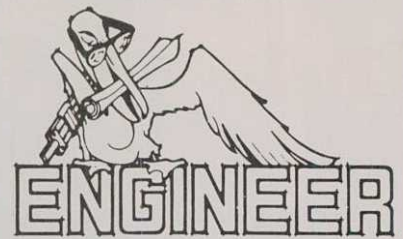




LOUISIANA



February, 1980

ENGINEERS OUR RENEWABLE RESOURCE

NATIONAL ENGINEERS WEEK
FEBRUARY 17-23



SPONSORED BY: NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Engineers Week Proclaimed



Governor Edwin Edwards
presenting the 1980
Engineers Week
Proclamation to
Francis C. Roy, P.E.,
President of LES.

State of Louisiana

Edwin Edwards
Governor

Proclamation

WHEREAS, National Engineers Week will be celebrated in Louisiana on February 17-23, 1980, with the purpose to familiarize the public with the work of engineers; and

WHEREAS, engineers throughout Louisiana will conduct special activities emphasizing the 1980 theme, "Engineers... Our Renewable Resource;" and

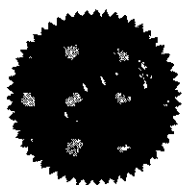
WHEREAS, in these times of extreme problems, inflation, energy depletion, water and air pollution, it is important to remember that our most important resource is renewable; and

WHEREAS, we are moving into an era when much of our society in general will depend on the knowledge, ingenuity and skill of our engineers whose efforts will help us to conserve limited resources, discover new ones and find ways to use all our resources to sustain new growth and opportunity; and

NOW, THEREFORE, I, EDWIN EDWARDS, Governor of the State of Louisiana, do hereby proclaim the week of February 17-23, 1980, as

ENGINEERS WEEK

and urge all citizens to join with me and pay honor to the engineers of Louisiana.



Attest By
The Governor

Paul W. Hardy
Secretary of State

I, Edwin Edwards, do hereby certify that
my hand and official seal have been affixed to the
Proclamation of the State of Louisiana, at the
Capital of the State of Louisiana, on the
15th day of January
A.D. 1980

Edwin Edwards
Governor of Louisiana

THE WHITE HOUSE
WASHINGTON

National Engineers Week
February 17 - 23, 1980

During the observance of this 30th Annual National Engineers Week, I send warmest greetings to the Nation's professional engineers.

Your 1980 theme, "Engineers -- Our Renewable Resource", is most appropriate at this time in our country's history. We are moving into an era when much of our economic growth, and the future of our society in general, will depend on the knowledge, ingenuity and skill of our engineers. It will be through your efforts that we will be able to conserve limited resources, discover new ones and find ways to use all our resources to sustain new growth and opportunity.

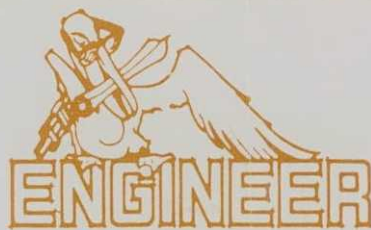
You are our best hope for translating the theories of scientists and the promises of politicians into those products and services that can truly meet the needs and expectations of our people.

We deeply appreciate your past achievements and urgently need your future contributions to our national well-being.

Jimmy Carter

February, 1980

LOUISIANA ENGINEER



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. ISSN : 0024-6794

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About the Cover:

The President of the United States and the Governor of Louisiana have officially proclaimed February 17-23, 1980, as Engineers Week. This year's theme is "Engineers — Our Renewable Resource."

In This Issue:

Engineers Week Proclamation	2
Presidential Privilege	5
Louisiana Superport Progress Report	6
Registration Law Status Report	9
State Board of Registration Annual Report	11
LES Board Minutes	12
Roster of Executives of Engineering Organizations	14
Potpourri	15
Facts About Louisiana Engineer	17
EngiNEWS	18

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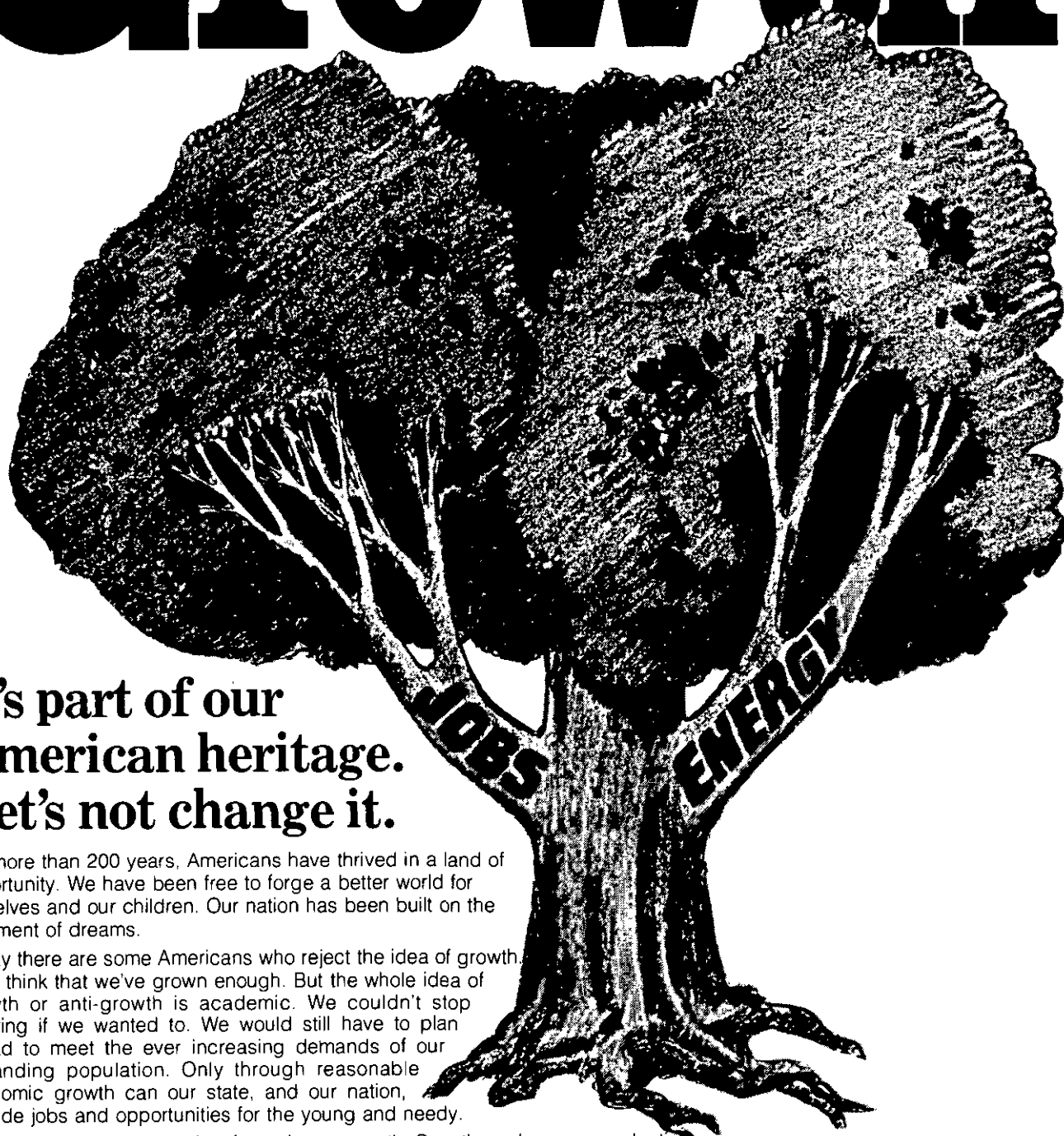
Growth

It's part of our American heritage. Let's not change it.

For more than 200 years, Americans have thrived in a land of opportunity. We have been free to forge a better world for ourselves and our children. Our nation has been built on the fulfillment of dreams.

Today there are some Americans who reject the idea of growth. They think that we've grown enough. But the whole idea of growth or anti-growth is academic. We couldn't stop growing if we wanted to. We would still have to plan ahead to meet the ever increasing demands of our expanding population. Only through reasonable economic growth can our state, and our nation, provide jobs and opportunities for the young and needy.

Energy has always been a key factor in our growth. Growth and energy production are, in fact, directly related. And as we have more people in our area, more industry and business, more homes and schools, we will need more electric energy to maintain a standard second to none in the world. The opportunity to grow. It's part of our American heritage and should continue to be so.



Energy Producers Who Believe In America's Future

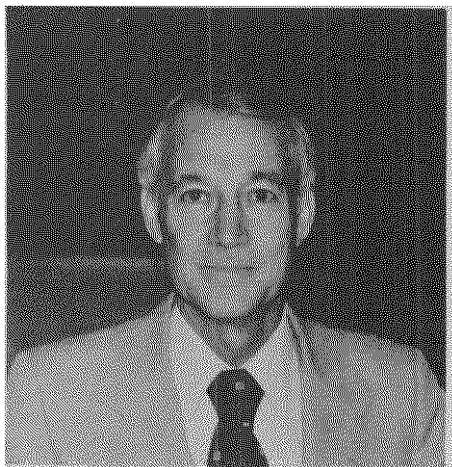
YOUR FIVE LOUISIANA INVESTOR-OWNED ELECTRIC COMPANIES

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

PRESIDENTIAL PRIVILEGE

Interesting things have a way of happening at unexpected moments. Several months ago I participated in a Careers Day program at one of our local schools. My interest was aroused when I learned I would be talking to 7th and 8th graders, and my curiosity increased when I learned the largest group was signed up for the engineering session. When I met with the group of boys and girls, I decided I should spend the first few minutes in evaluating the extent of their understanding of the profession, so we could start at a common level. Believing that many of us in the profession have difficulty giving a concise, complete, meaningful definition of engineering which our spouse can understand and relate to, I felt it would be unfair to ask these youngsters what an engineer is, and opted to ask instead what an engineer does. There were a few of the usual "fixes cars, works with big machines, works at Utilities Service" type of answers. (Conspicuously absent was "drives a train". Are our railroads in more trouble than we thought?) The majority, however, demonstrated a reasonable grasp of at least some things which professional engineers do. If this group was at all representative of 7th and 8th graders around the country regarding knowledge in this area, my feeling is that they are as well informed about the engineering profession as is the general public.

That brief encounter is recalled now in light of the soon to be observed National Engineers Week (NEW), with the theme for the 1980 observance being "Engineers — Our Renewable Resource". NEW is the child of the National Society of Professional Engineers (NSPE), and the Louisiana Engineering Society (LES) has traditionally worked in all eight chapter areas toward meaningful, dignified observances in various ways. Every year there is discussion concerning what is being accomplished by saluting NEW with banquets, posters, radio and TV spots, newspaper articles, speeches, liaison with students, proclamations, etc. It is professionally sound and practical that we should question the accomplishment each time, for it is only in this way that greater accomplishment may be achieved. But before we can begin to evaluate the impact or success of



Francis C. Roy, P.E.
LES President

NEW, our goals must be clearly established. What are we trying to accomplish? Is this what we *should* be trying to accomplish? Are we trying to cover too many facets in one week?

One goal that is often mentioned is that of focusing public attention upon the engineering profession. By so doing, it is hoped "John Q." will recognize the role of the professional engineer in society. We note two distinct criteria in accomplishing this — one an attention getter, the other an informational requirement. I personally feel the latter is the more difficult to implement, particularly in a one-week situation fraught with constraints. Maybe some of you reach the same conclusion that I do: we're fooling ourselves if we think NEW can do much more than attract a little attention, and allow the local engineering community the welcome opportunity to get together on a social basis. Surely some information is disseminated which can aid in improving our rapport with the public, but under the circumstances it has to be limited. Perhaps, like me, you wonder what percentage of the public is even interested enough to read the releases or give their attention to other NEW programs. When all is said and done, I have to admit to myself that I tend to exhibit the low interest profile when "National Weeks" for other professions, arts, crafts, or occupations are concerned.

Lest you get the impression that my feelings toward NEW are negative I wish

to assure you they aren't. I'm in favor of nurturing the annual observance and enhancing its worth to the public and the profession whenever possible, but I believe we must recognize its limitations when we subject NEW to practical scrutiny.

Let us ponder together a particular question concerning this general topic. What has the greatest influence upon the image we form of a particular profession? Maybe you will agree that it is through personal encounter, directly or indirectly, with members of that profession. We consciously or subconsciously recognize that a profession has a personality, as much as an individual has one. Man need only stand near silvered glass to mirror his physical self. Because he can deduce something which can be proven physically, he quickly recognizes that he is mental as well as physical. But man is triform — he is spiritual as well as mental and physical, and he can mirror his own spirit only through the reaction of those whom he encounters.

A professional personality is as much spiritual as mental and physical. If an engineer is going to present to the public the true image of the profession, he owes it to himself to actively seek ways of meaningful encounters with his colleagues. When all members of the profession are "mirroring" one another, the true spirit and personality of the unit can evolve and project into society. Individually we must first conclude that we want the real image of the whole to shine forth, and then we must recognize that it is only personal encounter with other engineers in a meaningful professional atmosphere that can make this happen. I hope that you, like I am, are convinced that it would be a fine portrait, and all the NEWs of the future could have a greatly enhanced meaning and impact.

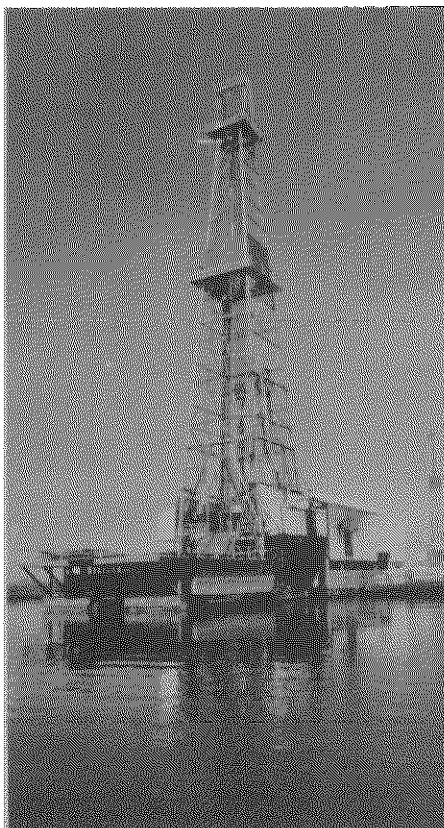
I feel so strongly about this that I'm optimistic enough to believe you do also. With your professional and kind indulgence, please allow me to pose one more question. If you are not already a member of LES and NSPE, why not join today? All you need to do is contact any LES member, or write a note to the LES office (P.O. Box 2683, Baton Rouge, 70821). I look forward to seeing you soon at a local or state meeting.

LOUISIANA SUPERPORT (LOOP) PROGRESS REPORT

With Engineers Week being observed during this month, a progress report on the Louisiana Superport being constructed by LOOP Inc. is timely in view of the considerable engineering involvement in the project. When completed in 1981, the Superport will give Louisiana's refining and petrochemical industry a less costly base for the importation of crude oil feed stock, and assist in continuing the health and expansion of industrial plants.

Recent developments in the petroleum transportation industry have highlighted the leading position Louisiana has taken in having the Louisiana Superport as a means of receiving imported oil. The Texas Deepwater Port Authority recently announced that their plans for a deepwater port off Freeport are not progressing favorably and the outlook is dim.

The LOOP facility is almost 50 percent completed and approximately 300 million dollars have been expended to date. Completion of the first stage, which will have a capacity of 1.4 million barrels per day, is set for early 1981. LOOP's shareholders are Marathon, Shell, Texaco, Murphy and Ashland Oil.



Clovelly Dome surface construction.

Many engineering firms have participated in the design and construction of the Superport, with the major ones being Brown and Root, Computer Applications Inc., Eagleton Engineering, Fennix and Scisson, Fluor Ocean Services, McClelland Engineers, Page Communications, Petro-Marine Engineering, Inc., and Walk, Haydel and Associates, Inc.

The Louisiana firm of Walk, Haydel has been instrumental in the design and construction coordination of most of the onshore surface facilities; Petro-Marine of Gretna is managing the quality assurance program for LOOP.

The offshore construction is partially completed, but work has been temporarily stopped until the spring when better weather in the Gulf will permit more efficient operations. The onshore pipelines have been laid and leaching of the caverns in the Clovelly Dome will commence shortly.

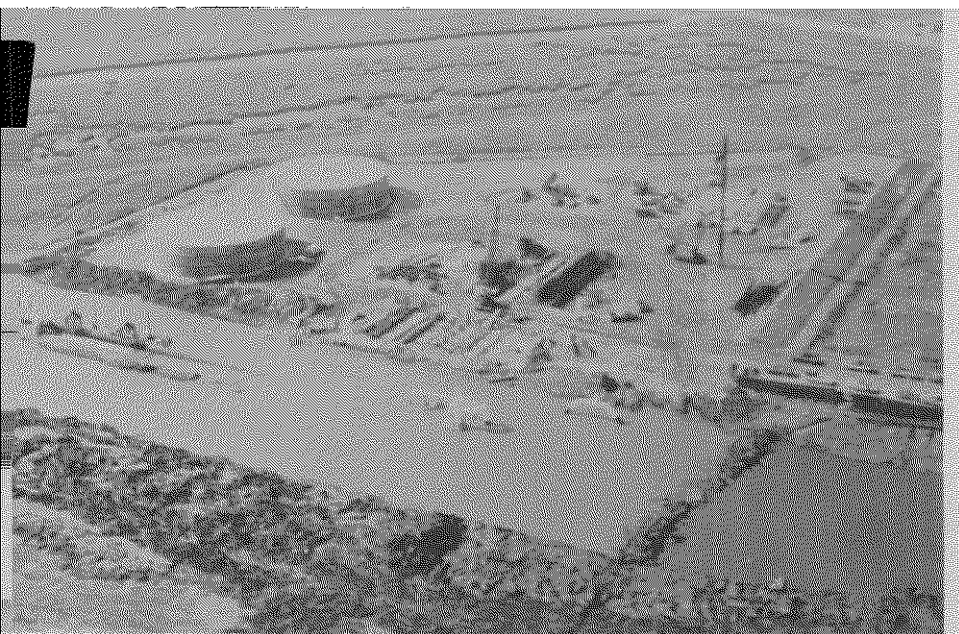
Environmental monitoring and construction inspection by state and federal agencies have concluded that the LOOP activities have not been detrimental to the state's environment nor are any serious problems anticipated.



Crude pipeline construction (48" diameter).



Jackets installed for offshore platform.



Fourchon Booster Station construction.



Overview of brine storage reservoir.



Offshore turbine generators photographed onshore.

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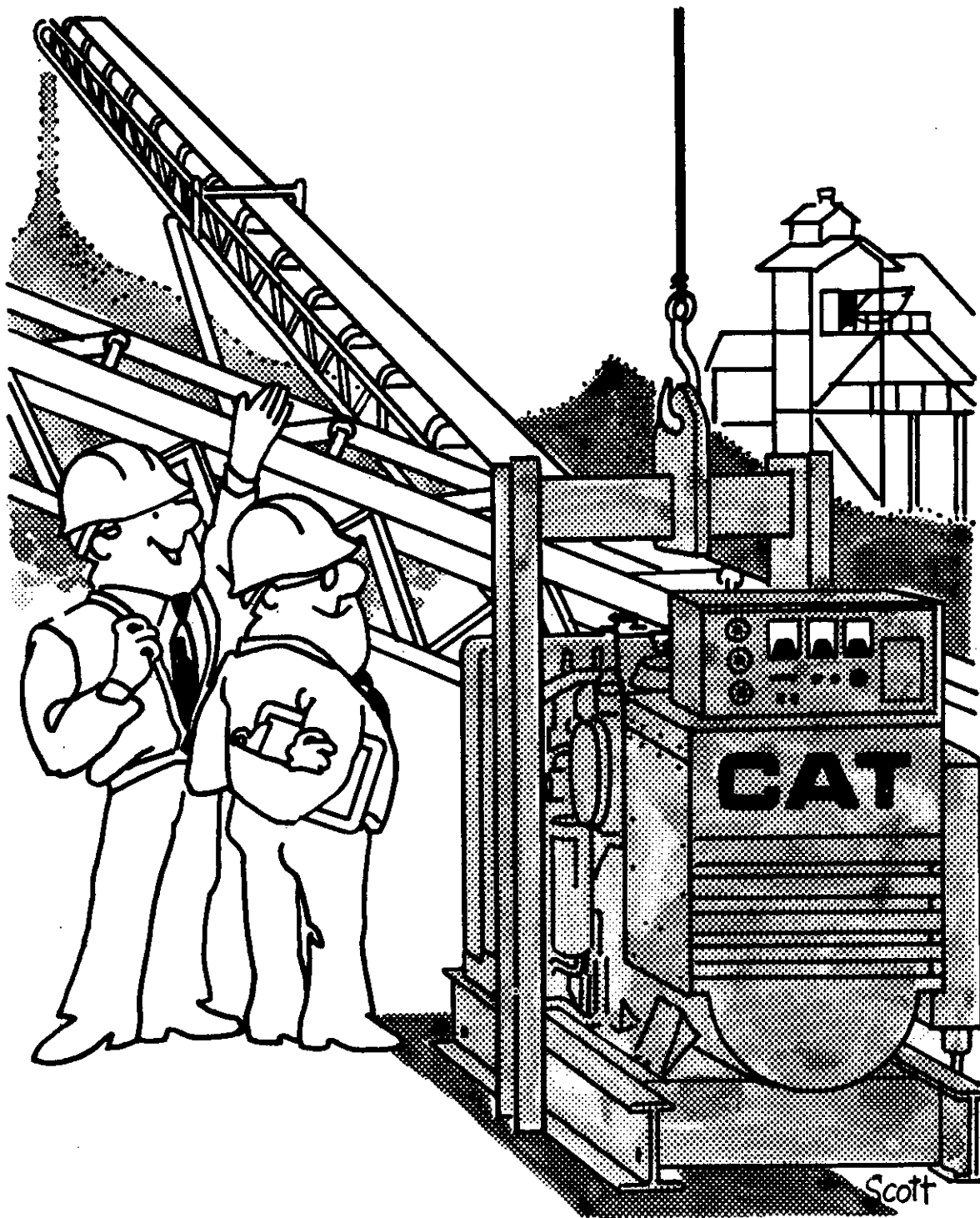
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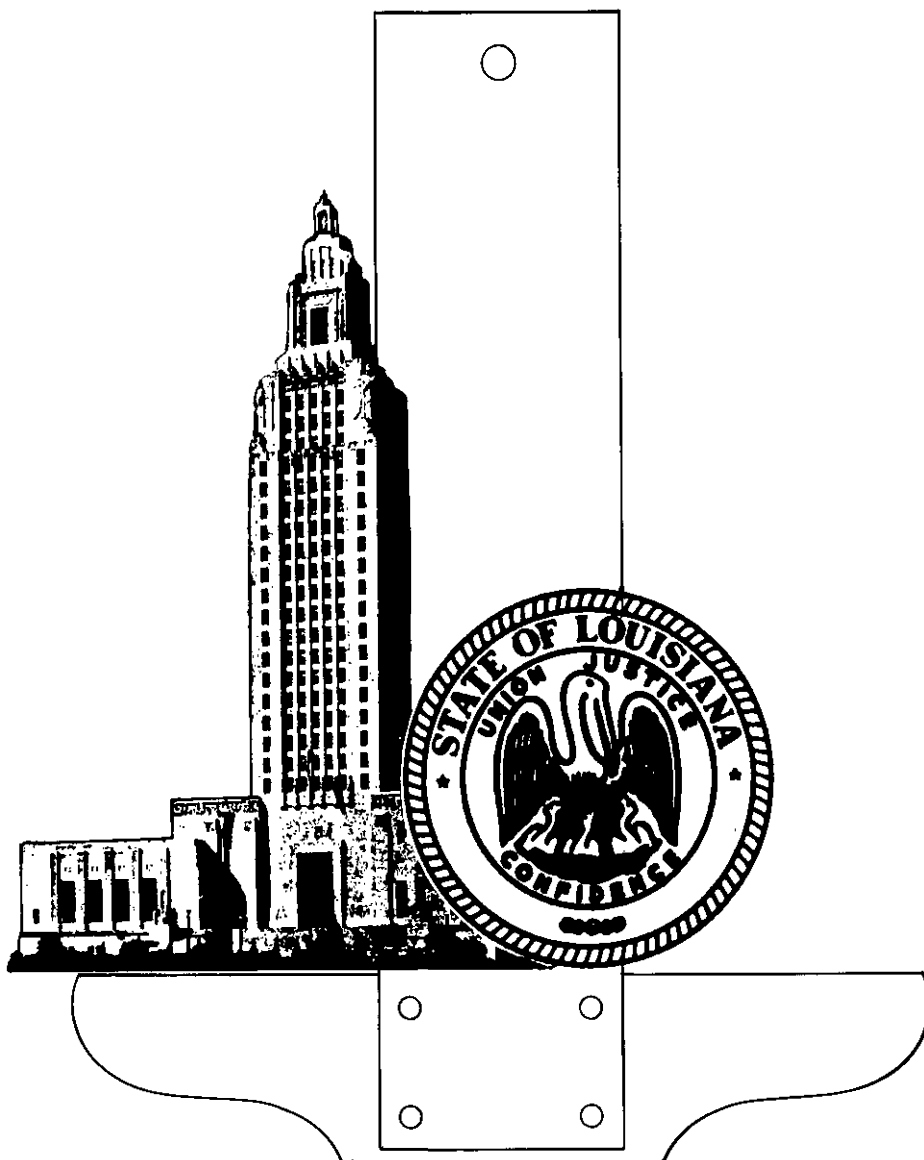


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Registration Law Status Report

Lamon Moody, P.E.
Chairman, Legislative Committee



The December, 1979 issue of the LOUISIANA ENGINEER magazine reported to the engineering and surveying professions in Louisiana, the dire need of updating Act No. 73 of 1950, as amended, which is our registration law. The Louisiana Engineering Society and the Consulting Engineers Council of Louisiana employed legal counsel to study and research the registration law in the light of state and federal court cases, Louisiana Attorney General opinions, changes in registration laws in other states, changes in the approaches of professional practice of engineering and land surveying since the registration law was put into effect in 1950, etc.

These studies have been under way for several months and the LES Legislative Committee is deeply grateful for the tremendous interest and input into these studies by engineering technical societies, engineering and land surveying organizations, and individual professional engineers and land surveyors from throughout the state. We therefore hereby report to the engineering and land surveying professions the current status of the principal changes needed in our registration law, as follows:

1. Continue registration by branches of engineering, including the nine branches currently listed in the registration law, but empower the Board of Registration to recognize and approve additional branches. This will eliminate the restriction of recognizing only nine branches of engineering in the present law and make it incumbent upon the Board of Registration to provide rules, regulations, testing procedures, etc., for registering professional engineers in other branches or disciplines.

