. 70002
 (504) 837-5588

CHEMICAL
 MECHANICAL
 CIVIL
 ELECTRICAL

3114 Cities Service Hwy.
 Lake Charles, La. 70669
 318/625-8212

LEVINGSTON ENGINEERS, INC.

INDUSTRIAL PLANT DESIGN

JOHN C. COPES
 Consulting Engineers

1956 Wooddale Court

Phone—926-7690 - 926-4842—Area Code 504

BATON ROUGE, LA. 70806



McClelland engineers, inc.
geotechnical consultants

4450 General DeGaulle Drive
 New Orleans, Louisiana 70114
 Tel. 504/393-6666 Telex 584-103
 Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

117 CALCO BLVD. / P.O. BOX 52115
 LAFAYETTE, LA. 70505
 TELEPHONE (318) 234-4566

SUITE 204, 7465 EXCHANGE PLACE
 BATON ROUGE, LA. 70806
 TELEPHONE (504) 927-8309

DYER & MOODY
 INC.

Consulting Engineers

Municipal and Industrial
 Consultants and Designers

P. O. Box 700, Baker, La. 70714

(504) 775-4800



PICCIOLA & ASSOCIATES, INC.
 CONSULTING ENGINEERS & SURVEYORS

M. J. PICCIOLA, II, P.E., L.S.
 L. J. PICCIOLA, P.E., L.S.

P.O. BOX 758
 GALLIANO, LOUISIANA 70354

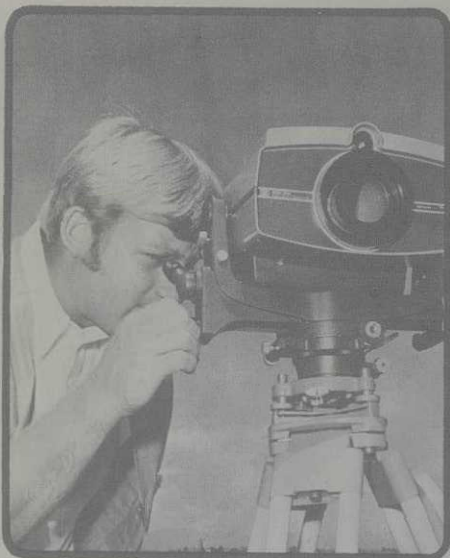
PHONE 504-632-5786
 4514-C LA. HWY. NO. 1



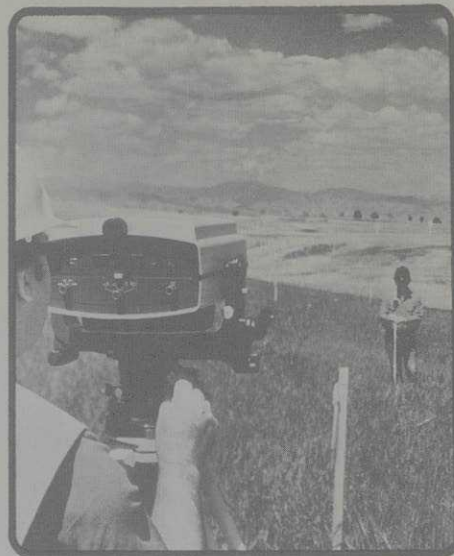
The Rust Engineering Company A Subsidiary of Wheelabrator-Frye

Engineering • Construction • Analytical Reports and
 Surveys • Systems Engineering • Energy and
 Environmental Engineering

P.O. Box 3077
 Baton Rouge, Louisiana 70821 (504) 927-4190
 Portland • Birmingham • Stamford • Affiliates in Montreal •
 Brussels • Sao Paulo



**ONE DAY
(24 HR.)
DELIVERY
TIME
NATIONWIDE**



HP 3810A Total Station.

HEWLETT-PACKARD MODEL 3810

**New HP Total Station
Angle & Automatic
Horizontal Distance**

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Tripod with Wild GDF-6 Tribrach
- (1) Layout Range & Prism Pole

RENTAL CHARGES:
\$50.00 per/day for 1-10 days
\$40.00 per/day thereafter

RATES are inclusive of shipping time (1 day guaranteed)
FREE FREIGHT CHARGES for 10-day minimum lease

HEWLETT-PACKARD MODEL 3805 Distance Meter

Complete with Following Accessories

- (1) Recharger
- (2) Battery Pods
- (1) Triple Prism Assembly
- (1) Kern Centering Tripod
- (1) Adjustable Prism Pole

RENTAL CHARGES:
\$25.00 per/day for 1-10 days
\$15.00 per/day thereafter

HEWLETT-PACKARD MODEL 3800 Distance Meter Range: 2 Miles

Complete with Following Accessories

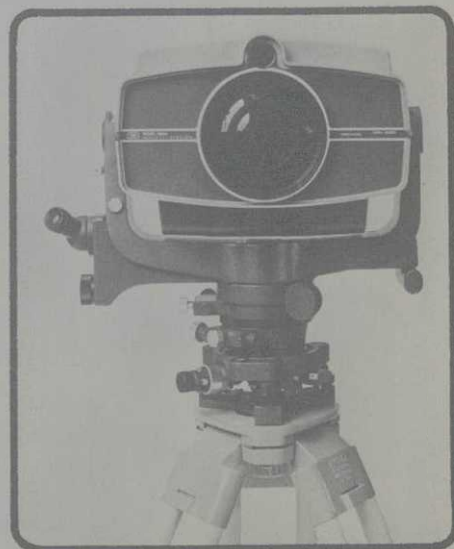
- (1) Power Unit
- (1) Triple Prism Assembly
- (1) Wild or Kern Tripod
- (1) Wild Tribrach
- (1) Adjustable Prism Pole
- (1) Accessories Carrying Case

RENTAL CHARGES:
\$25.00 per/day for 1-10 days
\$15.00 per/day thereafter

The Bearded Oak **CIVIL SURVEY RENTAL**

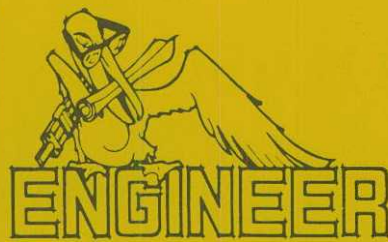
125 E. Chimes — Baton Rouge, La 70802 — (504) 926-9515 (24 Hr. Service)

Thank You for Your Interest in Our Service and Hewlett-Packard Products

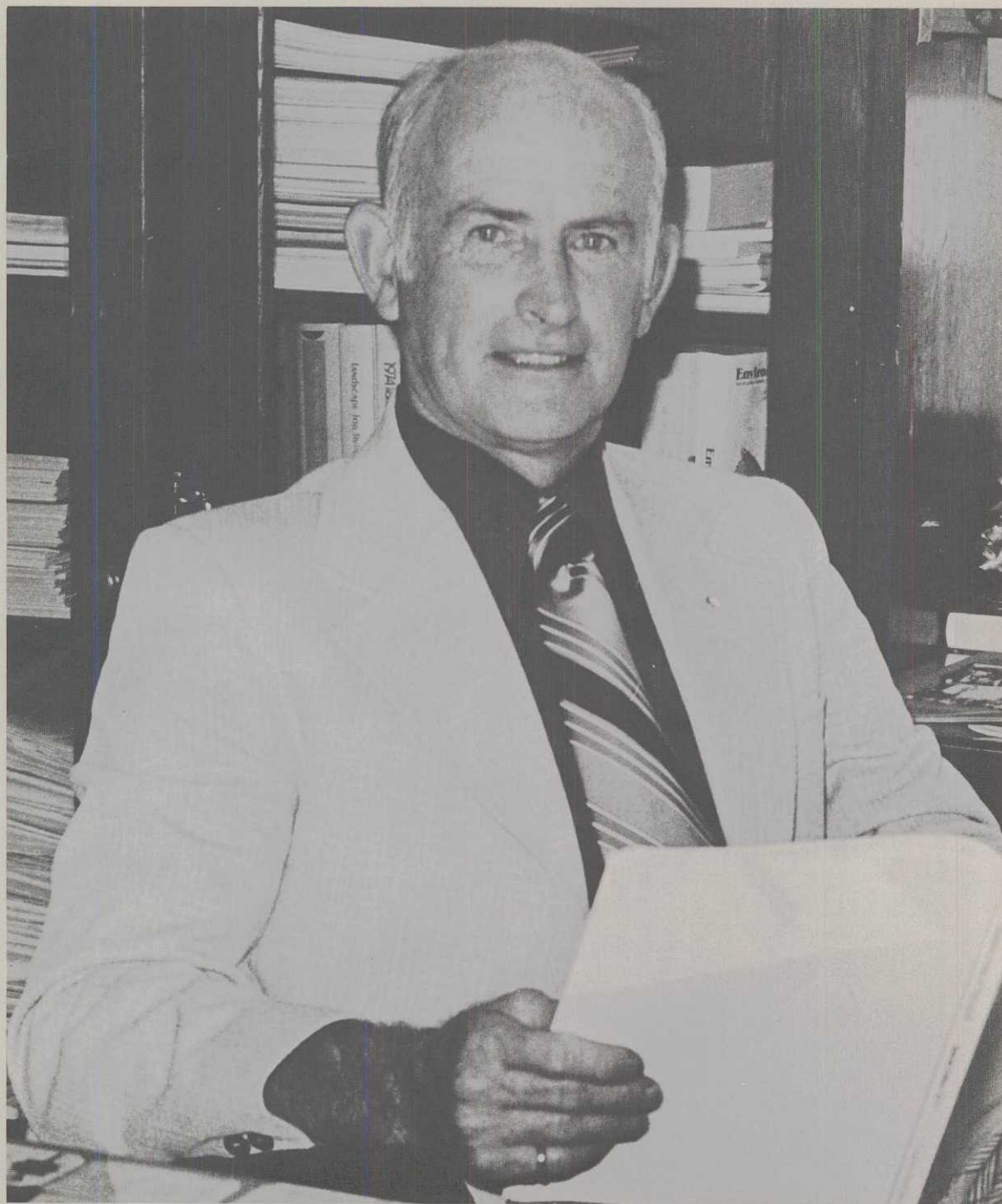




LOUISIANA



August, 1978



CARL H. THOMAS, P.E.
1978-79 LES President

LOUISIANA ENGINEERING SOCIETY

22nd Annual Chapter Officers' Training and State Planning
Conferences, September 14, 15, 16, 1978

Sheraton Inn, Alexandria

This meeting is a must for chapter officers, and committee and practice divisions members. Use the Hotel and Registration coupons provided.

PROGRAM

Thursday, September 14

9:00 a.m.-4:00 p.m. Registration
10:00 a.m.-4:00 p.m. Public Relations Seminar, Bill Cox,
NSPE, Seminar Leader
12:00 noon- No-host lunch
6:30 p.m. - Early-Bird Cocktails and Dinner, Tunk's Cy-
press Inn (maps available at registration desk).

Friday, September 15

8:00 a.m.-12:00 noon - Registration
Chapter Officers' Training Conference
8:30 a.m. -Opening Remarks and Purpose of Confer-
ence, Carl H. Thomas, P.E.
9:00 a.m. -State Office, R. C. Spears
9:15 a.m. -State Board of Registration, Dan Vliet, P.E.
9:30 a.m. -Membership Development, Robert Blanche,
P.E.
9:45 a.m. -Legislation, Lamon Moody, P.E.
10:00 a.m. -Meeting and Programs, James W. Reeves, P.E.
10:15 a.m. -Inter-Society Relations, John J. Bergeron, P.E.
10:30 a.m. -Engineering Education, Francis Roy, P.E.
10:45 a.m. -Relations with State Board of Registration,
Malcolm L. Hurstell, P.E.
11:00 a.m. -Ethics & Professional Conduct, David Buck,
P.E.
11:15 a.m. -Practice Divisions - Purpose, Dudley Hixson,
P.E.
11:45 a.m. -Luncheon

Council of Deans

11:00 a.m. -Meeting

11:45 a.m. -Luncheon, with above

1:15 p.m. -Meeting

1:15 to 3:15 p.m. -**Practice Division and Committee Meetings**

PEPP - Richard Meyer, P.E.

PEI - A.J. Adoue, P.E.

PEG - James Porter, P.E.

PEE - Fred Brown, P.E.

PEC - David Edgar, P.E.

3:20 to 5:30 p.m. -**Committee Meetings**

Ethics & Professional Conduct, David Buck, P.E.

Legislative,
D.J. Webre, P.E.

Liaison Board of Regents,
Larry McKee, P.E.

Membership,
Robert Blanche, P.E.

Young Engineers,
Douglas Roberts, EIT

Liaison Board of Registration,
Malcolm L. Hurstell, P.E.

Engineering Education,
Clarence Hall

Inter-Society Relations,
John J. Bergeron, P.E.

Public Relations,
Dale Hunn, P.E.

6:30 p.m. -Cocktails and Dinner, Harold Miles Park (Re-
freshments hosted by Louisiana Industries,
Inc.)

Saturday, September 16

8:00 a.m. -Joint Breakfast (ladies invited)

9:15 a.m. -LES General Meeting

LES Board Meeting will convene immediately
after General Meeting.

LADIES' PROGRAM

There will be interesting and enjoyable activities for the ladies.

REGISTRATION COUPON

LES TRAINING MEETINGS - Sheraton Inn, Alexandria,
Sept. 14, 15, 16, 1978

CLIP AND MAIL TO: LES, P.O. Box 2683
Baton Rouge 70821

Name _____ P.E.: Yes _____ No _____

Wife's Name: _____

Address: _____

City: _____ Zip _____

No. Tickets

Early-Bird Cocktails & Dinner

(Tunk's Cypress Inn)

_____ (Dutch Treat)

Registration (Engineers)

Registration (Wives & Guests)

Public Relations Seminar, Thursday

_____ (Free)

Luncheon, Friday

Cocktails & Dinner, Harold Miles

Park, Friday Evening

Breakfast, Saturday

Ladies' Activities

CHECK APPLICABLE FUNCTIONS. COST FOR EACH WILL BE REASONABLE. REGIS-
TRATION COSTS WILL BE COLLECTED AT REGISTRATION DESK AT CHECK-IN TIME.

HOTEL ROOM RESERVATIONS

Name: _____ Phone: _____

Address: _____

Arrival Date: _____ Number of Nights _____ Number Persons in Room _____

a.m.

Arrival Time: _____ p.m.

Accommodations:

_____ SINGLE (1 Person) \$22.00 plus tax

_____ DOUBLE (2 Persons, 2 beds) \$26.00

_____ DOUBLE-KING (2 Persons, king sized bed) \$26.00 plus
tax

_____ TRIPLE (3 Persons, 2 beds) \$30.00 plus tax

_____ QUAD (4 Persons, 2 beds) \$34.00 plus tax

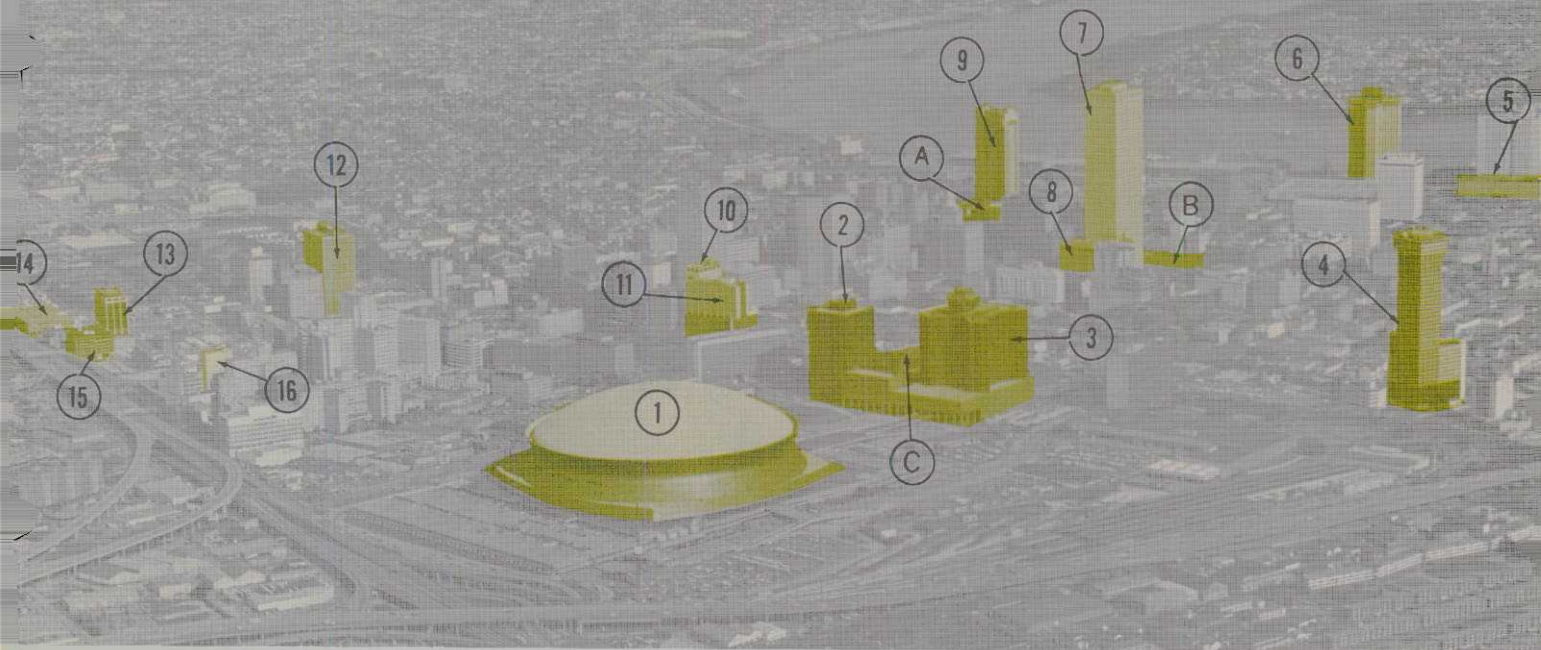
_____ ROLLAWAY BED \$4.50 extra

_____ SUITE (if available) \$49.00 plus tax

Please Mail To: SHERATON INN ATTENTION: RESERVATIONS

2716 WEST MacARTHUR DRIVE

ALEXANDRIA, LOUISIANA 71301



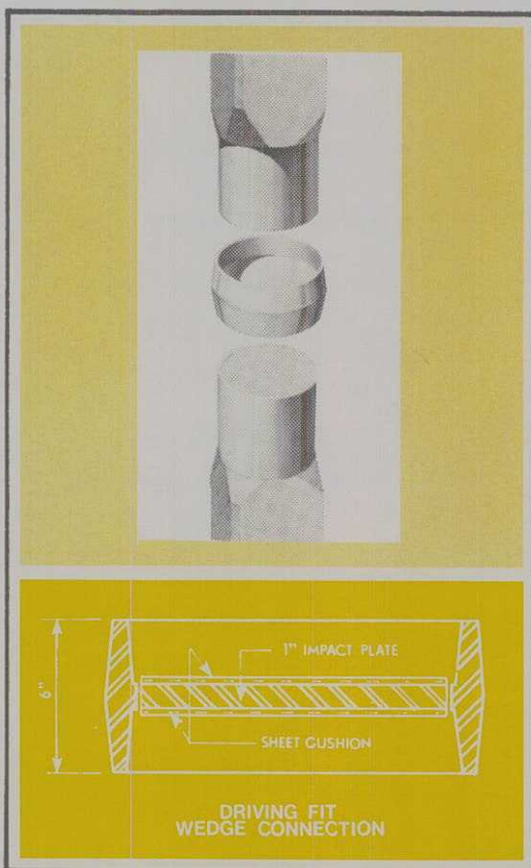
These buildings are built on Brunspiling: **1.** Louisiana Superdome; **2.** Amoco Building; **3.** Hyatt Regency Hotel; **4.** Plaza Tower; **5.** International Trade Mart Garage; **6.** International Trade Mart; **7.** One Shell Square; **8.** One Shell Square Garage; **9.** Marriott Hotel; **10.** Rault Holiday Inn; **11.** Howard Johnson Motel; **12.** NBC Bank Building; **13.** ODECO Building; **14.** Canal Motors Building; **15.** ODECO Garage; **16.** LSU Medical Center. Under Construction: **A.** Marriott Hotel Addition; **B.** Pan-American Life Insurance Building; **C.** 1250 Poydras Building.

In New Orleans, the skyline rests on cost-saving Belden Brunspile^{T.M.}

Since the development of the Belden Brunspile, more of the new buildings in the New Orleans area use this type of foundation piling than any other kind.

That's because this precast prestressed concrete piling is specially designed to reach great depths with conventional pile-driving equipment, resulting in substantial foundation savings.

Sections are easily joined in minutes at the job site by means of a cast steel connector. This creates piling of unlimited lengths.



High strength concrete makes this high capacity piling possible. 400 ton load tests are not uncommon. The Brunspiles can deliver an economical cost per ton of design capacity.

For more information on Brunspiling and load tests, call today.

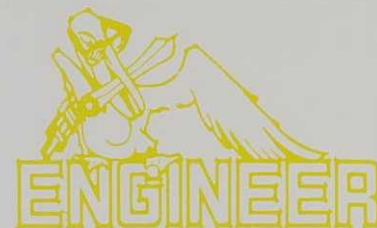


Marine Concrete Structures, Inc.

2030 St. Charles Ave. — New Orleans, La. 70130 — (504) 523-2504

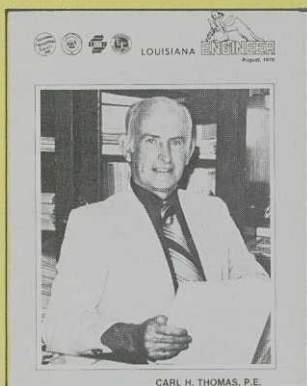
August, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. 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.

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



CARL H. THOMAS, P.E.

About the Cover:

Newly elected LES officers, including Carl H. Thomas, president, took office in July. Pictures of the installation ceremonies, which took place at the Monteleone Hotel in New Orleans, appear on page 11. All new officers are pictured on pages 6 and 7.

In This Issue:

State Officers' and Training Conference	2
Presidential Privilege	5
Introducing LES's Newly Elected Officers	6
Louisiana's First Geothermal-Geopressured Water Well ..	8
Annual LES Convention	11
Engineering Management Courses Available at LSU ..	13
Potpourri	14
Vliet's Views	16
Brief Biography of Carl H. Thomas	16
LES and NSPE Scholarship Winners Named	17
EngiNEWS	18

LES OFFICERS AND BOARD

President
Carl H. Thomas, P.E.
First Vice President
Francis C. Roy, P.E.
Second Vice President
Jerrold J. Freeman, P.E.
Secretary-Treasurer
John E. Ritter, P.E.

NSPE DIRECTOR

T. J. Hogue Jr., P.E.

STATE DIRECTORS

Arthur DeFraitres Jr., P.E.
T. Dudley Hixson, P.E.
Henry E. Markel, P.E.
John J. Guth, P.E.
E. E. "Buddy" Moncla, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Jesse A. Simmons Jr., P.E.
Baton Rouge
Harold R. Williamson, P.E.
Bayou
John W. Woodard, P.E.
Lafayette
Richard A. Dupuis, P.E.
Lake Charles
William J. Bergeron, P.E.
Monroe
James W. Spivey, P.E.
New Orleans
Regis G. Trumps, P.E.
Shreveport
Ted J. Povinelli, P.E.

PRACTICE DIVISIONS

Construction
David Edgar, P.E.
Education
Frederick J. Brown, P.E.
Government
James C. Porter, P.E.
Industry
A. J. Adoue, P.E.
Private Practice
Richard Meyer, P.E.

COMMITTEE CHAIRMEN FOR 1978-79

Engineering Education
Clarence E. Hall
Ethics & Professional Conduct
David Buck, P.E.
Honors & Awards
James L. Meyer, P.E.
Inter-Society Relations
John J. Bergeron, P.E.
Legislative
D. J. Webre Jr., P.E.
Liaison with State Board of Registration
Malcolm L. Hurstall, P.E.
Membership
Robert P. Blanche, P.E.
Public Relations
Dale T. Hunn, P.E.
Liaison with State Board of Regents
Larry A. McKee, P.E.
Young Engineers
Douglas B. Robert, EIT

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
James W. Reeves, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
Sidney J. Poleyndard, P.E.
Roy T. Sessums, P.E.
H. L. Henry Jr., P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.

Managing Editor
R. C. "Doc" Spears

Publishing Consultants
Norman C. Ferachi & Associates, Inc.

PRESIDENTIAL PRIVILEGE

Carl H. Thomas, P.E.
President, LES

ACTIVE:

I hadn't really considered suggesting a slogan indicating objectives or missions for our Society during the coming year; however, after some thought about the past year's activities, I decided that our mission involves a longer time than one year. Of course we should have short-term objectives as well as long-term goals.

The words, "goals," "objectives" and "missions" are all so terminal in their definitions. Once they are achieved, where do we go? We must try to stay at least one step ahead with our directives; however, this approach most often does not provide continuity of actions. This leads me to the thought of continuing projects, activities, efforts, etc.

During my 10-month stint of duty in Washington, I was exposed to a new language—that of acronyms. If the agency, committee, organization, association or act did not suggest a pronounceable acronym, it didn't seem to be very important. You learned to speak in acronyms to make others think you knew all about these things.

Why then the introduction, **ACTIVE**? This could be the acronym for many statements. Consider, **Association Collective Toward the Instillation of Vitality in (or among) Engineers**. Does this really grab you? If it is obvious to everyone, it is a failure. It should result in having to ask yourself, "What is Carl trying to say?"

Let's review the goals that were suggested by several of our past presidents of LES, all of whom I admire and sincerely appreciate for having provided me the opportunity to work with them. Please note the continuity of efforts as suggested in their introductory "Presidential Privilege" articles.

For 1977-78, our LES President Buddy Moncla adopted the slogan, "Involvement—You Can't Afford Not

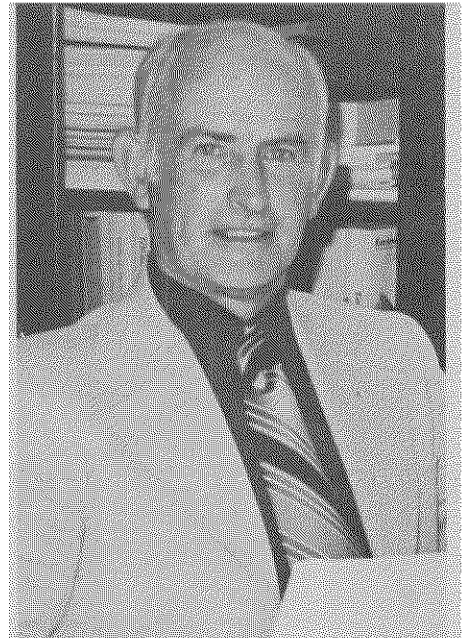
To," with the intent of trying to encourage engineers and land surveyors to become involved in their professional society and direct its activities toward some worthwhile goals. Obviously, this is not a one-year objective if the Louisiana Engineering Society is to survive and serve any worthwhile purpose. We can't stop here and take a turn in a new direction with any meaningful overall mission.

Jim Meyer, president, 1976-77, stressed the formation of student chapters of LES at every engineering school in the state, the approval of a very much needed dues increase for the society and improved communications between all engineering groups as well as other design professions. A major portion of these goals have been realized, and the effects are still being felt.

Our 1975-76 president, "Mac" Hurstell, included as goals the preservation and expansion of membership, cultivation of deserving legislative programs, realization of fiscal responsibility and advancement of young engineers in LES activities. I'm sorry to have to state that these goals were not completed, and I would further state that the needs for the accomplishment of these goals is as important today as in 1975-76. That's what LES is all about.

When Fred Culpepper, president, 1974-75, indicated goals for that year, he placed the highest priority on increase in membership and the retention of members. Do I need to say more?

Jack Thigpen, president, 1973-74, had also stressed membership as a primary concern. He likewise was ready to tackle the legislative program needs and felt that "Public Relations" was one of our greatest weaknesses. Our relationships with other societies would receive special



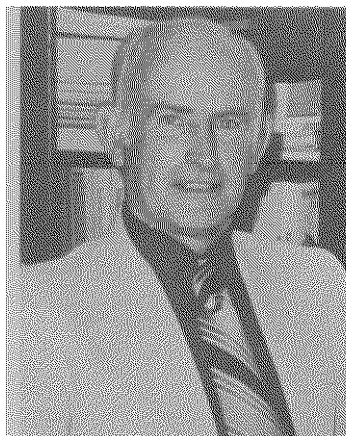
attention during 1973-74. Though Jack took the reigns with a great deal of reluctance and with butterflies in his stomach, he nevertheless dug in, as all of our presidents and boards have done, only to realize at the end of the year some disappointment in not having successfully accomplished all of his goals.

Though Hoyt Brown, president for 1972-73, didn't outline specific goals for the society, he embarked on a campaign that is still well remembered by many of our "old-timer" LES members. He did not hesitate to call a spade a spade or tackle the impossible. He made a real impact on my tenure in LES, and I sincerely appreciate that.

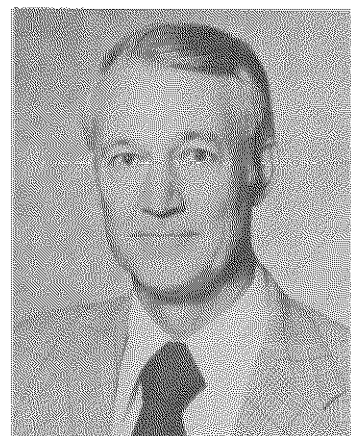
The list could go on, but I will stop with saying that all of these LES presidents, as well as some that preceded them, pointed out to me the real values of being in the Louisiana Engineering Society. If I were to single out a specific goal, and one which has really been a continuing goal through the years as expressed by these past-presidents, I'd have to say that we must somehow convince our members, as well as potential members, of the values to be derived from being **ACTIVE** in LES. How we can accomplish this is still a mystery,

Continued on page 16

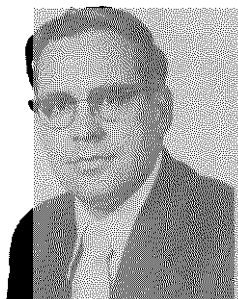
Introducing LES's 1978-79 Board of Direction



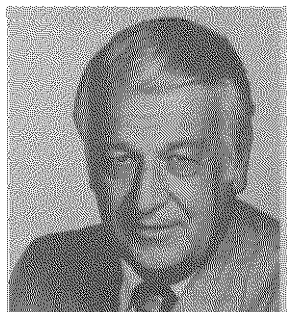
President
Carl H. Thomas, P.E.



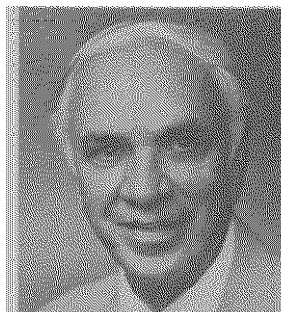
President-Elect
Francis C. Roy, P.E.



Second Vice-President
Jerrel J. Freeman, P.E.



Secretary-Treasurer
John E. Ritter, P.E.



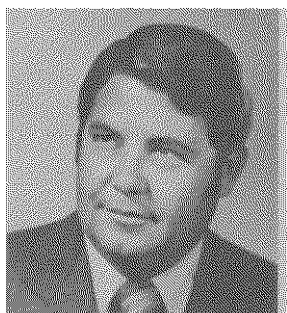
National Director
T. J. Hogue Jr., P.E.



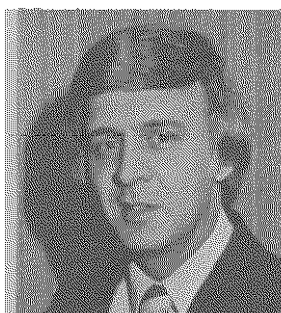
Past President
E. E. "Buddy" Moncla, P.E.



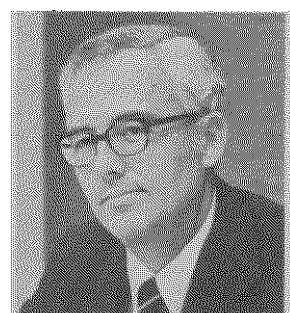
State Director
Henry E. Markel, P.E.



State Director
Arthur DeFraitcs, P.E.

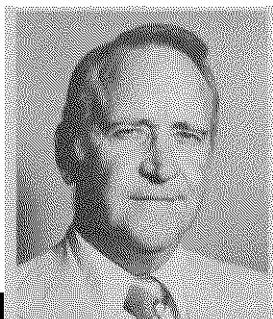


State Director
T. Dudley Hixson, P.E.



State Director
John J. Guth, P.E.

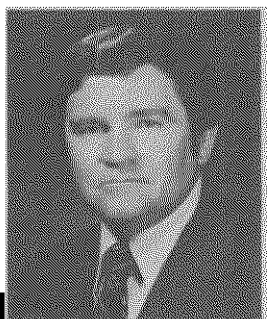
New Chapter Presidents and Practice Division Chairmen



Alexandria
Jesse A. Simmons Jr., P.E.



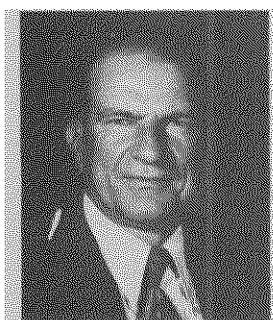
Baton Rouge
Harold R. Williamson, P.E.



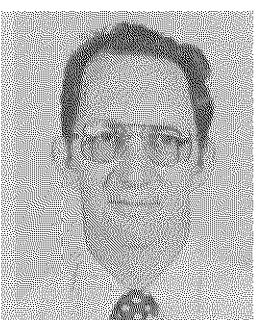
Bayou
John W. Woodard, P.E.

Chapter Presidents

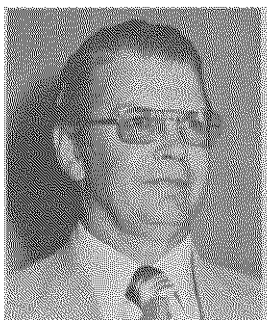
Chapters are the foundation of the Society's organization. Chapters are located in Alexandria, Baton Rouge, Lafayette, Lake Charles, Monroe, New Orleans, Shreveport, and the Bayou serving Morgan City, Houma, and Thibodaux areas.



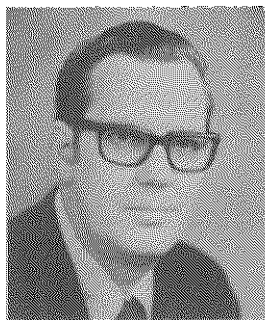
Lafayette
Richard A. Dupuis, P.E.



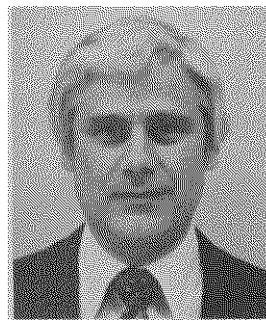
Lake Charles
William J. Bergeron, P.E.



Monroe
James W. Spivey, P.E.



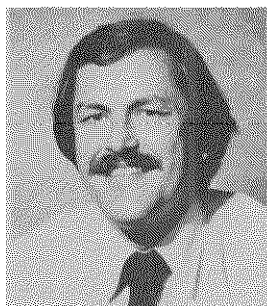
New Orleans
Regis G. Trumps, P.E.



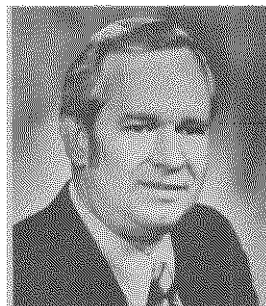
Shreveport
Ted J. Povinelli, P.E.

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.



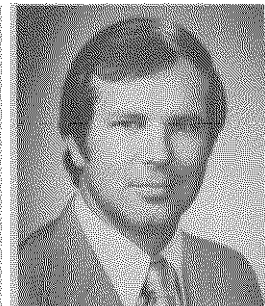
Private Practice
Richard Meyer, P.E.



Industry
A. J. Adoue, P.E.



Education
Frederick J. Brown, P.E.



Construction
David Edgar, P.E.



Government
James G. Porter, P.E.

Louisiana's First Geothermal - Geopressured

O. C. Karkalits, P.E., B. E. Hankins,
R. E. Chavanne, R. A. Ham,
and J. I. Palermo
McNeese State University

For thousands of centuries hot geothermal waters have quietly rested in sand-bed aquifers deep below the soil, offshore and onshore, along the Gulf Coast. In the past, little attention was given to producing these fluids for electric power production or direct heat applications, since natural gas and crude oil were cheap and plentiful.

But the situation has drastically changed since 1973. Natural gas prices have increased by 1,000 percent in the past decade. Since the oil boycott, government and industry have become interested in alternate energy sources, and the geopressured-geothermal waters of South Louisiana are in the national limelight as a large source of potential future energy.

McNeese State University submitted a proposal to the Energy Research & Development Administration (ERDA), predecessor of the Department of Energy (DOE), in April, 1975 to set up a demonstration test in a shut-in gas well to produce and analyze this hot water. The proposal was accepted and the project funded. The role of McNeese was to administer the project and to analyze the fluid and the dissolved natural gas.

Dr. Paul H. Jones of the Geology Department at LSU participated as chief geologist. The Osborn-Hodges-Roberts-Wieland Engineering Company of Bryan, Tex., became a part of the project team and was responsible for recompleting the well and producing the geothermal water for short-term (40-day) testing.

The Geopressured Resource

The hot waters lie in deep aquifers (5,000' to 25,000') beneath about 150,000 square miles of territory lying along the Northern Gulf Coast from

the Mexican border to Mississippi. The formations of interest lie both on and offshore (Fig. 1).

The geopressured zone was once thought to be an "impenetrable" zone because of the abrupt increase in pressure observed when the drill bit encountered the top of this area. Drilling contracts were written in such a manner that the driller was not held accountable to drill to the agreed-upon depth if the geopressured zone were penetrated.

Modern technology has now overcome the problems associated with wells of this type, and bore holes currently are drilled routinely into the geopressured zone.

The amount of water in these reservoirs is enormous, amounting to approximately 42 quadrillion gallons. Assuming the water is saturated with gas, Jones (1976) estimates the total amount of dissolved natural gas to be as high as 49,000 trillion cubic feet (49,000 quads).

The U.S. Geological Survey (1975) estimates there are 24,000 trillion cubic feet (24,000 quads.) under *onshore* surface alone, above 19,000 feet depth. The magnitude of this resource is more easily understood when it is realized that the *total* U.S. consumption of energy of *all forms* was only 76 quads in 1976. Only a small fraction of this large resource base can ultimately be recovered economically.

The solubility of pure methane (the major constituent of natural gas) in pure water has been reported by Sultanov, Skripka and Namiot (1972) and is shown in Figure 2. The plot reveals that between 110°C and 200°C (the region of interest in South Louisiana), methane solubility increases with pressure from 30 SCF/Bbl @ 8000 psig to 100 SCF/Bbl at 15,000 psig.

Geopressured-geothermal aquifers in Louisiana contain: thermal energy (from the high temperature); kinetic energy (from the pressure); and natural gas.

Conventional hydrothermal geothermal wells, such as in California,

utilize only one form of energy, namely, thermal. Louisiana, then, has two extra forms of energy, which may be considered "lagniappe" if the economics of recovering these forms of energy can be resolved.

The six objectives of the study project are listed below.

1. Produce Geologic Maps of the Reservoir.
2. Secure and Analyze the Reservoir Fluid.
3. Determination of Reservoir Flow Rates.
4. Determination of Sand Problems.
5. Determination of Transmissivity of the Aquifer.
6. Determination of How Additional Dynamic Tests on Geopressured Reservoirs Can be Accomplished.

The Edna Delcambre No. 1 Well

After contacting 176 oil-and-gas companies, Coastal States Gas Producing Co. made the Edna Delcambre No. 1 Well in Tigre Lagoon Field, Vermillion Parish, available to the project. Following contract negotiations, a workover rig moved on site on January 29, 1977.

The well itself is located about eight miles due south of Delcambre, La., in a coastal marsh. The well had been drilled to over 14,000 feet depth in 1968, and produced gas for about seven years. The top of the geopressured zone was about 12,300 feet. Two aquifers were tapped for geothermal water; one at a depth of about 12,900 feet, and the other at a depth of about 12,600 feet.

Test Results and Interpretation

Hot geothermal water was allowed to flow to the surface under its own pressure (5,000 psig, shut-in). The water-gas mixture flowed from the Christmas tree through a sand detector, then through a choke (to reduce the pressure to 1440 psig) and into a high pressure separator (back pressure of 300 psig).

The Louisiana Engineer

Water Well . . . A Potential Future Energy Source

Residual hot water flowed to a settling tank, and the separated gas flowed to a flare pit. Hot water from the settling tank, essentially free of gas, was pumped to a disposal well which had previously been drilled to a depth of 2,500 feet. The salty water (11% - 13% total dissolved solids) was disposed of in this way for environmental protection.

Many of the chemical tests had to be conducted on site because of the rapid change with time in certain chemical species. The natural gas in the waters contained 1% to 2% carbon dioxide under pressure. As the pressure on the system was reduced, carbon dioxide was evolved from the solution. Evolution of carbon dioxide caused an increase in the pH, a shift in the carbonate-bicarbonate equilibrium, precipitation of certain salts, and a decrease in the conductivity of the solution.

Table 1 gives a list of several chemical species determined both in the on-site laboratory, as well as in the McNeese laboratories in Lake Charles. It can be seen that the total dissolved solids were quite high; between 3-4 times higher than sea water (3.5% total dissolved solids).

Data from oil well logs indicate that geopressured waters in South Louisiana will vary from about 1% to 15% total dissolved solids. Water from the Edna Delcambre well is obviously on the high side of this range.

The pH shown by lab measurement (6.0-6.2) is not representative of the actual pH of the water in the aquifer. Flowing water samples showed pH values as low as 4.1, as measured by an in-line glass electrode, although some carbon dioxide had already escaped from solution. No down-hole pH measurements were possible because the glass electrode could not withstand the high pressure of the system, but the value of 4.1 sets an upper limit on what should have been obtained.

It is likely that the *in-situ* pH is lower than four. There were not many surprises in the chemical analysis of the water, since results were rather close

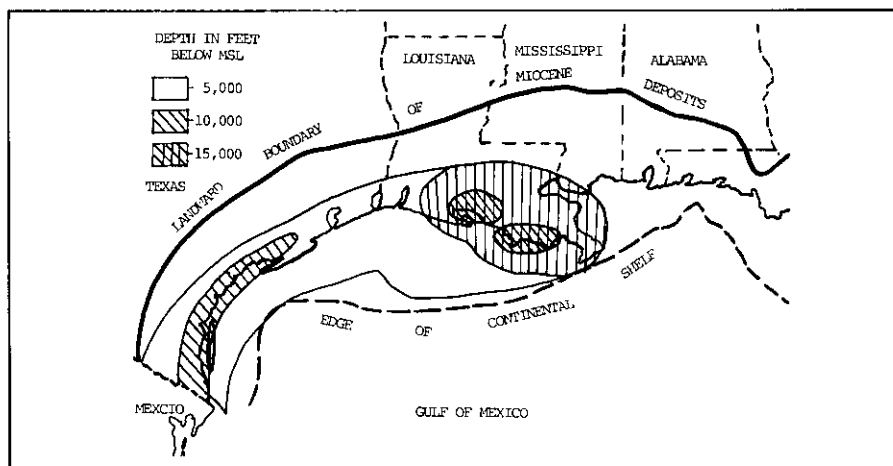


Figure 1

GEOPRESSURED ZONES OF THE GULF COAST

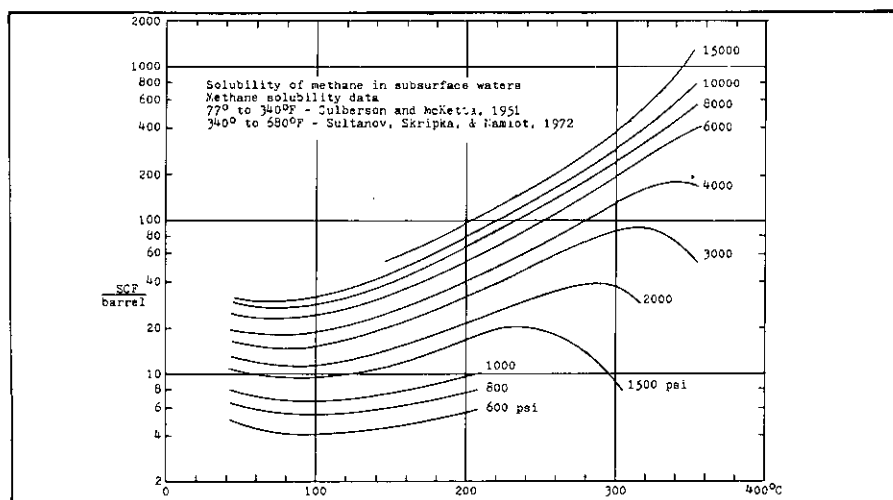


Figure 2
Temperature

to many samples from oil well explorations tabulated by the USGS.

The composition of the gas was not unusual either. The major constituent was found to be methane (93%-95%), with the expected concentration of ethane, propane and higher-boiling hydrocarbons.

There was a measurable amount of radon gas (15-100 pCi/l), and the water had small amounts of radium and other decomposition products of uranium.

The radium content was approximately 10 times that found in surface water, but low enough to present no radiation hazard to humans in contact with the water.

A major objective of the project was to determine the amount of gas that

was dissolved in the water taken from the geopressured aquifers in this test well. This was to be done with two techniques:

1. bottom-hole sampling; and
2. comparison of total gas volume and total water volume flowing through the gas separator over a fixed amount of time.

Although a number of bottom-hole samples were taken, none of them were believed to be reliable. There was much difficulty with the sampling equipment. In almost all cases the sampler itself was found to be leaking to some degree. There were eight estimates of the gas/water ratio from these samples, which averaged 16.4

Continued on page 12

WE OFFER. . . .

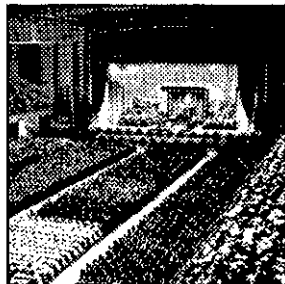
- ☐ GENERAL CONTRACTING
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ PILEDIVING
- ☐ FOUNDATIONS
- ☐ TREATMENT PLANTS
- ☐ PRE-ENGINEERED BUILDINGS

—competitive bids on any individual item, a combination of items or as prime contractor with total project responsibility.

**A Competitive, Quality-Oriented, Time-Conscious Company
in Business since 1956**

LANDIS CONSTRUCTION CO., INC.

P.O. Box 4278, New Orleans, LA 70178 (504) 837-4123



From Two To Two Thousand. Meetings and Banquets.

You want your meetings to be productive. So do we. That's why our staff of professional meeting coordinators attend to every detail to insure satisfaction and a worry-free working environment. No matter how large or small the group.

We are not at all intimidated by handling a group of two thousand. Nor are we blasé about planning a private meeting for two. Our expansive meeting facilities can handle it all with ease. Choose from meeting rooms of all sizes and configurations, a 12,000 square foot grand ballroom and smartly appointed hospitality suites. After all, Capitol House is the largest hotel meeting center in Baton Rouge.

Capitol House is an ideal location for regional and local meetings, large or small. Finding us is no problem. We're downtown. Parking is no problem . . . we've got you covered.

At Capitol House, we're convention and meeting specialists, and we want your business. Make a note of it!



CAPITOL HOUSE

Downtown on the Mississippi / Baton Rouge / 383-7721

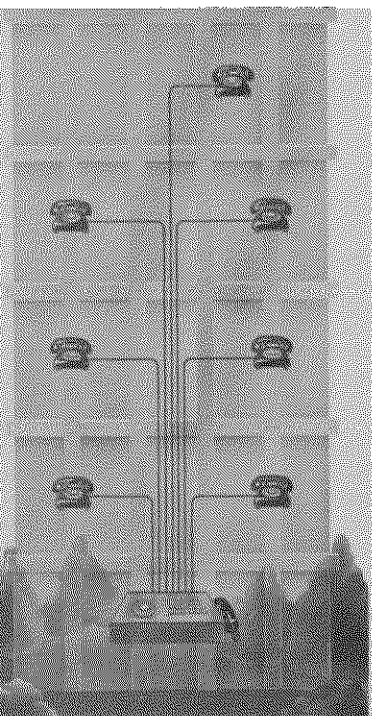
Talk with us about your communications system before you build.

We'll show you the advantages of including Bell Communications Services in the early stages of your planning. Advantages such as the most efficient telephone service possible. And ease of expanding your system as your business grows.

Call South Central Bell's Building Industry Consulting Service and plan now for the phones you'll need initially - and eventually.



South Central Bell



Annual LES Convention Proven Productive

The annual LES convention, held at the Moteleone Hotel in New Orleans on July 13, 14 and 15, was interesting and productive. There were 90 engineers and 57 wives registered for the three-day affair.