As is presently required in the law, individual engineers will have to prove to the Board of Registration their competency for practicing in these additional branches of engineering. There will be no change affecting the present registration of professional engineers and professional land surveyors. The Board of Registration's Roster will continue to list all professional engineers by branches and the professional land surveyors as land surveyors.

2. Empower the Board of Registration, with as much authority as possible under the prevailing state and federal "Sunshine" laws, to hold its examination files and replies from personal and employer

references as documents that are not public records. This will help to maintain the confidentiality of an individual's personal affairs but such documents would be available under a court subpoena.

3. Strengthen the powers of the Board of Registration in protecting the public by applying the registration law to the corporate practice of professional engineering and land surveying in private practice. The Board of Registration has for several years been enforcing rules and regulations on engineering and land surveying corporations in private practice, but due to recent Louisiana court rulings, specific authorizations for such control by the Board of Registration is required in the registration law. Legally, this is a highly technical problem since engineering and land surveying corporations vary from the small closely held ownership of stock to the large state and national firms offering their stock for sale on the open market. However, all such engineering and land surveying corporations, domestic and foreign (out of state) must be regulated and controlled under Louisiana law for the protection of the public. The current registration law will

be amended to cover all aspects of engineering and land surveying firms practicing under a corporate structure who provide (or offer to provide) engineering and land surveying services in private practice.

4. Add provisions and definitions to the registration law for "Engineer-in-Training", and "Land Surveyor-in-Training". These programs are currently required by our Board of Registration and by other states, but specific language is needed in the registration law.

5. Reduce the term of appointments of members to the Board of Registration from the present nine years to six years, and add a requirement in the registration law that a Board of Registration member completing a full term of six years cannot be reappointed. The present Board of Registration members of nine professional engineers and one professional land surveyor shall continue to serve the terms of their respective appointment. The composition of the Board in the present registration law of nine professional engineers and one professional land surveyor will not be changed, neither will the requirement be changed that Board of Registration members be from particu-

lar functional areas (such as industrial practice, private practice, government practice and education practice).

6. Provide that the Board of Registration adopts a meaningful set of rules for professional conduct governing the practice of engineering and land surveying including the authority to enforce such rules. These rules will apply to all professional engineers, professional land surveyors, licensed civil engineers and land surveyors in public service, certified engineers-in-training, land surveyors-in-training, and all corporations providing (or offering to provide), engineering and land surveying services. The present registration law only empowers the Board of Registration to police registrants (a) who have been convicted of a felony; (b) who have been found guilty by the Board of Registration of any fraud, deceit, gross negligence, misrepresentation, violation of contract or gross incompetence in his practice; and (c) who have been found guilty of any fraud or deceit in obtaining their certificate of registration or violation of any provisions of this act. The Board of Registration will also have the authority to amend the rules of pro-

Continued on page 20

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ANNUAL REPORT

Louisiana State Board of Registration For Professional Engineers and Land Surveyors For 1979

Regular meetings of the Board were held in January, April, May, July, September and November.

The tabulation that follows indicates actions taken by the Board on applications for the registration of professional engineers and land surveyors and for the certification of engineers-in-training and land surveyors-in-training.

PROFESSIONAL ENGINEERS

Applications approved on the basis of	
Graduation Plus Experience	402
Experience Plus Examination	21
Long Established Practice	2
Reciprocity	551
Applications disapproved	23
Applications withdrawn	59

LAND SURVEYORS

Applications approved	16
Applications disapproved	12

ENGINEERS-IN-TRAINING

Applications approved for certification	658
Applications disapproved	195

LAND SURVEYORS-IN-TRAINING

Applications approved for certification	8
Applications disapproved	1

During 1979 the Board established a new record for the total number of persons registered and certified. The following is a tabulation of the total number of professional engineers, land surveyors and professional engineers (public employees), engineers-in-training and land surveyors-in-training holding registration and certification as of December 31, 1979:

Professional Engineers	13,625
Land Surveyors	3,174
Engineers-in-Training	2,427
Public Employees	39
Land Surveyors-in-Training	21

Below is a tabulation of the number of professional engineers registered in the various branches as of December 31, 1979. Some persons are registered in more than one branch.

Agricultural	158
Chemical	1,214
Civil	5,205
Civil/Industrial	2
Electrical	2,266
Industrial	128
Mechanical	3,726
Mechanical/Industrial	49
Metallurgical	36

Mining	34
Petroleum	1,207
Petroleum/Industrial	2

There was a significant increase in the number of persons taking examinations by comparison with previous years. A total of 1229 written examinations were administered in 1979, a 35% increase over 1978. Of these, there were 897 examinations in fundamental engineering subjects, 275 in the principles and practice of engineering, 15 in the fundamentals of land surveying, 28 in the principles and practice of land surveying, and 26 in the laws and procedures of land surveying. These examinations are now offered in April and November. Engineering examinations are offered in Baton Rouge, Lafayette, New Orleans and Ruston. Land surveying examinations are offered only in New Orleans.

Governor Edwards re-appointed Mr. H. L. Henry, associate dean of engineering at Louisiana Tech University, as a member of the Board. Dean Henry was first appointed to the Board last year to serve the remainder of Dean Bogard's term.

In September, the Board published a separate roster of corporations, partnerships, and certain other firms that have qualified to provide or to offer to provide engineering and land surveying services in Louisiana. Under the rules of the Board, the qualifications of all firms expire annually on June 30 unless renewed before that date.

In 1979 the Board held a hearing concerning an engineering corporation that had been found guilty of having been convicted of a felony. The findings of the Board in this matter were published in the June issue of the *Louisiana Engineer*.

Section 3 of the Registration Law, Act 73 of 1950 as amended, specifies practice areas that must be filled by members of the Board. With reference to the above section of the registration law and in accordance with the bylaws of the Board, the following list was approved for publication in this report:

Private Practice of Engineering:

Chris Demopoulos, James L. Meyer and
Fred C. Culpepper

Engineers in Government Employment:

Larkin B. Agnew and Arthur R. Theis

Engineers Employed in Industry:

Edward J. McNamara and Andrew M. Moore

Engineers Employed in Education:

H. L. Henry and James W. Reeves

Professional Engineer and Land Survey or

Engaged in Land Surveying:

Chris Demopoulos

Professional Land Surveyor:

A. J. Brouillette

LES BOARD MEETING MINUTES

LES SPECIAL BOARD MEETING - December 14, 1979

The following is a summary of the minutes of the special meeting of the LES Board of Direction held in Baton Rouge on December 14, 1979:

1. Eighteen members of the Board and 20 visitors were present. Members absent were Waldemar S. Nelson, P.E., Carl H. Thomas, P.E., Jesse W. Harrison, P.E., Wendell P. Shiflett, P.E., and Daniel Re-neau, P.E.

2. Lamon Moody, P.E., chairman of the LES legislative committee, advised that his committee had met prior to the Board meeting and finalized a program for presentation to the Board.

3. The corporate law discussion was the first item discussed. It was decided to cover the corporate law changes in the proposed amendments to the Registration Act. The Corporate Act approach will be held in abeyance for the time being.

4. H. L. Henry, P.E., presented the State Board of Registration legislative committee's review to the LES committee. Lamon Moody advised that 53 letters had been mailed to various technical societies concerning the proposed legislative program.

5. Item 1) to incorporate into the law the 16 hours of examination for engineers and land surveyors, and item 2) to revise the restrictions on repeating examinations by applicants who failed, were deleted from the legislative package by vote of the Board.

6. Item 3) to include in the definition of land surveyor a reference to registration by the Board, was accepted by the Board for the legislative package.

7. Item 4) to allow the Registration Board to hold its examination and recommendation files as documents that are not public records, was approved by the Board.

8. Item 5) to strengthen the requirements of registration by requiring that registrants be graduates of Board-approved engineering curricula (no attempt to be made to set up another ECPD), was approved by the LES Board.

9. Item 6) to provide for publishing the roster every even year, was deleted in favor of maintaining the present wording of the law.

10. Item 7) to empower and mandate the Board of Registration to adopt a set of Rules of Professional Conduct with en-

forcement powers, was approved by the Board. An amendment includes that disciplinary action by the registration board shall be published in the official journal of the Board; however, persons found not guilty of charges by the Board may request that the findings be published in the official journal.

11. Item 8) to put into the law the provisions and definitions for EIT and LSIT currently required by the registration board, was approved.

12. Item 9) to apply the registration law to corporate practice of engineering and land surveying. The legislative committee recommended not amending the corporate law at this time. Some specific language will be inserted in the registration law to empower the registration board to regulate corporations. This was approved by the Board.

13. Item 10) to remove the requirement that Board of Registration members be from particular functional sections, was disapproved by the LES Board.

14. Item 11) prohibiting reappointments of a Board of Registration member completing a full term, was approved by the LES Board.

15. Item 12a) to reduce the registration board membership from ten to six members, was disapproved by the LES Board.

16. Item 12b) to reduce the Board of Registration member's term from 9 to 6 years, was approved by the LES Board.

17. Item 13) proposes registration as a professional engineer rather than branch registration. It was approved by the Board that registration continue in the nine branches of the present law and empower the Board to recognize other branches under rules established by the Board.

18. Item 14 was added to eliminate from the present law registration of land surveyors under long established practice without an examination.

19. The meeting adjourned at 4:50 p.m.

LES BOARD OF DIRECTION MEETING - December 15, 1979

The following is a summary of the minutes of the December 15 meeting of the LES Board of Direction held in Baton Rouge:

1. Twenty members of the Board and three visitors were present. Board members absent were: A. Andre Amy, P.E.,

Jesse W. Harrison, P.E., and Dan Re-neau, P.E.

2. The next meeting of the Board will be January 25, 1980 in Houma at the Best Western Motel.

3. Dudley Hixson, P.E., submitted membership report #3 for Carroll Fuselier, P.E., membership committee chairman. Lafayette leads the contest with 32 applications compared to their quota of 40. Lake Charles is second with 10 applications compared to a quota of 17. A delinquent members list was distributed for chapter action.

4. Dudley Hixson, P.E., secretary-treasurer, presented the October and November 1979 financial statements. Both income and expense items are running slightly above projected figures.

5. Jerrel J. Freeman, P.E., presented a final report stating that the NSPE Southwest Regional meeting held in New Orleans showed a surplus of \$965.20, which was submitted by check to LES.

6. Carl Thomas, P.E., presented the Honors and Awards Committee report. The following engineers were recommended and approved by the Board to receive the 1980 awards:

A. B. Paterson Engineer in Management Award

Malcolm L. Hurstell, P.E.

Leo M. Odom Professional Services Award

David L. Johnson, P.E.

F. Hugh Coughlin Young Engineer Award

Kerry J. Labauve, P.E.

Andrew M. Lockett Civic Activities Award

Edward M. Midlam, P.E.

James M. Todd Technological Accomplishment

Michael J. Cade

Charles M. Kerr Public Relations Award

Leo V. Bankston, P.E.

7. Seven of the eight chapter presidents of LES gave brief detailed reports regarding Engineers Week plans and activities. There was no report from the Monroe chapter.

8. Announcements

a. Carl Thomas, P.E., requested chapters and practice divisions to review their bylaws and forward copies for review.

b. The resolution concerning liability protection for federally employed professional engineers was mailed to the U.S.

House Judiciary Committee and the Louisiana legislative delegation on November 8, 1979.

c. The 1980 LES summer meeting will be held July 17-19, 1980 at the Holid Inn North, Lafayette.

d. The 1980 NSPE winter meeting will be held January 13-19, 1980 at the Marriott, Atlanta, Georgia.

9. A change to bylaw 4 of the LES constitution was discussed and approved by the Board. The nomination committee's candidates will be identified on the ballot. The ballot will include biographical data on each candidate.

10. A motion was discussed and passed that all chapters and practice divisions must submit bylaws to the LES Constitution and Bylaws Committee by January 2, 1980. Rebates may be withheld from chapters not complying.

11. John E. "Billy" Moore, P.E., advised that the LSU/Alexandria engineering department has lost its only part-time professor and the engineering curriculum was in jeopardy. It is felt that LSU/A intends to fill the position, but something must be done through the LSU system to do so. The LES president was authorized and instructed to write a letter to the appropriate authorities within the LSU system indicating LES's support for the LSU/A program.

12. Ara Arman, P.E., dean of civil engineering at LSU, presented a Baton Rouge chapter proposal to the Board concerning establishment of formal courses in ethics and professionalism in Louisiana engineering colleges. In addition, a student paper competition on ethics and professionalism with prizes to winners was proposed. The concept was received by the Board for submittal to the Engineering Education Committee for recommendations.

13. A second proposal was presented by Ara Arman for LES to establish formal liaison with the deans and department chairmen of Louisiana's engineering colleges. The Board referred this proposal to the Engineering Education Committee to determine the best course of action.

14. James Porter, P.E., advised that the final proof of the Students Operations Manual had been completed and it should be ready for distribution early in 1980.

15. Waldemar S. Nelson, P.E., advised that national directors at the NSPE Atlanta meeting will be voting on two constitutional changes and he requested positions from the LES Board:

1. The amount of annual dues of NSPE shall be determined by the Board of Directors in the bylaws and shall not

exceed two-tenths of one percent of the median engineer's salary reported in the latest NSPE salary survey. The dues increase in any one year shall not exceed \$5.00 or 10 percent, whichever is higher. The LES Board authorized Mr. Nelson to support this concept in Atlanta.

2. The second amendment concerns the removing of the 12-year limitation for associate members. This would make two grades of members in NSPE, members (limited to registered engineers) and associate members (available to non-registered engineers.) This amendment, if approved, would continue to allow non-registered graduate engineers to hold NSPE membership. The LES Board

voted to approve the amendment.

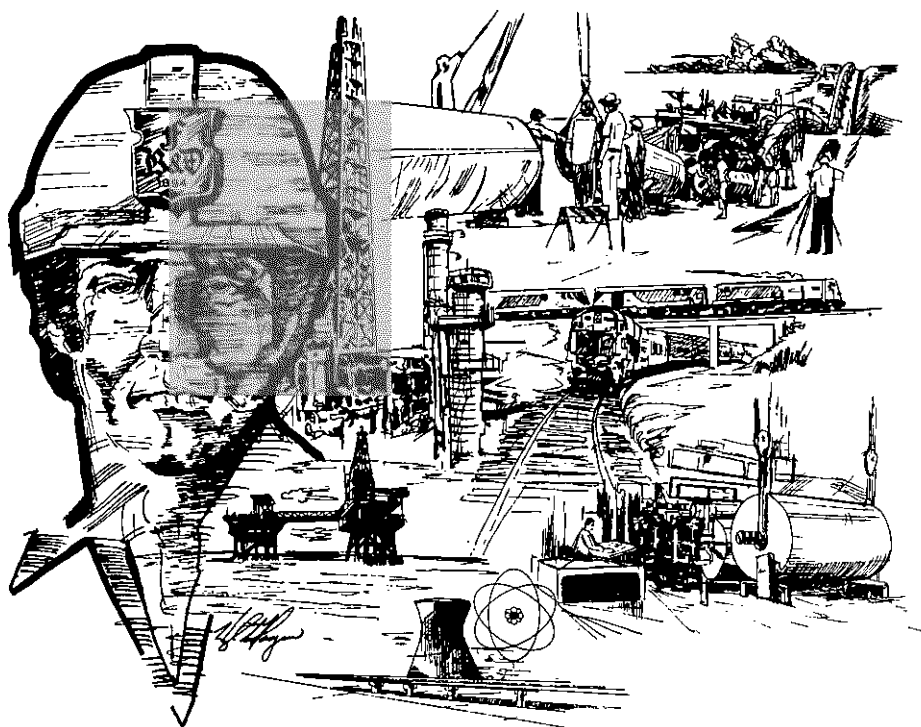
16. A Colorado resolution supporting the holding of NSPE regional meetings was discussed. The LES Board approved the Colorado resolution.

17. Dr. Clarence Hall, LSU, had requested financial support from LES for the Louisiana Science Fair. The Board approved a contribution of \$100 for the 1980 Science Fair.

18. A number of engineers from the Board volunteered to serve on NSPE committees. The names will be forwarded to NSPE by the state office.

19. The meeting adjourned at 12:35 P.M.

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Roster of Engineering Societies

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.

American Society of Mechanical Engineers (ASME)

Robert M. Cook, Chairman
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New Orleans Public Service Inc.
P.O. Box 60340
New Orleans, La. 70160
(504) 586-2394

Nelson Osenberger, Chairman
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Monroe, La. 71201
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D. R. (David) Hendrix, Chairman
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Riley Beard, Inc.
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Shreveport, La. 71130
(318) 653-4910

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(504) 275-5788

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Southwest La. Sub Section
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Sulphur, La. 70663
(318) 527-5439

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New Orleans, La. 70119
(504) 586-2320

John E. Taylor, Chairman
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Baton Rouge, La. 70803
(504) 359-7241

Mike Luffey, Chairman
Monroe Chapter
Ford, Bacon and Davis
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Monroe, La. 71201

American Society of Civil Engineers (ASCE)

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Louisiana Section
1464 Seaboard Drive
Baton Rouge, La. 70810
(504) 769-7810

James D. Mohr, President
Shreveport Branch
6025 Buncomb Rd.
Shreveport, La. 71129
(318) 686-7190

Donald Woodford, President
New Orleans Branch
4450 Gen. de Gaulle
New Orleans, La. 70114
(504) 393-6666

James M. Aronstien, Jr., President
Baton Rouge Branch
Louis Capozzoli & Associates
10555 Airline Highway
Baton Rouge, La. 70816
(504) 293-2460

American Society of Heating, Refrigerating, Air Conditioning Engineers (ASHRAE)

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New Orleans Chapter
Flettrich Engineering Services
P.O. Box 19407
New Orleans, La. 70179
(504) 462-7811

Mike Belcher, Chairman
ASHRAE
4621 Dreyous Ave.
Metairie, La. 70002

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New Orleans Chapter
Martin Marietta Aerospace
Michoud Operations
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New Orleans, La. 70189

David Miller, President
Baton Rouge Chapter
Ethyl, Inc.
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Baton Rouge, La. 70801
(504) 386-7449

Dr. Paul Hale, Jr., President
Norwela Chapter
Dept. of Industrial Engineering
La. Tech. University
Ruston, La. 71270
(318) 257-4903

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Louisiana Section
Agric. Engineering Dept.
USDA ARS
P.O. Drawer U LSU
Baton Rouge, La. 70808
(504) 388-3154 (Ext. 33)

William H. Carter, Chairman
Baton Rouge Chapter
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Baton Rouge, La. 70808
(504) 766-1829

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James Poche², President
Lafayette Chapter
Richard, Gaudet, Poche² and Assoc.
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(318) 232-7295

Franklin Jenkins, President
Monroe-West Monroe Chapter
Jenkins, Lazenby & Assoc.
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West Monroe, La. 71291
(318) 387-2710

George Jambor, President
Shreveport Chapter
Harriss-Jambor & Assoc.
3627 Southern Ave.
Shreveport, La. 71106
(318) 865-4289

John McCormick, President
New Orleans Chapter
McCormick & Associates
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New Orleans, La. 70126
(504) 947-9946

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Stephen V. Estopinal, Chairman
District 1 & 2
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Chalmette, La. 70043

Philip Stutes, Chairman
District 3
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Duson, La. 70529

Lester Drach, Chairman
District 4
Rt. 4 Box 170P
Shreveport, La. 71109

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Monroe, La. 71201

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Randy B. Lacroix, Chairman
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Pineville, La. 71360

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Chief of Naval Reserve
8th Naval District
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New Orleans, La. 70146
(504) 948-5354

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President, New Orleans Chapter
c/o H. E. Faller & Associates
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Jefferson, La. 70121
(504) 837-1614

LES Automobile Insurance Program

The LES Automobile Insurance Program now enrolls over 200 LES members throughout the state. This program allows you to benefit from the collective purchasing power of the LES to reduce your automobile insurance costs. While enjoying this benefit of being part of a group, you are still given individual service and claims handling.

In the event you must report a claim, simply dial AIU Insurance Company toll free in New Orleans, at 0-587-1500. Please have your copy of the policy and any information regarding the accident when you call. Once the claim is reported, AIU assigns an adjuster from your local area to settle the claim. This provides you with prompt individual service in your area.

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LES Spring Meeting

The LES Spring Meeting will be held April 17-19 at the Chateau Regency Hotel in Shreveport.

On Thursday, April 17, registration begins at noon followed by an afternoon of recreation with tennis and golf tournaments. There will be early bird cocktails and dinner in the evening.

Friday morning activities start at 9 a.m. with student paper presentations and the Council of Deans' meeting. A luncheon is planned featuring a well known speaker, and the afternoon will be devoted to committee and practice division meetings. Friday evening, five outstanding LES engineers will be honored at the awards banquet.

On Saturday, the LEF Board of Directors will meet, followed by the LES general meeting and the LES Board of Direction meeting.

Mark the dates and bring your wife, because the convention committee is planning an excellent ladies' program. The program with hotel and registration coupons will be published in the March Perspective.

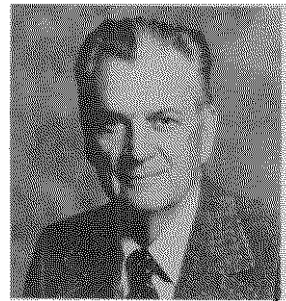
Walk Installed New Orleans Chamber President

Frank H. Walk, P.E., president of Walk, Haydel & Associates Inc., was installed as 1980 president of the New Orleans Chamber of Commerce on December 13, 1979. Mr. Walk received his B.S. degree in mechanical engineering from LSU, has been a member of LES since 1947, and was awarded the LES Andrew M. Lockett Medal for distinguished civic service in 1977. The Society extends congratulations and best wishes to Mr. Walk for this very important civic involvement.

LOUISIANA ENGINEER/FEBRUARY 1980

POTPOURRI

R. C. "Doc" Spears
Executive Secretary
Louisiana Engineering Society



1980 Outstanding Engineers of LES

Five outstanding LES engineers will be honored on April 18 in Shreveport at the annual LES Spring Convention:

Malcolm L. Hurstell, P.E., New Orleans - recipient of the 1980 A.B. Paterson Engineer in Management Award

David L. Johnson, P.E., Ruston - recipient of the Leo M. Odom Professional Service Award

Kerry J. Labauve, P.E., Alexandria - recipient of the F. Hugh Coughlin Young Engineer Award

Edward M. Midlam, P.E., Lake Charles - recipient of the Andrew M. Lockett Civic Activities Award

Leo V. Bankston, P.E., Baton Rouge - recipient of the Charles M. Kerr Public Relations Award

The award winners will be featured in the April issue of the *Louisiana Engineer*.

Baton Rougian Schwing New President of AIA

Louisiana architect Charles E. Schwing, FAIA, was inaugurated as president of the American Institute of Architects for 1980 during ceremonies December 7, 1979 at the Pension Building, site of the proposed National Museum of the Building Arts and a National Register landmark, in Washington, D.C.

Schwing is the president of the Baton Rouge architectural firm, Charles E. Schwing & Associates, which was founded in 1961.

The Louisiana Engineering Society congratulates Mr. Schwing and wishes him every success.

American Association of Engineering Societies (AAES)

A national organization of engineering societies, combined to focus scientific and technical knowledge on the increasingly complex problems and needs of modern society, was inaugurated January 3 in Washington, D.C.

The American Association of Engineering Societies, with more than 35 member organizations representing nearly one million engineers, includes professionals who develop and apply technology in all areas of concern. The National Society of Professional Engineers (NSPE) is one of the member organizations and will represent LES in programs and activities of AAES.

The AAES is dedicated to improving the profession, advancing science and technol-

ogy, and unifying application of a broad range of expert knowledge to interrelated problems and concerns of modern society.

Aluminum Welding Seminar is Scheduled

The latest developments in the welding of aluminum will be described during a two-day seminar at the Fountain Bay Club Hotel, New Orleans, February 26-27.

The seminar is designed for engineers and supervisors in firms that now fabricate, or plan to fabricate, aluminum. The five speakers on the program are leading experts on aluminum welding and are involved with solving the practical joining problems that may arise in production operations.

Those attending the seminar receive credit for one Continuing Educational Unit. Complete registration information is available from Mr. Peter Pollak, the Aluminum Association, 818 Connecticut Ave. N.W., Washington, D.C. 20006; phone (202) 862-5124.

Bovay Engineer Appoints Allen A. Davis, P.E.

Bovay Engineer Inc. has announced the appointment of Dr. Allen A. Davis to the Baton Rouge office. Dr. Davis will serve as manager of the heating, ventilating and air conditioning department.

He received his bachelor's, master's and doctoral degrees in heat and mass transfer from the University of Bucharest, Romania and brings with him over 30 years of teaching and engineering experience. He was most recently associated with the Energy and Environmental Systems Division of Argonne National Laboratory in Illinois. He also served as dean of the mechanical engineering department at the University of Bucharest for nine years. Dr. Davis is a registered professional engineer in Illinois and North Carolina.

Engineering Degrees At Bachelor and Doctor Levels Up In 1979

Engineering degrees increased 14 percent at the bachelor's level in 1979, according to the Degree Survey conducted by EJC's Engineering Manpower Commission. A total of 52,598 bachelor's degrees were awarded with nine percent, or 4716, going to women. This is the largest number of degrees awarded by U.S. engineering colleges since the peak of 1950.

Master's degrees granted decreased about

three percent in 1979 over the 1978 level. About six percent of these were awarded to women and seven percent went to minorities.

Doctoral degrees granted in 1979 increased more than nine percent over 1978. The increase was most notable in the chemical, computer and industrial fields.

Barnard and Burk to Construct MDI Plant

Barnard and Burk Inc. has been selected by Rubicon Chemicals to construct a new multimillion-dollar plant for the production of pure diphenylmethane diisocyanate (MDI) and variants of MDI. The facility will be built at Rubicon's Geismar complex. Barnard and Burk is also providing design, engineering and procurement services for the project.

Scheduled to begin operation in late 1980, the new facility will manufacture a wide range of specialized MDI isocyanates. These are key chemical intermediates used in the manufacturing of polyurethane products.

Sessums Donation to Louisiana Tech University

Mr. and Mrs. Roy Sessums have given Louisiana Tech's College of Engineering a \$100,000 donation, the largest in its 84-year history. Proceeds from the endowment fund will be used for scholarships in civil, electrical and mechanical engineering.

Roy Sessums, a retired vice president of

Freeport Minerals Company in New Orleans, is a Tech graduate and former dean of Tech's engineering college, serving in that position from 1940 until 1952. He was a member of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors from 1962 until 1978, and president of the Louisiana Engineering Society in 1959.

Corps of Engineers Needs Engineers

The U.S. Army Corps of Engineers, the world's largest engineering firm, employs over 40,000 people worldwide with an annual budget of over \$7 billion. Besides its New York district office, the Corps has 40 other district offices throughout the world.

In December 1979, the New York district had 33 openings for new employees, most of which are in the engineering field. Starting salaries for engineers range from \$14,616 to \$20,611.