The convention got off to a good start with cocktails, hors d'oeuvres and dancing at the Engineers Club Thursday evening. The five piece Musical Moods orchestra played music for all types of dancing. This function was sponsored by LES.

One hundred thirty-one engineers and guests attended the installation banquet Friday evening. Waldemar

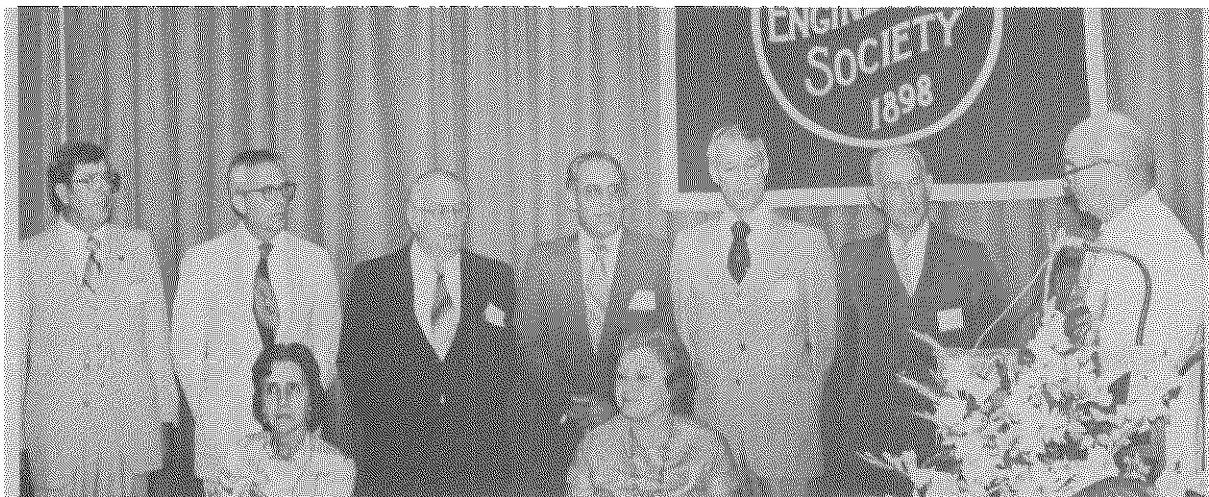
S. Nelson, P.E., vice president NSPE southwestern region and president of his own New Orleans firm, installed the 1978-79 officers.

Saturday morning, Shep Perrin, executive director, Louisiana Superport Authority, presented an interesting and up-to-date status report on the Louisiana Offshore Oil Port (LOOP). Forty-one engineers and guests attended the breakfast.

Thirteen ladies made the walking tour of New Orleans' Collection-Museum and homes on Thursday, and 33 lunched on the steamboat *Natchez* on Friday.

There were 18 tennis players and 16 golfers who participated in the activities at Audubon Park on Friday afternoon. Ron Riley, P.E., Ruston, won the men's tennis trophy and Juana Woodard, Houma, won the ladies' trophy. In the golf, Joe Riorda won the low net; Ray Maddux, P.E., low gross; John E. Ritter, P.E., closest to pin; Alan Weber, EIT, longest drive; and Dale Hunn, P.E., most honest golfer.

Well done and thanks to Dale Hunn, P.E., convention chairman, and his committee: Steve Johns, Aston Avegno, John Bergeron, A.P. Launy and Mrs. Dale Hunn.



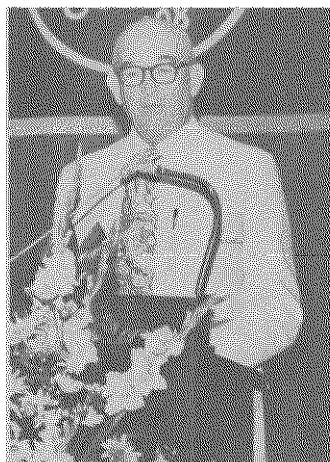
Installation of 1978-1979 LES officers. Left to right are Henry E. Markel, P.E.; John J. Guth, P.E.; John E. Ritter, P.E.; Jerrel J. Freeman, P.E.; Francis C. Roy, P.E.; Carl H. Thomas, P.E.; and Waldemar S. Nelson, P.E.; seated are Mrs. Carl H. Thomas and Mrs. Waldemar S. Nelson.



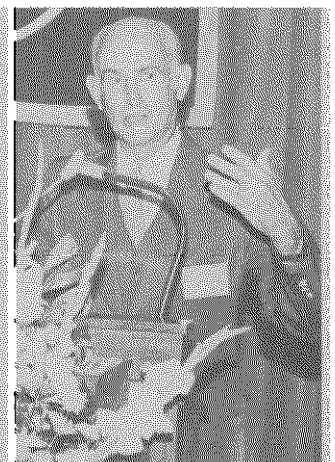
E.E. "Buddy" Moncla, P.E., outgoing LES President, telling it like it was during his administration.



Carl H. Thomas, P.E., left, presenting the gavel and plaque to the outgoing president.



Waldemar S. Nelson, P.E., vice president NSPE, Southwestern Region, was the installing officer.



Carl H. Thomas, P.E., incoming LES President, making his acceptance speech.

Water Well—

Continued from page 9

standard cubic feet of gas per barrel of water. This was less than half the value of 37 SCF/Bbl observed for pure methane in pure water (Sultanov, et al., 1972).

Salinity decreases the solubility of the gas (O'Sullivan and Smith, 1970), but no quantitative data were available for a natural gas-salt water system; therefore, recombination studies were undertaken to determine the solubility of gas (from the separator) in "stock tank" water (water from the separator containing no dissolved gas).

These tests showed the value to be about 24 SCF/Bbl. It was very interesting, and somewhat surprising, to discover that the gas/water ratio, determined with surface equipment, was between 45 and 88 SCF/Bbl. This fact indicates the presence of undissolved gas bubbles in the reservoir.

Would this undissolved gas continue to flow with the water over a long time interval (15-20 years)? No one knows. Future tests planned by the Department of Energy in wells designed for long-term production from geopressured aquifers should afford an answer to this question.

The Department of Energy has signed a contract with General Crude Co. to drill a well into the geopressured zone some 10 miles southeast of Angleton, Tex. in Brazoria County. The Center for Energy Studies at the University of Texas will furnish technical assistance.

Other geothermal wells will be drilled in both Texas and Louisiana. The Petroleum Engineering Department at LSU has a contract with DOE to select promising areas in South

TABLE I
CHEMICAL ANALYSIS OF THE GEOTHERMAL WATER SAMPLES
Typical Values

	SAND#1	SAND #3
pH	6.1	6.2
Conductance (umhos/cm)	163,000	145,000
Chloride (mg Cl ⁻ /l)	80,500	67,100
Total Dissolved Solids (mg/l)	133,440	113,330
Total Hardness (as mg CaCO ₃ /l)	6,840	6,050
Viscosity (Centipose @ 20°C)	1.248	1.194
Density (g/ml @ 20°C)	1.085	1.071
Dissolved Silicate (as mg SiO ₂ /l)	57	63

Louisiana for drilling geopressured-geothermal wells.

Energy Uses In Louisiana

The average temperature of geothermal waters in Louisiana's geopressured zones is about 275°F. At the present time this is too low to generate electricity economically. It is, therefore, most likely that the hot water will be used in non-electric applications.

Suggested uses are: food processing, agribusiness, aquaculture, rice drying, space heating and cooling, sulfur mining, and similar uses. The presence of natural gas and the kinetic energy in this resource make its economic exploitation much more attractive.

Problems Remaining To Be Solved

The following is a list of some problems that must be solved to make the use of this vast resource feasible.

1. **Land subsidence.** Will removal of tremendous amounts of water from subsurface reservoirs cause the land surface to subside?
2. **Corrosion and Scaling.** The waters are acid and salty, and

hence special alloys must be used, particularly in all tubular goods and other processing equipment.

3. **Plugging of Exchangers.** Heat exchangers must be installed in parallel so that some can be washed free of solids while others are in service.
4. **Legal.** The most promising aquifers are large in areal extent and could concern many more land owners than are usually involved in oil and gas leases.

If these and other potential problems can be solved, the future for geopressured-geothermal energy looks very promising.

Summary

Test results from Louisiana's first geothermal well were very encouraging. About twice as much gas per barrel of water was produced than was expected. The water had no noxious chemicals, and the gas was of good quality (about 1040 BTU/cubic foot). Several wells, specifically designed for long-term testing of reservoir deliverability, need to be drilled, both in Louisiana and Texas, to verify the economics.

BETZ ENGINEERING SALES CO.

"Service is the Betz Policy"

7979 Earhart Blvd.

CROLL-REYNOLDS
Vacuum Jets &
Scrubbers

DCE VOKES
Dust Control
Equipment

FMC, E.E. Div.
Sewage Equip.
& Pumps

P. O. Box 13248

HASBROUCK PLASTICS
FRP Pipe, Tanks
& Ducts

IDEAL ELECTRIC
Motors, Generators
& Controls

D. O. JAMES
Gears, Reducers,
Couplings

Phone 486-5452

LIMA ELECTRIC
Brushless
Generators

*SILVER ENGINEERING
Industrial Sugar
Equipment

SPRACO
Nozzles &
Spraying Equipment

New Orleans, La. 70185

*U.S. ELECTRICAL MOTORS
Motors, Reducers
Varidrives & Parts

*WALLACE & TIERNAN
Chlorinators &
Chemical Pumps

*RELiance ELECTRIC
Motors, Reducers,
Variable Speed Drives
and Parts

*stocked in New Orleans

Engineering Management Courses Available at LSU

FACULTY

The courses will be taught by regular faculty members of the LSU College of Business Administration and Engineering or by able, qualified professors from other universities in the state.

CERTIFICATE

Upon completion of four acceptable courses and a certificate application form, the participant will be awarded a Certificate in Engineering Management by the Division of Continuing Education. An Advanced Certificate will be awarded to students who take a total of six courses.

COST

The registration fee per participant is \$150 for each course and includes the cost of textbooks.

REGISTRATION

To insure that each student will have an opportunity to participate in discussion, enrollment in each section will be limited to 30 students.

Class sessions will be held in the University Medical Center at New Orleans, on the Baton Rouge campus, and in other cities throughout the state where there is adequate demand. To preregister for the classes, complete the attached form and return with \$10 preregistration fee.

tion fee. Fee is applicable toward the \$150 total registration fee and will be refunded if class chosen is not offered.

AVAILABLE COURSES

- Course A— Concepts of Modern Management
- Course B— Project Management with CPM/ PERT
- Course C— Engineering Economy
- Course D— Financial Decision Making
- Course E— Operations Research for Engineers
- Course F— Basic Engineering Statistics
- Course G— Human Relations
- Course H— Cost Estimating & Engineering and Management
- *Course I— Engineering Management and the Law

*New course taught for the first time by Dr. Paul O'Bryan, an attorney from a major chemical corporation.

ADDITIONAL OFFERINGS:

The objective of this program is the continued education of engineers in industry. The Engineering Management program coordinator will be happy at any time to schedule a special offering for any organization or industry. Such offerings may be on any engineering- or management-related subject. Persons interested in special offerings should contact the program coordinator for details.

Please complete the following form and return it with the \$10 preregistration fee to the address below if you are interested in the Fall 1978 program. (Classes will begin during the week of September 4, 1978.)

Name _____

Address _____ Phone _____

City & State _____ Zip _____

MAIL FORM TO:

Dr. Magd Zohdi
Mechanical & Industrial Engineering Dept.
Louisiana State University
Baton Rouge, Louisiana 70803
Tel.: 388-4428

I wish to preregister for the course indicated. (Please show your first choice with a 1, second with a 2, etc. Show a single location choice only.) I understand if my first choice is not offered, I can request a refund of the \$10 preregistration fee. This condition also applies if the class is scheduled on a night I cannot attend.

COURSES OFFERED

- () Modern Management
- () Project Management
- () Engineering Economy
- () Finance
- () Operations Research
- () Engineering Statistics
- () Human Relations
- () Cost Estimation
- () Engineering Management and the Law*

LOCATIONS

- () Baton Rouge
- () New Orleans
- () Monroe

I cannot attend on the following nights:

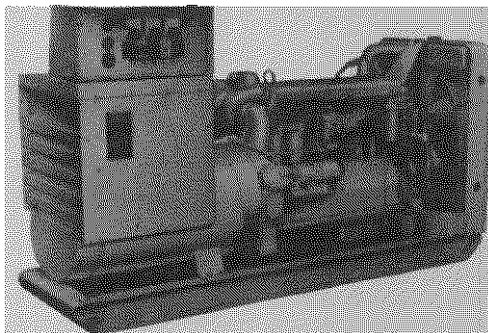
M____ T____ W____ Th____

Co-sponsored by the College of Business Administration, College of Engineering, LSU, and Louisiana Engineering Society.

CONSULT BOYCE...

Specialists in Caterpillar Power!

Big Bore Medium Speed		
6.25" Industrial Engines	200 to 1300 BHP	
Generator Sets	335 to 900 KW	
High Power Compacts		
5.4" Industrial Engines	315 to 1130 HP	
Generator Sets	285 to 750 KW	
3400 Series		
Industrial Eng.	325 to 375 HP	
Generator Sets	240 KW	
Heavy Duty Smaller Units		
4-6 cyl. Industrial Eng.	100 to 280 HP	
Generator Sets	60 to 205 KW	
High Performance V8's		
Industrial Eng.	175 to 210 HP	
Truck Engines -16 models -		
Cat Packaged Generator Sets	175 to 450 HP	
Natural Gas Engines	50 to 375 KW	
Cat Marine Engines	133 to 1115 BHP	
	125 to 1125 BHP	



A Wide Variety of Cat-Plus Services to Keep Your Caterpillar-Built Engine Products Earning for you . . . longer life — more profits.

Service Throughout South Louisiana.



CATERPILLAR
SALES, SERVICE & PARTS



BOYCE
MACHINERY CORP.
DRAWER A J, RESERVE, LOUISIANA 70084
TELEPHONE 504-536-1121

MORGAN CITY: 504-631-0561 LAKE CHARLES 318-439-3601

Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.

Potpourri

R. C. "Doc" Spears
LES Executive Secretary



Will You Support A Louisiana Engineering Foundation?

The Louisiana Engineering Society has been studying the possibility of developing a Louisiana Engineering Foundation (LEF) to be headquartered in Baton Rouge. We hope to construct an engineering facility to provide office space for the foundation, LES and other engineering organizations.

The objectives of the LEF will be to develop and sponsor engineering scholarships and educational advancement programs for engineering, and to promote engineering activities, services, meetings and conventions.

Such a venture will take a great deal of money. The LEF committee will be conducting feasibility studies soon to determine if individual engineers, corporations, firms and other organizations will contribute to the project. We believe every engineer during his or her career, and every engineering organization, should support the profession. The Louisiana Engineering Foundation is the means by which this can be accomplished.

How do you personally feel about contributing \$100 over a three-year period to help with the project? Do you think your firm or company would assist? The LEF will be incorporated to make all contributions tax deductible.

Many state engineering societies, including Texas, Oklahoma, Kansas, Pennsylvania and Ohio already have foundations or have them underway, and their engineering societies are housed in these buildings. LES is 80 years old this year and still rents office space. It is time to plan greater things.

LES would like to have your comments. No response will indicate approval.

Specific details about the venture will be carried in later issues of the magazine.

LES Well Represented At NSPE Annual Meeting

LES was well represented at the NSPE annual meeting in St. Louis July 17-22, 1978. Those attending were: T. J. Hogue, P.E., national director; Dan Vliet, P.E., NSPE Registration and Qualifications for Practice Committee; Marvin Firmin, P.E., and Herb Pourciau, P.E., for PEC; Al Adoue, P.E., for PEI; Richard Meyer, P.E., for PEPP; Frank Heroy, P.E., for PEG; and R. C. Spears, executive secretary.

Mmes. Hogue, Firmin and Pourciau accompanied their husbands. Over 450 engineers and about 250 wives and children from every state in the nation attended the meeting.

NSPE Membership Contest

The NSPE membership contest, which started December 1, 1977 and ends November 30, 1978, shows LES running second to Georgia in Group IV (all states with 881 to 1240 NSPE members) as of June 30, 1978. Georgia has picked up 154 new members for a 13.1 percent gain, and Louisiana has added 157 new members for a 12.8 percent gain.

Chapters and membership chairmen, please do your thing and recruit new NSPE members prior to November 30 so LES can win the Group IV contest for the third year in a row.

Society of Women Engineers to Receive Louisiana Charter

The Society of Women Engineers will meet September 12 in Baton Rouge at the Bocage Racquet Club, 6:30 p.m. Sharon Loeffler, P.E., national vice president of the Society of Women Engineers, will present a section charter to the Louisiana section. All engineers are invited.

For further details contact: Jan Wahrmund, 12121 Lake Ladare, Baton Rouge 70816. Telephone 293-0696.

ACSM-ASP 1978 Fall Convention

The American Congress on Surveying and Mapping (ACSM) and the American Society of Photogrammetry (ASP) fall convention and exhibit will be held in Albuquerque, New Mexico, on October 16-20, 1978.

The Louisiana Engineer

For details please contact: Ruth Riffenburgh, P.O. Box 2, Albuquerque, NM 87103.

PE-EIT Examination Dates

Dates for the uniform examinations for 1978 and 1979 have been set by NCEE and the Louisiana State Board of Registration:

1978 November 4 (Saturday)
1979 April 7 (Saturday)
November 3 (Saturday)

Construction Volume Up 25 Percent in Construction News' Reporting Area

Total contracts reported by Construction News' Bid and Award Service for the first five months of this year show a 25 percent increase over that recorded for the five-state region during the same period in 1977. Totalling about \$1.3 billion, this year's volume is more than \$310 million above last year's 958 million in non-residential contracts for the first five months of last year.

Following is a summary of construction volume by state for the first five months of 1978:

Arkansas	\$241,675,599
Louisiana	256,708,852
Mississippi	177,107,153
Oklahoma	228,558,627
Tennessee	464,487,332

New A/E Course On Procurement Scheduled For San Francisco

Government officials, architects, engineers and consultants involved in government funded construction projects will meet in San Francisco on November 9-10 to attend a new course on "The Government Official and A/E Contracting."

The two-day course is being sponsored by the architectural engineering societies which comprise the Committee on Federal Procurement of A/E Services (COFPAES), the American Public Works Association, the American Society of Consulting Planners and the National Institute of Government Purchasing, in conjunction with Catholic University's School of Engineering and Architecture and School of Law.

The five COFPAES architectural engineering societies are: The American Consulting Engineers council, the American Institute of Architects, the American Road and Transportation Builders Association, the American Society of Civil Engineers and the National Society of Professional Engineers.

For further information about the course, contact Arnold Prima, administrator of governmental affairs, AIA, 1735 New York Ave. N. W. Washington, D.C. 20006. Telephone: (202) 785-7374.

Marine Concrete Structures Moves Headquarters

Marine Concrete Structures, Inc., has moved its corporate headquarters to 2030 St. Charles Ave., New Orleans. All administrative, accounting, engineering, purchasing and sales offices are housed in this facility.

The move to its new two-story building was due to the rapidly expanding volume of business generated by the offshore oil industry, according to Don Payne, president of the company.

The company will maintain a field office at its Metairie plant, which continues to produce concrete piling, Span-Deck concrete planking and other related products for the commercial and construction industries.

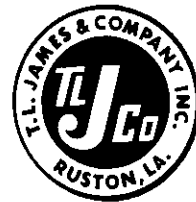
Life Safety Code Handbook Available

The National Fire Protection Association has just published a comprehensive easy-to-use guide to its widely adopted Life Safety Code (NFPA 101, 1976 Edition).

The "Life Safety Code Handbook" covers explanations of Code provisions to ensure their correct application in building design, construction, renovation and inspection. It also presents extensive background information on various Code sections helping to define life-safety rationale for architects, engineers, building inspectors, fire prevention officers, students and others who use the Code.

The "Life Safety Code Handbook" (NFPA Catalog No. 101-HBK) is priced at \$14.50, with a schedule of discounts for purchases of 25 or more copies. Address orders and inquiries to the NFPA Publications Sales Department, 470 Atlantic Ave., Boston, MA 02210.

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE
ASPHALT
SHELLS
SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE

RUSTON, LOUISIANA

JAMES BUILDING • PHONE 255-7912

KENNER, LOUISIANA

P. O. Box 8 • PHONE 729-2511

Equal Opportunity Employer

Ausco fail-safe brake for hydrostatic drives

Bolts directly
into power
train—no
alignment
problems

No extra brackets,
no shimming needed

Complete
self-contained
package

Spring loaded,
hydraulically
released.

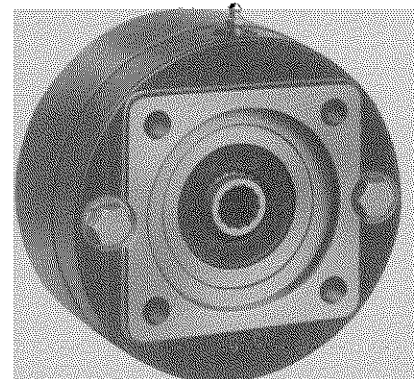
SAE motor mounts

Fits SAE J744c
Standard.

Either charge or
full line pressure

Rugged cast iron
construction

Bearing-supported
shaft



SAE Motor Mount	Torque Capacity, lb. in.	Size Overall, Dia. x Length
A/B	2,400	7.00 x 4.50
B	2,400	7.00 x 4.00
C	8,400	8.00 x 4.86
D/E	20,000	11.02 x 6.65
F	40,000	16.20 x 5.42

Write or phone for complete information. Auto Specialties Manufacturing Company, St. Joseph, Michigan 49085. Phone 616/982-2373

AUSCO
DISC BRAKES / CLUTCHES



Vliet's Views

Daniel H. Vliet
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors

Last January at its Winter Meeting in New Orleans the National Society of Professional Engineers (NSPE) adopted a policy to encourage states to replace the title "Engineer-in-Training" (EIT) with "Professional Engineer Associate" (PEA). The change, recommended by the NSPE Young Engineers Committee, seemed to have no support by the LES Young Engineers Committee and the LES Professional Engineers in Education. In fact, each of these LES groups strongly recommended that the title "Engineer-in-Training" or simply "EIT" be retained. Their basic reasons were sound. Such a change in title would not be in the best interest of the public and would seem to be an obvious violation of the present Registration Law in Louisiana.

At its meeting last month in St. Louis, NSPE reconsidered its action last January and decided that the title "Engineer-in-Training" should be replaced by "Engineer Intern." At least two states, New York and Florida, are already using this title. Our Board of Registration considers an Engineer Intern in New York to be equivalent to

an EIT in Louisiana.

It is my opinion that the use of such a title will not violate state registration laws and that each state could decide for itself which title it would like to use. Other titles have been suggested, and the Young Engineers Committee of LES is conducting a survey to determine the popularity of each by comparison to EIT. The Registration Board will be interested in the results of this survey as well as the opinions of those who did not have the opportunity to participate in the survey. (Simply send your comments to me or to the Board.)

The National Society of Professional Engineers made a significant change in its policy relative to the registration of Professional Engineers at its meeting in St. Louis last month. It recommended that the minimum educational requirement for the registration of a person as Professional Engineer be a bachelor's degree in *engineering* from a school with a curriculum accredited by the Engineers' Council for Professional Development (ECPD) or one approved by the registration board.

Six states now have or expect to have such a requirement and it has been endorsed by the National Council of Engineering Examiners. This action by NSPE is not binding, of course, on the various state boards; nevertheless, it could signal a trend that could mean in the future a person could not be registered unless he has a degree in engineering.

Under the provisions of our present registration law in Louisiana, a high school graduate can qualify for registration, and persons who are graduates of four-year related science curricula, such as mathematics, physics, chemistry or engineering technology may receive the equivalent of two years of satisfactory experience for their education toward the eight years of experience required for registration on the basis of Experience plus Examination.

Persons who can qualify for registration should be urged to apply and should not procrastinate. Requirements do change. Usually they are upgraded with the intention of better

Continued on page 18

Presidential Privilege—

Continued from page 5

but you can bet your boots that I will try.

As a starter, we are finalizing plans for an Officers' Training Conference in Alexandria at the Sheraton Motel from September 14 to the 16. A workshop seminar on Public Relations is planned for Thursday. Friday will be devoted to discussions of the LES organization, its committees, practice divisions and their functions.

On Saturday, general business and board of direction meetings are planned. All officers, committee chairmen and practice division chairmen are expected to attend, and all members are invited, with a very special urge to attend the Saturday meetings. Please, come and help put your society into action.

Thanks very much for expressing your confidence in me by electing me to this highest office in engineering in

Louisiana. I don't plan to be a disappointment.

Brief Biography

Dr. Carl H. Thomas, P.E., newly elected president of the Louisiana Engineering Society, is a full professor of agricultural engineering in the Agricultural Engineering Department, Louisiana State University.

Born April 14, 1925, he received his BS degree from Clemson Agricultural College in 1950, his MS from LSU in 1957 and a PhD from Michigan State University in 1969.

He joined the staff of LSU in January of 1953 as an assistant professor and moved up to associate professor five years later. After a year's sabbatical leave to work on a PhD in Michigan, he returned to LSU, becoming head of his department in 1969, the year he received his doctorate. He was made a full professor in 1970.

In addition to his teaching responsibilities, he served as a consultant to IIT in Kharagpur, India, in December of 1969.

Thomas has been actively involved in LES for many years and has held all offices in the Baton Rouge chapter as well as all LES state offices. He has served on many LES committees and has been chairman of two state committees: Inter-Society and Legislative.

Thomas is a member of the National Society of Engineers, American Society of Agricultural Engineering and the American Society of Engineering Education.

Other honorary societies of which he is a member include Alpha Zeta, Gamma Sigma Delta, Phi Kappa Phi and Omicron Delta Kappa.

Thomas is married and has one daughter and three sons, all of whom attend LSU.

LES and NSPE Scholarship Winners Named

Brian A. Yokum of New Orleans was awarded one of the NSPE \$1,000 one-year grants. The recipients of the grants may attend the college or university of their choice, provided that the engineering curriculum selected at such institution is accredited by ECPD. Brian plans to enroll in the Massachusetts Institute of Technology this fall. The grants are made possible through individual contributions of NSPE members.

Jeannie Smith of Metairie was awarded the LES \$1,000 scholarship, and was selected, in accordance with the LES scholarship guidelines, from one of the outstanding high school senior submittals. Miss Smith plans to enroll in Tulane University this fall.



The NSPE and LES scholarship winners were recognized at the LES installation banquet in July. From left to right are E.E. "Buddy" Moncla, P.E., outgoing LES President; Jeannie Smith; Brian A. Yokum; and new LES President, Carl H. Thomas, P.E.

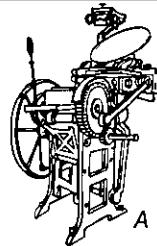
Services and Contractors



LES AUTOMOBILE INSURANCE PROGRAM

EMPLOYEES INSURANCE
REPRESENTATIVES, INC.

4815 Jamestown Ave.
Post Office Box 14697
Baton Rouge, Louisiana 70808
Telephone (504) 926-0483



PRINTING INCORPORATED

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

A COMPLETE CREATIVE PRINTING SERVICE.

We specialize in developing
professional brochures for engineers and architects



**NORMAN C. FERACHI
& ASSOCIATES, INC.**
603 Europe St.
Baton Rouge, LA 70802
Call (504) 387-3261

PHONE (504) 387-0504



FRANKLIN PRESS, INC.

1391 HIGHLAND ROAD • P. O. BOX 1269
BATON ROUGE, LOUISIANA 70821

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

P. O. Box 23293
5524 Mounes Street New Orleans, La. 70183

FOUNDATION TESTING LABORATORIES, INC.

414 West California Ave.
Ruston, Louisiana 71270
Phone (318) 255-7256

Robert W. Flournoy, Ph.D.

President

Testers Of
Asphaltic Concrete, Concrete and Soil



BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814 Phone 925-0991

ALL TYPES OF PRINTING—
BOTH BUSINESS AND PERSONAL

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
ELECTRICAL AND INSTRUMENTATION

Phone 292-0100 P.O. Box 15274
Baton Rouge, La. 70815

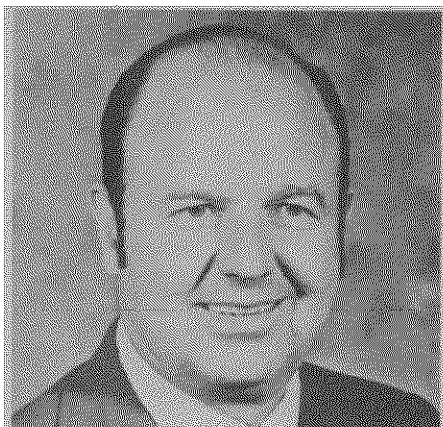
ORLEANS MATERIALS & EQUIPMENT CO., INC.

5501 France Road
New Orleans, La. 70126

EngiNEWS

Shiflett Elected to Louisiana Engineers Selection Board

Wendell P. Shiflett, P.E., of Baton Rouge has been elected to the Louisiana Engineers Selection Board for the term July 1, 1978 to June 30, 1979. He replaces Herb Pourciau, P.E., on the Board.



Wendell P. Shiflett, P.E.

Shiflett has a BS degree in mechanical engineering from the University of Texas, Austin. He is immediate past president of the Baton Rouge chapter of LES.

IN MEMORIAM Ramon D. Spilman

The society was saddened to receive the notification that Ramon D. Spilman passed away on April 22.

Spilman was a native of Tacoma, Washington and had lived in Sulphur for the past 30 years. He was employed at Cities Service.

Spilman joined the Louisiana Engineering Society in 1949 and has been a member of the Lake Charles chapter for 29 years.

He was a bombardier-navigator in the Pacific Theater during World War II and a lieutenant colonel in the U.S. Air Force.

The Louisiana Engineering Society extends its deepest sympathy to his wife and family.

IN MEMORIAM Charles Lee Payne, P.E.

The Society was saddened by the death of Charles Lee Payne, P.E., 64, of Lake Charles, on July 22, 1978.

Payne was a retired executive of PPG Industries Chemical Division Plant in Lake Charles. He was a native of New Orleans and was originally employed by PPG in 1946 as an engineer. He was a registered professional mechanical engineer in Louisiana and has been a member of the Louisiana Engineering Society since 1956.

Payne held membership and was an active participant in many civic organizations. He was very interested and active in the work of the Lake Charles chapter of the Louisiana Engineering Society and served as chairman of the LES Ethics and Professional Conduct committee in 1974-75.

The death of Charles Payne is felt with deep regret by his many friends in Lake Charles and especially by the members of the Louisiana Engineering Society.

LES extends its deepest sympathy to his wife, Mrs. Yvonne C. Payne, and his family.

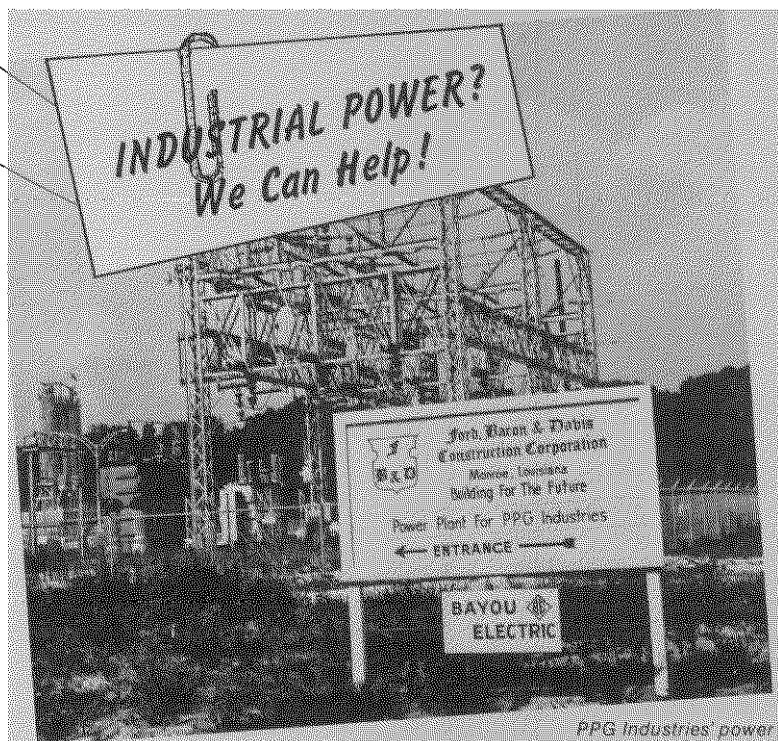
Vliet's Views—

Continued from page 16

protecting the public safety and welfare.

Undoubtedly, several hundred persons have recently heeded this advice. We were inundated with applications during the period between January and July. But the requirements for registration on the basis of Graduation plus Experience changed on July 1, 1978. And at once, the flow of applications reduced to a trickle. It will take some time before our backlog of applications to be processed becomes normal. Nevertheless, those applications received on or before June 30, 1978 will be evaluated on the requirements that existed before July 1, 1978.

The Louisiana Engineer



PPG Industries' power plant, Lake Charles

- ✓ Studies for fuel requirements, sources, and costs
- ✓ Technical and economic feasibility studies
- ✓ Fuel conversion projects
- ✓ Combined-cycle power plants
- ✓ Complete-facility design and construction
- ✓ Pollution abatement facilities

Ford, Bacon & Davis
Monroe and Baton Rouge
and 22 other cities worldwide



New Members of L.E.S.

ALEXANDRIA

John Bowers
2210 Third
Alexandria, LA 71301
Industry

William L. Davis, P.E.
Bodcaw Co.
P. O. Box 100
Jena, LA 71342
Industry

Elbert E. Elliott
612 Post Oak Blvd.
Alexandria, LA 71301
Government

Jerry J. Stewart
368 Deer Trace #466
Pineville, LA 71360
Construction

BATON ROUGE

John J. Cahill, III, P.E.
Clements, Cahill & Anders, Inc.
1075 Executive Park Ave.
Baton Rouge, LA 70806
Private Practice

C. Michael Gillam, EIT
2225 College Drive #27
Baton Rouge, LA 70808
Industry

Clifton H. Kees Jr., P.E.
10622 Effingham
Baton Rouge, LA 70815
Industry

Charles S. Phillips, P.E.
16528 Antietam Ave.
Baton Rouge, LA 70816
Industry

John S. Terlecki
11166 Darius Drive
Baton Rouge, LA 70816
Industry

BAYOU

Ronald P. Chiasson
605 Prevost Drive
Houma, LA 70360
Construction

Douglas K. Unruh, EIT
Santa Fe Engineering &
Construction Co.
P. O. Box 2518
Houma, LA 70361
Construction

LAFAYETTE

James W. Denny III, P.E.
Central Equipment Rentals
Drawer 52567
Lafayette, LA 70505
Industry

Burl E. Dishongh Jr., EIT
200 Oakcrest C-333
Lafayette, LA 70503
Private Practice

Paul N. Fontenot, P.E.
Paul N. Fontenot, Inc.
P. O. Box 499
Ville Platte, LA 70586
Private Practice

Delphin D. Hebert Jr., P.E.
205 Bernice Ave.
Lafayette, LA 70503
Private Practice

Wayne A. Hebert, EIT
504 S. Avenue M
Crowley, LA 70526
Private Practice

Charles A. Jeanmard, P.E.
902 Seventh St.
Lafayette, LA 70501
Private Practice

Khoi M. Le, EIT
337 Harrell Drive
Lafayette, LA 70503
Industry

Paul J. Letz, P.E.
203 East Eighth St.
Crowley, LA 70526
Private Practice

Shirley A. Stutes, P.E.
Rt. 3, Box 374
Lafayette, LA 70505
Industry

Randolph J. Trappey, P.E.
B. F. Trappey's Sons, Inc.
P. O. Box 3386
Lafayette, LA 70502
Industry

LAKE CHARLES

Brian D. Boudreaux, EIT
3619 Texas St. #43
Lake Charles, LA 70605
Industry

Rayburn L. Fontenot
Levingston Engineers
P. O. Box 1865
Lake Charles, LA 70602
Private Practice

Eric H. Harlan, EIT
Cities Service Comp.
P. O. Box 1562
Lake Charles, LA 70602

Howard S. Minn, P.E.
McNeese State University
Lake Charles, LA 70609
Education

Charles R. Prejean
632 Urban Street
Sulphur, LA 70663
Education

MONROE

James W. Braswell, P.E.
Terry D. Denmon & Associates
P. O. Box 4455
Monroe, LA 71201

NEW ORLEANS

Bruce H. Baker, P.E.
Boh Bros. Construction Co.
930 S. Tonti
New Orleans, LA 70113

Richard K. Blum, EIT
6306 Prytania
New Orleans, LA 70118
Private Practice

Carlos A. Cordon, P.E.
113 Rue Royal
Slidell, LA 70458
Private Practice

Robert E. Myers, P.E.
Exchange Oil & Gas Corp.
16th Floor
1010 Common St.
New Orleans, LA 70122
Industry

Tito L. Villarreal, P.E.
206 Greencrest Drive
Slidell, LA 70458
Industry

David E. Weidner, EIT
1122 Fern St.
New Orleans, LA 70118
Private Practice

William C. Weiland
Ensco, Inc.
P. O. Box 428
Hahnville, LA 70057

SHREVEPORT

Richard R. Aillet
Aillet, Fenner, Jolly &
McClelland
1055 Louisiana Ave.
Shreveport, LA 71101

New Registrations

MAY, 1978

Adams, James Richard
Baton Rouge, LA—Chemical
Ahearn, Richard Lawrence
New Orleans, LA—Metallurgical
Ahlberg, James Edwin
Atlanta, GA—Civil
Arnold, Jesse LaWayne
Baton Rouge, LA—Civil
Baker, Royce Kenneth
Corpus Christi, TX—Petroleum
Barnes Jr., Bruce Francis
Webster Groves, MO—Mechanical
Barnes, Greg Philip
Baton Rouge, LA—Industrial
Bassouni, Zaki
Baton Rouge, LA—Petroleum
Beik, Lewis Allen
Burlington, IA—Civil
Bierman, John Edward
Mandeville, LA—Industrial

Boagni, Robert Ervin
Baker, LA—Civil
Bouvier Jr., Maurice Joseph
Baton Rouge, LA—Electrical
Braun, Michael Francis
Mt. Pleasant, IA—Electrical
Breaux, Allen Dale
Corpus Christi, TX—Petroleum
Bulleit, Douglas Anthony
Atlanta, GA—Electrical
Cameron, Albert Neill
Baton Rouge, LA—Civil
Carter, James Howard
DeRidder, LA—Civil
Castille, Alan James
Lafayette, LA—Electrical
Casto, Roy James
Ramey, Puerto Rico—Civil
Causey, Lynn Reid
Zachary, LA—Mechanical
Clark, Juanita Karen
Baton Rouge, LA—Civil
Clark, Lawrence Ronald
Laurel, MS—Civil
Crimmins, David Michael
Kenner, LA—Civil
Daniels, Billy Eugene
Houston, TX—Electrical
de Armas, Jorge
Ramsey, NJ—Mechanical
Delmar Jr., William Joseph
Monroe, LA—Chemical
**To be Continued
In October Issue**

WANTED

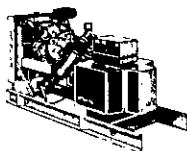
City Administrator for new council-administrator form of government in Leesville, LA. Applications accepted through September 15, 1978. Minimum 3-5 years experience required. Send resume and salary requirements to P. O. Box 1426, Leesville, LA 71446.

power failures . . . can mean business failures.

When the power goes out, you can tally the hours with dollar signs. Electrical blackouts take their toll in lost production and lost sales.

But they don't have to happen to you. A Kohler automatic emergency standby system can meet your power needs. When power goes off, Kohler comes on, automatically. Your business stays in business.

Write for more information on Kohler's emergency generator systems for industry, institutions, business, farms, and private homes.



KOHLER

KOHLER CO. KOHLER, WISCONSIN 53044



W.M.F.
SURGI
EQUIPMENT CORPORATION
NEW ORLEANS (504) 525-3142
BATON ROUGE (504) 293-0556
LAFAYETTE (318) 233-6322
The Gulf South's Best Machinery House

Sales • Service • Parts • Rentals

Professional Listings



burk and associates, inc.

engineers planners environmental scientists

4176 CANAL ST. NEW ORLEANS, LA. 70119 504-486-5901
525 SECURITY BLDG. GULFPORT, MS. 39501 601-864-0854

J. Wayne Plaisance, Inc.
CONSULTING ENGINEERS & LAND SURVEYORS
East 90th Street Post Office Box 968
Galliano, Louisiana 70354
Phone Numbers: 632-5596 or 632-5597



ASHTON and ASSOCIATES, INC.

**CONSULTING ENGINEERS
ELECTRICAL/INSTRUMENTATION**

717 South Foster Drive, Suite 210 P.O. Box 65144
Baton Rouge, Louisiana 70896 (504) 927-9920



**DEMOPULOS
AND FERGUSON, INC.**
CONSULTING ENGINEERS

600 Petroleum Tower
Shreveport, La.
318/221-7117

3637 West Alabama
Houston, Texas
713-622-2151

BTU's BHP's GOR's GPM's

WRIGHT ENGINEERING CO., INC.

P. O. Box 430 — Floerke Road
Portland, Texas 78374

Petroleum Engineers — Laboratory Analysis

J. F. "Bud" WRIGHT
Petroleum Engineer
Res. A/C 512 643-6287

Portland - A/C 512 643-7559
Laredo - A/C 512-723-7711
Radio - A/C 512 884-3257



**LEVY-KRAMER
& ASSOCIATES INCORPORATED**
CONSULTING ENGINEERS

Phone (504) 923-2334

422 Colonial Drive
Baton Rouge, Louisiana 70806

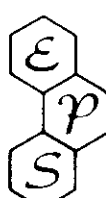
FLUOR OCEAN SERVICES, INC.

PROVIDING WORLDWIDE ENGINEERING AND
CONSTRUCTION MANAGEMENT SERVICES

OIL AND GAS PRODUCTION FACILITIES
PIPELINES
HARBORS, PORTS, TERMINALS

6200 HILLCROFT • HOUSTON, TEXAS 77036 • (713) 776-4100

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
- Air and Water Quality Sampling and Surveys
- Environmental Assessments
- Industrial Waste Treatability Studies

106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242

PROFESSIONAL DIRECTORY ORDER BLANK

Your professional card in the LOUISIANA ENGINEER will be seen by over 15,000 engineers.

Cost: 1 Year (6 issues)-\$90

We bill after each issue with tear sheet, or you may pay in advance.

Firm Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone Numbers: _____

Engineering Specialties: _____

Registration No. _____ Signature _____



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2635
808 BECK BLDG., SHREVEPORT, LA. 71101 (318) 227-8254



Guillot-Vogt Associates
CONSULTING ENGINEERS

CIVIL-STRUCTURAL • INSTITUTIONAL
ELECTRICAL • COMMERCIAL
MECHANICAL • INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4256



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

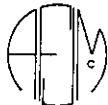
4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harrod H. McClelland

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.

1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612



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

Ford, Bacon & Davis
Engineers • Constructors



Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND TECHNICAL
FACILITIES INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA, NEW YORK, NY 10001
P.O. BOX 22718, HOUSTON, TEX. 77027

Phone (212) 239-4656
Phone (713) 623-1500

WALDEMAR S. NELSON AND COMPANY
Incorporated

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave.

New Orleans, La. 70130

523-5281



Brown & Root, Inc.

And Associated Companies/Serving Progress the World Over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

**DENSON ENGINEERS
INCORPORATED**
Consultants

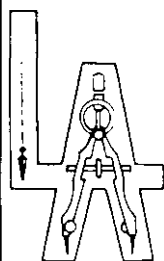
SUITE 800

COMMERCE BUILDING



NEW ORLEANS 70112

504 - 561-1131



LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.

Industrial & Marine Consultants and Designers

Bulk Terminals Docks and Wharves
Materials Handling Offshore Structures
Foundations Buildings
Industrial Site Selection Reports and Investigations
Construction Management

801 Marengo St. New Orleans, La. 70115
(504) 895-0368



ENGINEERS-PLANNERS-ENVIRONMENTAL SCIENTISTS
SPECIALIZING IN

Environmental Studies and Reports

Governmental, Commercial and Residential Land Development

Design Plans, Specifications and Construction Inspection
for Airports and Roadways

2701 INDEPENDENCE STREET/METAIRIE/LA/70002/504-455-3881

PETROLEUM ENGINEERS, INC.

Drilling Programs & Designs
Completion Programs & Designs
Workover Programs & Designs

Geothermal Programs & Designs
Property Management
Field Supervision

P. O. Box 52588
Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell
Engineers, Architects & Planners

2000 North 7th
Post Office Box 728
WEST MONROE, LA. 71291
Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street
Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.
J. David Bergeron, L.S. & P.E.

Phone 447-4017
P. O. Box 1203

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS
(713) 842-0414

SHREVEPORT, LOUISIANA
(318) 222-0783

Beaumont - Houston - Morgan City - Monroe - Shreveport

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills:

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash. 98119
206 285-4411

5615 Corporate Blvd.
Baton Rouge, La. 70809
504 327-4724

N-H ASSOCIATES, INC.

CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002
(504) 885-0500

Frank Nicoladis, President

MARRERO, COUVILLON & ASSOC.



ELECTRICAL ENGINEERS

- * GENERATION
- * DISTRIBUTION
- * INSTRUMENTATION
- * INDUSTRIAL
- * COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA 70806 PH 504/926-0005

AMERICAN CONSULTING SERVICES

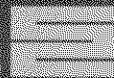
3035 DIRECTORS ROW SUITE 416
MEMPHIS, TENNESSEE 38131
TELEPHONE 901-345-5224



SEWER SYSTEM EVALUATIONS WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines



WALK, HAYDEL & ASSOCIATES, INC.

ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants,
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111
Telex 58-7302

Branch Offices: Baton Rouge, La. Mobile, Ala.

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130

THE FRANTZ co.

Complete Engineering Design Services
Chemicals • Petrochemicals • Petroleum

Suite 400
Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- OSHA Noise Compliance
- Hearing Conservation
- Computer Analysis
- Environmental Noise Studies
- Architectural Acoustics
- Room Acoustics Studies

1075 Elm Street, Suite 2001, Dallas, Texas 75202
214/741-7701 Telex 730796

An Equal Opportunity Employer

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.

HNTB

HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70809

MOHR & ASSOCIATES, INC.*Consulting Civil Engineers*

NO. 8 FAIRWAY FOREST PLAZA
7700 PINES ROAD
SHREVEPORT, LOUISIANA 71109
BUS. PHONE 686-7190

JAMES MOHR, P.E.
Res. 686-3558

DESMOND SPRAWLS, P.E.
Res. 687-5260

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.
Arthur E. Meyer, P.E., R.L.S.

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

**Enviro-Med Laboratories, Inc.***Environmental, Bio-Medical, and Chemical Specialists*

ROBERT W. FLOURNOY, Ph.D.
President

414 W. California
Ruston, Louisiana 71270

Office: 318-255-0060
Home: 318-255-5637

MARINE ENGINEERS

NAVAL ARCHITECTS

PROFESSIONAL ENGINEERS

DU BOIS, CARMAN & ASSOCIATES, INC.

4100 WALNUT DR.
NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983

**PYBURN & ODOM, INC.***CONSULTING ENGINEERS*

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 - 766-6330
4176 GSRI Rd. • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY*Foundation and Soil Mechanics Investigations*

Soil Borings • Foundation Analyses
Laboratory Tests • Reports

834-0157

3011 28th Street

Metairie, La. 70002

BARNARD & THOMAS ENGINEERING, INC.*Consulting Engineers*

Municipal and Industrial Engineering
Comprehensive City Planning

4440 North Boulevard
P. O. Box 64853
Baton Rouge, La. 70806
(504) 927-8323

Suite 101
3100 Ridgelake Drive
Metairie, La. 70002
(504) 837-5588

CHEMICAL
MECHANICAL
CIVIL
ELECTRICAL

3114 Cities Service Hwy.
Lake Charles, La. 70669
318-625-8212

LEVINGSTON ENGINEERS, INC.

INDUSTRIAL PLANT DESIGN

JOHN C. COPES*Consulting Engineers*

1956 Wooddale Court

Phone—926-7690 • 926-4842—Area Code 504

BATON ROUGE, LA. 70806

**McClelland engineers, inc.
geotechnical consultants**

4450 General DeGaulle Drive
New Orleans, Louisiana 70114
Tel. 504/393-6666 Telex 584-103
Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.*CONSULTING ENGINEERS*

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

SUITE 204, 7456 EXCHANGE PLACE
BATON ROUGE, LA. 70806
TELEPHONE (504) 927-8309

DYER & MOODY

INC.