The district's personnel office has set up a "hot line" for inquiries by engineers and others. Dial (212) 264-0212 for up-to-date information, or write to the Personnel Office, 26 Federal Plaza, Room 1909, New York, N.Y. 10007.

Defense Secretary Harold Brown Honored

Defense Secretary Harold Brown received the National Engineering Award from the newly created American Association of En-

gineering Societies (AAES) at its inaugural dinner in the historic Pension Building, in Washington, D.C., January 3.

The award, highest honor of the engineering profession, is presented for "outstanding contribution to mankind" by an engineer or team and is the first by the AAES, which was officially established December 13, 1979.

Brown, who holds a doctorate in physics from Columbia University, was chosen for the honor for his outstanding performance as an engineer, scientist, educator and government official during a 30-year career.

FB&D To Hold Annual Energy Seminar

Ford, Bacon & Davis will hold its annual energy seminar in March with the Honorable Russell B. Long, senior senator from Louisiana, serving as key speaker.

The firm held the seminar annually for energy associates executives throughout the country until two years ago when the lack of a federal energy policy forced postponement of the event. However, Fred N. Westrom, P.E., president of Ford, Bacon & Davis Construction Corporation in Monroe, said that at the request of a number of industrial leaders, FB&D would again hold the annual event.

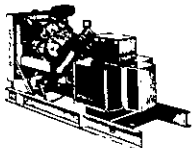
The seminar will be held at the Ramada Inn in Monroe beginning Wednesday, March 5, through noon Friday, March 7.

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Facts About The Louisiana Engineer

1. The Louisiana Engineer is the OFFICIAL publication of the Louisiana Engineering Society and the State Board of Registration for Professional Engineers and Land Surveyors.

2. Every registered professional engineer in Louisiana is a reader. The Louisiana Engineer is read by state, parish and municipal officials, whose function is to supervise legislation, appropriations and construction involving the engineering profession in Louisiana. It goes to the faculties of the state's engineering schools, a matter of interest to firms requiring student engineers; to consulting engineers; and to engineers in industry.

3. Published six times annually, the Louisiana Engineer now has a circulation of over 16,000 per issue. In addition to its "home" circulation, many copies are sent to members of the engineering profession throughout the United States and overseas. Special attention is given to coverage of engineering activities in Baton Rouge, Shreveport, Lake Charles, Alexandria, Monroe, Lafayette, New Orleans, and the Bayou Lafourche Area.

4. Many copies of the Louisiana Engineer are mailed to Louisiana high school and college libraries through a gift subscription program. We believe the magazine is of great value and interest to the young people.

5. While the Louisiana Engineer is primarily devoted to news and comment on engineering activities in Louisiana, it continually reports engineering news of major interest elsewhere. The Louisiana Engineer is the official medium by which the state's registered professional engineers and the Registration Board make known the Society's and the Board's position on all matters pertaining to the profession.

6. The Louisiana Engineer is a non-profit publication administered and supervised by the Louisiana Engineering Society and all advertising contracts are with the Society. All revenue derived from the publication is used by the Society to defray publication costs.

7. As a publication the Louisiana Engineer allows the standard commission to accredited national, regional and local advertising agencies.

8. The Louisiana Engineer performs a very special and desirable service to the engineering profession in Louisiana. Wherever and whenever possible it seeks the support, via advertising contracts, of the membership of the Society and those firms and individuals whose basic interest is professional engineering. New ideas, products and personnel are of editorial as well as advertising interest to the Louisiana Engineer.

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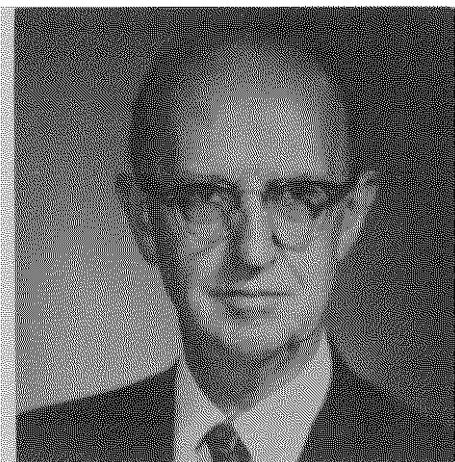
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IN MEMORIAM
F. Hugh Coughlin

F. Hugh Coughlin of Alexandria, retired president and chairman of the board of Central Louisiana Electric Company, died December 15 at the age of 82.

Coughlin was widely known throughout Louisiana and in the utility industry for his civic and industrial achievements. He received a degree in engineering from the University of Michigan and moved to Louisiana in 1938 as vice president and general manager of Cleco. He became president of Cleco in 1947, chairman of the board in 1966, and retired from the company in 1972. In 1948 the first

"outdoor" installation in the United States of turbine-generators was made at St. Landry, Louisiana. This practice has become standard for the utility industry in the south.

He was a registered civil, electrical and mechanical engineer in the states of Texas and Louisiana and a charter member of the Louisiana Engineering Society, Alexandria Chapter. In 1957 he was the recipient of the Louisiana Engineering Society's Andrew M. Lockett Medal for outstanding civic achievement.

Some of Coughlin's many accomplishments include his successful efforts to attract new industry to Louisiana, and improving the state's image. He coordinated promotion of a bill creating the Sabine River Authority for construction of the Toledo Bend Dam and Reservoir, and participated in the background work of Morgan City's port development and deep water channel plans. He also promoted research into Louisiana lignite deposits as a possible fuel supply for the state. He was a founder and the first president of the Public Affairs Research Council of Louisiana, Louisiana State Chamber of Commerce, Council for a Better Louisiana and Gulf South Research Institute.

The F. Hugh Coughlin Young Engineer Award was established in 1967 in his honor.

He is survived by his wife, Anne S. Coughlin of Alexandria; one sister, Mrs. Perry Hutchinson of Chicago; and several nieces and nephews.

IN MEMORIAM
Charles A. Bragg

The Louisiana Engineering Society and the engineering profession lost a fine member on December 16, 1979 when Charles A. Bragg departed this world to claim his heavenly reward. He had resided in Metairie, Louisiana for 30 years, and was 60 years of age.

A native of Vicksburg, Mississippi, Charlie was a founder and partner in the Metairie, Louisiana firm of Eustis Engineering Company and was recently made executive vice chairman of the Board of Eustis Engineering Company Inc.

He was a registered professional engineer in Louisiana and Mississippi. He was a member of the Louisiana Engineering Society, the American Consulting Engineers Council, the American Society of Civil Engineers, and a founding member of the Association of Soil and Foundation Engineers and of Terra Insurance Ltd.

Charlie was active in religious and civic affairs. In 1973, he was invested as a Knight of the Order of the Holy Sepulchre of the Roman Catholic Church. He has served as President of the Metairie Rotary Club and on the Advisory Board of the Boy Scouts, the Mount Carmel Building Committee and the National Bank of Commerce of Jefferson Parish. He served as an officer in the United States Army during World War II.

Charlie was the epitome of professionalism and Christianity in action.

The Society extends its deepest sympathy to his wife Elizabeth, to his three sons and three daughters, and to other members of his family.

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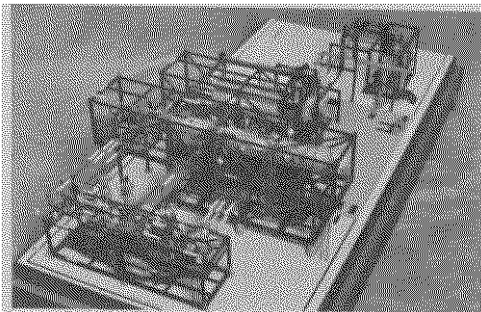
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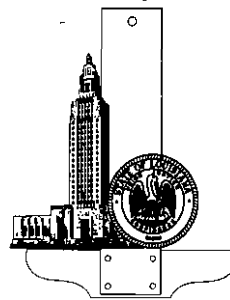
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STATE REGISTRATION LAW

Continued from page 10



fessional conduct when state or federal courts make any rulings against the rules of professional conduct, or otherwise.

It is readily apparent that these changes to the registration law will eliminate antiquity and modernize the law that governs our engineering and land surveying professions in order that we may be easily recognized by the public we serve as true professionals. These changes will also result in a stronger relationship between our Board of Registration and the Boards of Registration for engineers and land surveyors of other states.

These direly needed changes to our registration law will be written in proper legislative form for filing bills in the 1980 regular session of the Louisiana Legislature for action by our state senators, representatives and governor. We need the help of all engineers and land surveyors in the state of Louisiana, whether registered or not, in making personal contacts with your respective senator and representative, asking them to sponsor and support the changes or amendments to our registration law. Please bear in mind that our present registration law is extremely vulnerable to further deterioration by more attacks through court cases, and our legal counsels strongly advise that these amendments be made immediately! This should be made known to your respective senator and representative along with the fact that we are not asking anything selfishly for our professions but rather that we be placed in a better position to service the citizens of Louisiana.

Please address your comments or any questions you may have concerning this legislative program to Mr. R. C. "Doc" Spears, LES Executive Secretary, at P.O. Box 2683, Baton Rouge, La., 70821, or telephone "Doc" at A/C 504 344-4318. The LES Legislative Committee will assist "Doc" in timely response to your comments and inquiries.

The individual concern and help on the part of all engineers and land surveyors in Louisiana in this most important and timely matter is deeply appreciated.

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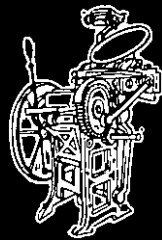
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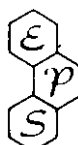


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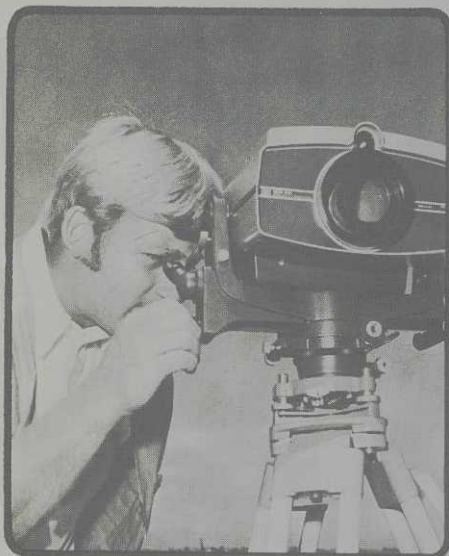
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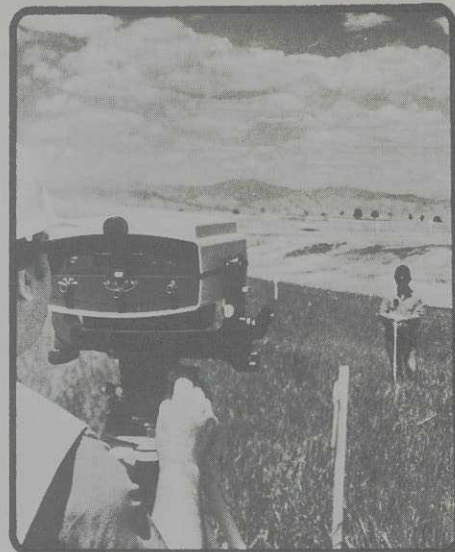
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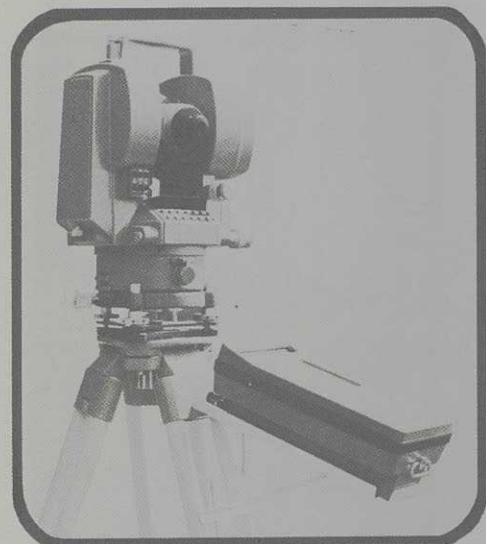
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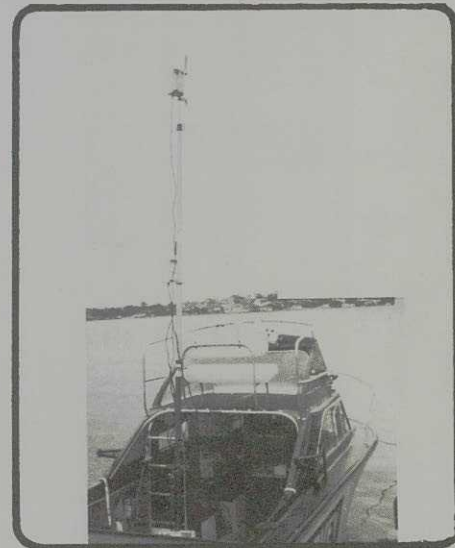
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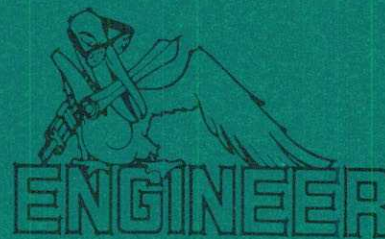
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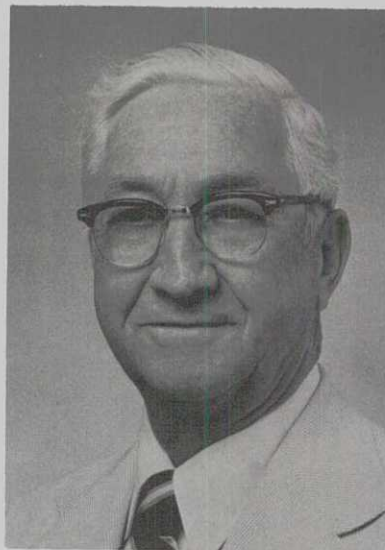


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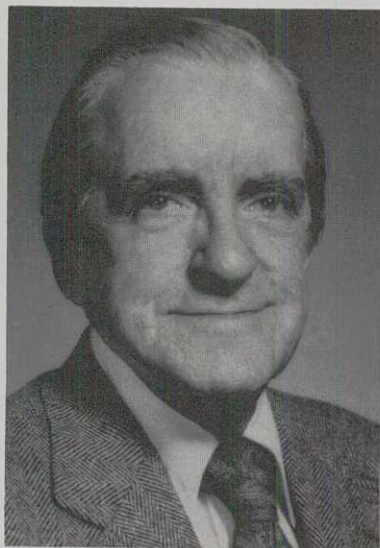
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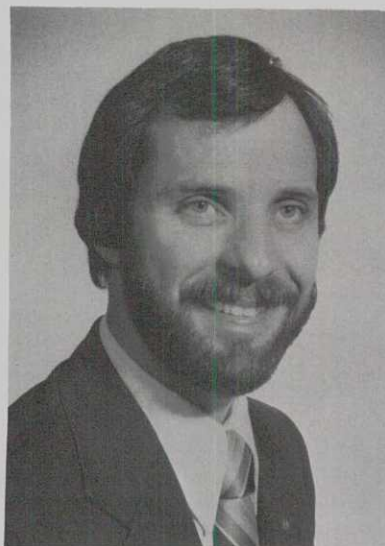
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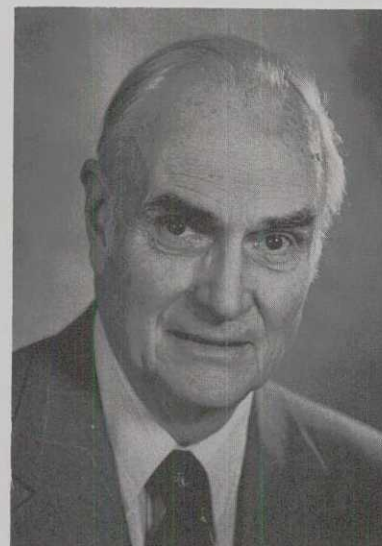
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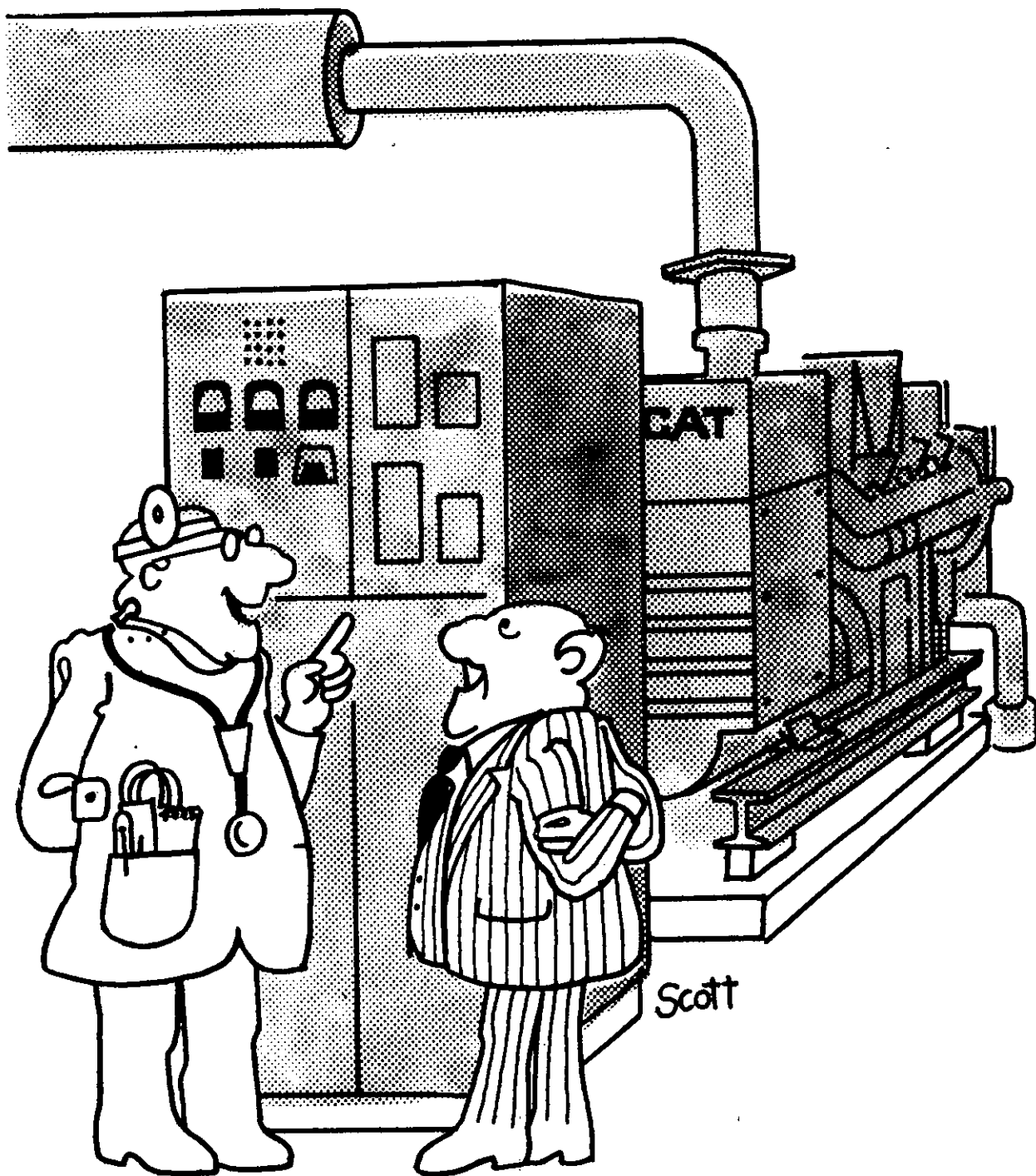
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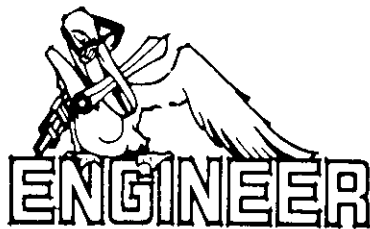
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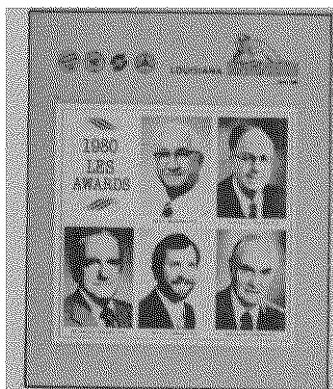
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About the Cover:

The Louisiana Engineer pays tribute to the five men who received the 1980 LES Awards. Their accomplishments are featured in this month's issue.

In This Issue:

Presidential Privilege	4
LES Awards	6
CEC/L Summary	10
College courses for High School Students	12
Potpourri	13
Women's Auxiliary	14
Vliet's Views	16
New Members	20

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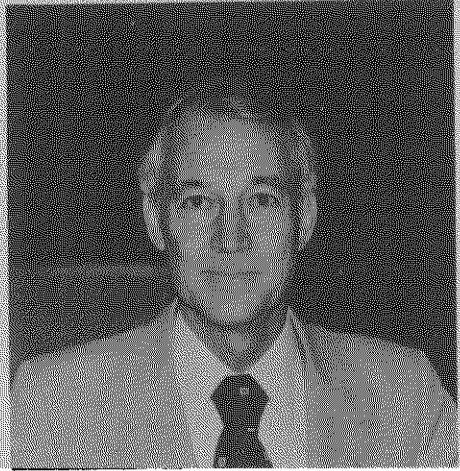
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Cotton picking time in Iota was always an exciting, fun time. The cotton rows have given way to residences and soy beans, but the fond memories of King Cotton take me back to a joyous boyhood. To the grown-ups, the harvest was the culmination of the year's efforts; it was sustenance, and a bit of luxury measured by the standards of the era. To us youngsters it was a lucrative venture, even though short lived and manually demanding. A ten-year-old could make almost as much money in a day as the average wage earner supporting a family, if he really worked. Reflecting back, I know that the Creator instills in children a philosophy which far transcends the basic drives for survival, or the quest for physical luxury. Whether consciously or subconsciously (at the time I know not), excitement came from being with all my dearest friends: bearing the day's heat together, the strap from the heavy sack rubbing my sun-burned shoulder (but don't complain, because my friends didn't), our helping the slower ones pick their row when they began lagging. After all, we wanted them to share in the continuous talk, good natured joking, laughter, and occasional encounter with a "blue runner" snake, as we swept slowly through the field, changing it from white to green. The thrill was the feeling of accomplishment — the realization that we were playing a major, if brief, role in the necessity and drama of life as it then was. A job well done or lesson well learned all alone was satisfying, but it didn't stand up to this.

The pleasure was multiplied when we were picking the fields of Eddie Miller. Affectionately known by all as "Pache" (pronounced Potch), he was gifted with a good understanding of and rapport with youngsters. Lacking in formal education himself, he held it out as a most noble goal that we should strive for. "Some



Francis C. Roy, P.E.
LES President

people have nothing and want nothing. You already know, nothing plus nothing gives you nothing," he would tell us. We were amused at the way he spoke to his dogs, Tippy and Tiger, and to his horses, Robert and Rock, as though they were near humans. (A dog's wisdom, attitude, understanding, and temperament could be measured in terms of the master's, according to Pache, and his horses were educated and disciplined because they had been privileged to serve in the military.) Through the amusement we saw the profound in the way the animals responded to his easygoing manner and everyday philosophy.

We were engaged, one hot day as we moved down the rows, in comparing our reactions to an individual known for his verbosity. When the discussion began taking on the semblance of debate, and as sides were gradually being drawn in defense and condemnation of talkative people in general, it became obvious that Pache was not being heard from. "God gave us ears to listen as well as the means to talk", he finally said. "Sometimes a

couple of things should happen before a man speaks. First he should listen and get a good understanding of the issue, and then speak only if he can add something new and enlightening to the discussion. Take ole Huey Long — I didn't like everything he did, and some people say he wasn't always polite, but he never talked down or up to anyone — always straight at 'em. He could do that 'cause he listened long enough to size up the people as well as the issue, and put the two together. Now with some folks, talk is as cheap as a sun-checked watermelon, but it shouldn't be. Tell a man good things all you can, but don't just tell him what you think he likes to hear at the expense of the truth. And when you get to know a good deal about something, don't make the mistake of talking like an authority on all subjects. Because Joe Louis is a great boxer, the newspapers are wanting him to talk about world politics! When you want to get the most out of a man's knowledge on any subject, listen carefully to his first observation on that topic. He first says what he knows, then the more he talks, the more he jabbers on what he doesn't know, And now I'll shut up before I trail off into jibberish."

Recently I read the opinion of a much respected author who expressed that, novels sometimes excepted, a man's best book is usually both his first, and his shortest. In his first book, he tells you everything he knows, while succeeding works are devoted to things about which he doesn't have sufficient knowledge.

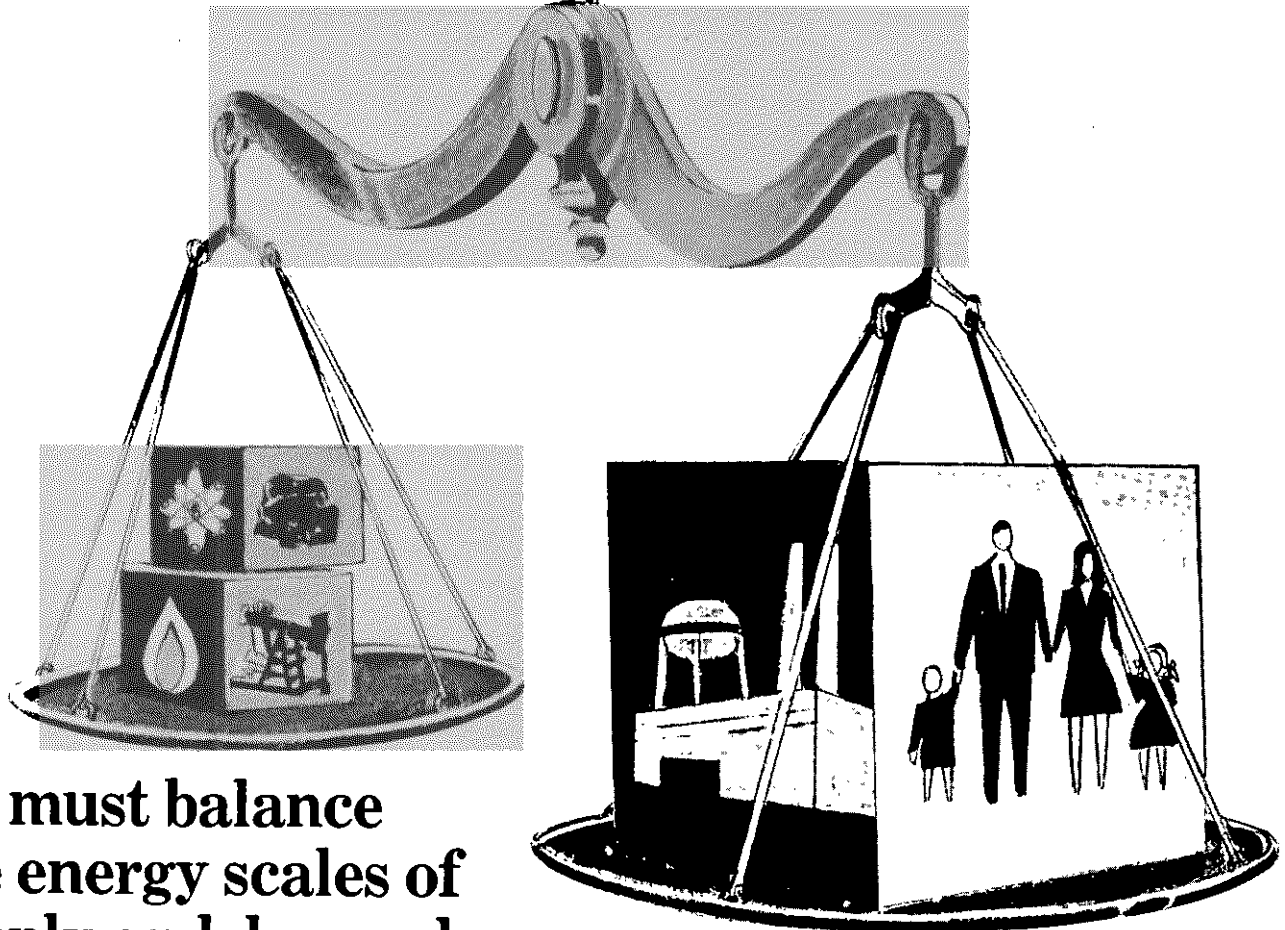
If you're waiting for me to relate all this to LES and Professional Engineers I must tell you I still remember another bit of Pache's cotton field philosophy. "Don't insult an intelligent man by drawing the picture too clearly. Leave a bit for his imagination."