Consulting Engineers

Municipal and Industrial
Consultants and Designers

P. O. Box 700, Baker, La. 70714

(504) 775-4800

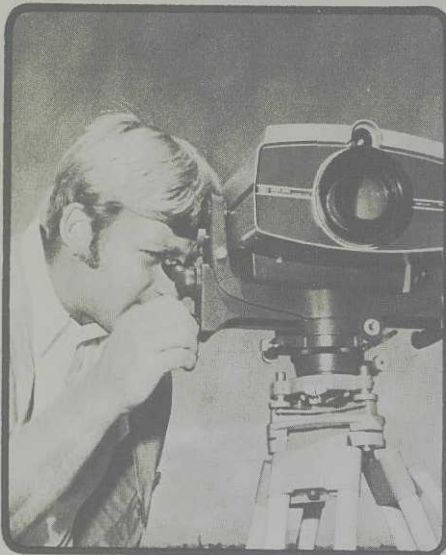
**The Rust
Engineering Company**

A Subsidiary of Wheelabrator-Frye

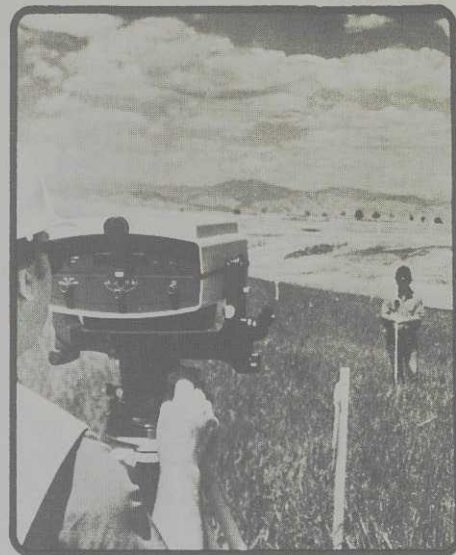
Engineering • Construction • Analytical Reports and
Surveys • Systems Engineering • Energy and
Environmental Engineering

P.O. Box 3077
Baton Rouge, Louisiana 70821 (504) 927-4190

Portland • Birmingham • Stamford • Affiliates in Montreal •
Brussels • Sao Paulo



**ONE DAY
(24 HR.)
DELIVERY
TIME
NATIONWIDE**



NEW HP 3808A 6 Mile EDM NEW

**HEWLETT-PACKARD
MODEL 3820A
ELECTRONIC TOTAL STATION**

**The One Instrument
That Does It All**

RENTAL CHARGES:
\$100.00 per/day
Portal to Portal

**HEWLETT-PACKARD
MODEL 3810A
TOTAL STATION**

**Industrial & Subdivision Layout
Topographic Surveys**

RENTAL CHARGES:
\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

**HEWLETT-PACKARD
MODEL 3808A (6 miler)
DISTANCE METER**

**Medium Range
20" Angle Base**

RENTAL CHARGES:
\$60.00 per/day for 1-10 days
\$50.00 per/day thereafter

**HEWLETT-PACKARD
MODEL 3805 (1 miler)
DISTANCE METER**

**Slope Measurement
Backpack**

RENTAL CHARGES:
\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

**HEWLETT-PACKARD
MODEL 3800A (2 miler)
Distance Meter**

Slope Measurement

RENTAL CHARGES:
\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

**HEWLETT-PACKARD
MODEL 9815A
CIVIL-SURVEY CALCULATOR**

With All Survey Programs

RENTAL CHARGES:
\$15.00 per/day

NOTE:

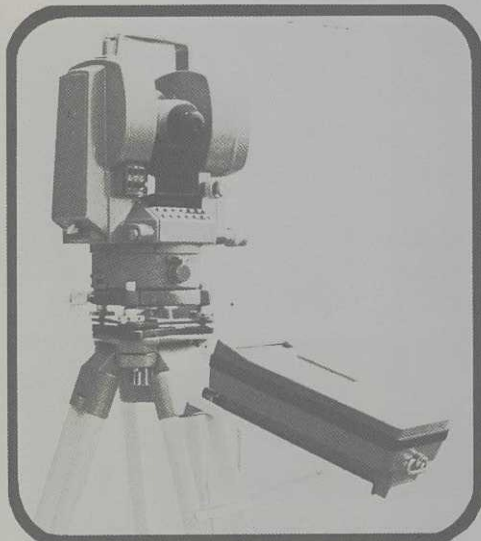
All EDM Equipment is complete with the following accessories at no extra charge.

- | | |
|------------------------------------|---------------------------------|
| (1) Recharger | (1) Tripod & Tribrach |
| (2) Battery Pods | (1) Layout Range and Prism Pole |
| (1) or (2) Triple Prism Assemblies | |

**The Bearded Oak
CIVIL SURVEY RENTAL**

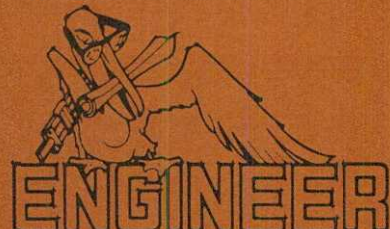
125 E. Chimes — Baton Rouge, La 70802 — (504) 926-9515 (24 Hr. Service)

Thank You for Your Interest in Our Service and Hewlett-Packard Products





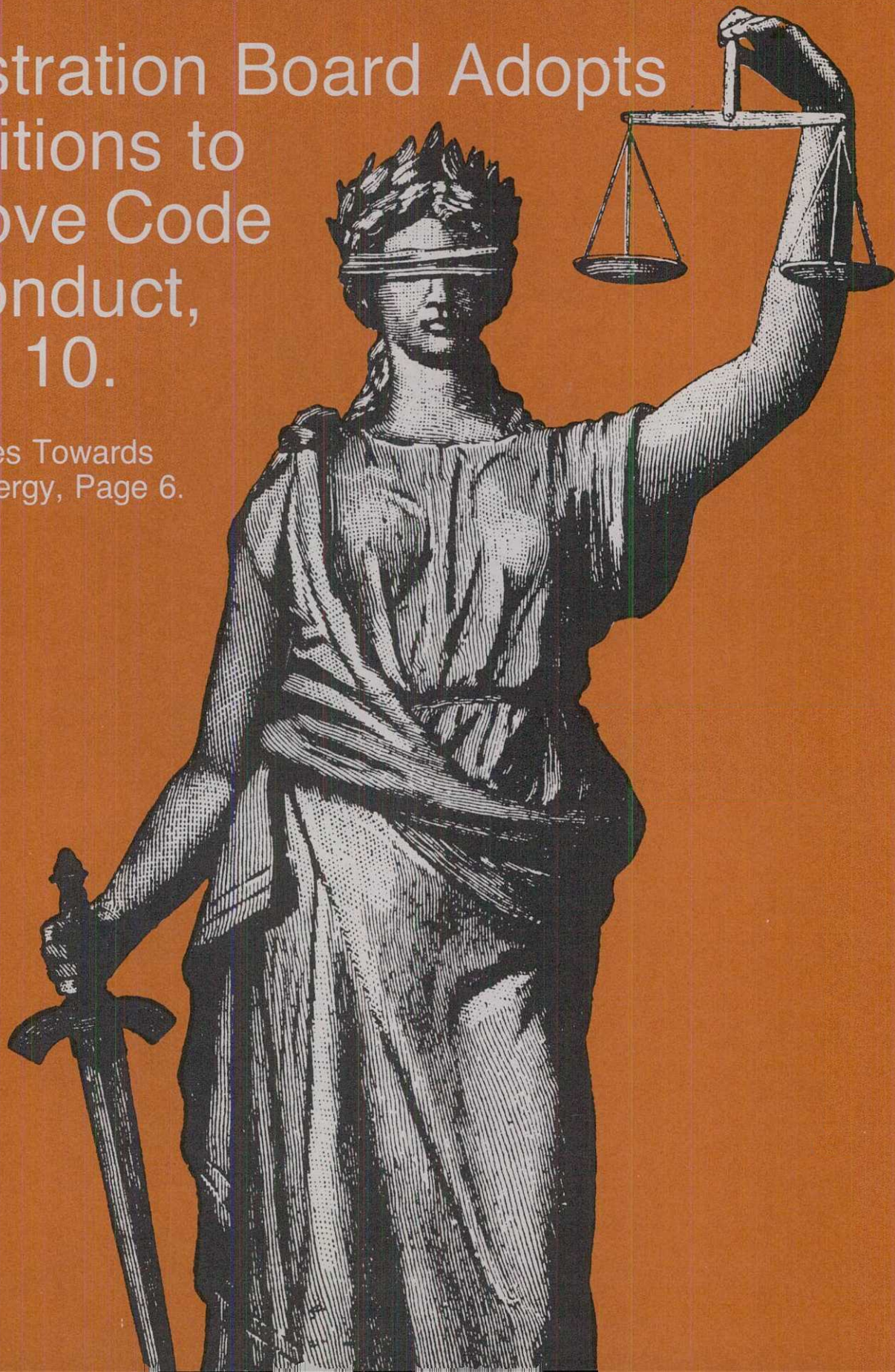
LOUISIANA



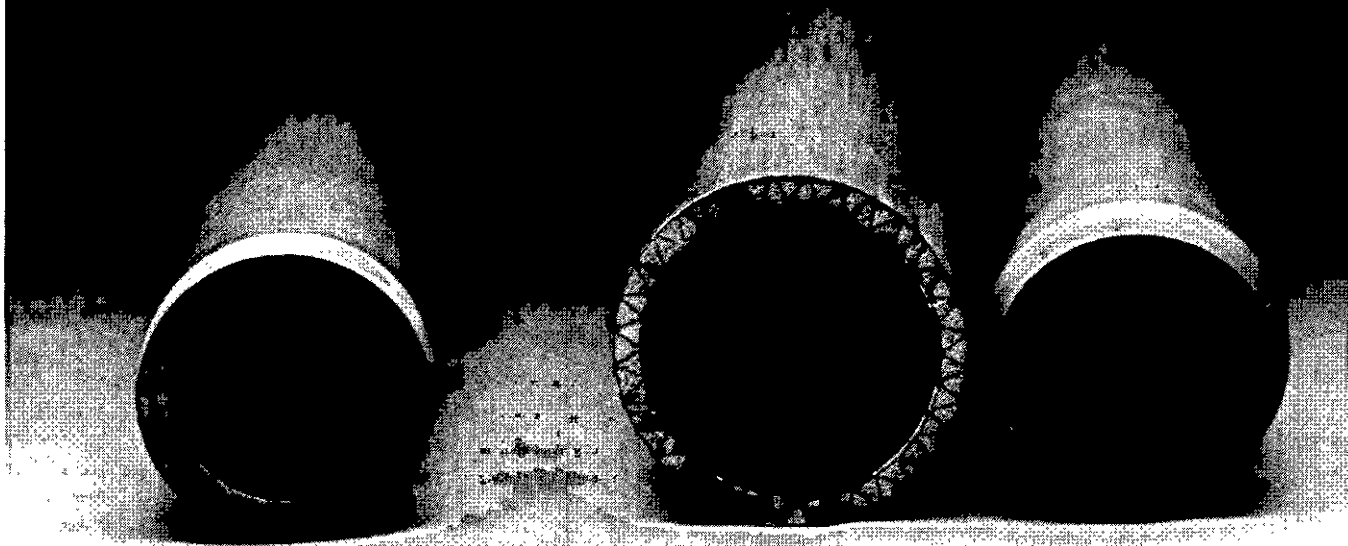
October, 1978

Registration Board Adopts Definitions to Improve Code of Conduct, Page 10.

Our Attitudes Towards
Nuclear Energy, Page 6.



The century vs. the decade.



Clay makes the longest lasting pipe in the world.

That's why we can offer a 100-year guarantee on our clay sewer pipe. No other material used for pipes can make that claim.

In fact, with other underground sewer piping materials, some municipalities have had to invest in expensive repairs or even completely replace piping within 10 years.

Clay lasts so long because of a unique property: chemically speaking, it's dead. It's an inert material found in nature, so it cannot react with sewer gases or acids.

It's virtually indestructible.

And clay has greater load bearing capabilities than other pipe materials. Structural integrity is built in.

Today you can choose Dickey PEP—Plain End Pipe—with a flexible coupling, which provides tighter joints and the cost-saving advantages of simpler on-site installation.

There's not much in this world that's guaranteed to last a hundred years.

There's no other sewer pipe.

Consider the advantages of the century versus

the decade.

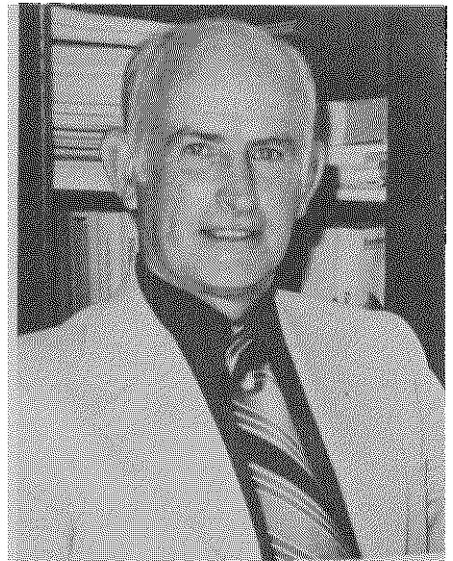
Call your Dickey sales representative. He's listed in the yellow pages under Pipe.

Or call or write for more information to W. S. Dickey Clay Manufacturing Company, Post Office Box 6, Pittsburg, Kansas 66762, 316/231-1400.

Dickey Clay.

PRESIDENTIAL PRIVILEGE

Carl H. Thomas, P.E.
President, LES



If you were given the opportunity (or challenge) to "design" an "engineer," how would you approach the problem? Do you feel that you have all the necessary resources to accomplish such a task? What is the "ideal engineer"? Where does the construction actually begin? Who has the responsibility of deciding what goes into such a design? When is the engineer ready for operation? If he is once accepted as an engineer, is he always an engineer? Why should we, as engineers, be concerned about this problem?

As an approach to solving this problem, let's analyze the situation as an engineer would. You must first have a clear understanding of the problem as it might be stated by the user firm. Recognize at the beginning that the user firm may not have a very clear understanding of the problem, for this may be the basic reason for seeking help. Surely a practicing engineer knows a real engineer when he sees one; therefore, he might have to develop the problem statement.

Itemize in chronological order all the objectives and sub-objectives pertaining to the problem. At this point you begin to look like a researcher, but that may not be all bad. This at least gives the designer something real to shoot at. You might skip the development of hypotheses, however.

Next come the procedures to be used to accomplish all of the stated objectives. This is where the process often fails, for it is very difficult to arrive at procedures for a new job. The secret is to arrive at the best known procedures.

A study of the resources might well compliment procedural developments; however, don't bank on these entirely. The resources may provide

much of the needed input for the design through evaluations of proven engineers. You must be careful to delineate the difference between original design and experience as an engineer. You can't design experience and you don't start as an experienced engineer.

It may be easy to theorize the "ideal" engineer, but it is a challenge to develop the process for building him. It's easy to criticize an engineering department for what it is not doing in terms of educating the engineer, but it's difficult to provide some meaningful suggestions for correcting the situation. The problem becomes even more complicated when so many designs must come from one department, all at the same time. The problem falls to the faculty for its solution. It's no wonder that the product sometimes looks as though it was designed by a committee.

I seriously doubt that the "design" is ever agreed upon by all the designers, and, worse yet, the fabricators never really fully agree on the process of construction. The product doesn't reach the level of "engineer" without some work experience. Which then is more significant to the design — four years of college or four years of experience? Where should the credit be directed when a good engineer results? Who takes the blame for a bad one? After all, equal credit is given to both of these four-year periods which contribute toward satisfying the requirements for being called an "engineer."

Once an Engineer—always an Engineer. All that's presently required to retain the title of "Engineer" indefinitely is to pay an annual fee. This is a fact even if the "Engineer" hasn't done an engineering job in 10, 20, 30 or more years. No matter how careful

the process for designing and building the engineer, there is very little, if any, incentive for him to retool. Is he rewarded and properly supported for taking leave to return to school? Who is responsible for his re-education (or retraining)?

I don't propose to have the solution for the problems posed above. Do you? Our Engineering Education Committee is attempting to get at some answers. Won't you help by supporting its efforts? I don't know how the committee members will approach the problems, but they will be trying something.

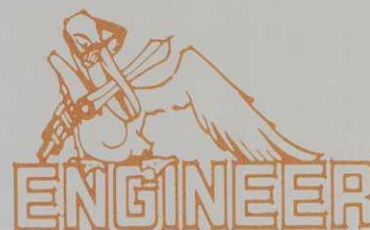
As a start, a mini-survey was taken at the July 15 general business meeting in New Orleans. Though the number of forms returned was small (38), apparently our engineers are concerned about the poor abilities of engineers to communicate. They are also concerned about ethics and professionalism. They don't want the requirements to be reduced.

Obviously the survey was insufficient to form any serious conclusions; however, it was gratifying to witness the concern of our engineers. You will no doubt be given an opportunity for further participation, and your constructive comments will certainly be appreciated.

I say that we as engineers are responsible for the building of our future engineers. We must show a real interest in our engineering education.

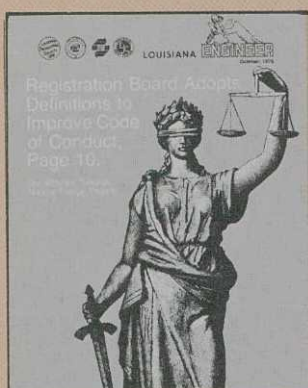
October, 1978

LOUISIANA



The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and 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 \$1.00 per year for engineers registered in Louisiana and non-registered members of the Louisiana Engineering Society. 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.

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



About the cover:

The State Board of Registration for Professional Engineers and Land Surveyors has begun steps toward implementing a professional code of conduct for Louisiana Engineers by defining and listing specific examples of acts of misconduct. Turn to Vliet's Views on page 10 and the Board's Disciplinary Action Report on page 11 for details.

In This Issue:

Presidential Privilege	3
Up the Technology	6
LES Awards Program	8
Vliet's Views	10
Board of Registration Report of Disciplinary Action	11
Roster of Chief Executives of Engineering Organizations ..	13
Potpourri	14
McNamara Named to Board of Registration	17
EngiNEWS	18

LES OFFICERS AND BOARD

President
Carl H. Thomas, P.E.
First Vice President
Francis C. Roy, P.E.
Second Vice President
Jerrel J. Freeman, P.E.
Secretary-Treasurer
John E. Ritter, P.E.

NSPE DIRECTOR

T. J. Hogue Jr., P.E.

STATE DIRECTORS

Arthur DeFraithe Jr., P.E.
T. Dudley Hixson, P.E.
Henry E. Markel, P.E.
John J. Guth, P.E.
E. E. "Buddy" Moncla, P.E.

EXECUTIVE SECRETARY

R. C. "Doc" Spears

CHAPTER PRESIDENTS

Alexandria
Jesse A. Simmons Jr., P.E.
Baton Rouge
Harold R. Williamson, P.E.
Bayou
John W. Woodard, P.E.
Lafayette
Richard A. Dupuis, P.E.
Lake Charles
William J. Bergeron, P.E.
Monroe
James W. Spivey, P.E.
New Orleans
Regis G. Trumps, P.E.
Shreveport
Ted J. Povinelli, P.E.

PRACTICE DIVISIONS

Construction
David Edgar, P.E.
Education
Frederick J. Brown, P.E.
Government
James C. Porter, P.E.
Industry
A. J. Adoue, P.E.
Private Practice
Richard Meyer, P.E.

COMMITTEE CHAIRMEN FOR 1978-79

Engineering Education
Clarence E. Hall
Ethics & Professional Conduct
David Buck, P.E.
Honors & Awards
James L. Meyer, P.E.
Inter-Society Relations
John J. Bergeron, P.E.
Legislative
D. J. Webre Jr., P.E.
Liaison with State Board of Registration
Arthur DeFraithe Jr., P.E.
Membership
Robert P. Blanche, P.E.
Public Relations
Dale T. Hunn, P.E.
Liaison with State Board of Regents
Larry A. McKee, P.E.
Young Engineers
Douglas B. Robert, P.E.

REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

Chairman
Fred C. Culpepper, P.E.
Vice Chairman
James L. Meyer, P.E.
Secretary
A. J. Brouillette, L.S.
Other Members
Larkin Agnew, P.E.
James W. Reeves, P.E.
Chris Demopoulos, P.E.
Andrew M. Moore, P.E.
H. L. Henry Jr., P.E.
Edward J. McNamara, P.E.
Executive Secretary
Dan Vliet, P.E.
1055 St. Charles Ave.
New Orleans 70130
(504) 581-7938

PUBLICATIONS COMMITTEE

Chairman and Editor
Waldemar S. Nelson, P.E.
Managing Editor
R. C. "Doc" Spears
Publishing Consultants
Norman C. Ferachi & Associates, Inc.



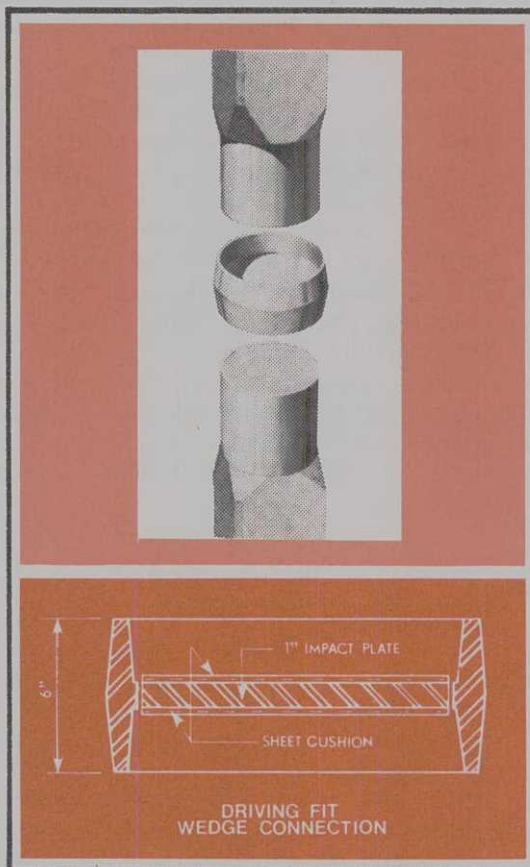
These buildings are built on Brunspiling: 1. Louisiana Superdome; 2. Amoco Building; 3. Hyatt Regency Hotel; 4. Plaza Tower; 5. International Trade Mart Garage; 6. International Trade Mart; 7. One Shell Square; 8. One Shell Square Garage; 9. Marriott Hotel; 10. Rault Holiday Inn; 11. Howard Johnson Motel; 12. NBC Bank Building; 13. ODECO Building; 14. Canal Motors Building; 15. ODECO Garage; 16. LSU Medical Center. Under Construction: A. Marriott Hotel Addition; B. Pan-American Life Insurance Building; C. 1250 Poydras Building.

In New Orleans, the skyline rests on cost-saving Belden Brunspile^{T.M.}

Since the development of the Belden Brunspile, more of the new buildings in the New Orleans area use this type of foundation piling than any other kind.

That's because this precast prestressed concrete piling is specially designed to reach great depths with conventional pile-driving equipment, resulting in substantial foundation savings.

Sections are easily joined in minutes at the job site by means of a cast steel connector. This creates piling of unlimited lengths.



High strength concrete makes this high capacity piling possible. 400 ton load tests are not uncommon. Thus Brunspiles can deliver an economical cost per ton of design capacity.

For more information on Brunspiling and load tests, call today.



Marine Concrete Structures, Inc.

2030 St. Charles Ave. — New Orleans, La. 70130 — (504) 523-2504

Up The Technology . . . a Report on Our Own

Prof. Frank A. Iddings
Nuclear Science Center
Louisiana State University
Baton Rouge, LA

Adapted from a presentation at the Awards Luncheon, Annual Meeting of the Texas Society of Professional Engineers, Dallas, Texas, June 23, 1978.

Most of us have heard the cliché "where there is smoke there is fire" and have learned that it isn't necessarily so. We have all seen the cloud of "smoke" produced by a CO₂ fire extinguisher, our breath on a cold day, or chemical reactions, such as between ammonia and HCl gas. But I am still told that the large controversy about nuclear energy must mean that nuclear energy is truly dangerous.

As I have studied this continuing controversy, looking for the source of all the 'smoke,' I find heated emotions — not logic — supplying a smoke screen concerning the safety, economy and dependability of nuclear power.

Perhaps the nuclear industry has brought the problem on itself by having provided one of the most exhaustive studies of a new technology in terms of its safety, environmental effects and consequences of human exposure. More is known about nuclear energy than any new technology adopted by mankind for power sources, including combustion of coal, oil and gas, or even their output result — electricity itself.

Why then this controversy? Every new technology has gone through the same fight against the same kind of attacks. There always seem to be those who like to frighten others concerning the safety of a new technology, as well as an eager mass of people ready to be frightened — just look at the movie advertisements today.

And have these ever-present fright-mongers and anti-technology boogymen been right? No, each new technology has always been an improvement over the replaced technology in terms of human well-being.

I would like to share with you tidbits

of history that parallel our present times. The history selected includes: horses (now designated as transportation), oil (now detailed as petroleum), the wide-open spaces (now described as our environment) and women (still often defined by the same term).

Let me set the stage by quoting from the Congressional Record: "Never in history has society been confronted with a power so full of potential danger and at the same time so full of promise for the future of man and for the peace of the world. The dangers are obvious." By the way, this is from the Congressional Record of 1875!

It continues: "Stores of gasoline in the hands of the people interested primarily in profit would constitute a fire and explosive hazard of the first rank. Horseless carriages propelled by gasoline engines might attain speeds of 14 or even 20 miles per hour . . . the development of this new power may displace the use of horses, which would wreck our agriculture . . . the discovery with which we are dealing involves forces of a nature too dangerous to fit into any of our usual concepts."

Horses are also mentioned by Otto L. Bettmann in his book *"The Good Old Days — They Were Terrible"*: "In city streets clogged with automobiles, the vision of a horse and buggy produces strong nostalgia. A century ago it produced a different feeling — distress, owing to the horse for what he dropped and to the buggy for spreading it."

The Old Gray Mare

Don H. Berkebile in *The Smithsonian* magazine tells us: "Yet a cool appraisal of horse-and-buggy days casts doubts on the ecological value of the old gray mare. Consider pollution: London, in 1875, had to get 1,000 tons of horse manure off its streets daily. American cities with a population of 12,000 horses (New York had more than 10 times as many at the turn of the century) had to remove daily a 130-ton hill of horse manure."

Bettmann informs us that in 1900 Rochester, N.Y., had 15,000 horses which provided enough manure to cover one acre 175 feet high in one year — too much even for tomato plants. He relates that "some pessimistic observers" feared that "American cities would disappear like Pompeii — but not under ashes."

And as for their safety, Berkebile notes that late in the 19th century, Paris could count 700 deaths and 5,000 injuries a year from carriage accidents. According to the National Safety Council, the horse-associated fatality rate was 10 times the car-associated rate of modern times.

But how has this marvel of technology, the automobile, been greeted? By horror stories dealing with health effects for the passengers and ridiculous laws and regulations covering operation. (For those of us in Nuclear, it sounds familiar). An early law (1896) required that a man on foot carrying a red flag or a red lamp precede an auto in the city. Can you see the 8 a.m. or 5 p.m. rush hours with this embellishment? Nuclear power is being hamstrung by the same kind of regulations today.

If we turn from the horses/auto controversy to oil, we find similar history. Bettmann tells us of kerosene replacing whale oil for lamps and being responsible in 1880 for 39 percent of all New York City fires. Of course it was not the oil that produced the fires but rather defective lamps and careless use, but still oil was far safer than open fireplaces and candles! Kerosene was rapidly replaced by gas lights.

Most of you must have some feelings about the safety of gas for illuminating rooms, but the following excerpt from the *Scientific American* in February of 1873 can give you better insight for the feelings of the scientists of that time as steam heat was introduced: "The question of heating our buildings by steam is now about in the same condition as was the question of lighting our dwellings by gas 50 years ago. It is true that gas is the safest kind of light, much safer than kerosene or oil or candles. All the same there are scores of people

Attitudes Toward New Energy Sources

raising their voices against the introduction of gas in our cities and houses.

"We now have exactly the same kind of alarmists among us, who, notwithstanding that heating buildings by steam is the safest of all methods — far surpassing the hot air furnaces and indefinitely safer than having a separate fire in each room — raise their voices against steam heat and attribute every fire taking place in a locality where steam is used, not to the fire in the furnace, but to the steam making the pipes red hot so igniting the woodwork in the neighborhood of these pipes."

Oil Controversy

We all know that oil has made possible the growth of technology, industry and the standard of living in this country. So oil must be our modern technological hero, right? Consider the following from recent history as taken from the Nuclear Legislative Advisory Service: "The Alaska oil pipeline was blocked in the courts for four years by the Sierra Club and other "environmental" extremist groups. (The pipeline, they claimed, would have damaged eight square miles in the state.) Had the pipeline brought its one-two million barrels per day on schedule, it would have broken the back of the 1973 Arab oil embargo and prevented the panic buying which established OPEC oil prices at the current \$14 per barrel." (There had been several previous Arab oil embargoes — each one had been broken by expanded U.S. oil production. In 1973, however, we had no excess capacity.)

The excerpt continues: "The U.S. government sold oil *exploration* leases off the Atlantic coast on August 20, 1976. These were immediately blocked in the courts by the Suffolk County (of New York) and the National Resources Defense Council (NRDC); and—a few months later—the sale was declared null and void by Federal Judge Weinstein (Brooklyn). His reason? The Federal government hadn't adequately assessed the environmental impact of full-scale production! This absurd decision was overturned Feb. 22, 1978

by the Supreme Court—but cost an 18-month needless delay."

Modern oil production has proven itself in Texas, Louisiana and other places as clean and safe. But other states still fear producing their own oil—as long as they can buy ours at a ridiculously low price!

The anti-nuclear advocates tell the public that nuclear power plants will spoil our environment, our wide-open spaces. Yet the pollution from a nuclear power plant is orders of magnitude less than the tons of effluent from fossil fuel plants and certainly less toxic. Consider that the radio activity in the effluent water from a nuclear plant must be less than 10 pCi/L while the bourbon loved by many is at least 1500 pCi/L. (That's right, 150 times more radioactive!) But before you cut out bourbon, consider that salad oil is about 3500 pCi/L and other foodstuffs are similar.

A recent Canadian report ("Risk of Energy Production" study AECB-1119 by H. Inhaber, Officer of Public Information, Ontario, Canada) shows that gas is the safest of all—if you have some. Next is nuclear power which is 10 to 60 times safer than solar generation methods and 100 to 200 times safer than oil or coal.

These same anti-nuclear fear strategists inform the public of the hazards of storing nuclear waste in our wide-open spaces. But they fail to tell of the nuclear reactors that ran in the rich uranium deposits in Gabon, Africa (*Scientific American* July, 1976) about two billion years ago, and that these natural reactors produced the same radioactive materials and plutonium described as "nuclear wastes."

These radioactive materials remained safely stored in the clay soil close to where they were made without man's changing them to insoluble ceramic, without man's encapsulation into stainless steel containers, and without man's transfer to a "more stable" geological formation.

Protecting Progress

Our wide-open spaces don't need the kind of protection that the so-called environmentalists want, but our ability to exist as we are, let alone

progress a bit, may certainly need protection.

Sounds like Catch-22 when the anti-nuclear and Nader's crusaders like to disqualify all experts on nuclear energy from discussing nuclear energy because they have an "obvious" vested interest. That's like requiring that the Professional Engineering Certification Boards have **NO** P.E.'s on them, because they have both a vested interest—and knowledge. Anti-nuke crusaders must feel a bit like the owner of a small country store who had a sign that said, "Trading here is like making love to a widow; you can't overdo it."

Of course it was a woman that really overdid it: She wrote a check to cover her overdraft at the bank. The anti's overdo it a bit when they tell us that plutonium is the most toxic substance on earth when it is only about 10 times more toxic than caffeine and less toxic than many industrial chemicals. We put over 5000 pounds of Pu into the air with our nuclear weapons without obvious effect. They don't tell you that we have enough uranium-238 metal available, already mined and processed, to produce enough plutonium to provide our electrical needs for as much as 300 years.

When the anti's tell us that nuclear power plants are dangerous, they fail to tell the public that we have yet to kill the first person with radiation at a nuclear power plant—and may have to wait over one hundred thousand years to have a really serious nuclear accident. We must be doing something right! And for over 200 years, Americans have been doing things right by applying new technology to the problems of their time.

However, America won't keep its high place if its people fall prey to the scare stories from a VOCAL MINORITY that would rob the citizens of the energy sources they need to continue to grow and to prosper.

For over 200 years, Americans have stood their ground in defense of their ideals of independence and security of the individual. It would be a terrible mistake to now capitulate those ideals to the imagined fears of a few.

LES AWARDS PROGRAM

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.

James L. Meyer, P.E., Chairman
Honors and Awards Committee

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 Professional Service Award

Nominations for recipients of the six basic awards may be made by:

- Any elected officer of the State Society or one of the Chapters.
- By the Board of Direction of the Society.
- By the Executive Committee or equivalent body of the Chapter.
- By three or more members of the Society.
- By the individual Chapter Honors & Awards Committee.

Nominations may be submitted to a member of the Honors & Awards Committee, or to the Honors & Awards Committee in care of the State Office, no later than December 1, 1978. Nominations for the awards must be submitted on the appropriate form. These forms were distributed to each Chapter September 14. The 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. Documentation carrying the present title and company connection of the nominee, setting 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 Secretary by December 1, 1978. The Honors & Awards Committee will meet shortly thereafter to select award winners.

Awards will be presented during the Society's spring meeting April 20, 1979, at the Sheraton Chateau Charles, Lake Charles.

Energy



It's costing more to provide it.

People often think utility companies operate differently from other businesses. But we don't. Like every other business we're concerned about and greatly affected by the rising costs of providing good service.

For example, we have to borrow money when we construct new facilities and the interest on these loans is rising regularly. Our costs for fuel, labor, equipment and material have also risen considerably in recent years.

All this, plus the funds needed for research to find new sources of energy to replace our present decreasing energy sources while continuing to protect our environment, has raised our cost of providing good electric service to a great degree and is making it more difficult each day for utility companies to operate.

Nonetheless, through increased efficiency of operation and careful planning, your investor-owned electric utility companies are doing all they can to make sure you continue to get reliable service and an adequate supply of electricity now and in the years to come.

Supporting The Wise and Efficient Use of Energy.

YOUR FIVE LOUISIANA 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



Vliet's Views

Daniel H. Vliet
Executive Secretary
Louisiana State Board of Registration for
Professional Engineers and Land Surveyors

Under the provisions of Act 73 of 1950, the Registration Law, the Board does not have, according to the attorney general, the authority to proclaim and enforce either a code of ethics or rules of conduct. Nevertheless, Section 20 of the Registration Law lists acts of misconduct which, if committed by a registered Professional Engineer or Land Surveyor, could result in suspension or revocation of his or her certificate of registration.

These acts are fraud, deceit, misrepresentation, gross negligence and gross incompetency in the practice of engineering and land surveying. The Board believed that the public welfare would be better protected through better regulation of the engineering and land surveying professions if these acts of misconduct were clearly defined in such a way that they relate to acts of misconduct that might be committed by engineers and land surveyors in their relations with the public.

At its last meeting, the Board adopted a set of definitions and examples of terms and phrases used in Section 20 of Act 73. These were published in the *Louisiana Register* on August 20, 1978, and became effective upon publication.

The full text of these definitions and examples is presented here for the benefit of all registered Professional Engineers and Land Surveyors.

FRAUD, DECEIT and MISREPRESENTATION mean intentional deception to secure gain through attempts to deliberately conceal, mislead, or misrepresent the truth with the intent to have others take some action relying thereupon, on any act which provides incorrect, false, or misleading information, upon which others might reasonably rely.

Examples of practices which the Board may consider to be applicable under the terms fraud, deceit, or misrepresentation include, but are not limited to:

1. The acceptance of compensation or benefits of any substantial nature, financial or otherwise, from more than one party for services on

the same project or assignment or for services pertaining to the same project or assignment, unless the circumstances are fully disclosed to all interested parties. The phrases "benefits of any substantial nature" and "significant gratuity" are defined to mean any acts, articles, money or other material possessions which are of such value or proportion that their acceptance could reasonably be expected to create an obligation on the part of the receiver, or otherwise compromise his ability to exercise his own judgment, without regard to such benefit or gratuity.

2. The solicitation or acceptance, directly or indirectly, of any financial or other valuable considerations, or benefits of any substantial nature, from any supplier of materials or equipment for any project on which the registrant is performing or has contracted to perform engineering or land surveying services.

3. The solicitation or acceptance of any significant gratuity, or benefits of any substantial nature, directly or indirectly, from contractors, their agents, servants or employees, or from any other party dealing with the registrant's client or employer in connection with any project on which the registrant is performing or has contracted to perform engineering or land surveying services.

4. When in public service as a member, advisor or employee of a governmental body or department, or under contract to provide consultation, advice, technical reviews and recommendations to a governmental body or department, the participation by the registrant in considerations or actions with respect to services provided by him or his organization in private practice to that governmental body or department.

5. The solicitation or acceptance of an engineering and/or surveying contract from a governmental body of which a principal, officer, or employee of the registrant's organization serves as a member.

6. The payment or offer of payment, either directly or indirectly of any commission, political contribu-

tion, or a gift, or other consideration in order to secure work, exclusive of securing salaried positions through employment agencies. Political contributions or gifts not given with the intent to secure work, and which meet legal requirements, will not be considered as applicable.

7. Permitting the falsification or misrepresentation of the registrant's, or any associate's academic or professional qualifications; the misrepresentation or exaggeration of the registrant's degree of responsibility in or for the subject matter of prior assignments or the misrepresentation of pertinent fact concerning employers, employees, associates, joint ventures of the registrant's or his organization's past accomplishments with the intent and purpose of enhancing his qualifications and his work.

8. The permitting of the registrant's seal, stamp, or name to be affixed to any document which was not prepared by him or under his responsible supervision and control.

9. Permitting the falsification, misrepresentation or publication of technical reports, plans or documents which bear the registrant's name, seal, or stamp, when the issuance of such reports, plans or documents will mislead or misrepresent the truth.

GROSS NEGLIGENCE shall mean the practice of engineering or land surveying by a registrant characterized by his lack of reasonable care, precaution, or attention to the rights, safety, or welfare of others, which could result in injury or damage to life or property.

Examples of practice which the Board may consider to be applicable under the phrase gross negligence include:

1. The preparation of an incomplete or inaccurate engineering or land surveying plan or document that is obviously below acceptable engineering standards, which is released for construction or other lawful purpose, and which could result in financial loss to a client or employer.

2. Failure of the registrant to exercise reasonable diligence and care in providing professional services, which could result in financial loss or damage to a client or employer.

GROSS INCOMPETENCY shall mean the practice of engineering or land surveying by a registrant who is either incapable of exercising ordinary care and diligence or who lacks

Continued on Page 19



Report of Disciplinary Action By The Registration Board

During 1978, the Board has revoked the registration of four Professional Engineers and the authority of one corporation to provide engineering services. In addition, the registration of one Professional Engineer was suspended for six months.

Case 78-71

Engineer guilty of fraud, deceit and misrepresentation

Complaint:

Person A, a registered Professional Engineer and Land Surveyor, now living and working in Oregon, notified the Board that his Louisiana seal and his signature had been used without his knowledge on land surveying plats prepared by Person B, a resident of Louisiana. Evidence submitted as enclosures to Person A's letter of notification indicated that

Person A had filed suit against Person B for damages and that this suit had been settled out of court for the sum of \$10,000.

Investigation:

An investigation of the files of the Board indicated that Person B had been registered as a Professional Engineer in Louisiana but that his registration had not been renewed since 1958. His file also indicated that in January, 1964, his application for registration as a Land Surveyor had been disapproved because of insufficient experience. The evidence submitted by Person A was judged by the attorney for the Board to be sufficient to justify calling a hearing of charges against Person B.

Hearing:

Person B was advised that the Board was charging him with fraud,

deceit and misrepresentation under the provisions of Section 37:700 of the Louisiana Revised Statutes; that a hearing of these charges would be held at 9:00 a.m. on July 26, 1978, at the office of the Board; and that he could call witnesses and be represented at the hearing by legal counsel.

On the day of the hearing the Board received a letter, dated July 20, 1978, from Person B in which he admitted his guilt and stated that he sincerely regretted his misconduct.

Only the members of the Board and its executive secretary attended the hearing. Person B's letter was read into the record.

Action by the Board:

The board found that Person B was guilty of fraud, deceit and misrepresentation and his registration as a Professional Engineer in the State of Louisiana was revoked.

WE OFFER. . . .

- ☐ GENERAL CONTRACTING
- ☐ INDUSTRIAL
- ☐ COMMERCIAL
- ☐ PILEDIVING
- ☐ FOUNDATIONS
- ☐ TREATMENT PLANTS
- ☐ PRE-ENGINEERED BUILDINGS

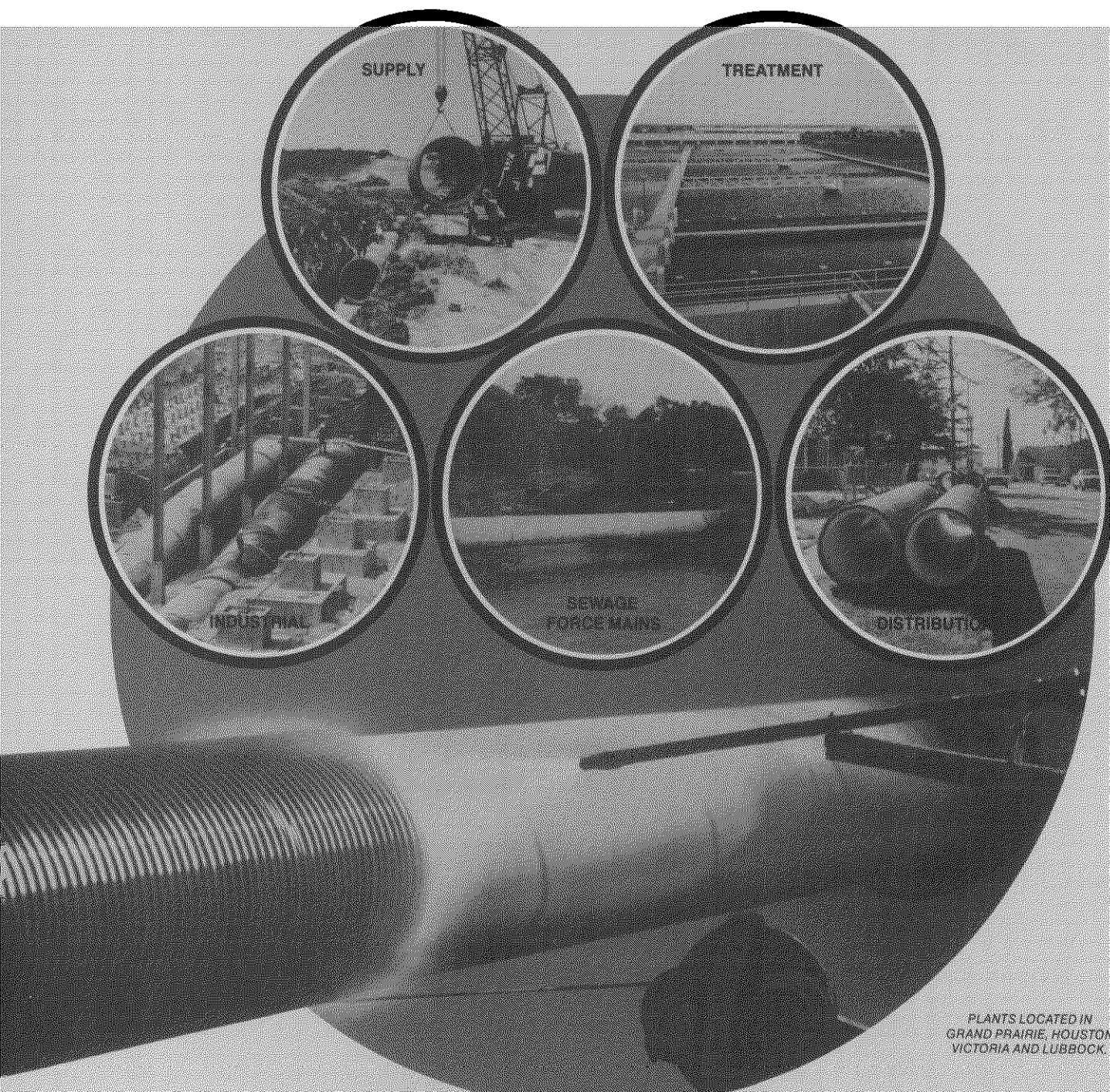
—competitive bids on any individual item, a combination of items or as prime contractor with total project responsibility.

**A Competitive, Quality-Oriented, Time-Conscious Company
in Business since 1956**

LANDIS CONSTRUCTION CO., INC.

P.O. Box 4278, New Orleans, LA 70178 (504) 837-4123

G-H-A makes a Concrete Pressure Pipe for every water works need.



PLANTS LOCATED IN
GRAND PRAIRIE, HOUSTON
VICTORIA AND LUBBOCK.

And, custom wraps it...to give it class!

G-H-A makes several types of Concrete Pressure Pipe in diameters from 10-inches thru 144-inches, for classes from 50 psi thru 400 psi, all in accordance with American Water Works Association Standards. Each is a proven product, carefully designed to efficiently and economically serve a specific water works need.

When G-H-A builds a section of pipe, it is for a particular project and will be fabricated for the working conditions (internal pressure and external load) that it will experience when installed and put in service. It will receive a steel wire wrap...the gauge, tensile strength, tension and spacing of which have been computer planned...to give it the class needed.

Look to G-H-A for your water works needs and discover the ideal Concrete Pressure Pipe...**a product with class that is exactly what you need, section by section.**



Gifford-Hill-American, Inc.

MANUFACTURER OF CONCRETE PRESSURE PIPE

POST OFFICE BOX 47127 DALLAS, TEXAS 75247

Roster of Chief Executives Of Engineering Organizations

The Inter-Society Relations Committee of the Louisiana Engineering Society attempts to correspond regularly with the chief executives of each constituent component of the engineering organizations it can identify in the state of Louisiana. If your organization is interested in participating actively in inter-society matters, you are welcome to request through LES headquarters that your organization be included. There will be ample opportunity for each organization to apprise itself of LES inter-society programs and to provide input when it so desires, as well as presenting its own inter-society interests and programs to LES and other organizations through a formal channel of communications.