And so, I'm going to shut up before this trails off into jibberish.

**National Metric
Week**

May 5-9, 1980

Balance



We must balance the energy scales of supply and demand.

The shortage of conventional fuels such as natural gas and oil, and the growth in population and industry in our area, have increased the need to find new sources of energy and improved ways of using old sources.

Energy sources such as fusion, solar, wind and geothermal could offer some help in the years to come. But for the immediate future, competent studies show that these sources cannot make significant contributions to our energy supply. We must rely increasingly on the use of nuclear power and coal for generating electricity. Coal is America's most abundant natural fuel resource and geologists estimate that at the present rate of consumption, there is enough coal to last our country for several hundred years.

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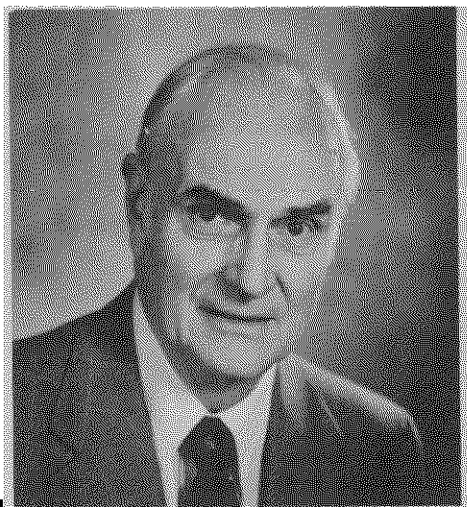
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LES Honors Five Outstanding Engineers

The Louisiana Engineering Society is honoring five outstanding members this month at the spring meeting in Shreveport. Each award is named after a present or former member of the Society.

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.



Edward W. Midlam, P.E., retired from Cities Service Company, Lake Charles is presently business manager of the First United Methodist Church, Lake Charles. A native of Wilmington, Delaware, he received his bachelor's in chemical engineering and M.S. degrees from Lehigh University.

Mr. Midlam is a registered professional engineer in Louisiana and a member of the Louisiana Engineering Society. His membership and offices held in civic organizations include: Calcasieu-Cameron American Red Cross chairman, 1963, 1977 and 1979; Board of Directors, Southwest Louisiana Speech and Hearing Center; member, Executive

Board, Boy Scouts of America; member, Board of Directors, Boys Club; Calcasieu United Appeals, President, 1975 and 1976; member of the Board of Directors, Greater Lake Charles Chamber of Commerce; membership chairman, Better Business Bureau; member, executive committee of the Louisiana Manufacturers Association; Board of Directors, Civic Symphony; member, Lake Charles Little Theater; and member, Rotary International.

He has been very active in the First United Methodist Church, having served on the administrative board, finance committee and presently as business manager. He has served on the Board of Directors for the McNeese University Wesley Foundation.

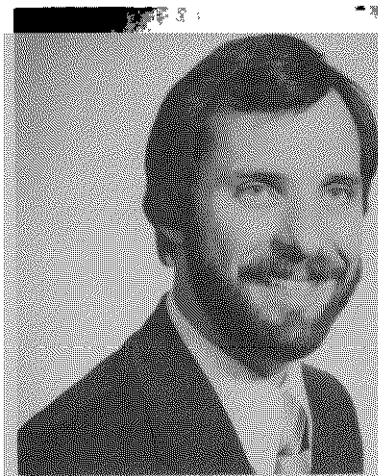
His past and present activity with many projects has resulted in the betterment of Lake Charles and Calcasieu Parish. He is the only person to have twice received the Greater Lake Charles Chamber of Commerce Civic Affairs award, in 1963 and 1975. On two occasions he guided the United Appeals in exceeding its goal and pledges, and was the first chairman of a committee raising more than \$500,000.

Mr. Midlam is married to the former Agnes E. Rohle from Baltimore, Maryland. They have two daughters, Mary and Betsy, both married.

Mr. Midlam's service to his community and profession has made him a worthy recipient of the Andrew M. Lockett Award. His civic involvement is an inspiration to the engineering profession.

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. F. Hugh Coughlin was a member from 1944 until his death in 1979. His interest in and support of, young engineers was very instrumental in the establishing of this award. His name was added to the award in 1975.



Kerry J. LaBauve, P.E., a native of New Orleans, Louisiana, attended the University of Southwestern Louisiana from 1965 to 1970 where he received a B.S. degree in civil engineering. He also attended the University of Oklahoma from 1970-1971 earning the Master of Science degree in civil engineering. He is a registered professional engineer in Louisiana and Texas.

Mr. LaBauve's professional experience includes three years with Avondale Shipyards, Inc., New Orleans, as a marine structural engineer where he received extensive experience in the design of offshore structures. Two years were spent with the Gulf South Research Institute in New Orleans and Baton Rouge where he participated in environmental research programs, aiding the Environmental Protection Agency in establishing industrial waste management technology and water quality standards. Mr. LaBauve has spent the past five years concurrently serving as assistant professor of civil engineering at L.S.U.A. and consultant engineer in private practice. Mr. LaBauve is currently one of the principal engineers of the firm of Beard and LaBauve, Consulting Engineers, Alexandria, Louisiana.

Mr. LaBauve is involved with the Consulting Engineers Council, The Louisiana Engineering Society, civic organizations, Dixie Youth and the Boy Scouts of America. He is currently secretary-treasurer of the Alexandria

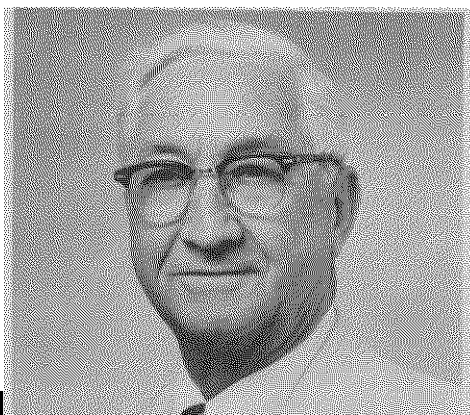
chapters of LES and CEC/L. Professional honors of Mr. LaBauve's include president, student chapter of ASCE at USL; member, Tau Beta Pi honor society; received Bostic Concrete Award; outstanding senior award, ASCE; American Water Works Association Award; and he received a national science scholarship to attend the University of Oklahoma.

He is married to the former Barbara King of Meadville, Mississippi and they have one son.

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

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. Kerr was very active in the business world in promoting his chosen profession, engineering.



Leo V. Bankston, P.E., vice president of the Baton Rouge Water Company, attended Louisiana State University and is a registered civil engineer in Louisiana. He is a native of Mt. Hermon, Louisiana and is married to the former Frances Foulks from St. Francisville. They have four daughters.

Leo Bankston's engineering career has been with the Baton Rouge Water Works as engineer, 1937-1954; superintendent, 1954-1966; and vice president, 1966 to the present.

He is a member of the Louisiana Engineering Society, the National Society of Professional Engineers, and the American Water Works Association. He was

president of the Baton Rouge chapter of LES in 1967-1968 and chairman of the Southwest section of the American Water Works Association (AWWA) in 1971-1972. Mr. Bankston was recipient of the S. L. Perry Award in 1967 from the Louisiana Conference on Water Supply, and recipient of the Fuller Award in 1969, the highest award given by the AWWA. He has been active in many civic activities including: secretary of the Downtown Kiwanis club for 13 years and a member for 23 years; treasurer of the Board of Directors of the Safety Council of Greater Baton Rouge; Istrouma Area Council of the Boy Scouts of America, serving on its Board of Directors and receiving the Silver Beaver Award in 1957; Baton Rouge Area Chamber of Commerce; Mason, Shriner and High "12"; and a member of the First Baptist Church of Baton Rouge.

He has been very concerned with groundwater conservation. He has served as chairman of the Water Conservation Commission of the Baton Rouge Water Conservation District since its formation in 1971. He was instrumental in the passage of Act 678 of the 1974 legislature, which created the Capital Area Groundwater Conservation District for the orderly utilization of groundwater resources. He was elected its first chairman and presently serves on one of its operating committees. The district is composed of East Baton Rouge, East Feliciana, Pointe Coupee, West Baton Rouge and West Feliciana parishes.

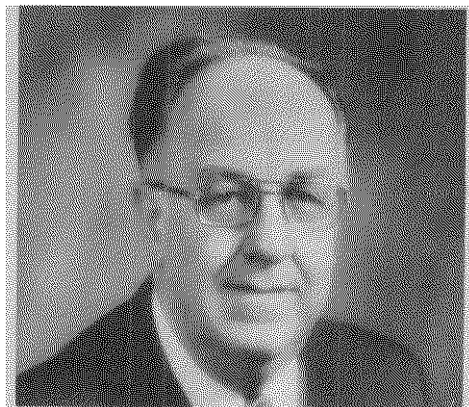
Since 1971, Mr. Bankston has served as editor of the Baton Rouge chapter newsletter, keeping approximately 600 readers up-to-date on LES and Baton Rouge chapter activities. In addition, he is called upon to speak and to provide other speakers for the annual Engineers Week programs. He was on the formation committee of the Louisiana Engineering Foundation and one of the incorporators of the Foundation.

Mr. Bankston is a well qualified recipient of the Charles M. Kerr Public Relations Award. He has given freely of his time and resources to improving the identity of the professional engineer. His outstanding performance is in keeping with the ideals of the Charles M. Kerr 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. Pater-

son, an active member of the Society from 1923 until his death in 1952, was an engineer, administrator, executive, banker, civic leader and humanitarian.



Malcolm L. Hurstell, P.E., is a graduate of Louisiana State University where he received his bachelor of science degree in electrical engineering in 1948. He completed the Public Utility Management Course at Georgia Tech in 1964. He started his engineering career with New Orleans Public Service, New Orleans, and progressed through assistant engineer; assistant electric system planning engineer; electric system planning engineer; manager of the electric system planning division; vice president of engineering; and in 1978 he became vice president, engineering and production, the position he now holds.

Some of the major accomplishments of Mr. Hurstell in the field of management within NOPSI include: combining electric and mechanical engineering divisions into the power engineering division; establishing an environmental engineering division; forming an energy procurement department which has responsibility for securing adequate gas fuel for customers of New Orleans Public Service; reorganizing the electric power department into task-oriented divisions; and creating such a satisfactory work environment that union members of the electric power department elected to decertify their affiliation with the International Brotherhood of Electrical Workers in favor of no union affiliation. In his present position he supervises approximately 380 personnel, both professional and non-professional.

Mr. Hurstell is a lifetime native of New Orleans. He is married to the former Mary Fitzpatrick and they have five sons and three daughters.

He has always given freely of his time in utility-industry and professional organizations. His involvement in LES activities since joining in 1948 have few parallels. He has served in every office of the New Orleans chapter. At the state

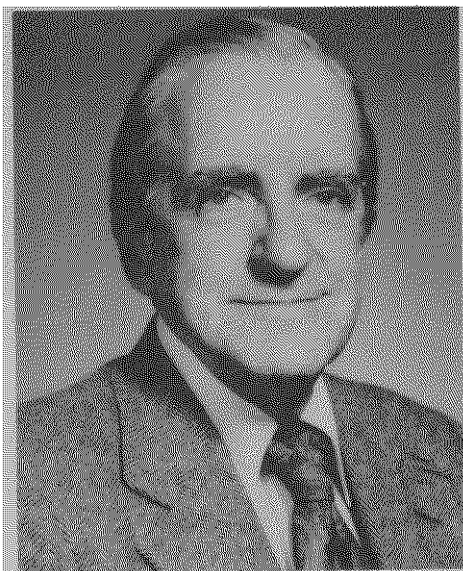
level, he was instrumental in forming the professional engineering in industry practice division and held every elective office of the Louisiana Engineering Society. He was president in 1975-1976. Mr. Hurstell's other professional and technical society memberships include: senior member and past chairman, New Orleans section of IEEE, New Orleans chapter of Power Engineering Society of IEEE; member and past president of the New Orleans chapter of American Public Works Association; member and past president of the Engineers Club of New Orleans; member of NSPE, Southern Gas Association, American Gas Association, New Orleans Board of Trade, Southwest Power Pool and South Central Electric Companies engineering and operating committees (vice chairman of S.P.P.). He also represented the United States on the U.S.-U.S.S.R. Task Force on electric utility practices. He served four years on the Archdiocese of the New Orleans School Board and was 1974-1975 president.

The engineering and management accomplishments of Mr. Hurstell, coupled with his active participation in his profession, bear testimony to his worthiness as a recipient of the Society's A. B. Paterson Medal for an engineer in management.

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

Dr. David L. Johnson, P.E., head of the department of electrical engineering, Louisiana Tech University, is a native of



Ohio. He received an A. B. degree in ancient language from Berea College, an M.S. degree in speech from the University of Iowa, a B.S. degree in electrical engineering from the State University of Iowa, and M.S. and Ph.D. degrees in electrical engineering from Oklahoma State University.

Dr. Johnson has a distinguished career as an educator and educational administrator. His dedication to the advancement of the theory and practice of electrical engineering, electronics, radio, the allied branches of engineering and the related arts and sciences is manifest through his life-long endeavors. He has labored to insure that this nation's technological root, the graduate engineer, is appropriately prepared to meet society's present and future needs and demands. During his 24-year tenure as department head, he has continuously maintained an ECPD accredited department, enlarged offerings to include masters and doctoral programs in electrical engineering, developed a baccalaureate curriculum in electrical engineering technology, and expanded departmental operations into large and modern physical facilities.

He has been an active member of the American Society for Engineering Education, EE division newsletter editor, secretary, vice chairman, and chairman. He is a member of the Frederick Emmons Terman Award committee. He has served as director of the Shreveport section of the Association for Computing Machinery and was chairman of the Electrical Engineering Department Heads Association. His involvement with the Institute of Electrical and Electronics Engineers is extensive: vice chairman and chairman of the Shreveport section, IEEE representative to the ECPD Ad hoc committee, member of the Educational Activities Board and review committee, contributor to the Manual for Ad Hoc Visitors, member of the Education Society Administrative committee, and chairman of the Benjamin J. Dasher Award committee.

He is a registered professional engineer in Louisiana and Oklahoma and has been an active member of LES for over 20 years.

He has been elected to membership in Eta Kappa Nu, Omicron Delta Kappa, Phi Kappa Phi, Pi Mu Epsilon, Sigma Xi, Tau Beta Pi and Upsilon Pi Epsilon. He is listed in American Men and Women of Science, Who's Who in America, Who's Who in Finance and Industry, Who's Who in Engineering, Who's Who in the South and Southwest, and Who's Who in the World.

He is married to the former Jean McQuarie of Stillwater, Oklahoma, and they have two children, a son and a daughter.

Dr. Johnson's active participation and leadership in the technical societies as well as in LES and other professional groups is in keeping with the ideals of the Leo M. Odom Professional Service Award. The unselfish service and high ethical ideals of Dr. Johnson should be an inspiration to all engineers, young and old.

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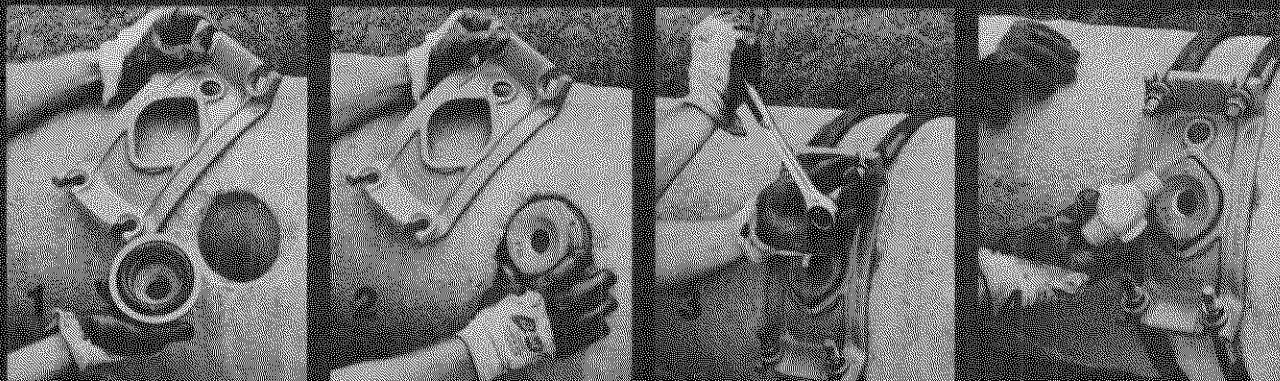
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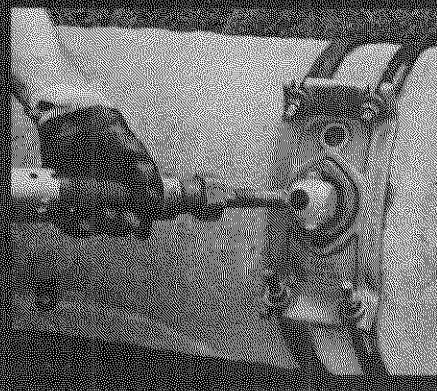
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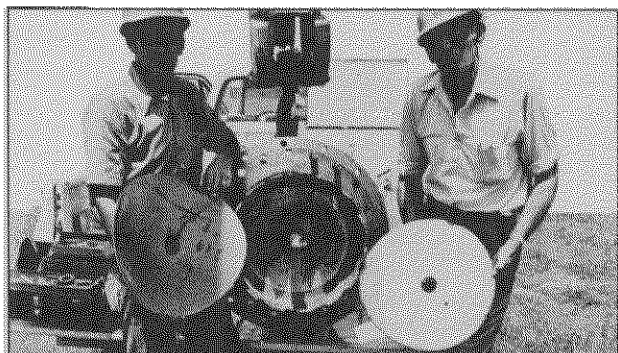
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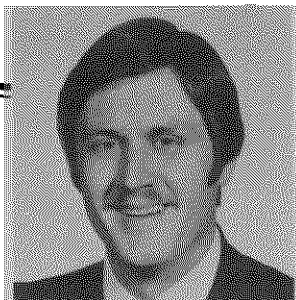


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THE SPEC SHEET

Warren J. Wilder
CEC/L Executive Director



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Introduction

Consulting Engineers Council of Louisiana, Inc. (CEC/L) is a professional organization serving the engineer in private practice. It is unique in that the consulting engineering firm is the member with its principal or principals acting as its representative in council business. CEC/L places its emphasis on the business management end of the practice rather than on the technical aspects of engineering, which sets it apart from the other professional societies. There is a Consulting Engineers Council in almost every state, including Hawaii. All the Consulting Engineers Councils are member organizations of the national American Consulting Engineers Council, headquartered in Washington, D.C.

History

CEC/L began its existence as the Gulf Institute of Consulting Engineers on January 10, 1950, when a meeting was called to be attended by "certain Consulting Engineers of New Orleans, LA". On October 13th of that same year, the GICE Constitution and By-Laws were adopted. In 1965, the name of the organization was changed to Consulting Engineers Council of Louisiana, Inc. CEC/L was a leader in founding the Consulting Engineers Council of the United States, which was chartered in Louisiana.

The CEC/USA and the American Insti-

tute of Consulting Engineers, AICE, after three years of negotiations, voted in May, 1973, to merge these two outstanding national organizations. The new name adopted by this consolidation is the American Consulting Engineers Council. CEC/L remains a member organization of ACEC and the member firms of CEC/L continue to offer the same outstanding and unbiased independent professional services.

Code of Ethics

Consulting Engineers Council of Louisiana, Inc., several years ago, officially adopted as its own the American Consulting Engineers Council's Code of Ethics, which is reprinted below in its entirety:

CODE OF ETHICS

With highest regard for their fellowmen and their profession, members of the American Consulting Engineers Council acknowledge their responsibilities to society, accept this Code of Ethics as a set of dynamic principles to guide them in their practices as consulting engineers and shall. . .

Hold paramount the safety, health and welfare of the public in the performance of their professional duties.

Perform services only in the areas of their competence.

Issue public statements only in an objective and truthful manner.

Act in professional matters for each client as faithful agents or trustees, and shall avoid conflicts of interest.

Build their professional reputations on the merit of their services and shall not compete unfairly with others.

Associate only with reputable persons or organizations.

Continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.

Purpose and Goals

CEC/L was organized, and it shall be operated, exclusively, for:

1. The promotion of ethical principles and professional practices.
2. The advancement of the interests of professional engineers engaged in the consulting practice of engineering.
3. The increase in the usefulness of the consulting engineer to his clientele and to the public at large.

CEC/L also strives to promote harmony, cooperation and mutual understanding among consulting engineers; cooperate with public bodies and other organizations in matters of common interest; promote the professional and economic welfare of its members; act as a clearing house and information center among its members and provide cooperative services for their common purpose and benefit; press and assist in the enactment of legislation that may have a relation to the general interest of its members.

Liaison

CEC/L maintains active liaison with the other professional societies, various state boards and the legislature by means of a series of standing committees. These include, a legislative committee, a Louisiana Engineering Society liaison committee, a Registration Board liaison committee, an energy committee, an engineering education and scholarship committee, an office practices committee, an ethics and professional conduct

committee, a long range planning and public relations committee, and Louisiana highway department liaison committee, to name a few. If a situation develops which does not fall into the responsibilities of the standing committees, ad hoc committees are quickly formed to cope with the situation.

Members are encouraged to become involved by serving on the committee or committees of their choice.

Membership

CEC/L is divided into six chapters: New Orleans, Baton Rouge, Lafayette, Alexandria, Shreveport, Monroe-West Monroe. Each chapter's president serves on the Board of Governors, along with the executive committee. Therefore, membership eligibility begins at this "grass roots" level. Each chapter is responsible each year for compiling an "approved prospective member" list. On this list are area engineers who have been contacted as to their firms' eligibility for membership. A willing prospect is approved at the chapter level. The firm is then approved or disapproved at the board level. If approved, the firm's name is circulated to the general membership for a period of two weeks. If there is no majority of objections, the firm becomes a member of CEC/L.

The firm's principal or principals must be at least 30 years of age and be registered in the state of Louisiana. The firm must be in business for at least one year and must have no outside business interests that would cause a conflict of interest with the consulting engineering practice.

Benefits of Membership

Members have the opportunity to secure two different types of insurance programs. CEC/L is active in the legislature lobbying for the protection and rights of the consulting engineer and design professional. Members receive *The Pipeline*, a monthly in-house newsletter, which keeps members informed on council bus-

iness, both at the state and national levels, as well as an exchange of information between the various member organizations. Members belonging to CEC/L automatically belong to ACEC. ACEC publishes *The Last Word*, a weekly newsletter similar to CEC/L's *Pipeline*, MO Memo, a monthly newsletter devoted to an exchange of ideas and information between member organizations, and numerous legislative bulletins to keep members up to date on what ACEC's powerful lobby is doing with Congress. ACEC offers to its members seminars throughout the year, including Life Cycle Costing, Value Engineering, and Business Management. CEC/L also offers a mid year seminar once a year to its own members. CEC/L and ACEC both participate in the "Minuteman" program. This program involves engineers contacting their congressmen, whom they know personally, and lobbying for or against pending legislation that may affect the profession.

To reiterate, the benefits of membership in CEC/L and ACEC are directly proportional to what you put into it. If you are a "spectator", your benefits will be minimal. If you are a "player", your benefits will be great. CEC/L encourages all of its members to become involved in the life and improvement of the consulting engineering profession.

Accomplishments

CEC/L accomplishments are many over the years. Listed below are a few to indicate that CEC/L is an active organization.

CEC/L helped to amend the state Registration Act to put two private practice engineers on the board, as well as successfully defeating the architects' efforts to legislate civil engineers out of building structures. Louisiana architects' new Registration Act specifically exempts civil engineers.

CEC/L has been active in the Louisiana legislature. CEC/L introduced into the 1977 regular session, and successfully

passed into law, a bill that grants to the engineer lien privileges in connection with public works. The engineer has these privileges in private works, but the existing statute was unclear relative to public works. Only through active participation of the membership was CEC/L able to be successful.

CEC/L assisted in setting up the Louisiana Engineers Selection Board system, a non-political, unbiased board which awards various state engineering projects to engineers based on qualifications and firm capability rather than on political affiliation. CEC/L offered stiff opposition which ultimately caused the attorney general to revise an opinion which would have affected the engineers' participation on the Selection Board. The revised opinion states that engineering firms may accept work from an architect who has been awarded a particular project by the Architects Selection Board even though the principal of that engineering firm serves on the Engineers Selection Board, and vice versa. Previously, the attorney general has frowned upon this situation, but was convinced otherwise by CEC/L.

Recently, a case was heard in the Louisiana Court of Appeals, which declared unconstitutional the statute of limitation, which prescribes that an engineer will be liable for his design against errors and omissions for a period of 10 years. The case was placed in the Louisiana Supreme Court. CEC/L jointly filed with the Louisiana Engineering Society and the Louisiana section of ASCE a friend of court brief which explained the necessity of the statute of limitation. The Supreme Court unanimously upheld the constitutionality of the statute, reversing the Court of Appeals' decision.

CEC/L is as active as you want it to be.