Institute of Electrical and Electronic Engineers

G. Allan Ledbetter, Chairman
IEEE, New Orleans Section
3500 N. Causeway
Metairie, La. 70035
(504) 831-4252

Society of Petroleum Engineers of the American Institute of Mining Engineers

Steven W. Ohnimus, Chairman
SPE, Evangeline Section
Union Oil of California
P.O. Box 51388 OCS
Lafayette, La. 70505
(318) 232-9724

Marcus L. Millican, Chairman
SPE, Lou-Ark Section
334 Beck Bldg.
Shreveport, La. 71107
(318) 221-2345

W. R. "Bill" Picquet, Chairman
SPE, Spindletop Section
Continental Oil Co.
1731 Whispering Wood Drive
Lake Charles, La. 70605
(318) 478-7080

Donald A. Mitchell, Chairman
SPE, South Louisiana Section
P.O. Box 2217
Houma, La. 70361
(504) 872-0840

Nathan T. Cotman, Chairman
SPE, Delta Section
2731 Prancer St.
New Orleans, La. 70114
(504) 392-7222

American Society of Heating, Refrigeration and Air Conditioning Engineers

Ronald R. Lacoste, President
ASHRAE, Baton Rouge Chapter
Barnard & Burk, Inc.
P.O. Box 15648
Baton Rouge, La. 70895
(504) 293-4000

American Institute of Chemical Engineers

Donald T. Rigler, Chairman
AIChE, Southwest Louisiana Section
P.O. Box 1000
Lake Charles, La. 70602
(318) 491-4423

Henry DuPre, Chairman
AIChE, Baton Rouge Section
Exxon Chemical Company, USA
P.O. Box 241
Baton Rouge, La. 70821
(504) 359-4837

American Society of Civil Engineers

Philip J. Lindsay, President
ASCE, Louisiana Section
1404 Airline Drive
Bossier City, La. 71112
(318) 742-0467

Ronald G. Poole, President
ASCE, Shreveport Branch
Rt. 4, Box 759-A
Haughton, La. 71037
(318) 425-1271

Roy S. Kelley, President
ASCE, New Orleans Branch
J. A. Jones Construction Co.
P.O. Box 52946
New Orleans, La. 70152
(504) 733-8390

David S. Huval, President
ASCE, Baton Rouge Branch
P.O. Box 266
Scott, La. 70583
(318) 234-9435

Thomas L. Jackson, Sec.-Treas.
Louisiana Section ASCE
3725 Fran St.
Metairie, La. 70001
(504) 486-5901

American Society of Mechanical Engineers

K. W. Winterrowd
Chairman, ArkLaTex Section
Tri-State Oil Tool
P. O. Box 5757

Anthony Redovnikov, Chairman
New Orleans Section
U.S. Army Corps Engineers
P.O. Box 60267
New Orleans, La. 70160
(504) 865-1121

American Society of Agricultural Engineers

William H. Brown, Chairman
ASAE, Baton Rouge Section
Dept. of Agric. Engineering
LSU, Baton Rouge, La. 70803
(504) 388-3153

Stephen J. Langlais, President
ASAE, Louisiana Section
Rt. 1, Box 620E
Erath, La. 70533
(318) 893-7677

Society of Women Engineers Louisiana Section

Clare M. Shortall, Chairman
P.O. Box 241
Baton Rouge, La. 70821
(504) 359-4802

Louisiana Land Surveyors Association

Vincent J. Misuraca, President
9459 Ridgewood Drive
Baton Rouge, La. 70814
(504) 924-6321

Francis M. Tessier, Sec.-Treas.
10324 Tanwood Ave.
Baton Rouge, La. 70809
(504) 293-2457

District Chairmen

Ralph P. Fontcuberta Jr.
District 1 & 2
P.O. Box 836
Metairie, La. 70004

Frank R. Lyman
District 3
P.O. Box 686
Crowley, La. 70526
(318) 783-5377

Sammie L. Craft
District 4
2120 Benton Road
Bossier City, La. 71010
(318) 742-1281

Frank Messinger, III
District 5
P.O. Drawer 1179
Bastrop, La. 71220
(318) 281-1636

John W. Kellen Jr.
District 6
375 North Foster Drive
Baton Rouge, La. 70806
(504) 926-5728

James L. Hall
District 7
1200 Hallmont Circle
DeRidder, La. 70634

Herbert J. Simoneaux
District 8
P.O. Box 244
Marksville, La. 71351

Consulting Engineers Council of Louisiana

Harold E. Faller, P.E., President
Harold E. Faller & Associates
508 Coolidge St.
Jefferson, La. 70121
(504) 837-1814

Bruce B. Earle, P.E., President
Baton Rouge Chapter
Earle Enterprises
P. O. Box 14388
Baton Rouge, La. 70808
(504) 769-1404

Frank Beaulieu, III, P.E., President
Lafayette Chapter
Frank Beaulieu III & Associates
721 W. Congress St.
Lafayette, La. 70501
(318) 237-1005

Ed Jolly, P.E., President
Shreveport Chapter
Alliet, Fennel, Jolly & McClelland
1055 Louisiana Ave.
Shreveport, La. 71101
(318) 425-7452

Bryan Ritter, P.E., President
Monroe-West Monroe Chapter
Nelson, Ritter, Harrison & Lawton
404 Fairfield St.
West Monroe, La. 71201
(318) 387-8373

Sorrell Lanier, P.E., President
New Orleans Chapter
Lanier & Associates
801 Marengo St.
New Orleans, La. 70115
(504) 895-0368

James Meyer, P.E., President
Alexandria Chapter
Meyer, Meyer, LaCroix & Hixson
P.O. Drawer 5444
Alexandria, La. 71301
(318) 448-0888

ENGINEERS & DRAFTERS

Large, long-established consulting engineering firm has openings in New Orleans for:

CHEMICAL ENGINEERS, CIVIL ENGINEERS, DESIGNERS & DRAFTERS, ELECTRICAL ENGINEERS, DESIGNERS & DRAFTERS, INSTRUMENTATION, ENGINEERS & DESIGNERS, MECHANICAL ENGINEERS

Min. one year consulting firm, petrochemical plant, offshore or on-shore oil production facilities or HVAC design experience. All replies held confidential. Send resume to:

C.H. Weatherly

An Equal Opportunity Employer, M/F

WALDEMAR S. NELSON & CO., INC.
ENGINEERS & ARCHITECTS

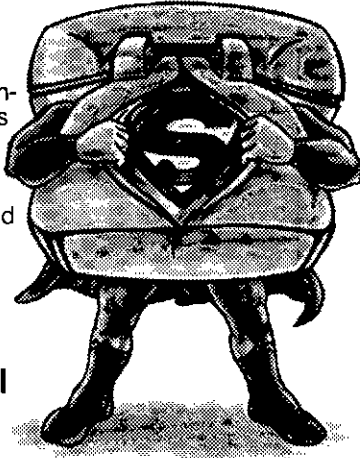
1200 St. Charles Ave.
New Orleans, La. 70130

MORE POWERFUL THAN A BUSINESS LETTER! FASTER THAN A SALES TRIP...

Dial Long Distance to contact more sales prospects with the least cost, time, and effort. You get the advantage of a personal two-way conversation and instant response.



South Central Bell



Ausco fail-safe brake for hydrostatic drives

**Bolts directly
into power
train—no
alignment
problems**

**No extra brackets,
no shimming needed**

**Complete
self-contained
package**

**Spring loaded,
hydraulically
released.**

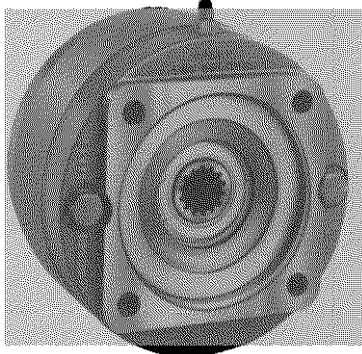
SAE motor mounts

**Fits SAE J744c
Standard.**

**Either charge or
full line pressure**

**Rugged cast iron
construction**

**Bearing-supported
shaft**



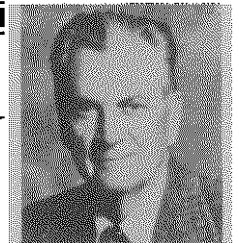
SAE Motor Mount	Torque Capacity, lb. in.	Size Overall, Dia. x Length
A/B	2,400	7.00 x 4.50
B	2,400	7.00 x 4.00
C	8,400	8.00 x 4.86
D/E	20,000	11.02 x 6.65
F	40,000	16.20 x 5.42

Write or phone for complete information. Auto Specialties Manufacturing Company, St. Joseph, Michigan 49085. Phone 616/982-2373

AUSCO
DISC BRAKES/CLUTCHES

Potpourri

R. C. "Doc" Spears
LES Executive Secretary



LES Training Session, Alexandria

The 22nd Chapter Officers' Training and State Planning Conference held September 14-16 at the Sheraton Inn in Alexandria was attended by 100 engineers and 28 ladies.

Thirty-three engineers attended the public relations seminar on Thursday which was conducted by **Jack Cox**, NSPE. The four-hour seminar was well received. Cox, in his low key manner, covered all facets of public relations including how public relations can help the chapter; a check list for successful LES chapter programs; public relations techniques; radio and television ideas; and a Louisiana media list for releasing information about LES and engineers.

More than 60 engineers and guests attended the Thursday evening early-bird cocktails and seafood dinner at Tunks Cypress Inn near Alexandria. **Francis Roy, P.E.**, president-elect, was in rare form with a number of Cajun stories.

The Friday morning session was conducted by **Carl Thomas, P.E.** Each activity chairman had done his homework and made excellent presentations:

**State Board of Registration
Membership Development
Legislative
Meetings & Programs
Engineering Education
Relations with State Board
Ethics & Professional Conduct
Practice Divisions**

**Dan Vliet, P.E.
Bob Blanche, P.E.
Lamon Moody, P.E.
Jim Reeves, P.E.
Francis Roy, P.E.
Jim Meyer, P.E.
Dave Buck, P.E.
Dudley Hixson, P.E.**

Practice division and committee meetings were held Friday afternoon. Representatives from each chapter attended these meetings and formulated procedures for the coming year.

Eighty-two engineers attended the luncheon Friday and heard **Harvey Smith** and **John Mason** speak on the mission of the LSU and UNO University Development Centers.

One-hundred and nineteen engineers and guests enjoyed a delicious barbecue beef and ham dinner at Harold Miles Park Friday evening. Our sincere thanks to **Louisiana Industries, Inc.** for hosting the pre-dinner refreshments. Francis Roy again entertained the gathering with exploits of Robichaux and Boudreaux, Louisiana Cajuns.

Fifty-four engineers and guests attended the Saturday breakfast where the **Bayou Chapter** was presented with a certificate for winning the 1977-78 membership contest. **John Woodard, P.E.**, Bayou Chapter president, accepted the certificate from Carl Thomas, P.E.

The ladies' tour and coffee at Kent House Plantation was enjoyed Friday by 17 ladies.

Concrete Pipe Manufacturers Workshop

The **Louisiana Concrete Pipe Manufacturers Association** is sponsoring a workshop on hydrogen sulphide effect on concrete pipe sanitary sewer usage. The date is November 12, 1978 in New Orleans.

For more information contact: LCPMA, P.O. Box 45053, Baton Rouge, LA 70895, telephone (504) 261-2111.

LES Constitution and Bylaws

A 1978 edition of the LES Constitution and Bylaws has been published. Copies are available on request from LES members.

Vacancy on State Board of Registration

Sidney L. Poleynard, P.E., resigned from the Louisiana State Board of Registration for Professional Engineers and Land Surveyors on September 27, 1978. He is relocating out of the state.

The Louisiana Engineer

The PEG practice division prepared a list of 10 engineers qualified to replace Poleynard on the Board. The screening committee selected the names of five candidates from the list, and they were presented and adopted by the LES Board on September 16. The names of the five engineers have been submitted to the governor who will select one to complete the term of Poleynard, which expires July 29, 1982. The names submitted to the governor are:

Blaisse Carriere, P.E.	New Orleans
Gerald Dyson, P.E.	Baton Rouge
C. W. Hair Jr. P.E.	Baton Rouge
Frank Heroy, P.E.	Baton Rouge
Arthur Theis, P.E.	Baton Rouge

LES Budget 1978-79

A balanced budget for 1978-79 was adopted at the LES Board meeting September 16, 1978. Estimated income and expenditures will be \$121,500.

A 10 percent dues increase has been adopted for 1979. The 1979 dues for various member classifications compared to 1978 are:

	1978	1979
Member	\$30	\$33
Associate Member	22	24
Affiliate Member	33	36
Privileged Member	5	5
Student Member	2	2

NSPE-PEPP Seminars

NSPE-PEPP is sponsoring a series of seminars entitled, "Firm Financial Management." One was held in Chicago on October 9-10, and the next will be held at the Crystal City Marriott, Arlington, Virginia, on November 9-10, 1978. Future locations and dates are: Atlanta, Georgia, March 1-2, 1979; and Kansas City, Missouri, May 17-18, 1979.

The two-day workshops have been designed to provide the owner-manager of the small- to medium-sized firm with a basic understanding of accounting procedures and a set of financial management tools.

For details, contact NSPE-PEPP, 2029 K. Street, N.W., Washington, D.C. 20006, telephone (202) 331-7020.

Engineering Recruiting High in 1978

The College Placement Council, in its annual salary survey said national recruiting of engineers, particularly at the bachelors degree level, was high. Job offers to bachelors degree recipients increased 35 percent over last year and 90 percent over 1975-76.

The national salary averages for engineering graduates was \$1500 a month. Other averages were \$1124 for accountants; \$993 for general business; and \$871 for humanities graduates.

Ten Commandments for Living with People

1. *Speak to people.* Nothing is so nice as a cheerful greeting.
2. *Smile at people.* Takes 72 muscles to frown, 14 to smile.
3. *Call people by name.* Sweetest sound is one's own name.
4. *Be friendly and helpful.* If you want friends, be a friend.
5. *Be cordial.* Speak and act to prove everything you do is a genuine pleasure.
6. *Be genuinely interested in people.* Just try and you can like almost everyone.
7. *Be generous with praise*—and courteous with criticism.
8. *Be considerate with others.* There are often three sides to a controversy; yours, his and the right side.
9. *Be alert to give help . . .* what we do for others lives and is immortal.
10. *Add to all this* a good sense of humor, loads of patience, a dash of humility and you will be rewarded many fold.

John S. Swift Company, Inc.

The Mitigation Symposium

A national workshop on mitigating losses of fish and wildlife habitats, (the Mitigation Symposium), is to be held at Fort Collins, Colorado, July 16-20, 1979. The event is sponsored by the American Fisheries Soci-

October, 1978

CONSULT BOYCE... Specialists in Caterpillar Power!

Big Bore Medium Speed
6.25" Industrial Engines 200 to 1300 BHP
Generator Sets 335 to 900 KW

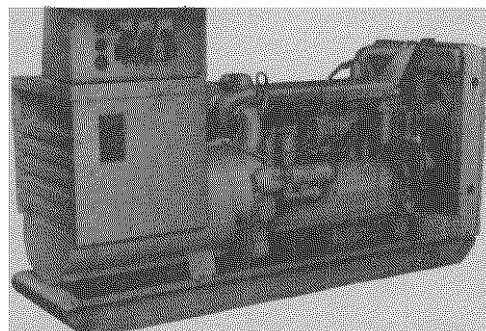
High Power Compacts
5.4" Industrial Engines 315 to 1130 HP
Generator Sets 285 to 750 KW

3400 Series
Industrial Eng. 325 to 375 HP
Generator Sets 240 KW

Heavy Duty Smaller Units
4-6 cyl. Industrial Eng. 100 to 280 HP
Generator Sets 60 to 205 KW

High Performance V8's
Industrial Eng. 175 to 210 HP

Truck Engines -16 models - 175 to 450 HP
Cat Packaged Generator Sets 50 to 375 KW
Natural Gas Engines 133 to 1115 BHP
Cat Marine Engines 125 to 1125 BHP



A Wide Variety of Cat-Plus Services to Keep
Your Caterpillar-Built Engine Products Earning
for you . . . longer life — more profits.

Service Throughout South Louisiana.



CATERPILLAR
SALES, SERVICE & PARTS



BOYCE
MACHINERY CORP.
DRAWER A J. RESERVE, LOUISIANA 70084
TELEPHONE 504-536-1121

MORGAN CITY: 504-631-0561 LAKE CHARLES 318-439-3601

Caterpillar, Cat and B are Trademarks of Caterpillar Tractor Co.



From Two To Two Thousand Meetings and Banquets.

You want your meetings to be productive. So do we. That's why our staff of professional meeting coordinators attend to every detail to insure satisfaction and a worry-free working environment. No matter how large or small the group.

We are not at all intimidated by handling a group of two thousand. Nor are we blasé about planning a private meeting for two. Our expansive meeting facilities can handle it all with ease. Choose from meeting rooms of all sizes and configurations, a 12,000 square-foot grand ballroom and smartly appointed hospitality suites. After all, Capitol House is the largest hotel meeting center in Baton Rouge.

Capitol House is an ideal location for regional and local meetings, large or small. Finding us is no problem. We're downtown. Parking is no problem. . . we've got you covered.

At Capitol House, we're convention and meeting specialists, and we want your business. Make a note of it!



CAPITOL HOUSE

Downtown on the Mississippi/Baton Rouge/383-7721

MUD GOTCHA?

You can avoid delays and save yourself some money by using chemical lime to stabilize clay soils.

Chemical lime is a stabilization agent which first dries the clay and makes it more friable, giving an immediate working surface. Chemical lime, when mixed with fine-grained soil, reacts with the clay to form a natural cement (or cementing agent). When this mixture is compacted, cementation of soil particles occurs which results in increased strength.

Write for your free copy of our Lime Stabilization Construction booklet.

Longview Lime Pelican State Lime
(205) 988-5615 (504) 631-2191

Divisions of SI LIME COMPANY
P.O. Box 26223 • 205-823-6615 • Birmingham, Ala. 35226
Subsidiary of Southern Industries Corporation



ety, the American Society of Civil Engineers, the Wildlife Management Institute and the Wildlife Society.

Several Federal conservation agencies and private sources are supporting the symposium financially. Proceedings will be published promptly after the meeting. They should become an important influence on public policy, and a permanent technical reference.

The losses of fish and wildlife habitats which occur as a result of development projects of many kinds and land use changes, constitute a major national environmental problem. President Carter's recent water policy referred to it and an amendment to the Fish and Wildlife Coordination Act has been introduced in Congress.

The purposes of the symposium are to assess the magnitude of the problem and develop strategies and recommendations for achieving better mitigation in the public interest. Sessions will deal with the problem in coastal as well as terrestrial and fresh water environments and with all regions of the country.

For more information write Dr. Gustav A. Swanson, Program Director, the Mitigation Symposium, Fishery and Wildlife Biology, Colorado State University, Fort Collins, Colorado 80523.

Are Engineers Satisfied With Engineering Education?

At the July 15 general meeting of the Louisiana Engineering Society, those present were asked to complete a brief form or questionnaire relative to engineering education. Questions asked included: year of graduation; discipline of first degree; university where attained; "What course should be added to undergraduate curriculum?"; "Which course should be dropped to allow for the addition of the course suggested above?"; and "Should the curriculum be extended beyond four years to graduate a properly educated engineer?" The results were tabulated and will be briefly summarized here.

Thirty-six forms were returned and were divided into two groups of 18 each, according to year of graduation. The "senior" half of the respondents fell between graduation in 1927 (one only) and 1956, with the younger group, the "juniors," having been graduated between 1956 and 1978 (again one only).

Subtotals for the two age groups were developed as well as totals for all respondents. Rather surprisingly, there was no great difference of opinion between the "senior" and "junior" classifications.

By far, the two courses most generally indicated as desired additions were English-communications-writing-speaking (total of 12: seniors 5, juniors 7) and business-economics-accounting (total of 12: seniors 6, juniors 6). The next most popular suggestion was ethics and professionalism with 8 votes. Others getting one or two votes included drafting, more lab, more physics, legal aspects, foreign language, surveying and "none."

Of the courses recommended for elimination, "none" was the easy winner with 11 votes (seniors 6, juniors 5), followed by non-technical electives with 4 (seniors 0, juniors 4). "Also runs" with one or two votes were social studies, higher math, physics as presently taught and humanities (exclusive of English).

Those who felt that engineering could no longer be taught in four years were by far in the majority, casting 20 votes for an extension of the curriculum, versus 9 for those who thought four years were enough. Six persons had no opinion; one said that an extension had been tried and abandoned; and one thought that the answer was to be found in the use of summers for added courses.

It was interesting to note that the more recent graduates favored the extension more heavily (12 yes to 4 no) than did the older graduates (8 yes to 5 no).

It is recognized that a mini-survey such as this one, addressed to a limited and perhaps especially interested group, cannot be taken as conclusive. It is indicative, however, of thought and interest among practicing engineers of the need for consideration of the future education of engineers. It may be that a study more inclusive as to content, as well as the number of engineers questioned, would be in order.

WES Publications of Interest to Facilities Engineers

The U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, announces the availability of "WES Publications of Interest to Facilities Engineers." Copies may be obtained from the Department of Commerce, National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22151. Costs of hard copies or microfiche copies are available from NTIS.

This is a compilation of Waterways Experiment Station publications grouped according to the technical laboratories that prepared them. The publications concern research on concrete, environmental effects, explosive excavation, hydraulics, mobility and environmental systems, soils and pavements and weapons effects. 61 pp.

McNamara Named to Board of Registration

Edward J. McNamara of New Orleans has been appointed to the State Board of Registration for Professional Engineers and Land Surveyors. He replaces Roy Sessums on the Board.

A native of Thibodaux, McNamara was graduated from the School of Civil Engineering, Tulane University, and went on to the Advanced Management Program of the Graduate School of Business at Harvard University.

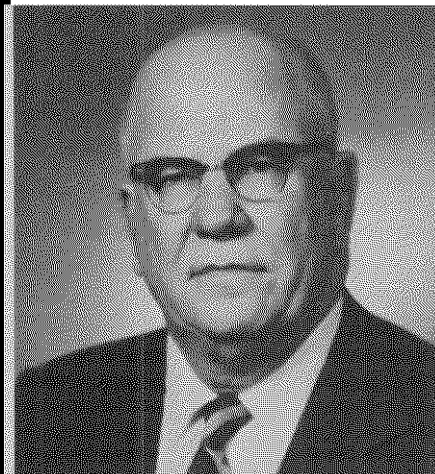
Since graduation, he has been employed in industry and construction. Currently he serves as corporate vice president responsible for engineering at Freeport Minerals Com-

pany.

McNamara's experience also includes two tours of duty with the Naval Civil Engineering Corps during World War II and the Korean War, attaining the final rank of Commander.

He has served in all offices of the Louisiana Engineering Society and was state president in 1966. A registered professional engineer in several states, he is also a member of NSPE, a fellow in the ASCE and the SAME.

McNamara is married to the former Eda Vergez and they have two children.



Edward J. McNamara, P.E.

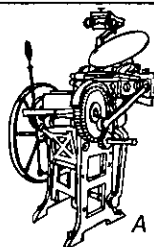
Services and Contractors



LES AUTOMOBILE INSURANCE PROGRAM

EMPLOYEES INSURANCE
REPRESENTATIVES, INC.

4815 Jamestown Ave.
Post Office Box 14697
Baton Rouge, Louisiana 70808
Telephone (504) 926-0483



PRINTING INCORPORATED

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

A COMPLETE CREATIVE PRINTING SERVICE.

RESUMES

Professionally Prepared
R & N SERVICES, LTD.

4958 Redwood Street
New Orleans, La. 70127

(504) 242-5034

BUDDY'S PROMOTIONAL ADVERTISING

QUALITY — SERVICE — SATISFACTION

Call Today: (504) 923-0000

PHONE (504) 387-0504



FRANKLIN PRESS, INC.

1391 HIGHLAND ROAD • P. O. BOX 1269
BATON ROUGE, LOUISIANA 70821

ED'S PRINTING COMPANY

9366 Greenwell Springs Rd.

Baton Rouge, La. 70814

Phone 925-0991

ALL TYPES OF PRINTING—
BOTH BUSINESS AND PERSONAL

CARRIER DISTRIBUTING COMPANY

A Division of Carrier Corporation

5524 Mounes Street

P. O. Box 23293

New Orleans, La. 70183

TOOMER ELECTRICAL COMPANY, Inc.

CONTRACTORS AND ENGINEERS
ELECTRICAL AND INSTRUMENTATION

Phone 292-0100

P.O. Box 15274
Baton Rouge, La. 70815

FOUNDATION
TESTING
LABORATORIES, INC.

414 West California Ave.
Ruston, Louisiana 71270
Phone (318) 255-7256

Robert W. Flournoy, Ph.D.

President

Testers Of
Asphaltic Concrete, Concrete and Soil



ORLEANS MATERIALS & EQUIPMENT CO., INC.

5501 France Road

New Orleans, La. 70126

EngiNEWS

New Orleans Engineer Gets Legion of Merit Medal from U.S. Army

Lt. Col. Charles H. Coates Jr. has retired from his position as deputy district engineer of the New Orleans district, U.S. Army Corps of Engineers. During a retirement ceremony at the district headquarters, Coates received the Legion of Merit (First Oak Leaf Cluster) medal from Col. Early J. Rush III, former New Orleans district engineer.

Coates was cited for "exceptionally meritorious service as research and development coordinator, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi . . . and as deputy district engineer, U.S. Army engineer district, New Orleans."

A native of Baton Rouge, Coates will retire to that city where he will be associated with Pyburn and Odom



Lt. Col. Charles H. Coates Jr., right, receives the Legion of Merit medal from Col. Early J. Rush III.

Consulting Engineers. He is a registered professional engineer in the state of Louisiana and a member of the Louisiana Engineering Society.

Weinert Appointed New NSPE Executive Director

The Board of Directors of the National Society of Professional Engineers, at its Annual Meeting in St. Louis July 22, appointed Donald G.

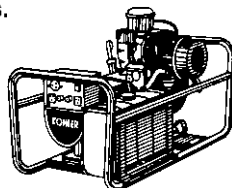
Weinert, P.E., successor to Paul H. Robbins, P.E., as executive director of the 76,000-member organization. Robbins will retire in August 1979 after 32 years as executive director.

Weinert is a graduate of West Point, with a masters degree in civil engineering from Purdue University. He is retiring from the Army Corps of Engineers after 26 years of service. While in the corps, he attained the rank of Brigadier General and has

dependable power whenever you need it.

Kohler's full line of portable generators — from 1750 to 5000 watts (120 or 120/240 volts) — in both lightweight and heavy-duty models. Kohler—the dependable power source that goes wherever the work is.

Kohler portable generator sets.