If you are a consulting engineer and are interested in finding out more about membership in CEC/L, please direct your inquiry to the CEC/L State Office, P.O. Box 1549, Baton Rouge, Louisiana 70821.

College Courses for the High School Student



Dr. Clarence E. Hall, Industrial Engineering Dept., LSU



Mrs. Ann Perrin, Instructor Industrial Engineering Dept., LSU

The college of engineering at Louisiana State University in Baton Rouge has offered a college-level engineering program at the Baton Rouge Magnet High School since its beginning in 1975. The program provides for one such course to be offered each semester and it is taught by full-time university faculty. These courses are taught at the high school and are scheduled to mesh into the school's regular schedule of classes. Interested students, either juniors or seniors, may enroll voluntarily; credit for their work may be validated by credit examinations and applied toward a de-

gree at LSU-BR. This arrangement enables a serious high school junior an opportunity to complete these two courses and then enroll for additional course work; during the senior year, at the university campus as a part-time student.

Part-time enrollment at the University is administered in accordance with its concurrent admission policy. Some of the more mature students who meet the University's early admission's criteria may elect to enroll at LSU-BR for full-time work at the end of their high school junior year. This policy actually permits the student to reduce the cost of obtaining a college education by as much as one entire academic year.

One of the best criterion to use in evaluating the significance of an engineering program at the high school level is student involvement or enrollment. This figure has grown steadily during the past four years and currently twenty or more students are attending the program regularly.

The course normally offered during the fall semester is an introductory engineering course entitled, "Engineering, Man and Energy", while that offered in the spring treats the "Use of Computers in

Engineering". Students learn the Fortran language while studying and writing a total of fourteen or fifteen programs. Although these programs are developed during regular class hours they are run on the University's computer system.

One of the more significant factors affecting programs of this nature is that students must be made aware of their existence so that they can prepare to participate and that they are taught by well informed instructors. One of the outstanding features of this particular course is its relevancy and the availability of resource personnel from both the industrial and university communities who are willing to share their expertise with the class.

The course, "Engineering, Man and Energy" is quite comprehensive in its treatment of the production and utilization of various sources of energy. Students not only are given an overview of the energy situation but also they receive detailed instruction in the generation of electricity. A brief outline of this course along with a typical final examination is shown below to help the reader gain a better understanding of the quality of work which may be taught at this level.

INTRODUCTION TO ENGINEERING Fall 1979 Course Outline

Week	
8/20	I. Chemistry Background periodic chart, molecular weight, moles, balancing equations, combustion reactions, heat equations (specific heats, change of phase, heats of reaction), stoichiometry
8/27	II. Wood composition, heating values, combustion reactions
8/27	III. Coal types, composition, analyses, heating value by composition combustion reaction, current availability and usage
9/2	IV. Petroleum
9/16	Organic Chemistry Basics molecular structure, reactions composition, refinery processes (primarily gasoline producing), properties, current availability and usage
9/9	V. Dimensional Analysis
9/16	VI. Natural Gas composition, combustion reactions, current availability and usage
9/23	VII. Solar Energy collection (flat plate and focusing), uses, storage, complete heating systems, availability and current usage
9/30	VIII. Material Balances
10/7	Law of conservation of mass, total material balances, component material balances

10/7	IX. Energy Balances
10/14	electricity production, conversion between energy forms, law of conservation of energy, efficiencies, energy balance equations, superheated steam (heat content)
10/14	X. Nuclear Energy
10/21	radioactivity, half-life (equation and graphs), fission process (chemical reactions and energy released), pressurized water reactors, boiling water reactors, breeder reactors
10/28	XI. Wind Power and Hydroelectric Power
	Kinetic energy equation (relating wind speed, diameter, efficiency and power output), potential energy equation (relating flow rate, head, efficiency and power output).
	XII. Pollution
	reading assignment - pollution associated with each energy source
11/4	XIII. Economics
	fixed costs, operating costs, calculation of annual fixed costs
11/4	XIV. Summary of Following Energy Sources
	geothermal, shale oil, tar sands, coal gasification, coal liquefaction, municipal refuse, sewage treatment
12/9	XV. Oral Presentation of Energy Reports
11/11, 25	XVI. 2-Dimensional Force Systems
12/2	graphical addition, resolution into x and y components, addition of components, 2-dimensional equilibrium

12/16, 30 **XVII. 3-Dimensional Force Systems**
1/6 resolution into x, y and z components, addition of components, resolution into components in any direction, moments about a point, moments about an axis, 3-dimensional equilibrium

REFERENCES: 1. *Basic Principles and Calculations in Chemical Engineering*, David M. Himmelblau
2. *Concepts in Modern Chemistry*, Patrick Kavanagh, Jack Robbins
3. *Energy - A Crisis - A Dilemma - or just another problem?*, Jesse S. Doolittle
4. *Energy, Ecology, and the Environment*, Richard Wilson, William J. Jones
5. *Guided Engineering Design*, G. E. Wales, R. A. Stager, T. R. Long
6. *Statics*, J. L. Meriam

INTRODUCTION TO ENGINEERING FINAL EXAM

SHOW ALL CALCULATIONS FOR THE FOLLOWING PROBLEMS.

1. How many liters of oxygen are theoretically required to react completely with 1 (one) ton of coal? Assume that the composition of coal can be approximated as 75 wt.% pure carbon, 15 wt.% CH₄, and 10 wt.% inert material. Given the following heats of formation, calculate how much heat will be released when the coal is burned.

LOUISIANA ENGINEER/APRIL 1980

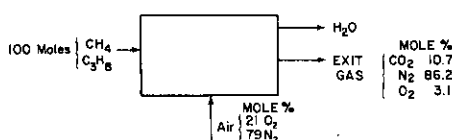
Compound	Heat of Formation (kcal/mole)
CO ₂	-94.1
CH ₄	-17.9
H ₂ O	-68.3

The heat released by this reaction can be used to produce steam. How much steam at 100°C and 1 atm. pressure can be produced from water initially at 20°C?
 $cp = 1 \text{ cal/g}^\circ\text{C}$ $H_{vap} = 540 \text{ cal/g}$

2. Sketch the system required to produce electricity in a power plant fired by natural gas. Assume the following efficiencies apply:
- | | |
|-----------|------|
| Furnace | 90% |
| Turbine | 40% |
| Condenser | 100% |
| Generator | 95% |

Set up a total energy balance around the system. Assume the heat of combustion of natural gas is 1100 Kcal/ft³. How much natural gas is required to produce 5×10^5 Kwh in the system described above?

3. Material Balance

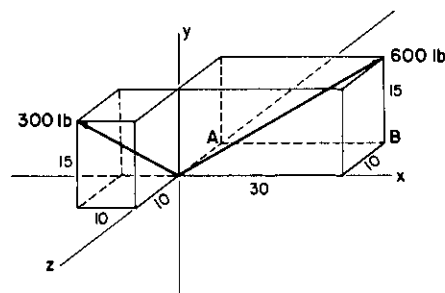


For the system shown above:

Set up the material balance equations required to find the composition of the inlet steam. Identify each variable you use (with units).

4. A small power plant is to be built for an initial investment of \$100,000. The initial loan can be made at 10% interest. Taxes and insurance will total 5% of the original investment. After 20 years the salvage value of the plant will be 12% of the original investment. A sinking fund will be set up to draw 7% interest. What will the annual fixed costs be?

5.



Find the resultant vector for the system of forces shown above. Find the moment produced by the 600 lb. force about an axis that passes through points A (0, 0, -10) and B (30, 0, -10).

6. A) List 10 sources of energy we covered in order of importance. (most important to least important).
 B) List 3 forms of energy we studied.
 C) List 3 ways to produce gasoline from crude oil.
 D) State the laws of conservation of mass and energy.

POTPOURRI

R. C. "Doc" Spears
Executive Secretary
Louisiana Engineering Society

Legislative Action

The approved Louisiana Legislative Council draft of the proposed act to upgrade the Louisiana registration law was adopted with minor modifications at the LES and CEC/L joint meeting on March 28. The draft will be reviewed by the State Board of Registration and the LES and CEC/L legislative committees, then submitted to the 1980 legislature. Copies of the final draft are available on request. Write or call the LES State Office, P.O. Box 2683, Baton Rouge, LA 70821, (504) 344-4318.

NCEE Exam Dates

Examination dates for the next nine years are published below. These dates should allow some of our readers to plan ahead or to help others to plan ahead. Remember, applications to take the examinations must be submitted to the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, 1055 St. Charles Ave., New Orleans 70130, at least two months in advance.

1980	Apr. 19	Nov. 1
1981	Apr. 11	Oct. 31
1982	Apr. 17	Oct. 30
1983	Apr. 16	Oct. 29
1984	Apr. 14	Oct. 27
1985	Apr. 20	Oct. 26
1986	Apr. 12	Oct. 25
1987	Apr. 11	Oct. 31
1988	Apr. 16	Oct. 29

Roster Correction

In the February LOUISIANA ENGINEER a roster of chief executives of each constituent component of the engineering organizations was prepared and published by the LES Inter-Society Relations committee. Make the following change to that roster:

Society of Military Engineers (SAME)

Commander J. A. Ruscyk
 President, Louisiana Post
 Chief of Naval Reserve of 8th N.D.
 Code S07
 4400 Dauphine Street
 New Orleans, La. 70146
 (504) 948-5354

Add the following:

American Institute of Chemical Engineers (AIChE)

Through May 31
 Ben D. Reynolds, P.E.
 Chairman, S.W. La. Section
 PPG Industries, Inc.
 P.O. Box 1000
 Lake Charles, La. 70602
 (318) 491-4209

June 1, 1980 to May 31, 1981

Kenneth R. Musick
 Chairman, S.W. La. Section
 BETZ Labs
 P.O. Box 6238
 Lake Charles, La. 70606
 (318) 478-9070

1980 Public Affairs Forum

Intensified efforts toward energy self-sufficiency and economic stability—including a lid on government spending—were the watch words from government officials addressing 300 engineers at the 1980 Engineers Public Affairs Forum February 26-28.

The Forum, co-sponsored by 24 engineering societies, was held at the Hyatt Regency Hotel in Washington. The event included a hearing on energy and non-fuel resources before the House science and technology committee's subcommittee on energy research and production.

Keynote speaker Senator Ted Stevens (R-Alaska) called achieving increased domestic energy production "the major challenge of the 1980's." Senator Henry Jackson (D-Wash.), called for action on energy independence on many fronts—synfuels, nuclear energy, hydroelectric, solar capabilities and conservation.

House ways and means committee chairman Al Ullman (D-Ore.), echoed the call for an overhauled tax system, which would regain for the U.S. its competitive edge in world markets and provide a needed handle on inflation. Restrictions on federal spending to a percentage of gross national product is another part of the Ullman proposal, and the limitation stands a good chance of enactment, according to another speaker, Representative James Jones (D-Okla.). Senator Charles Mathias (R-MD.) told the forum that a two-year 26% increase in professional liability insurance—a decade jump from \$25 million to \$175 million for engineers and architects—made legislation to address the problem all the more critical. Mathias is sponsoring a bill to allow products manufacturers and design professionals to establish a tax-deductible self-insurance fund. In a session on "Making Regulators Accountable," Senator Dale Bumpers (D-Ark.), charged that regulatory reform is failing. Legislation sponsored by Bumpers would require federal agencies to justify regulatory fines in court and to pay the legal costs of businessmen if the agency loses.

Testifying before the House science and technology committee subcommittee on energy research and production, Dr. Lewis Conta, engineer in residence, Engineering Societies Commission on Energy, said discoveries of new petroleum are declining. To rely on domestic oil would require discovery of a Prudhoe Bay every 18 months. Offshore oil potential is only four billion barrels, about six to seven months worth, Dr. Conta said.

Luncheon speaker and satirist James Boren, president of the International Association of Professional Bureaucrats, described for the engineers the dynamic inaction of the modern day federal bureaucracy. Boren, who gives an

Continued on page 16

LES LADIES AUXILIARIES

"To Enhance the Image of the Engineering Profession"

The LES auxiliaries, open to all wives of member engineers, are dedicated to supporting many of the Society's activities. The auxiliaries have been tremendously helpful to chapters in many ways: telephone committees to encourage member attendance at chapter meetings; assistance in "Engineers Week" programs; contacting the wives of newly

registered PE's and EIT's to make them aware of the chapters; providing decorations for chapter meetings; acting as hostesses at state meetings; and many other things including adding beauty and color to all gatherings. Many of our auxiliaries have annual fund raising events to create scholarships for deserving young men and women. LES is proud

of the ladies' auxiliaries and they are fulfilling their basic purpose: "To enhance the image of the engineering profession."

All engineers should advise their wives of the ladies' auxiliary organizations. Please contact your chapter president for details.

LES Auxiliary Officers

State Chairperson, Mrs. James E. Goodwin (Mary Ann) Vice Chairperson, Mrs. Ernest Bonnoitt (Barbara) Secretary Mrs. Ronnie Paul (Janet)



Mrs. Ronnie Paul (Janet), President Alexandria Auxiliary



Mrs. Harold Odom (Bonnie), President Baton Rouge Auxiliary



Mrs. Jackie Robbins (Betty), President Monroe Auxiliary



Mrs. Ernest Bonnoitt (Barbara), President New Orleans Auxiliary



Mrs. James Goodwin (Mary Ann), President Bayou Auxiliary



Mrs. Walter Vodrazka (Mary), President Lafayette Auxiliary



Mrs. James Stevens (Shirley), President Lake Charles Auxiliary

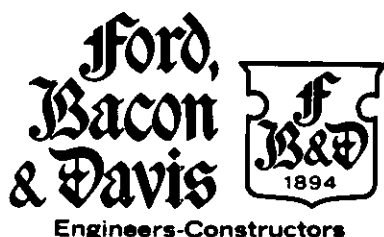


Mrs. Charles Goodrich (Jeannie), President Shreveport Auxiliary

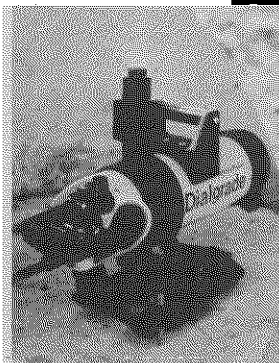
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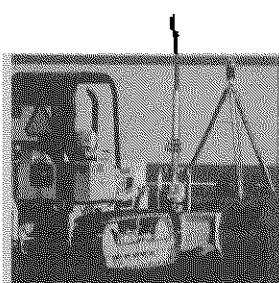
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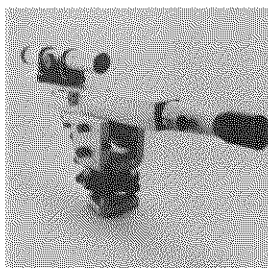


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VLIET'S VIEWS

Daniel H. Vliet, P.E., Executive Secretary Louisiana State Board of Registration for Professional Engineers & Land Surveyors.

During the past few years, there has been considerable interest to have state governments mandate demonstrations of continuing professional competence as a requirement for the renewal of licenses of professionals. Although the interest in this subject seems to have subsided, I continue to receive on the average of at least one questionnaire a month. Most ask if there is interest in Louisiana to have our registration law amended to require demonstrations of continuing education or re-examinations. Always my answer has been "no". Perhaps in Louisiana we realize that such a requirement would definitely not be in the best interest of the public.

Considerable time and effort has been devoted to this subject by leaders of the engineering and land surveying professions. Last summer the National Council of Engineering Examiners, NCEE, adopted a position paper on this sub-

ject. The summary of that position is as follows:

NCEE commends and endorses the efforts of the professional/technical societies, engineering schools, and industry in the areas of continuing education and competence for engineers and land surveyors. This voluntary approach is flexible and, while maintaining a cost-effective balance, precludes the need for mandated programs.

NCEE is concerned about the inequity of mandated continuing education for registered engineers, since only about 30 percent of practicing engineers choose to become registered.

NCEE endorses comity between states and encourages each state to evaluate carefully any additional requirement for registration that would tend to interfere with reciprocal licensing between states. Therefore, NCEE can find no compelling justification for any state to adopt a continuing professional competency requirement as a prerequisite to renewal of a registered professional engineer's or land surveyor's license.

The entire position paper as presented by the committee has been published in the 1979 NCEE proceedings of the 58th annual meeting. The NCEE Continuing Professional Competence Committee will

maintain surveillance of the voluntary programs with the objective of updating its position at the next annual meeting (1980).

POTPOURRI

Continued from page 13)

annual "Order of the Bird" award for outstanding bureaucratic non-responsiveness, attempted to honor the Army Corps of Engineers. The Corps deserved the 1980 award, he said, for refusing to permit the people of Cape Girardeau, Missouri, to enlarge a flood runoff ditch at their own expense. The Corps declined the award.

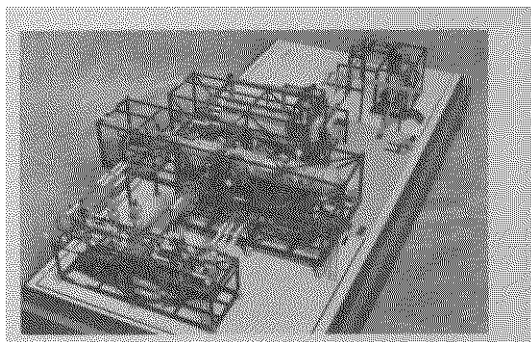
UNO Spring Seminars

"How to Manage the Closely Held Company" will be the topic of a three-day seminar presented by the University of New Orleans, May 7-9 at the lakefront campus. The seminar is designed to keep the owner of the family or closely held business up-to-date on such vital topics as management of the business, the effect of tax reform, and how to get the maximum benefits for the owner and his family from estate planning.

"How to Improve Your Productivity", a two day seminar featuring T. Frank Hardesty, will be conducted May 19-20 at UNO. Specifically, the seminar will consider such subjects as how to organize more time into your job and manage more time into your day, how to communicate clearly and profitably, and how to make people more produc-

Continued on page 18

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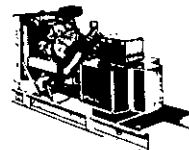
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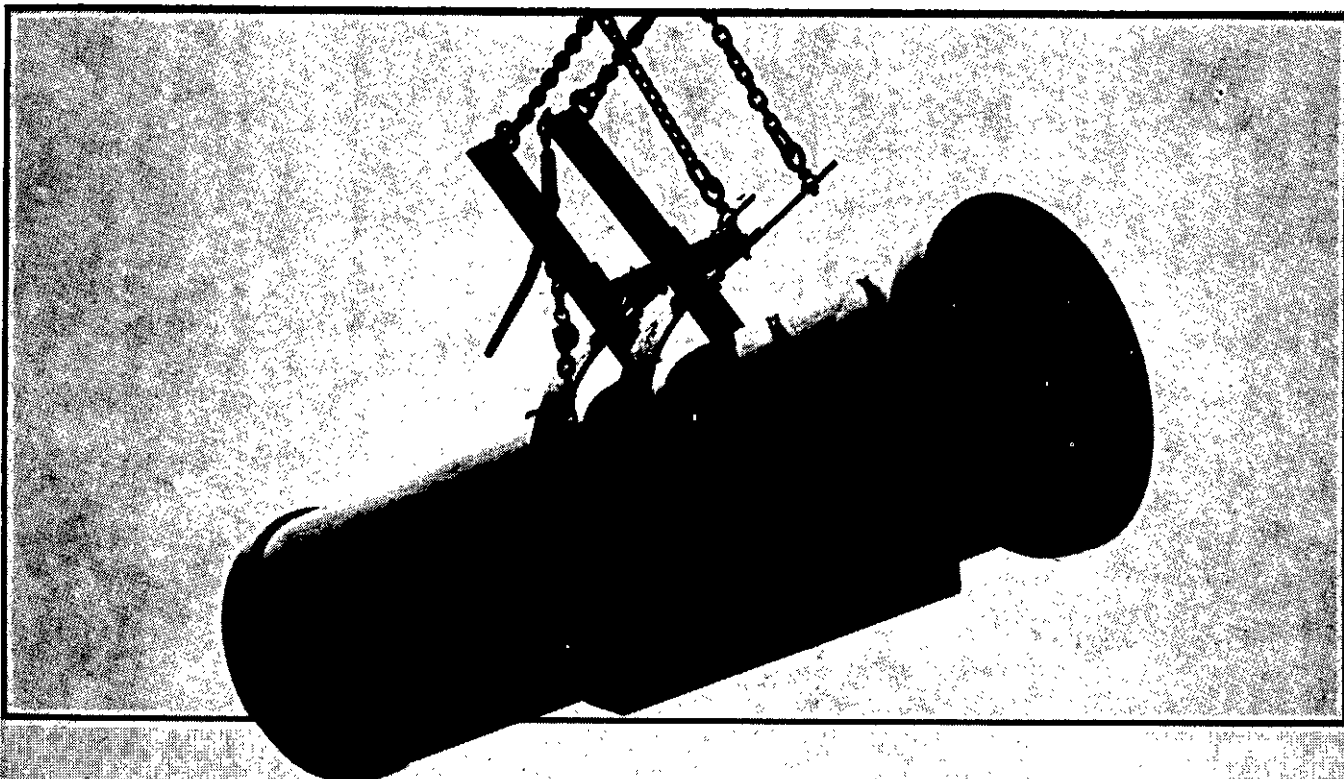
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POTOURRI

Continued from page 16

tive. Hardesty, director of Payco American Corporation, is an internationally famous authority in the field of productivity management.

For further information on these seminars, call Dr. Barry Render at UNO, division of business and economic research, (504) 283-0248. A 10 percent discount on the seminar fee is available to LES members. Just tell UNO your affiliation when calling.

LES Wins NSPE Scholarships

LES has been notified that three Louisiana high school students have been named winners of three 4-year NSPE scholarships. Two of the scholarships were for attendance at the University of Houston and one for the University of Texas, Austin. The students have been

notified and additional details will be published in the next issue.

Petro-Marine Certified

Petro-Marine Engineering, Inc., New Orleans based consulting engineering firm, has been certified by the U.S. Department of the Interior as an independent verification agent to verify on behalf of the U.S. Geological Survey the design, fabrication and installation of platforms and other structures subject to the requirements of the outer continental shelf platform verification program.

1979 NSPE Salary Survey

The median income engineers earned in 1979 reached \$31,874, according to the forthcoming NSPE report, "Professional Engineers Income Salary Survey-1979".

According to the study, the median income—including fees, commissions and bonuses but not overtime pay—ranged from \$18,450 for those with under one year of experience to \$39,000 for those with 30 years or more.

The full report is available from NSPE, 2029 K Street N.W., Washington, D.C. 20006. The cost is \$18.00 for NSPE members and \$30 for non-members.

Employer Recognition Program

LES-PEI has utilized the NSPE employer recognition program to encourage organizations to give closer attention to the needs of their professional engineering employees and to provide visibility and recognition to those who do.

NSPE published the names of the first 100 employers nominated by state societies for the program in 1978. The program was established to give public recognition to those employers of engineers with employment practices consistent with the philosophy of the Guidelines to Professional Employment of Engineers and Scientists. Twenty-seven Louisiana employers were included in NSPE's first 100. The following five additional organizations were nominated to NSPE on March 12. Each of the organizations concur with the philosophy of the guidelines:

Dyer & Moody, Inc.	Wreyford & Assoc.
Baker, LA.	Shreveport, La.
Demopoulos & Ferguson, Inc.	Cities Service Co.
	Monroe, La.
Shreveport, La.	

Sewerage & Water Board
of New Orleans

Other employers of professional engineers interested in the program, please contact LES-PEI, P.O. Box 2683, Baton Rouge 70821, (504) 344-4318. A copy of the guidelines will be sent to you for review and consideration.

The LES-PEI thrust is to encourage employers to give close attention to the needs of their professional engineers and for professional engineers to do the same for their employers.

DeFraithe Nominated NSPE-PEPP Chairman-Elect

Arthur A. DeFraithe, Jr., P.E., Houma, has been nominated as NSPE-PEPP chairman-elect for 1980-81. If elected, DeFraithe will assume the chairmanship for the administrative year of 1981-82.

Nominated to serve with him on the Executive Board for 1980-81 are: S. Kendall Anderson, P.E., Blacksburg, Virginia, secretary; Lawrence E. Jones, P.E., Towson, Maryland, vice-chairman, Northeast; Hugh B. Stokes, P.E., High Point, N. Carolina, vice-chairman, Southeast; Samuel E. Wartinbee, P.E., Ann Arbor, Michigan, vice-chairman, Central; Dr. Robert A. Woodson, P.E., St. Paul, Minnesota, vice-chairman, North Central; Richard R. Pettigrew, P.E., Clovis, New Mexico, vice-chairman, Southwest; and Louis J. Pries, P.E., Richland, Washington, vice-chairman, West.

LES congratulates Arthur and wishes him every success.