WM. F. SURGI
Sales • Service • Parts • Rentals

EQUIPMENT CORPORATION
NEW ORLEANS (504) 525-3142
BATON ROUGE (504) 293-0556
LAFAYETTE (318) 233-6322
The Gulf South's Best Machinery House

T. L. JAMES & COMPANY, INC. BUILDERS



CONCRETE ASPHALT SHELLS SOIL CEMENT

Roads • Bridges • Drainage • Airports
Foundations • Excavating Filling

HOME OFFICE
RUSTON, LOUISIANA
JAMES BUILDING • PHONE 255-7912

KENNER, LOUISIANA
P. O. Box 8 • PHONE 729-2511

Equal Opportunity Employer



Donald G. Weinert, P.E.

most recently served as a special assistant to the chief of engineers in Washington, D.C.

Previously he served as an engineer unit commander and staff officer and as a contract construction manager at locations in Europe, Korea, Vietnam and the United States. A member of NSPE and the Society of American Military Engineers, Weinert is a registered professional engineer and has served on several NSPE committees.

A search committee, under the chairmanship of NSPE past president Harry E. Bovay Jr., P.E., chairman of Bovay Engineers, spent nearly six months screening applicants and recommended Weinert for the position.

Robbins became executive director of NSPE in 1946 following war assignments with the Transportation Corps of the Army and service in the executive office of Mayor LaGuardia.

The society during his service has grown from 12,000 members to its present 76,000, with state societies increasing from 22 to 54, and chapters from about 100 to over 500.

IN MEMORIAM
Alvin D. Kaufman, P.E.

The Louisiana Engineering Society was saddened to receive the news of the tragic death of Alvin D. Kaufman on July 16, 1978.

Mr. Kaufman joined the Louisiana Engineering Society in December 1963. He was graduated from Bethel College with an AB degree in math and from Kansas State University with a BS degree in civil engineering in 1940.

He was a registered professional engineer in a number of states and was employed by Howard, Needles, Tammen and Bergendoff for many years. During World War II, he was an officer in the U.S. Army Coast Artillery. His current assignment was chief engineer with Stewart-Kuykendall and Associates, Baton Rouge.

October, 1978

Mr. Kaufman's conscientiousness and energies in pursuing his work, his ideals and devotion toward his country, his profession and his fellow man, coupled with a keen sense of humor and sympathy toward the problems of everyday living, will serve as an inspiration to his professional associates and friends.

VLIET'S VIEWS—

Continued from Page 10

the ability and skill necessary to properly perform the duties he undertakes. The practice of engineering in an area other than that in which the registrant has been issued a certificate will not be considered applicable provided the registrant is otherwise

qualified by education or experience.

Examples of practice which the Board may consider to be applicable under the phrase gross incompetency include:

1. The undertaking of assignments other than those for which the registrant is qualified by education or experience in the specific technical fields involved.

2. The affixing of registrant's signature and/or seal to any engineering or land surveying plan or document dealing with subject matter in which the registrant lacks competence by virtue of education or experience.



Commercial Solvents' huge chemical complex at Sterling, where our engineers have worked for 30 years.

- ✓ Site selection studies
- ✓ Process design studies
- ✓ Environmental engineering
- ✓ First-of-a-kind chemical plants
- ✓ Agrichemical plants
- ✓ Resins and polymers plants
- ✓ Pulp and paper mills
- ✓ Energy and offsite facilities
- ✓ Industrial rail and product facilities

Ford, Bacon & Davis 
Monroe and Baton Rouge
and 18 other cities worldwide



New Members of L.E.S.

ALEXANDRIA

Thomas M. Dragland
3400 Government St. #6
Alexandria, LA 71301
Government
Harry E. Hawthorne Jr., P.E.
6111 Lodi Road
Alexandria, LA 71301
Government
Charles L. Nix, P.E.
1842 Thornton Court
Alexandria, LA 71301
Government

BATON ROUGE

Ozer A. Arnas, P.E.
Louisiana State University
Mechanical Engineering Dept.
Baton Rouge, LA 70803
Education
Robert W. Burton, P.E.
505 Glendwild Drive
Baton Rouge, LA 70815
Private Practice

Don W. Duff, P.E.
4141 South Park Drive
Baton Rouge, LA 70816
Industry

Bruce K. Dyson
Pyburn & Odom, Inc.
P. O. Box 267
Baton Rouge, LA 70821
Private Practice

Linda M. McConnell
Pyburn & Odom, Inc.
P. O. Box 267
Baton Rouge, LA 70821
Private Practice

Randell A. Russ, EIT
Pyburn & Odom, Inc.
P. O. Box 267
Baton Rouge, LA 70821
Private Practice

Filomeno B. Salazar, EIT
12135 South Shannon Drive
Baton Rouge, LA 70815
Industry

Gauntlett T. V. Shepherd, P.E.
1135 Waverly Drive
Baton Rouge, LA 70806
Private Practice

Allan T. Simpson, P.E.
4661 Tupello
Baton Rouge, LA 70808
Industry

Vincent L. Simpson, P.E.
2390 Kensington Drive

Baton Rouge, LA 70809
Construction

(Continued in December Issue)

PUBLIC NOTICE

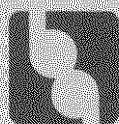
The City of Lafayette anticipates receipt of a U. S. Environmental Protection Agency grant for the development of a facility plan to provide substantial rehabilitation and renovation of sewage treatment and collection facilities.

The City of Lafayette requests interested Engineering firms to submit qualification statements (Standard Form 254) to:

Director of Utilities
City of Lafayette
P. O. Box 4017-C
Lafayette, LA 70501

Qualification Statements should be post-marked no later than November 15, 1978 in order to receive proper consideration.

Professional Listings



burk and associates, inc.

engineers planners environmental scientists

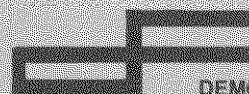
4176 CANAL ST. NEW ORLEANS, LA. 70119 504-486-5901
525 SECURITY BLDG. GULFPORT, MS. 39501 801-864-0854



ASHTON and ASSOCIATES, INC.

**CONSULTING ENGINEERS
ELECTRICAL/INSTRUMENTATION**

717 South Foster Drive, Suite 210 P.O. Box 65144
Baton Rouge, Louisiana 70896 (504) 927-9920



**DEMOPULOS
AND FERGUSON, INC.
CONSULTING ENGINEERS**

600 Petroleum Tower
Shreveport, La.
318/221-7117

3637 West Alabama
Houston, Texas
713-622-2151

BTU'S

BHP's

GOR's

GPM's

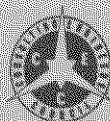
WRIGHT ENGINEERING CO., INC.

P. O. Box 430 — Floerke Road
Portland, Texas 78374

Petroleum Engineers — Laboratory Analysis

J. F. "Bud" WRIGHT
Petroleum Engineer
Res. A/C 512 643-6287

Portland - A/C 512 643-7559
Laredo - A/C 512-723-7711
Radio - A/C 512 884-3257



**LEVY-KRAMER
& ASSOCIATES INCORPORATED
CONSULTING ENGINEERS**

Phone (504) 923-2334

422 Colonial Drive
Baton Rouge, Louisiana 70806

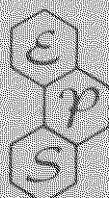
FLUOR OCEAN SERVICES, INC.

PROVIDING WORLDWIDE ENGINEERING AND
CONSTRUCTION MANAGEMENT SERVICES

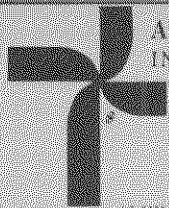
OIL AND GAS PRODUCTION FACILITIES
PIPELINES
HARBORS, PORTS, TERMINALS

6200 HILLCROFT • HOUSTON, TEXAS 77036 • (713) 776-4100

ENVIRONMENTAL PROTECTION SYSTEMS



- Analytical Services for Air, Water, Land, and Noise Pollution
 - Air and Water Quality Sampling and Surveys
 - Environmental Assessments
 - Industrial Waste Treatability Studies
- 106 Upton Drive—P. O. Box 20382
Jackson, MS 39209
601-922-8242



**A. F. MEYER AND ASSOCIATES
INCORPORATED**

ENVIRONMENTAL, NOISE, AND
OCCUPATIONAL HEALTH
CONSULTANTS

ALVIN F. MEYER, JR., P.E., PRESIDENT

1600 LONGFELLOW ST., McLEAN, VA. 22101 (703) 356-2035
508 BECK BLDG., SHREVEPORT, LA. 71101 (518) 227-8254

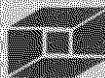


E. EMILE RACKLE - P.E.
Chairman of the Board

PHONES: 833-2748
833-6134
HOME: 454-1588

**SYSTEM DESIGN
TELECOMMUNICATIONS
AUTOMATION — TELEMETRY**

723 Papworth Avenue
Metairie, Louisiana 70005



Guillot-Vogt Associates
CONSULTING ENGINEERS

CIVIL-STRUCTURAL
ELECTRICAL
MECHANICAL

• INSTITUTIONAL
• COMMERCIAL
• INDUSTRIAL

1820 ST. CHARLES AVENUE
NEW ORLEANS, LOUISIANA 70130
(504) 522-4256



GUTIERREZ, SMOUSE, WILMUT & ASSOC., INC.
ENVIRONMENTAL ENGINEERS

INFILTRATION/INFLOW ANALYSES AND SURVEYS;
ENVIRONMENTAL ASSESSMENTS; INDUSTRIAL POLLUTION CONTROL;
FLOW MONITORING AND WATER QUALITY SAMPLING

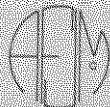
11171 Harry Hines/Suite 113
Dallas, Texas 75229
(214) 620-1255

4801 N. State St./Suite 302
Jackson, Miss. 39206
(601) 981-5758

Aillet, Fenner, Jolly & McClelland, Inc.
Consulting Civil & Structural Engineers

Robert R. Aillet, Robert D. Fenner, Edward M. Jolly, Harold H. McClelland

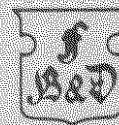
Planning feasibility studies, land surveys, design, plans and specifications and construction inspection for bridges, streets and highways, airfields, water systems, sewage treatment and disposal, drainage, military construction, land development, and structural and foundation systems.



1312 Alpine Ave.
Longview, Texas 75601
AC 214 758-4612

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

Ford, Bacon & Davis
Engineers • Constructors



Baton Rouge • Dallas • Tulsa
New York • Calgary • Brisbane

Established in 1894

P.O. BOX 1762 • 318/388-1530 • MONROE, LA. 71201



**RAYMOND INTERNATIONAL
BUILDERS, INC.**
CONSULTING ENGINEERS

• STUDIES
• PLANNING
• DESIGN
• MANAGEMENT
• INSPECTION
• REPORTS

• MARINE TERMINALS
• OFFSHORE STRUCTURES
• BREAKWATERS
• SUBAQUEOUS TUNNELS & PIPELINES
• SHIPYARDS & DRYDOCKS
• FOUNDATIONS

TWO PENN. PLAZA, NEW YORK, NY 10001
P.O. BOX 22718, HOUSTON, TEX. 77027

Phone (212) 239-4856
Phone (713) 623-1500

WALDEMAR S. NELSON AND COMPANY
Incorporated

CONSULTING ENGINEERS

Airports, Buildings, Bulk Terminals,
Chemical Plants, City Planning, Docks & Wharves,
Environmental Control, Foundations,
Highways & Bridges, Marine Structures, Municipal Works,
Process Facilities, Power Plants, Subdivisions, Utilities

1200 St. Charles Ave.

New Orleans, La. 70130

523-5281



Brown & Root, Inc.

And Associated Companies/Serving Progress the World Over
NEW ORLEANS/BELLE CHASSE/MORGAN CITY/CROWLEY
A HALLIBURTON Company
An Equal Opportunity Employer

DENSON ENGINEERS

INCORPORATED

Consultants

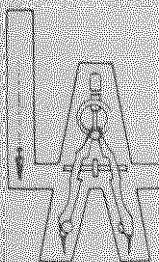
SUITE 800

COMMERCE BUILDING



NEW ORLEANS 70112

504 - 561-1131



LANIER & ASSOCIATES
CONSULTING ENGINEERS, INC.

Industrial & Marine Consultants and Designers

Bulk Terminals
Materials Handling
Foundations

Docks and Wharves
Offshore Structures
Buildings

Industrial Site Selection
Construction Management

Reports and Investigations

801 Marengo St.

New Orleans, La. 70115

(504) 895-0368



Louisiana

ENGINEERS-PLANNERS-ENVIRONMENTAL SCIENTISTS

SPECIALIZING IN

Environmental Studies and Reports

Governmental, Commercial and Residential Land Development

Design Plans, Specifications and Construction Inspection
for Airports and Roadways

2701 INDEPENDENCE STREET/METAIRIE/LA/70002/504-455-3881

PETROLEUM ENGINEERS, INC.

Drilling, Completion &
Workover Programs & Designs
Property Management

Office and Field Supervision
Total Operations

P. O. Box 52588

Lafayette, Louisiana 70501

(318) 233-5346

Jenkins, Lazenby & Luttrell

Engineers, Architects & Planners

2000 North 7th

Post Office Box 728

WEST MONROE, LA. 71291

Phone 318 / 387-2710

GEORGE BERGERON, JR. & SON, INC.

Land Surveyors and Civil Engineers

529 St. Louis Street

Thibodaux, Louisiana 70301

George Bergeron, Jr., L.S.

J. David Bergeron, L.S. & P.E.

Phone 447-4017

P. O. Box 1203

FRANKFURTER INC.

A DIVISION OF HOWARD NEEDLES TAMMEN & BERGENDOFF

Total planning and design services for sawmills and paper mills.

- Electrical distribution and controls
- Material handling and storage
- Piping and instrumentation
- Water supply and waste disposal
- Site development, buildings, and structures
- Heating, ventilating, and air conditioning

201 Elliott Avenue West
Seattle, Wash. 98119
206 285-4411

5615 Corporate Blvd.
Baton Rouge, La. 70808
504 927-4724

MARRERO, COUVILLON & ASSOC.

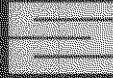


ELECTRICAL ENGINEERS

- * GENERATION
- * DISTRIBUTION
- * INSTRUMENTATION
- * INDUSTRIAL
- * COMMERCIAL

440 NORTH FOSTER DR. BATON ROUGE, LA. 70806 PH. 504/926-0005

STANLEY CONSULTANTS



INTERNATIONAL CONSULTANTS IN ENGINEERING, DESIGN, PLANNING AND MANAGEMENT

404/325-5858

Atlanta, Georgia 30345

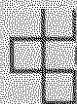
Atlanta • Chicago • Cleveland • Indianapolis • Muscatine • Washington, D.C.
Bolivia • Dominican Republic • Liberia • Malaysia • Nigeria • Philippines

FROMHERZ ENGINEERS, INC.

Consulting Engineers

Investigations, Design, Engineering During Construction,
Appraisals, Reports, Public Works, Waterfront Facilities,
Industry, Private Development

1539 JACKSON AVE. 529-7661 NEW ORLEANS, LA. 70130



PELTON/BLUM, INC. CONSULTANTS IN ACOUSTICS

Howard K. Pelton, President

- Industrial Noise Control
- OSHA Noise Compliance
- Hearing Conservation
- Computer Analysis
- Environmental Noise Studies
- Architectural Acoustics
- Room Acoustics Studies

1015 Elm Street, Suite 2001, Dallas, Texas 75202
214/741-7701 Tele: 730796

An Equal Opportunity Employer

MODJESKI AND MASTERS

CONSULTING ENGINEERS

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

1055 St. Charles Ave., New Orleans, La. 70130
HARRISBURG, PA.

SOUTHWESTERN LABORATORIES

Geotechnical and Materials Engineering Consultants

Soils—Construction Materials—NDE
Wood—Chemical—Environmental

BEAUMONT, TEXAS

(713) 842-0414

SHREVEPORT, LOUISIANA

(318) 222-0783

Beaumont • Houston • Morgan City • Monroe • Shreveport



N-H ASSOCIATES, INC.

CONSULTING ENGINEERS
ARCHITECTS & PLANNERS

Water Supply, Wastewater, Industrial Wastes,
Environmental Studies, Port Facilities, Parks,
Recreational Facilities, City and Regional Planning,
Highways and Bridges

2700 Lake Villa Drive, Metairie, LA 70002

(504) 885-0500

Frank Nicoladis, President

PSC PROFESSIONAL SERVICES

GROUP, INC.

3035 Directors Row, Suite 416

Memphis, TN 38131

Telephone 901-345-5224

SEWER SYSTEM EVALUATIONS

WATER/SEWER SYSTEM MANAGEMENT

ATLANTA • BOSTON • CHICAGO • CINCINNATI • MINNEAPOLIS



WALK, HAYDEL & ASSOCIATES, INC.

ENGINEERS TO INDUSTRY

Complete Industrial Plant Design • Process Design
Construction Management • Environmental Engineering
Refineries, Gas Plants, Chemical Plants
Pipe Lines, Oil & Gas Production Facilities

762 Baronne Street, New Orleans, Louisiana 70113
Telephone 504-586-8111

Telex 58-7302

Branch Offices: Baton Rouge, La.

Mobile, Ala.

THE FRANTZ co.

Complete Engineering Design Services
Chemicals • Petrochemicals • Petroleum

Suite 400

Bank of Woodlake Building
2600 South Gessner

Houston, Texas 77063
(713) 789-6770

FORTE & TABLADA, INC.

Engineers, Architects and Planners

9107 Interline Ave.

504-927-9321

BATON ROUGE, LA. 70809

HNTB

HOWARD NEEDLES
TAMMEN & BERGENDOFF

Planning and design for

Airports Environmental systems
Bridges Public and private buildings
Highways Urban, regional and statewide planning
Transit

Offices in 28 Cities 504/927-4724
5615 Corporate Blvd., Baton Rouge, Louisiana 70808

MOHR & ASSOCIATES, INC.
Consulting Civil Engineers

NO. 8 FAIRWAY FOREST PLAZA
7700 PINES ROAD
SHREVEPORT, LOUISIANA 71109
BUS. PHONE 686-7190

JAMES MOHR, P.E.
Res. 686-3558

DESMOND SPRAWLS, P.E.
Res. 687-5260

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.
Arthur E. Meyer, P.E., R.L.S.

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



Enviro-Med Laboratories, Inc.

Environmental, Bio-Medical, and Chemical Specialists

ROBERT W. FLOURNOY, Ph.D.
President

414 W. California
Ruston, Louisiana 71270

Office: 318-255-0060
Home: 318-255-5637

MARINE ENGINEERS

NAVAL ARCHITECTS

PROFESSIONAL ENGINEERS

DU BOIS, CARMAN & ASSOCIATES, INC.

4100 WALNUT DR.
NEW IBERIA, LOUISIANA 70560

KEITH R. DU BOIS, P.E.

Phone 318/365-2983



PYBURN & ODOM, INC.

CONSULTING ENGINEERS

- Investigations • Reports • Design
- Construction Inspection
- Hydrographic Surveys
- Laboratory Analyses
- PIPELINE STREAM CROSSINGS
- WATER FRONT STRUCTURES
- ENVIRONMENTAL STUDIES
- INDUSTRIAL WASTE DISPOSAL
- INDUSTRIAL SITE SELECTION

Phone 504 - 766-6330
8178 GSRI Rd. • Baton Rouge, La. • P. O. Box 267 • 70821

EUSTIS ENGINEERING COMPANY

*Foundation and Soil
Mechanics Investigations*

Soil Borings • Foundation Analyses
Laboratory Tests • Reports

834-0157

3011 28th Street

Metairie, La. 70002

BARNARD & THOMAS ENGINEERING, INC.

*Consulting Engineers
Municipal and Industrial Engineering
Comprehensive City Planning*

4440 North Boulevard
P. O. Box 64853
Baton Rouge, La. 70806
(504) 927-8323

Suite 101
3100 Ridgelake Drive
Metairie, La. 70002
(504) 837-5588

CHEMICAL
MECHANICAL
CIVIL
ELECTRICAL

3114 Cities Service Hwy.
Lake Charles, La. 70669
318/625-8212

LEVINGSTON ENGINEERS, INC.

INDUSTRIAL PLANT DESIGN

JOHN C. COPES

Consulting Engineers

1956 Wooddale Court

Phone—926-7690 - 926-4842—Area Code 504

BATON ROUGE, LA. 70806



McClelland engineers, inc.
geotechnical consultants

4450 General DeGaulle Drive
New Orleans, Louisiana 70114
Tel: 504/393-6666 Telex 584-103
Houston • Little Rock • St. Louis

DOMINGUE, SZABO & ASSOCIATES, INC.

CONSULTING ENGINEERS

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

SUITE 204, 7456 EXCHANGE PLACE
BATON ROUGE, LA. 70806
TELEPHONE (504) 927-8309

DYER & MOODY
INC.

Consulting Engineers

Municipal and Industrial
Consultants and Designers

P. O. Box 700, Baker, La. 70714

(504) 775-4800



**The Rust
Engineering Company**

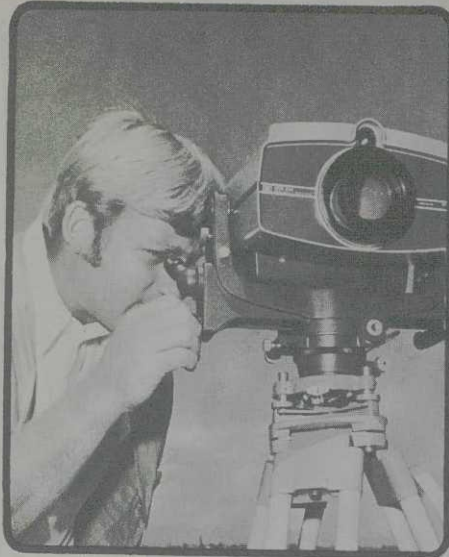
A Subsidiary of Wheelabrator-Frye

Engineering • Construction • Analytical Reports and
Surveys • Systems Engineering • Energy and
Environmental Engineering

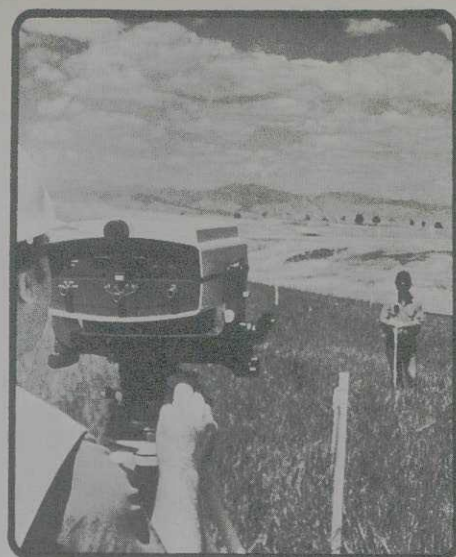
P.O. Box 3077

Baton Rouge, Louisiana 70821 (504) 927-4190

Portland • Birmingham • Stamford • Affiliates in Montreal •
Brussels • Sao Paulo



**ONE DAY
(24 HR.)
DELIVERY
TIME
NATIONWIDE**



NEW

HP 3808A 6 Mile EDM

NEW

HEWLETT-PACKARD MODEL 3820A ELECTRONIC TOTAL STATION

The One Instrument
That Does It All

RENTAL CHARGES:

\$100.00 per/day
Portal to Portal

HEWLETT-PACKARD MODEL 3810A TOTAL STATION

Industrial & Subdivision Layout
Topographic Surveys

RENTAL CHARGES:

\$60.00 per/day 1-10 days
\$50.00 per/day thereafter

HEWLETT-PACKARD MODEL 3808A (6 miler) DISTANCE METER

Medium Range
20" Angle Base

RENTAL CHARGES:

\$60.00 per/day for 1-10 days
\$50.00 per/day thereafter

HEWLETT-PACKARD MODEL 3805 (1 miler) DISTANCE METER

Slope Measurement
Backpack

RENTAL CHARGES:

\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

HEWLETT-PACKARD MODEL 3800A (2 miler) Distance Meter

Slope Measurement

RENTAL CHARGES:

\$25.00 per/day 1-10 days
\$20.00 per/day thereafter

HEWLETT-PACKARD MODEL 9815A CIVIL-SURVEY CALCULATOR

With All Survey Programs

RENTAL CHARGES:

\$15.00 per/day

NOTE:

All EDM Equipment is complete with the following accessories at no extra charge.

- | | |
|------------------------------------|---------------------------------|
| (1) Recharger | (1) Tripod & Tribrach |
| (2) Battery Pods | (1) Layout Range and Prism Pole |
| (1) or (2) Triple Prism Assemblies | |

The Bearded Oak CIVIL SURVEY RENTAL

125 E. Chimes — Baton Rouge, La 70802 — (504) 926-9515 (24 Hr. Service)

Thank You for Your Interest in Our Service and Hewlett-Packard Products