LOUISIANA ENGINEER/APRIL 1980

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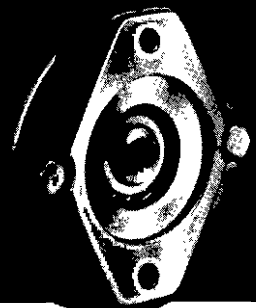
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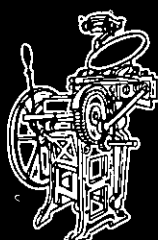
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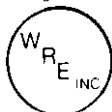
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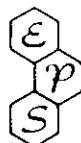


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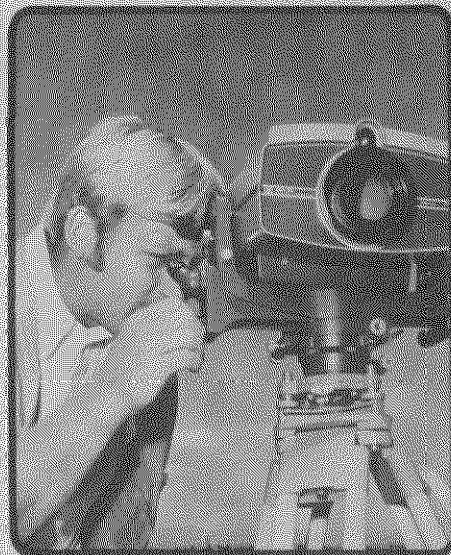
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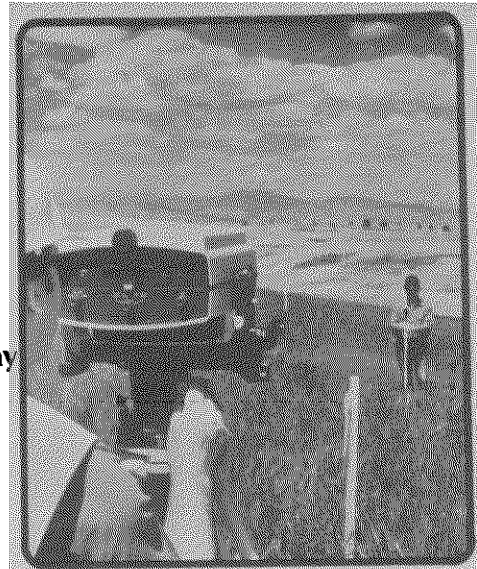
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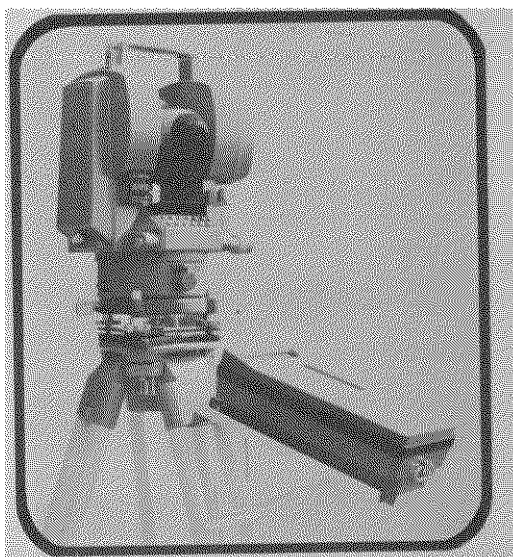
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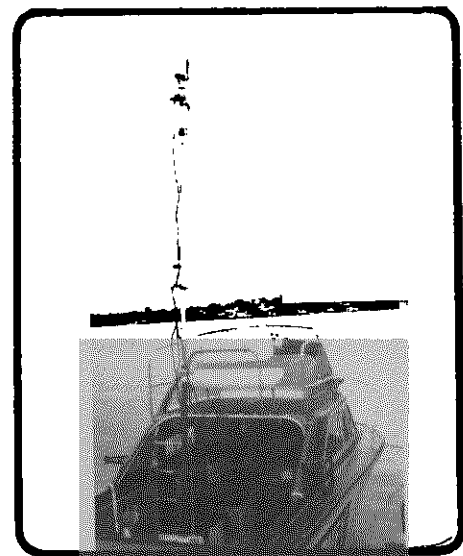
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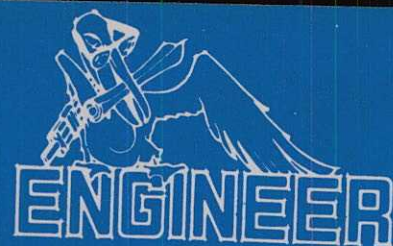
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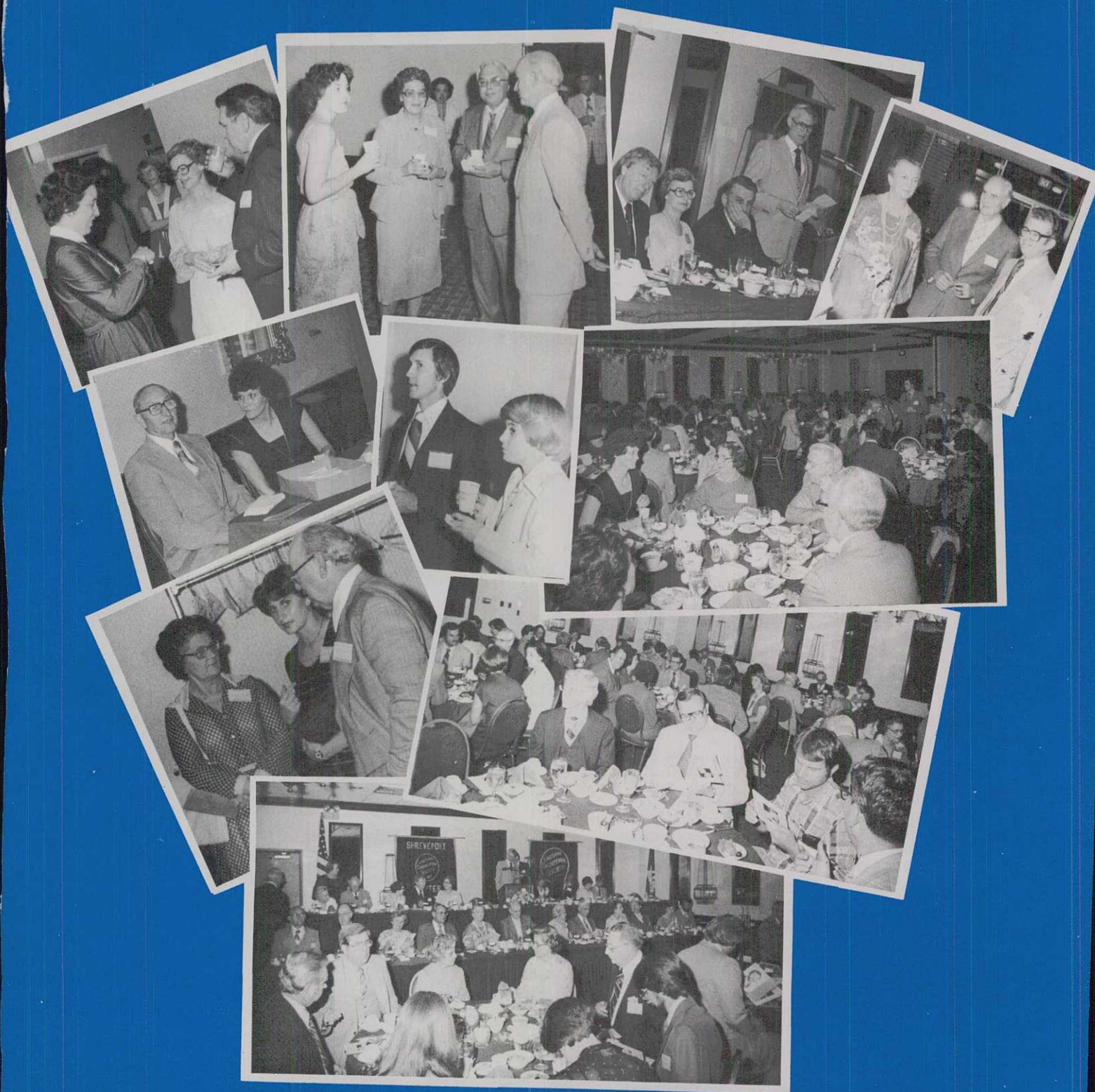




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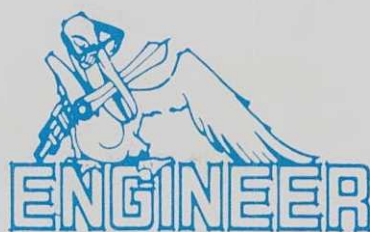
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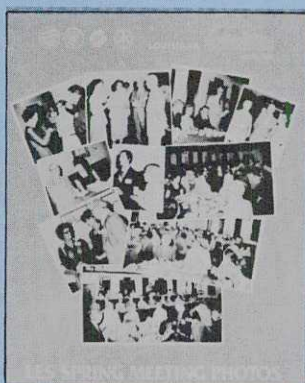
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About the Cover:

This issue's cover highlights the LES Spring Meeting in Shreveport held in April. Look on Page 8 for the related story.

In This Issue:

Presidential Privilege	4
Speech on Professionalism	6
LES Spring Meeting	8
Status Report from	
Legislature	9
July Convention Schedule	10
CEC/L	12
Potpourri	14
Vliet's Views	16
Ladies' Auxiliary	17
New Members	18
New Registrants	19

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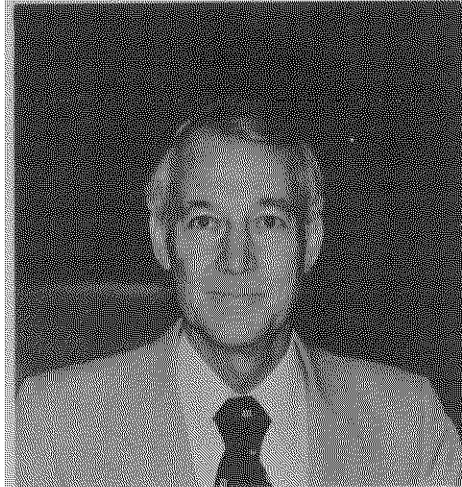
Now and then you encounter that bright and persistent teenager, and giving her the consensus answer of contemporary society often brings more logical, probing questions. One was audient to a group of us older "sages" recently, as we expounded upon the terrible state of the union, society, educational system, and economy - among other things. Shortly into her line of questioning it was obvious that she wanted to know why we were in such a mess. It didn't take her long to (perhaps correctly) conclude that our real or imagined sorry state of affairs was due to an exponential relegation to others - particularly politicians and civil "servants" - of our responsibility to keep informed, and to react judiciously to changing situations. Next question - why not get the authority back where it belongs? Naive teens! The why is not the question - the how is the thing. They are so entrenched, we informed her, dislodgement comes seldom, and with great difficulty.

"Haven't you ever noticed that once a politician is elected to office he seems to have it for life, if he so desires?" one of my confreres volunteered. I agreed - especially concerning members of congress and the legislature.

"This must mean that a majority of the voters think he is doing a good job," she countered.

"Might depend more upon the politician's recognition of short - sighted selfish interests", said my friend. "We're now working from January 1 to about mid-May to pay our taxes, and the bite gets larger all the time. With that kind of money he can hand out lots of jobs, positions, and favors. When he makes promises to the young, old, ill, poor, teachers, workers, farmers, professionals, unemployed, businessmen, etc., he has a couple of things going in his favor. If he isn't totally honest and makes opposing promises to different groups, he doesn't worry because he counts upon their selfishness to hear only what they wish to. His second advantage is being the incumbent - the bird in hand, so to speak, in the eye of the self-seeker. Multiply those by families and friends and you can project a majority vote without much figuring."

"Looks like we may be faced with quite a dilemma," our teenager observed. "It seems to me that if we could know how



Francis C. Roy, P.E.
LES President

this trend started, we might have a better shot at a solution."

"My dad said it was the rainmaker who really got it going," I injected.

"The what?"

I was pressed to repeat the story I heard one summer evening on the front porch of our home in Iota, when this same general topic was being hashed.

About one hundred years ago (more or less) a stranger moved into a town which was heavily dependent upon area agriculture for economic survival. The stranger was congenial, the story goes, and a mutual courtesy developed with the community. Observing that he had no apparent means of livelihood, and noting he didn't volunteer any information concerning personal affairs, much conversation ensued among the inhabitants in speculating what this stranger's presence was all about. When curiosity won over respect for privacy, the stranger calmly stated that he was a professional rainmaker. The polite residents didn't laugh until out of sight. A few days later, when asked by one of the bolder citizens to make it rain, the gentleman reminded them that he must be paid for his services - rainmaking being his means of earning a living. Furthermore, being a professional, he also had to have good reason for demonstrating his skill.

During the next few weeks, as the rainmaker became the base for all local wit, the area was caught in a drought. A serious approach reached the point of proposed remuneration. The rainmaker's proposal was straightforward and stunning. Each family must first give

him \$100 in cash. After a few more weeks of drought and assurance from the rainmaker that he would return all the money if he couldn't make it rain, a meeting was called. Each family forked over 100 bills, and some were anxious that he begin working on that clear blue sky.

"Now just a minute," said the rainmaker. "You all have an equal investment toward use of my professional services. It would not be just for me to make it rain unless all were ready. Is everyone ready?"

"No," said one, "hold off until tomorrow so I can get my hay in."

You know what happened the next day, and the next, indefinitely.

Now according to dad, when the politicians saw, from that page of human behavior, that selfishness and stubbornness could override the general welfare - that promises could be made and not fulfilled, but yet not be totally faulted, they were "off and running." Needless to say, they have broadened their schemes over the years.

"So people better wise up and get together, then." Our teen observer was sharp. "With today's complex life style and technology it seems almost impossible to cope with the rainmakers on an individual basis. Who could possibly find the time to keep up with all the activities of the public service sector? Yet a third of our collective productivity is controlled by that group."

Her observation is a valid hypothesis. We owe it to ourselves to give it serious thought. But who is going to keep us informed? Other rainmakers? I hope not.

I believe we do have avenues available to us. When it comes to our profession in particular, we have some colleagues doing a creditable job of looking over the shoulder of Mr. Public Servant at both the state and national levels. Almost daily I see dedicated professional engineers in the LES and NSPE giving freely of their valuable time and money in unselfish service to the rest of us. I personally feel I have a much better deal from them, and trust them far more than I do the average rainmaker. But those relatively few could have more clout, and we as a nation could begin to wrest control from that element which is leading us to chaos under this guise of service. If all professional engineers lent their support, most

Continued on page 15

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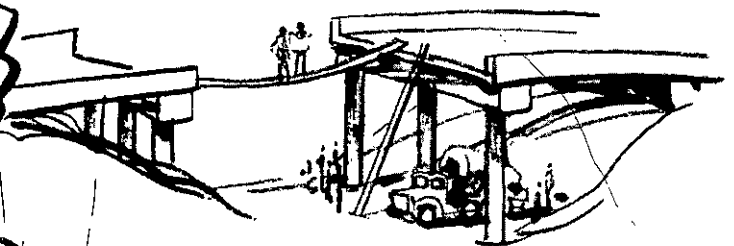
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Professionalism Among Engineers

(Address by James S. Janssen to Tulane University's Student Chapter of LES. Mr. Janssen is a member of Waldemar S. Nelson and Company, Inc., Engineers and Architects, past president of Louisiana Engineering Society, and past director of NSPE.)

This presentation should be opened with a few definitions. These are:

Engineering is the application of science and mathematics by which the properties of matter and the sources of energy in nature are made useful to man in structures, machines, products, systems, and processes.

An engineer is a man of creative ingenuity. The word engineer stems from the Latin *ingenium* meaning natural talent; i.e., our word engineer comes from ingenuity, not from the word engine. An engineer is not merely an extra-fine, super mechanic nor the person who runs the engine.

A profession is a calling or vocation which requires highly specialized knowledge and long, intensive academic preparation. It is the pursuit and practice of a learned art in the public interest.

The learned professions include medicine, law, teaching, architecture, engineering, and perhaps others.

Professionalism embraces the conduct, aims, or qualities that characterize or mark a profession or a professional person.

Does modern civilization need engineers? We need young engineers like you to do so many things that were not done or that were poorly done by previous generations, to provide us with more energy and at the same time to clean up the pollution that you will find. We need you to produce better products more efficiently. We need you to build us better bridges, highways, buildings, airplanes, and space vehicles; to design new and better devices; to diagnose our ills; to educate our children. We need more and better engineers.

But do engineers need professionalism? By all means, YES, or our profession would become merely a trade. We would reduce our standards and lose our recognition. Our clients, our employers, and the public expect more of us because we are professionals. We

cannot let them down. Remember that they will judge individual engineers by their worst performances, and they will judge the engineering profession by its worst performers.

Allow me to quote from the Code of Ethics of the National Society of Professional Engineers which has been adopted by the Louisiana Engineering Society. The preamble reads:

"The Engineer, to uphold and advance the honor and dignity of the engineering profession and in keeping with high standards of ethical conduct:

"Will be honest and impartial, and will serve with devotion his employer, his clients, and the public;

"Will strive to increase the competence and prestige of the engineering profession;

"Will use his knowledge and skill for the advancement of human welfare."

The code goes on to say in Section 1:

"The Engineer will be guided in all his professional relations by the highest standards of integrity, and will act in professional matters for each client or employer as a faithful agent or trustee." The code further delineates how these worthy objectives are to be realized; it deals with relationships with other engineers, with clients, and with the public. It makes reference to integrity, health and public welfare, public relations, restraint in expressing opinions, confinement to qualified practice, confidence relative to client affairs, conflict of interest, unfair competition, sharing and dissemination of technical knowledge and similar professional topics.

As with the practitioners of medicine, law, and the other learned professions, we have the obligation to protect life, health, and property. Our canons or codes of ethics from which I have just quoted and our requirements for registration have been developed to insure our professional performances and competency and, thus, to protect the public.

Engineering societies fall into two general categories: first, there are those that deal with professionalism, including such subjects as engineering education, registration, legislation, remuneration, working conditions, and other non-technical matters. The technical matters are left to the second category: the technical societies, including the ASCE, the ASME, the IEEE, the AIChE, and all the others. The central clearinghouse for en-

gineering professionalism in the United States is the National Society of Professional Engineers, with headquarters in Washington, D.C. and commonly referred to as the NSPE.

In each state and territory in this country, there is a state society affiliated with NSPE. Here in Louisiana we have the Louisiana Engineering Society (LES), headquartered in Baton Rouge. LES has local chapters in the state's major cities and student chapters in some of the universities that have engineering colleges. This, in effect, gives us a three level structure—national, state and local.

Now let me quote from the Constitution of the NSPE:

"Section 1. The objectives of the National Society shall be the advancement of the public welfare and the promotion of the professional, social and economic interests of the engineering profession; to stimulate and develop professional concepts among all engineers; and to strive throughout the profession to make registration more meaningful in terms of acknowledgement of individual achievement in engineering as reflected by education and practice, and to urge each engineer to seek legal status through registration at the earliest possible point in his career."

One of the ways of insuring competence is by the registration or licensing of engineers. Qualifying and registering engineers is similar to the registration of practitioners in other professions. Certain qualifications are drafted, necessary state legislation is enacted, and the rules for licensing are administered by a board of engineers. In Louisiana this is the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

There was some opposition to registration when the concept was first advanced. Some engineers felt that they could decide individually if they were qualified to practice, but now acceptance is almost universal. Louisiana was the second state in the Union to have a registration law, but only civil engineers were registered at that time, which was in 1908. Not until 1950 were the other branches registered. Even now Louisiana and most states exempt engineers in government or in industry from registration. Many of us disagree with this policy, saying that the public should be protected whether a structure

or product is designed by a private practitioner, a government employee, or one in industry. Also, usually only the engineer "in responsible charge" must be registered; but if he or she is smart, he or she will have only registered engineers in his employ.

It is advisable to take the exams and to register at your earliest opportunity even if you expect to work in government or industry. You will probably change jobs several times during your career, and registration will give you scope and flexibility. And someday you hope to be in responsible charge! Even though not required by law, governmental agencies and private industries are more and more requiring registration for their engineering employees — especially those in the top echelon.

I urge you to take your EIT and PE exams as soon as possible. As you graduate and get into practice, your unused technical knowledge will begin to get away from you and even become obsolete. Basically, registration tries to establish competence and then to grant the privilege of practicing engineering. Remember your license is a privilege granted you by your peers to engage in your profession. Guard your license and your reputation well!

Let me mention at this point that Louisiana is one of the few states that registers by discipline. In most states you would be registered merely as a "professional engineer"; but in Louisiana, you will be registered as a civil, mechanical, etc.

Having secured your license (and your diploma!), it is suggested that you join and become active in your state and national professional engineering societies, namely the LES and the NSPE, to do your part to uphold and assist the profession which is providing you with a livelihood. It is also suggested that you join the most appropriate technical society, be it ASCE, ASME, IEEE, or AIChE. All of these groups hold meetings and publish magazines and other literature to keep you up-to-date on professional and technical developments. (The dues are a lot less than those of any trade union. The results are greater even though they may initially seem intangible, indirect, and slow in materializing.)

It is also suggested that you maintain your competency in your field. Engineering is much more complicated now than ever before and is advancing all the time. Attend meetings, conferences, and seminars; take courses; go for an advanced degree; obtain and read technical

magazines and new books. All of these things can be done while working full time. Your employer will cooperate and may even give you a raise. Continue your education lest you become obsolete.

In your career, you will find it necessary to learn many things other than pure engineering. You may have to become familiar with local building codes, with regulations of state public service commissions, with rules governing highways, bridges, and dams, air pollution, water pollution, sanitary land fills, navigable streams, and the like.

It was interesting to find in a mini-

survey made last summer among a small group of practicing engineers of various ages and representing all branches or disciplines of engineering that there was a general feeling that engineers should have more training in English, writing, speaking, and communicating in general. You will find that a good control of language is helpful in writing specifications and reports; in selling your ideas to your boss, your employees, your clients, or the public; and in writing articles for publication in engineering journals.

May I suggest that you broaden your

Continued on page 15

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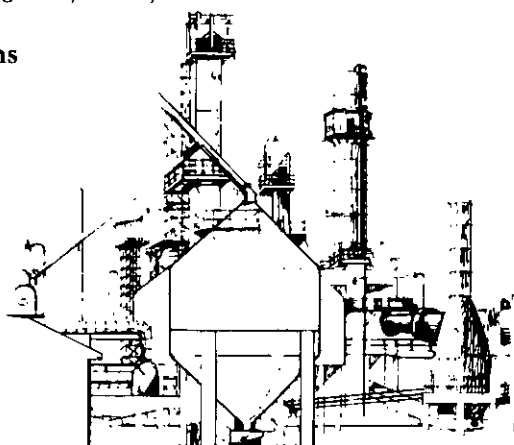
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LES Spring Meeting In Shreveport

The LES Spring Meeting held April 17, 18, 19 at the Chateau and Regency Motor Hotels in Shreveport was attended by 76 engineers and 47 ladies.

Golf and tennis tournaments were held Thursday afternoon with very poor attendance - eight golfers and six tennis players. The threatening rain was a factor; it rained at the tennis courts, stopping play after about an hour and a half. The few golfers dodged the rain and got in the required 18 holes.

The early bird cocktails and dinner at the Hayride Kitchens were enjoyed by over 80 people. The barbecued ribs, chicken, ham and sausage, salads and soup were served family style. No one left the place hungry!

A little difficulty was experienced at the luncheon Friday at the Chateau. First, the meal was served in a space which

would have been comfortable for about 60 but was crowded with the 82 attendees. Bobby Freeman, lieutenant governor, arrived one hour late due to bad flying conditions between Baton Rouge and Shreveport. He gave a talk about his new position with no tasks assigned by the governor. He praised the Louisiana Engineering Society and offered his assistance in promoting its goals and ideals. All three local TV networks covered the luncheon affair. During the waiting period for the lieutenant governor, Francis Roy entertained the group with many of his famous Cajun stories.

Committee and practice division meetings were held Friday afternoon.

The awards banquet Friday evening was attended by 152 people. Herb Koogler, P.E., vice president of the NSPE southwestern region, gave a brief talk about NSPE and its activities. He is from Albuquerque, New Mexico and followed Waldemar Nelson, P.E., as NSPE vice president of our region.

E. E. "Buddy" Moncla, P.E., chairman of the Honors and Awards committee, presided during the award presentations. Five engineers were honored for their outstanding service to the society and the profession.

Golf prizes were presented to Lloyd Hoover, Glen Gautreau, Jack Groh and Carl Flettrich. Tennis awards were presented to Jean Blanche and Mike Flores.

Engineering students from Louisiana Tech, Tulane, LSU, UNO, USL and Southern presented excellent papers at a session Friday morning. Larry F. LaFleur, P.E., engineering education committee chairman, moderated the session.

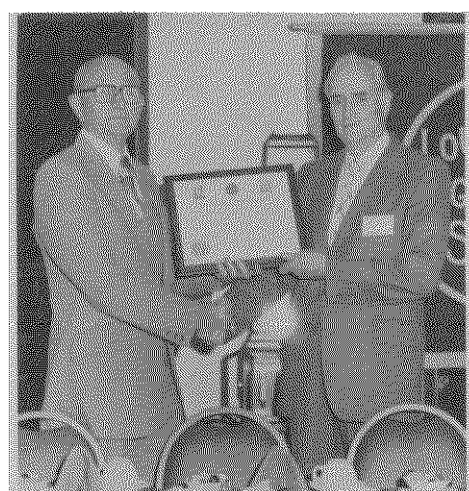
Over 23 ladies enjoyed the bus tour and luncheon in Shreveport on Friday. The ladies held the first state auxiliary meeting in many years on Saturday morning. They discussed and exchanged information on the activities of the various auxiliaries.

The joint breakfast Saturday morning was attended by 53 ladies and men. A Louisiana Engineering Foundation (LEF) meeting (chaired by Vince Forte, P.E., president of LEF), LES general meeting and LES Board of Direction meeting completed the Saturday activities.

The Society is indebted to Ted Povinelli, P.E., general chairman of the convention, and Mrs. Jeanne Goodrich, chairperson of ladies' activities, and their committees for helping to make the meeting successful and enjoyable.



Leo V. Bankston, P.E., left, receiving the Charles M. Kerr Public Relations Award from James S. Janssen, P.E.



Edward W. Midlam, P.E., right, receiving the Andrew M. Lockett Award from Hugh B. Balfour, P.E.



Malcolm L. Hurstell, P.E., right, receiving the A. B. Paterson Award from Francis C. Roy, P.E.



David L. Johnson, P.E., center, receiving the Leo M. Odom Professional Service Award from Fred C. Culpepper, P.E., left, and Leo M. Odom, P.E., right.



Kerry J. LaBauve, P.E., right, receiving the F. Hugh Coughlin Young Engineer Award from James F. Gulon, P.E.

Status Report: Revised Registration Law and Other Legislation

The two previous issues of the LOUISIANA ENGINEER magazine reported to the engineering and land surveying professions in Louisiana the progress made in modernizing and strengthening the registration law. Engineering and land surveying organizations and individual engineers and land surveyors from throughout Louisiana made significant contributions to the drafting of final legislation concerning our registration law, and other legislation. The officers, directors and legislative committee members of the LES are deeply grateful for the tremendous interest and assistance in developing our legislative program for 1980.

House Bill No. 656, by Representative Richard Baker (identical to Senate Bill No. 304 by Senator Ken Osterberger) includes all of the necessary amendments to the registration law, and has been introduced into the 1980 regular session of the Louisiana Legislature. H.B. No. 656 has been assigned to the House Commerce Committee for hearing. We have

been feverishly working to promote this bill with senators and representatives from throughout the state. The legislature adjourned on May 6 and went back into session on May 19. During this time engineers and land surveyors from all over the state were able to talk personally with their legislators requesting their support of our legislation.

If you have not personally contacted your senator and representative requesting their approval and support of our legislation, PLEASE DO SO IMMEDIATELY! The success of our legislative efforts depends on personal contact with your respective legislators. A personal meeting with your legislators is best, a telephone conversation is next best, a telegram next, or a letter from you. While the legislature is in session, you can easily call your representative at (504) 342-6945, or your senator at (504) 342-2040. Senators and representatives now have individual telephones at their desk on the floor of the Senate and the House.

If we are successful in moving H.B. No. 656 through the House and Senate, we will not need S.B. No. 304 since it is an identical bill that was filed as a safety vehicle to only be used if we run into difficulties on H.B. No. 656. Once H.B. No. 656 passes the House Commerce Committee and the floor of the House of Representatives, it will be assigned for hearing before the Senate Commerce Committee, and when approved by this committee, it will go to the floor of the Senate for approval. When it passes the Senate it will go to Governor Dave Treen for approval.

We have also introduced legislation that will give back the rights of engineering corporations to provide architectural services provided such services are performed by, or under the direct supervision, of licensed architects employed by such engineering corporations. Under the proposed legislation, architects employed by engineering corporations will be subject to the rules and regula-

Continued on page 20

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LES Annual Convention

Holiday Inn North - Lafayette

July 17-19, 1980

Make plans to attend. Use the Hotel Reservation and Registration coupons on this page. (Blocks of rooms reserved until July 7, 1980.)

Thursday, July 17

11 a.m.-5 p.m. REGISTRATION
12 noon Golf Tournament,
Acadian Hills
Country Club
1 p.m. Tennis Tournament,
Townhouse Club
6:30 p.m. Cocktails, Holiday Inn
7:30 p.m. Early Bird Seafood
Dinner (Holiday Inn)

Friday, July 18

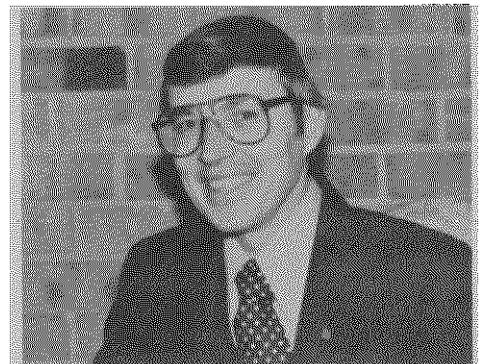
7 a.m. Breakfast (on own)
8 a.m.-noon REGISTRATION
9-11:30 a.m. Seminar - Dr. Harry E.
Munn, Jr., N. Carolina
State University
12 noon Luncheon - speaker Edgar
Mouton, Executive Counsel
to the Governor
1:30 p.m. Council of Deans meeting
1:30 p.m. COMMITTEE MEETINGS
Constitution & Bylaws
Engineering Education
Inter-Society Relations
Legislation

Public Relations
Young Engineers
Ethics/Professional Conduct
Membership
Liaison State Board of
Registration
3:15 p.m. PRACTICE DIVISION
MEETINGS
PEC, PEE, PEG, PEI, PEPP
6:30 p.m. Cocktails (cash bar)
7:30 p.m. INSTALLATION BANQUET
The 1980-81 LES officers
installed by Waldemar S.
Nelson, P.E.

Saturday, July 19

7 a.m. Breakfast (on own)
8 a.m. La. Engineering Foundation
meeting
9:15 a.m. LES general meeting
10:15 a.m. LES Board of Direction meeting

The Ladies' program is not formulated. A ladies' hospitality room will be open Friday and Saturday and a state Ladies' Auxiliary meeting is scheduled for Saturday morning.



Harry E. Munn, Jr.

Harry E. Munn, Jr. To Conduct Seminar At LES Annual Meeting

Dr. Harry E. Munn, Jr. is an associate professor of organizational communications at North Carolina State University in Raleigh. The seminar entitled "Your Communicative Attitude Can Attract New Members" is sponsored by the LES industry practice division. How well an organization functions is directly related to the communicative skills of its employees and managers. People must learn to not miscommunicate and to learn to develop relationships that enable them to work together toward a common goal.

Dr. Munn conducted an excellent seminar for the LES/MES meeting in Biloxi a few years ago. Make plans to attend. It should be of great value to all engineers.

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Banquet (Friday) \$11.00	_____	_____
Ladies' Program (Friday) \$5.00	_____	_____
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Tennis \$10.00	_____	_____
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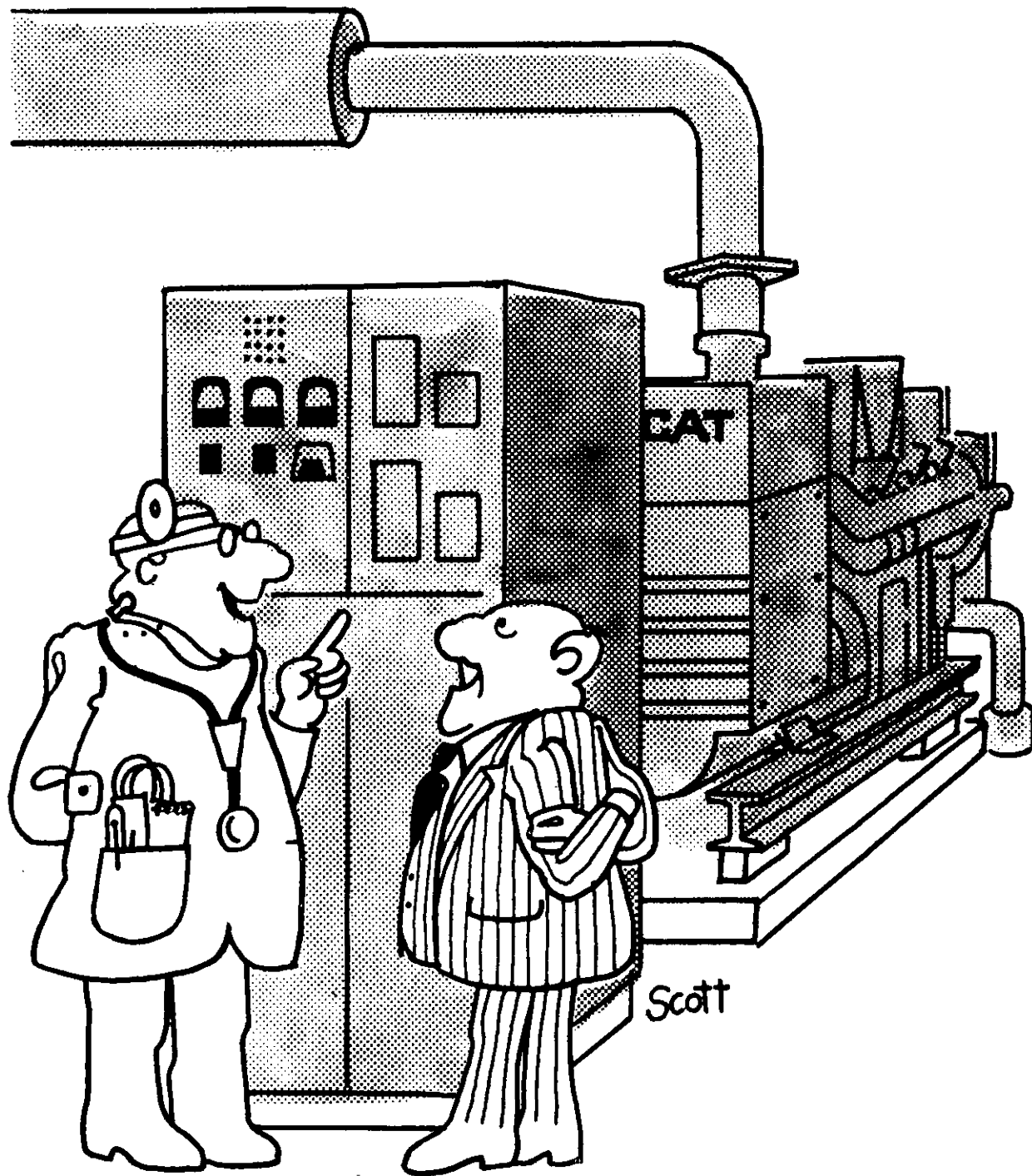
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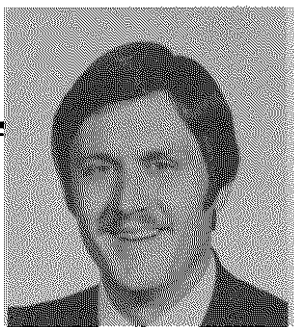
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THE SPEC SHEET

Warren J. Wilder
CEC/L Executive Director



ACEC Hosts 1980 Annual Conference in Atlanta

The American Consulting Engineers Council (ACEC) held its 1980 annual conference in Atlanta, Georgia, May 11-16, 1980. The Board of Directors met on Monday to discuss the issues and voted on them on Tuesday. The action items will be discussed later. Of interest was the Tuesday keynote luncheon speaker, George Will, Ph.D., syndicated newspaper columnist and contributing editor for *Newsweek* magazine. He gave his views on world affairs and the upcoming presidential race. Seminar topics included "Financial Management - Scorekeeping in the Challenging 80's!", "The ACEC PR Plan", "The Client Speaks Out!", "Professional Engineers' Income and Salary - Present and Future", "Professional Liability - A Growing Concern!", and "The Government's Involvement in Minority Business Enterprise for A-E Procurement - Help or Hindrance?".

Local Color Night, a tradition with the ACEC Conference, included a bus ride to Stone Mountain, a riverboat cruise around the lake and a southern barbeque dinner served "under the stars". Everyone had the opportunity to tour a complex of 19 authentic antebellum buildings which included slave quarters, smoke house, carriage houses and a plantation. It was a very well organized meeting.

The Board of Directors acted on several policies during their meeting. The group favorably passed on the energy policy of the ACEC. The policy, which represents months of work and research by the ACEC Energy Committee, is presented in its entirety:

ENERGY, and its impact on the U.S. economy, productivity, and social objectives, will be a significant national issue for the next 25 years, and perhaps longer.

Congress and the Executive Branch can give directions for legislation and regulation, but cannot provide the solutions. The ultimate solutions rest with the engineering profession.

An important first step in development of this overall strategy is a program to allow the free market economy to estab-

lish energy prices, thus encouraging conservation and stimulating development of energy sources and alternatives.

Energy price controls which distort the free market economy are a disservice to the public and are counterproductive to our long-range objectives and responsibilities. Any program, to be effective, must rely on the free enterprise system.

Engineers are disciplined objective professionals. Engineering firms accept the responsibility for wise stewardship of their clients' capital and energy consumption. They often employ value engineering and life-cycle cost analyses to arrive at sound decisions for their client's energy needs. Good engineering not only conserves capital and energy dollars and makes for sound currency, but also curtails inflation.

American Consulting Engineers Council and its 3650 engineering firm members involving some 100,000 engineers, scientists, and staff, are responsible for the preponderance of the design of facilities which consume energy. As such they deal in their daily practice with those forces which impact energy consumption in our free enterprise system.

Based on their collective experience, ACEC believes that the United States energy policies should address without further delay:

Removal of unnecessary regulatory and governmental constraints which frustrate accomplishment of vital energy needs and produce inflationary delays, thereby accentuating the energy crisis and impacting adversely on a sound U.S. economy.

Proceeding with construction of nuclear power plants designed with safety in mind and, concurrent with construction of nuclear waste isolation facilities, accelerate the research and development of breeder reactor and fusion technologies.

Tempering of those unproven environmental constraints which concurrently discourage use of our nation's abundance of coal by utilities and industrial plants.

Decontrol energy pricing in a manner which will encourage investment of private capital for domestic exploration and development of oil and gas, and conversion of domestic oil shale or coal resources to gaseous or liquid fuels. Although decontrol will have a short-range inflationary impact, its net effect in establishing a free economy will stimulate the private sector to increase investment in new technology and research and development of alternate sources.

Motivate energy conservation in:

- New building construction with mandated consensus building design standards.

- Proven prescriptive standards such as ASHRAE 90-75 should be a permissive stated alternative to the more complex and untested BEPS (Building Energy Performance Standards) for the next term.

Expand federal incentives for both research and development and demonstration projects of responsible energy conservation technologies, until they are deemed commercially viable in the private sector.

Create adequate traffic control and mass transit systems.

Channel capital investment into energy conservation retrofit of existing commercial and industrial buildings. Tax laws and utility rate structures should be reviewed with the objective of expediting capital formation required for both energy conservation and development of alternative energy sources.

Increased public education for both energy conservation and energy supply - short and long-range - to eliminate the present consumer credibility gap (including structured curriculum material at the elementary and secondary level to reach the next generation of consumers).

The energy problem and its effect on a sound U.S. economy is detrimental to our nation's domestic and foreign relations. The ultimate solution must and should rest with the private sector. However, federal policies - taxation, domestic trade regulation, environmental regulations, foreign relations, etc. - all impact on how the private sector implements the solution in the best interest of the public. Congress is obliged to establish policies which the private sector can rely upon for at least the duration of energy-related capital investments.

With such reliable federal policies in place, the private sector and its engineering profession can move forward toward solving the problem.

American Consulting Engineers Council offers its experience, counsel, and support to government and the public toward establishing these much needed energy policies.

The Board then voted on and passed the following proposed ACEC position paper on registration and recertification:

The American Consulting Engineers Council, representing more than 3,650 member firms engaged in the practice of the many disciplines of engineering, and employing more than 100,000 persons, actively supports procedures to encourage registration of all engineers. The Council recognizes that registration of all engineers promotes general public health, safety, and welfare of all citizens and, at the same time, provides a basis for evaluating the engineers' qualifications.

ACEC notes that professional engineering services are provided in many different ways to serve individual clients, small and large, private business, government at many levels, as well as other professionals. Practicing engineers in organizations observe all of the many existing standards of practice, and also conform to the established laws to protect the public.

The engineering profession is distinct from other professions, such as the medical or legal profession, wherein services are usually provided by an individual professional person for an individual person at a specified time. Engineering as a service, while practiced by many individuals, is typically provided by an organization that has not only technical competence, but also necessary business skills to insure that the goals of a client are achieved. Engineering services are typically provided over a period of time to allow for the careful development of proper solution for a client's program.

ACEC has supported a voluntary professional development program that can be tailored to fit each individual's needs. A voluntary program is encouraged on a state-by-state basis, coordinated through the various engineering societies. Each of the many engineering national societies contributes to the total engineering profession in a different manner and each society has a valuable input to a professional development program. ACEC, with its primary aim of serving the needs of the practicing consulting engineer and firm, contributes to professional development on a voluntary basis by helping to define both the technical and business responsibility each engineer has to serve the public.

In summary, ACEC encourages the continued development of professional competence by a combination of educa-

tion, participation in professional activities, and by working with experienced engineers. It believes that the public is best served by a voluntary program of professional development.

The ACEC Bylaws and Rules of Policy and Procedure underwent extensive revision. All were passed favorably by the Board. One that did not pass was the provision that would have eliminated the seating of a member organization's paid executive as acting director, if the director and his alternate are unable to attend the Board meeting. It was the consensus of the group that the executive directors are capable of participating in the decision of issues provided they have written proxy from their state presidents. The Bylaws Committee, in recommending the elimination of this provision, felt that voting should be done by "members".

The 1980-81 Budget totaling \$1,652,777.00, was passed with certain changes. The adoption of the budget means a \$10.00 per year per index number increase in dues. The change will take effect in July. The increase is 12.8% over the 1979-80 budget.

One of the more heated issues was the accepted definition of a "small business". A task force, composed of ACEC members, had been charged with defining the small business firm. They recommended that firms qualifying as small businesses should have a total of 30 employees or an annual gross revenue of not more than \$1,000,000 average over a 3-year period, whichever is greater. However, after much discussion and several amendments, the Board of Directors agreed upon 50 employees or an annual gross revenue of not more than \$1,750,000 average over a 3-year period, whichever is greater.

The rationale for setting the size standards for engineering service firms was determined as follows:

- A. The firm size should be based on the number of employees with an additional requirement of annual gross revenues to prevent the "job or body shop" operations, and to assure the subcontracting to interprofessional firms is included as a part of the prime professional operation.
- B. The size standard should be established in a range that would generate the selection of engineering firms on a competitive basis and not stimulate the larger firms' interest in projects that could be awarded to the smaller firms.
- C. The size standard should consider that of the 3600 firms that are members of ACEC, 86% have 52 or less employees and that 80% have 32 or

less employees. The task force also referred to information published by Consulting Engineer Magazine for 1978 that indicated the average gross revenues per employee was \$30,000 to \$35,000. The task force is of the opinion this may be on the high side in that D & B for 1978 reports the gross revenues per employee is approximately \$26,500.

- D. The task force agreed that a small firm with prudent management should not receive more than 20% of gross revenues from directly procured federal contracts.

- E. The contracting officers of the various federal agencies that award contracts for professional design services presently operate the procurement program under three basic requirements.

1. The selection will be made on a strict set aside basis.

2. The selection may consider small business as part of the award process.

3. No consideration of small business be given.

A review by one of the task force members indicates that from January 1980 through mid-April 1980, the solicitations for A-E services in the Commerce Business Daily had more than 50% set aside or special consideration for small business.

- F. The task force also considered the 40 responses from state associations and individuals to a "last word" request for information and input to this matter which indicated the following:

Keep current standards of \$7.5 million gross revenues15

Favor proposed 50 employee standard15

Favor a higher than 50 employee standard8

Favor a lower than 50 employee standard7

Miscellaneous, i.e., two tier system, lower dollar amount of gross revenues and no opinion6

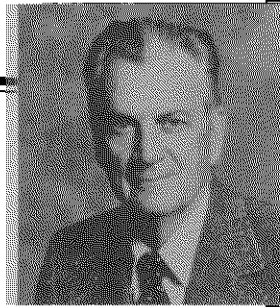
- G. The task force firmly believes that Congress will mandate changes in size standards in all industries and that ACEC should have input that sets the size standard for engineering firms.

- H. The task force reviewed the methodology the SBA used to determine the proposed size standard and discussed the matter with a representative of the agency. The SBA considers the engineering and architectural service firms as a competitive industry which should indicate a low number of employees size standard.

Continued on page 20

POTPOURRI

R. C. "Doc" Spears
Executive Secretary
Louisiana Engineering Society



Engineering Hall of Distinction

In 1979, LSU's college of engineering established the Engineering Hall of Distinction to recognize individuals who have made significant contributions to the engineering profession. Seven outstanding charter members were elected in 1979: Dr. P. L. Thibault Brian, LSU chemical engineering graduate; Dr. Jessie Coates, LSU chemical engineering graduate; Dr. Maxime A. Faget, LSU mechanical engineering graduate; Dr. M. F. Gautreaux, LSU chemical engineering graduate; Dr. John Laufer, LSU mechanical engineering graduate; J. Howard Rambin, Jr., LSU petroleum engineering graduate; and Dr. Chester P. Siess, LSU civil engineering graduate.

The Hall of Distinction constitution specifies that no more than two individuals may be added per year to this membership. Thus, in 1980, two distinguished persons were elected to membership in the Engineering Hall of Distinction.

Leo M. Odom, LSU B.S. (C.E.) 1927, has distinguished himself as an engineer for over 50 years with broad and varied contributions to the engineering profession. He is chairman of the board and president of Pyburn and Odom, Inc., consulting engineers, and chairman of the board of Odom Offshore Surveys, Inc. Mr. Odom has received numerous awards and honors from professional engineering organizations including the Louisiana State Board of Registration for Professional Engineers and Land Surveyors, the National Council of Engineering Examiners, the U.S. Corps of Engineers, the Association of Levee Boards of Louisiana, the American Society of Civil Engineers and the Louisiana Engineering Society.

Mr. Odom's service and recognition in the Louisiana Engineering Society is especially noteworthy. As a life member and past president of the Society, he has been recipient of numerous awards and testimonials for over 15 years culminating in the establishment of an endowment for the Leo M. Odom Professional Service Award in 1977. Mr. Odom represents the engineering profession in an exemplary manner as one who has contributed significantly to the betterment of contemporary society.

L. J. Sevin, LSU B.S. (E.E.), 1957 and M.S., 1959 is chairman of the board and chief executive officer of Mostek Corporation. Mostek is a leader in technology having one of the broadest and most advanced product lines in the manufacturing of integrated circuits and electronic subsystems. As a contemporary "industrial entrepreneur" in the high technology sector, Mr. Sevin has gained a

reputation equaled by few for engineering excellence, and for honesty and integrity in the business and financial community.

At ceremonies on April 24 in Baton Rouge, both of these outstanding engineers were inducted into the Engineering Hall of Distinction. The Louisiana Engineering Society congratulates each of these gentlemen and is especially pleased that Leo M. Odom, Mr. Engineer of LES, was honored and selected.

1980-81 Ballot

A ballot for election of officers and approval or disapproval of a constitutional amendment was mailed to all voting members on May 16, 1980. Please vote and return your ballot prior to June 26, 1980.

The nominating committee and Board of Direction slate of officers for 1980-81 are: John E. Ritter, P.E., first vice president; Lamon L. Moody, P.E., second vice president; Dudley Hixson, P.E., secretary-treasurer; A. Andre Amy, P.E., state director; Charles Goodrich, P.E., state director.

The proposed constitutional amendment is the culmination of over a year of discussion. In 1973, a constitutional amendment was approved requiring officers of LES, its chapters and practice divisions to be members of NSPE. A petition signed by the necessary number of members was received by the board directing language in the article to be similar to the article before the amendment, with no requirements whatsoever for NSPE membership.

The amendment to be voted for or against is a compromise of the issue. The amendment will not affect any LES member on record as of June 30, 1980. All members who apply for membership after June 30 will be required to join both LES and NSPE.

1979 Engineering Enrollments

The fall 1979 enrollments in the nation's 286 engineering schools reached an all time high of 340,488 undergraduate students, reported the Engineering Manpower Commission of the American Association of Engineering Societies (AAES) in their 1979 enrollment survey of engineers and technicians. This is an increase of more than nine percent over 1978.

The history of engineering enrollments shows a pattern of sharp increases and decreases. However, this year, following the trend started five years ago, freshmen enrollments have reached a new all time high of 103,724, an increase of 8.3 percent over 1978. Enrollment in the engineering graduate school programs was up 7.8 percent in 1979

over the previous year.

Women are continuing to increase their representation in the engineering profession, with an increase in female enrollments in undergraduate engineering programs of 21.8 percent over the previous year.

Further information concerning the enrollment survey can be obtained in the book "Engineering and Technology Enrollments—1979", published in three parts and available for purchase from the AAES Publications Department, 345 East 47th Street, New York, N.Y. 10017, or contact Manpower Activities, (212) 644-7846.

Energy Number One Problem Discussed at AAES Meeting

Energy was the number one problem addressed by the councils and committees of the American Association of Engineering Societies (AAES), a federation of 38 engineering societies representing nearly one million engineers, at its first annual assembly in Kiawah Island, South Carolina on March 9-12, 1980.

The energy issue was further stressed by the AAES Board which voted to be one of the co-sponsors of a conference in Chicago titled "Energy for the Eighties," June 26-29, 1980. Representatives from business, labor and industry will gather for the purpose of training in effective public education techniques regarding energy.

In a keynote address, Chairman Kenneth A. Roe said, "AAES will achieve its goal when it becomes the most prestigious and most creditable source of technological advice and information for the people of the U.S. and their government."

Engineer Technician Degree Is Not Engineering Degree

The LES has been advised that some of our students in Louisiana colleges are being led astray concerning the technician degrees. Engineering technician courses or degrees do not lead to an engineering degree nor to registration as a professional engineer.

Automobile Insurance Program Improving and Expanding

As a continuing service of the Louisiana Engineering Society, the automobile insurance program continues to improve and expand. AIU recently opened a new claims office in Lafayette, providing faster, more efficient claims service for the more than 200 LES members enrolled in the AIU Automobile Insurance Program. Many members find considerable cost savings when comparing the program with their current insurance, and the claims service just keeps getting better and better. The administrators will be making a mail-out soon with a free quotation request form included. Why not take a minute to fill out the quotation request form? You may cut your high insurance costs.

For information contact:

Program Administrators
Employees Insurance Representatives, Inc.
Post Office Box 14697
Baton Rouge, Louisiana 70898
(504) 926-0483

LOUISIANA ENGINEER/JUNE 1980

In Memoriam

J. Gilbert Schieb

The Louisiana Engineering Society was saddened to learn that J. Gilbert Schieb passed away on April 25, 1980. A native and lifelong resident of New Orleans, he became the first director of the New Orleans Housing Authority in the late 1930's and retained that position until his retirement in 1970.

Prior to his employment with the city of New Orleans, he was an engineer with the Bell Telephone Company and served as district engineer for the Federal Works Progress Administration.

Mr. Schieb joined the Louisiana Engineering Society in 1935 and became a life member in 1965.

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

PRESIDENTIAL PRIVILEGE

Continued from page 4

of us can sacrifice a bit of time - all of us can contribute by simply joining the ranks. Professional engineering does need your support. It can't do the job that needs to be done without you. Why not join us in LES/NSPE before we all end up in one helluva rain dance?

EXTRA PRIVILEGE

This being my last visit with you through the medium of Presidential Privilege, please grant me a moment to say thanks - to the LES membership for your faith in me through giving me the honor of serving you this past year - to all Board members, committee members, auxiliary, and staff. I have never before worked with more willing and capable people. I mentioned before, and would like to repeat - my only regret is that every member doesn't have the opportunity to serve as President of LES. I hope to see all of you, plus many new faces, at LES meetings and conferences for years to come.

PROFESSIONALISM

Continued from page 7

education beyond purely engineering or technical studies. A well-educated engineer is more apt to receive recognition as a true professional instead of being considered merely a skillful mechanic.

Some of you will get into work requiring cooperation with other professions. Along with medicine, you may develop or improve instruments or machines such as the X-ray, electro-cardiogram, brain scan devices, iron lungs or perhaps participate in the design of a hospital. Working with the legal profession, you may investigate claims, make estimates, advise on safety measures, or serve as an expert witness.

Another manifestation of professionalism among engineers is the interest that we display and the assistance we

render in civic activities and community affairs. Many of us participate in such things as the Chamber of Commerce, Boy and Girl Scouts, United Way and other charities as well as church and school matters. It is suggested that after graduation you find something of this sort where your talents will be useful.

Perhaps we could say in summary that the instincts of a born engineer or his purposes in life are:

1. To create useful and beautiful things for the betterment of mankind.
2. To increase human knowledge.
3. To participate in and enjoy a good life among his fellow humans.

It has been said that many of us in our lifetimes merely live, raise a family, and earn a living. The same can be said for almost any dumb animal, large or small, wild or domestic, that ever lived. Let's hope that you and I do a little more than that in our lifetimes.

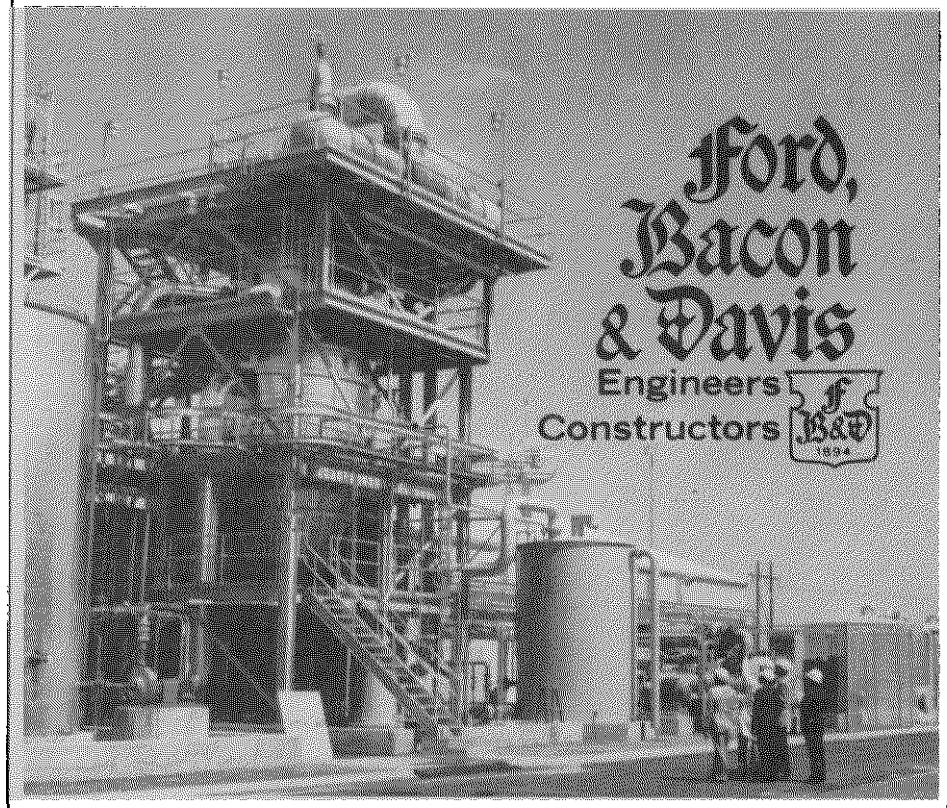
Good luck and welcome to the profession of James Eads, who opened the mouth of the Mississippi River to ocean-going ships; of George Goethals, who built the Panama Canal; of Henry Bessemer, who developed the Bessemer process for making steel. It has been a proud and productive profession. Let's keep it that way.

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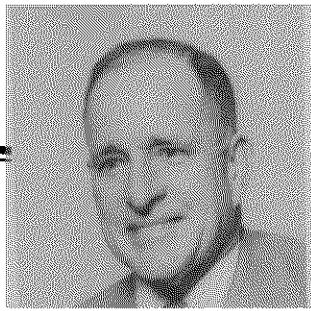
When ERCO Industries Inc. decided to build its first United States plant in Louisiana, Ford, Bacon & Davis was given the responsibility for engineering and construction. Today, the \$13 million plant is producing 25,000 tons of sodium chlorate annually, both in solution and crystal forms, for pulp and paper mills as far as 1,000 miles away.

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VLIET'S VIEWS

Daniel H. Vliet, P.E., Executive Secretary Louisiana State Board of Registration for Professional Engineers & Land Surveyors.



Bills have been introduced in the present legislative session that could result in major changes in the requirements for certification as an engineer-in-training and for registration as a professional engineer. A comparison of the proposed new requirements with those that now exist may be of interest.

Education

At present a person with only a high school education can become registered as a professional engineer in Louisiana. If the proposed legislation becomes law, a college education will become a legal requirement. Several educational programs are recognized by the proposed law. I find it convenient to divide these into three groups: (1) graduation from an approved four-year engineering curriculum, (2) graduation from an unapproved four-year engineering curriculum followed by a masters degree from an approved engineering curriculum, and (3) graduation from a four-year unapproved engineering curriculum or a four-year curriculum in related science or related technology.

Engineer-in-Training

For a person who is a graduate of an approved engineering curriculum no basic changes in the requirements for certification as an engineer-in-training have been proposed.

At present a person who is not a graduate of an approved engineering curriculum must have at least four years of experience satisfactory to the Board and must pass an examination in fundamental engineering subjects. Education in an engineering or related science or related technology curriculum, although not required, can receive credit toward the required experience. Under the proposed new requirements such a person must be a graduate of either an unapproved engineering curriculum or related science or related technology curriculum. A graduate of an unapproved engineering curriculum who has obtained a masters degree from an engineering curriculum approved by the Board and who has passed the examination in fundamental engineering subjects may be certified as an engineer-in-training. A graduate of science-related or technology-related curriculum or a

graduate of an unapproved engineering curriculum who does not have a masters degree in engineering, must have had at least four years or more of progressive experience in engineering work and must pass the examination in fundamental engineering subjects before he can qualify for certification as an engineer-in-training.

Professional Engineer

No significant changes in requirements have been proposed for an applicant for registration as a professional engineer who is a graduate of an approved engineering curriculum, who has obtained at least four years of satisfactory experience after graduation, and who has passed examination in fundamental engineering subjects and the principles and practice of engineering.

Under provisions of the proposed law a person certified as an engineer-in-training can become registered as a professional engineer after acquiring four years of experience subsequent to being certified as an engineer-in-training and after passing an examination in the principles and practice of engineering. This is also true under the present requirements for registration.

It will be possible under the provisions of the proposed law for a person who is not a graduate of an approved engineering curriculum and who has not been certified as an engineer-in-training to qualify for registration as a professional engineer. Such a person must be a graduate of an engineering curriculum or a related science or related technology curriculum, must have at least eight years of satisfactory experience, and must have passed examination in fundamental engineering subjects and the principles and practice of engineering.

Persons can now be registered as professional engineers on a basis titled "Long Established Practice." The basic requirements are a high school education, many years of experience in engineering work (extent and quality of the work as specified in the law and rules of the Board), and passing an examination in the principles and practice of engineering. There is no equivalent basis in the new registration law.

Transitional Provisions of Proposed Law

The proposed registration law has transitional provisions that provide advantages to persons presently certified as engineers-in-training and to qualified persons who submit applications before September 12, 1980, for certification as engineer-in-training or for registration as professional engineers.



The State Board of Registration, seated left to right: Chris Demopoulos, P.E., James W. Reeves, P.E. Standing: Daniel H. Vliet, P.E.; A. J. Brouillette, LS; Larkin Agnew, P.E.; James L. Meyer, P.E.; Edward J. McNamara, P.E.; Andrew M. Moore, P.E.; Arthur R. Theis, P.E.; Fred C. Culpepper, P.E. (H. L. Henry not present for photograph).

LES LADIES' AUXILIARIES

Activities of the Baton Rouge Ladies Auxiliary

A group of 39 ladies met on July 19, 1946 to charter the Woman's Auxiliary to the Baton Rouge Chapter of the Louisiana Engineering Society, or B.R. WALES. The newly formed auxiliary, directed by the parent organization in New Orleans, adopted the objects of rendering service to the engineering profession in Louisiana.

The income of the auxiliary was derived from the payment of dues, gifts, and other activities including white elephant auctions, Christmas decoration sales and card parties. As a result of these efforts, contributions were made to the LSU engineering department for field trips and student loan funds.

Today, the membership of WALES has quadrupled. The objects of their constitution have been amended to include assistance to engineering students at LSU through the establishment of a scholarship fund based on academic excellence.

An annual taste fair was selected as the means for funding these scholarships.

Format for the luncheon varied from others like it, in that each member of the auxiliary was asked to bring her own favorite casserole—rather than using a specific recipe—which was then offered for sale. The project, a true adventure in palate, inspired the publication of "Bon Manger" which featured the most requested recipes of the taste fair.

Because of the popularity of the spring event, WALES celebrated their 10th Taste Fair in March with the release of their newest cookbook appropriately titled, "Taste Fare".

Over 100 dishes were abundantly displayed on two long serving tables. Salads ranged from a spicy marinated bean to a refreshing strawberry gelatin mold. Vegetables included New England corn pudding and eggplant Italian. Entrees varied from sausage jambalaya to ham casserole and Swedish meatballs.

In addition to pastries and cakes for dessert, there was also a bake shop for "take homes".

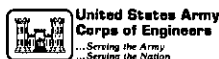
WALES proudly presented three scholarships during National Engineers Week in February to Stephanie Lynne Engels, Robert James Heym and Charles Daniel Smith.

Stephanie Lynne Engels, 2122 Stonehenge, is the daughter of Mrs. Joyce S. Reid of Baton Rouge. Miss Engels is a graduate of Episcopal High. She is a junior in civil engineering, maintaining a 3.6 average. She is a member of the ASCE Student Chapter and Chi Epsilon.

Robert James Heym, 5055 Nicholson Drive, is the son of Mrs. Nancy Porter of Baton Rouge. Mr. Heym is a graduate of Lee High School and presently a junior majoring in mechanical engineering with a 4.0 average. He is a veteran, having served four years in the Navy. Mr. Heym is a member of Phi Kappa Psi, ASME and the LSU Veteran's Association.

Charles Daniel Smith, a junior in civil engineering, is the son of Mr. and Mrs. Charles O. Smith, also of Baton Rouge. Mr. Smith is a graduate of Episcopal High and maintains a 3.931 average. His activities include ASCE Student Chapter, Concrete Canoe Race Committee, Tau Beta Pi, Chi Epsilon, and Pi Mu Epsilon.

Other auxiliaries are invited to submit material for this regular feature of the magazine - Editor.



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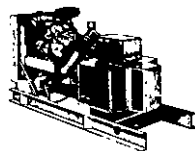
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STATUS REPORT

Continued from page 9

tions of the Louisiana Board of Architectural Examiners. Engineering corporations in Louisiana always had the right to offer architectural services if they employed licensed architects until Act No. 225 of the 1979 session of the Louisiana Legislature became law. Act No. 225, sponsored by the architects, made it mandatory that to provide architectural services under a corporate structure, a majority of the stock shall be owned by licensed architects. This means, of course, that architectural corporations can continue offering architectural and engineering services, while engineering corporations are forbidden to offer architectural services. With your help in contacting your senator and representative, we will be able to correct this situation in the current session of the legislature.

Our legislative committee and "Doc" Spears are also working hard for you on legislation that has been introduced by others that can have serious detrimental affects on the engineering and surveying professions. Over 2,800 bills have been introduced in this session of the legislature and it is necessary to review all these bills and sort out those that we must oppose or support. It is, of course, vital to our profession to fight these defensive

battles each time the legislature meets. This emphasizes the fact that we engineers and land surveyors must get to know our legislators and make personal appeals to them relative to our position on legislation affecting us.

WE ARE DEEPLY GRATEFUL, AND HUMBLE, FOR THE EXCELLENT HELP AND SUPPORT YOU HAVE GIVEN US IN OUR LEGISLATIVE EFFORTS. WE NEED YOUR CONTINUED HELP IN CONTACTING LEGISLATORS AND, WHILE WE HAVE NOT PREVIOUSLY REQUESTED THAT YOU MAKE A CONTRIBUTION TO HELP DEFRAY THE TREMENDOUS COSTS OF OUR LEGISLATIVE PROGRAM, WE ASK THAT YOU IMMEDIATELY FORWARD A CONTRIBUTION TO THE "LES LEGISLATIVE FUND FOR 1980"!!!

If you have questions, or need information, please call R.C. "Doc" Spears, executive secretary of the LES at (504) 344-4318, or Lamon Moody at (504) 775-4800.

**Lamon Moody, Chairman
Legislative Committee**

CEC/L Continued from page 13

The task force is of the opinion that because of the different criteria that SBA has for various programs available to small business firms, that one size standard be established and be applicable to all programs.

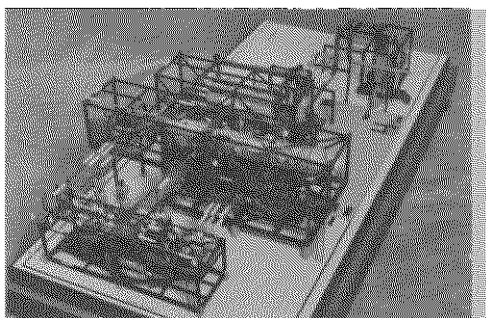
The task force is of the opinion that many of the smaller firms would like to qualify for direct federal contracts, but are unable to compete with the larger and more sophisticated firms, and that restricting the size standard for the small firm would afford them a better opportunity in the federal market place.

The task force is of the opinion that small business must grow and expand, that the small firms should not be dependent on the set aside program for its existence and that size standards should be set so as to not promote dependence on federal agency-type engineering assignments.

In order for small business to take advantage of the set aside program, it would be recommended by the task force that firms become educated on how to take advantage of this program by attending federal procurement conferences and seminars.

The task force also discussed the matter of "open end contracts" that have segments of a proposed federal agency contract which could be attractive to the small business sector. The task force realizes the reason for various agencies using this method of procurement, which normally requires a multi-disciplined firm. In the interest of small business firms, ACEC should discourage this practice.

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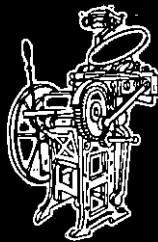
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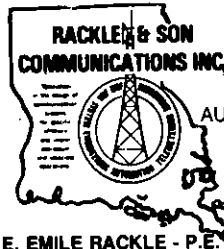
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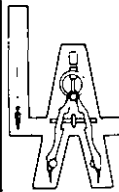
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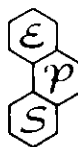


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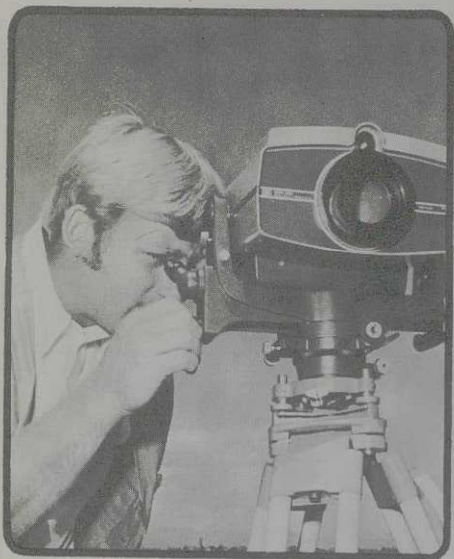
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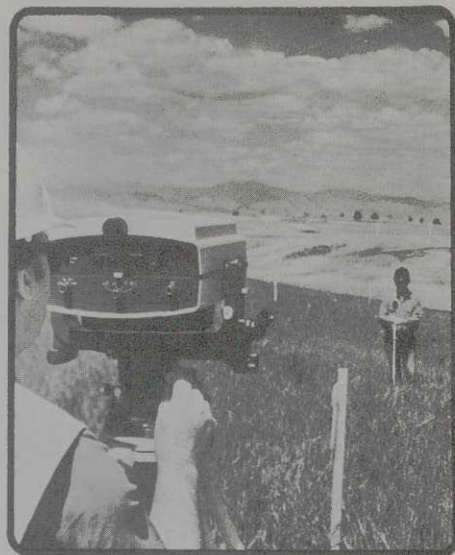
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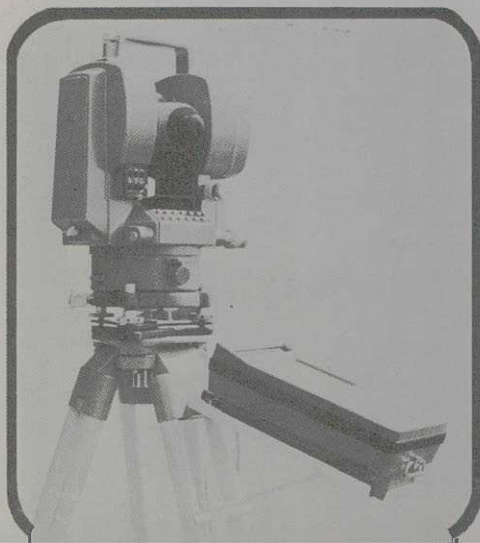
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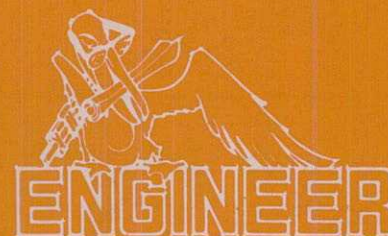
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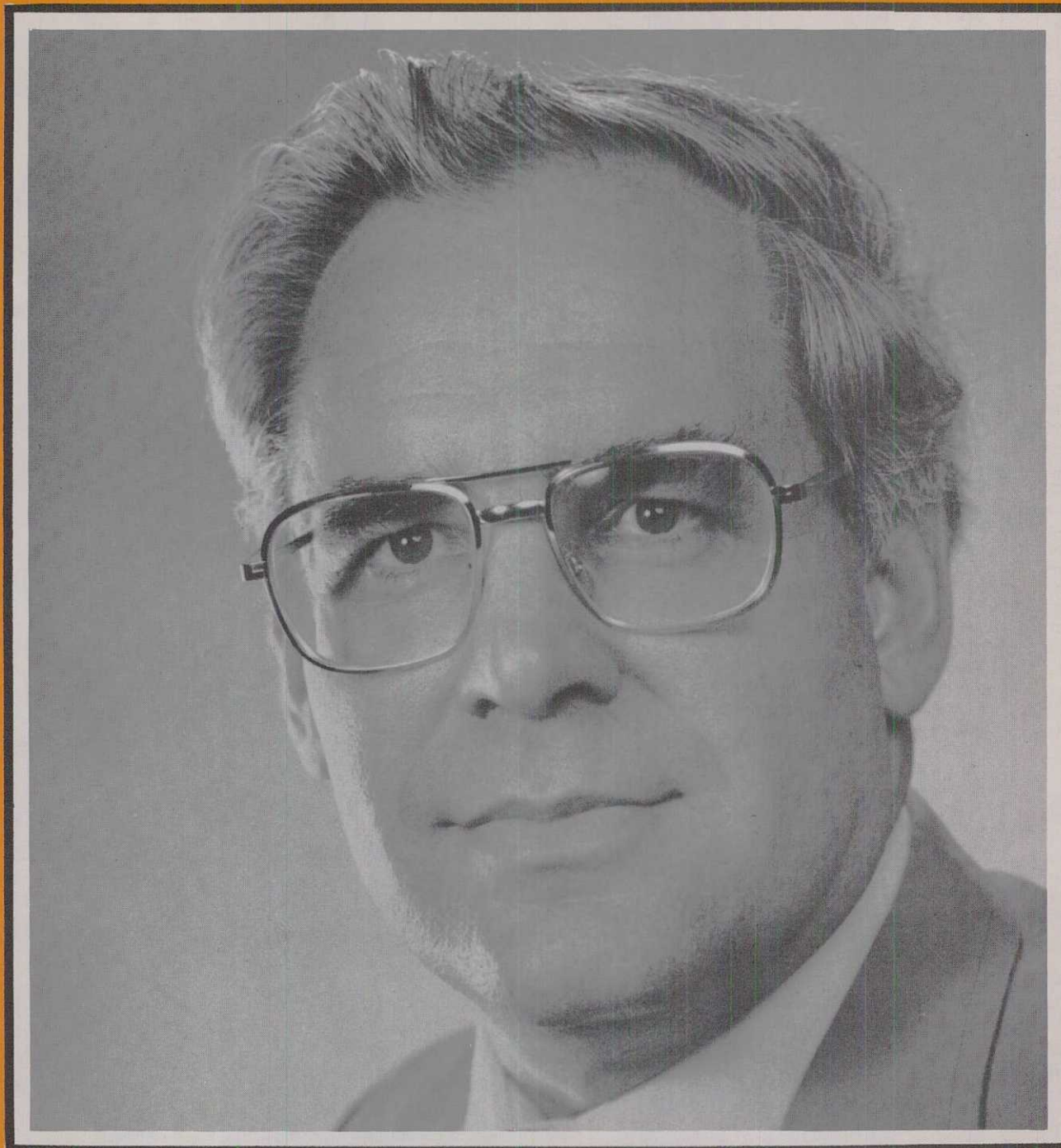




LOUISIANA



August, 1980



Jerrel J. Freeman, P.E.

1980-1981 LES President

LOUISIANA ENGINEERING SOCIETY

24th Annual Chapter Officers' Training and State Planning Conferences, September 11, 12, 13, 1980

Sheraton Inn, Alexandria

This meeting is a must for chapter officers and committee and practice division members. Use the hotel and registration coupons provided.

PROGRAM

Thursday, September 11

1:00-5:00 p.m. - Registration
6:30 p.m. - Early Bird Cocktails and Dinner,
England AFB Officers Club

Friday, September 12

8:00 a.m.-noon - Registration
CHAPTER OFFICERS' TRAINING CONFERENCE
8:30 a.m. - Opening Remarks, Jerrel J. Freeman, P.E.
8:45 a.m. - State Office, R. C. Spears
9:00 a.m. - Inter-Society Relations, John Grosch, P.E.
9:15 a.m. - State Board of Registration, Dan Vliet, P.E.
9:30 a.m. - Membership Development, Dale Hunn, P.E.
9:45 a.m. - Legislative, Lamon Moody, P.E.
10:00 a.m. - Meetings & Programs, James W. Reeves, P.E.
10:15 a.m. - Young Engineers, Jack Laws, P.E.
10:30 a.m. - Engineering Education, Ken McManis, P.E.
10:45 a.m. - Ethics & Professional Conduct, James S. Janssen, P.E.
11:00 a.m. - Public Relations, Al McKee, P.E.
11:15 a.m. - Practice Divisions-Purpose, Dudley Hixson, P.E.
11:30 a.m. - La. Engr. Foundation, Vince Forte, P.E.
12:00 noon - Luncheon - Film, "60 Minutes-Our Version"

COUNCIL OF DEANS

11:00 a.m. - Meeting
12:00 noon - Luncheon with above
1:15 p.m. - Meeting

STATE PLANNING CONFERENCE

1:30-3:00 p.m. - **Practice Division Meetings**
PEPP-Paul D'Antoni, P.E.
PEI-Billy Rentrop, P.E.
PEG-Michael Bechtold, P.E.
PEE-Carroll Karkalits, P.E.
PEC-David Edgar, P.E.

3:15-4:45 p.m. - COMMITTEE MEETINGS

Ethics & Professional Conduct, James S. Janssen, P.E.	Engineering Education, Ken McManis, P.E.
Legislative, Lamon Moody, P.E.	Inter-Society Relations, John Grosch, P.E.
Liaison Board of Registration, Bob Blanche, P.E.	Public Relations, Al McKee, P.E.
Membership, Dale Hunn, P.E.	Young Engineers, Jack Laws, P.E.
Constitution & Bylaws, Henry Markel, P.E.	Scholarship, Paul Hale, P.E.

5:00-6:00 p.m. - Chapter Presidents Conference
with Jerrel J. Freeman, P.E.

6:30 p.m. - Cocktails & Dinner
Civic Center (Refreshments hosted by
Louisiana Industries, Inc.)

Saturday, September 13

8:00-9:00 a.m. - Breakfast, Ladies & Men
9:15 a.m. - LEF Meeting
10:15 a.m. - LES General Meeting
11:15 a.m. - LES Board of Direction Meeting

Ladies Program

Thursday, September 11

6:30 p.m. - Early Bird Cocktails and Dinner,
England AFB Officers' Club

Friday, September 12

8:00 a.m. - Hospitality Room Open
9:45 a.m. - Bus to Clark-Dunbar
10:00-11:30 a.m. - Interior Decorator Show
12:00 noon - Luncheon, Gail's Cottage
(Dutch Treat)
6:30 p.m. - Cocktails & Dinner,
Civic Center

Saturday, September 13

8:00-9:00 a.m. - Breakfast, Ladies & Men

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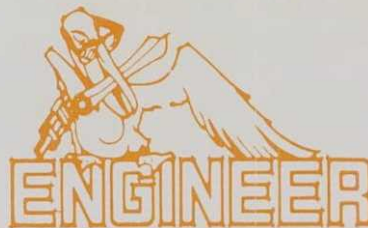
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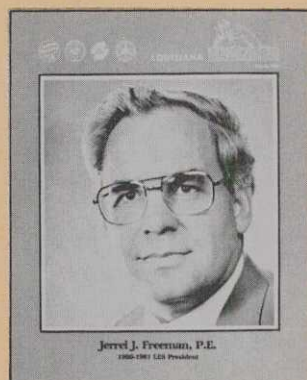
AUGUST 1980

LOUISIANA



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About the Cover:

Jerrel J. Freeman, P.E. is this year's LES President. All new officers are pictured on pages 6 and 7.

In This Issue:	
Presidential Privilege	4
Introducing LES's Board of Direction, New Chapter Presidents and Practice Division Chairmen	6
1980 Legislative Wrap-Up	8
A Proposal Writer's Checklist	9
1980 Annual Convention Report	10
EngiNEWS	12
LSU Engineering	
Management Course	12
Potpourri	13
Vliet's Views	14
CEC/L	16
New Registrations	20
New Members	20

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PRESIDENTIAL PRIVILEGE

Man is a counting animal. In fact, this penchant for counting things could be used as the sole criterion for distinguishing man from other animals. We are so determined to count things that we take nondiscrete things and invent beginnings and endings so that we may count them. We divide time and space into arbitrary beginnings and endings so that we may count and record.

So it is with LES. We have just counted the ending and beginning of a new year. In Lafayette, at approximately 9 p.m. on July 18, 1980, the Society installed a new slate of officers, and thus counted another year. The important thing, however, was that there was no interruption of the affairs of the Society. The Society continued on, and that is the key—continuity.

Other presidents of LES have at times picked certain key words with which to emphasize their term of office. I, too, will choose such a word — “continuity”. Continuous growth is what allows an organism in nature or an organization of men to reach and maintain a significant status from which it can interact with and affect its environment. If our organization is to remain in existence, then it must interact with and affect other men. LES recognizes the importance of continuity and advertises that the Society has had 82 years of continuous service by displaying the year of its organization — 1898 — in the logo. We select our officers and committee chairmen so as to



Jerrel J. Freeman, P.E.
LES President

maximize the continuity and minimize the interruptions of society affairs as we move from one year to another. We have thrived on continuous activity. We will stagnate if we waver in our resolve to have uninterrupted programs.

The importance of continuity has been emphasized in my mind in the past few months as I prepared for my new duties in the Society and began to be involved more directly in the process of managing its affairs. It was very obvious that we had to continue our work and not make new beginnings just because we had changed the names of the officers and committee chairmen. Very few of our important goals can be achieved in less than a year so we must have continuity of purpose spanning from year to year if we are to reach these goals.

The Society keeps records of its activities and has properly recorded on paper its goals and policies; however, paper does not act — men do. If we are to act together then we must possess within ourselves, as individuals, the common understanding of what our Society is, what it does, where it comes from and where it is going. The best way I know for us to gain this understanding is to interact with other members of the Society in doing the work of the Society. We must be involved if we are to become a part of this common pool of knowledge and experience that is really the essence of our Society.

On September 10-12, 1980 in Alexandria, we meet for the express purpose of sharing our experiences and knowledge of LES. If the meeting is to succeed in its purpose and our Society is to continue to grow as a significant part of the community, then you need to be present and to be involved. Your attendance at previous training and planning sessions is no reason to bypass this meeting. Indeed, participating in previous meetings has given you experiences that need to be shared with others. It is at these meetings, through continuous interaction between members, that the newly active members can become party to the common wisdom of the society . . . where they can be absorbed into the common resolve to continue work for the betterment of man.

To be continued

Jerrel Freeman . . . A Brief Biography

Jerrel J. Freeman, P.E., was installed as President at the LES annual meeting in Lafayette in July. He has held the following offices at the state level: chairman of various committees, second vice president and first vice president. In the New Orleans chapter he served as program chairman, director, second vice president, first vice president and president.

His memberships include: ASCE, American Road and Transportation

Building Association, Society of Military Engineers and National Society of Professional Engineers. He is a registered civil engineer and land surveyor in Louisiana, and a registered civil engineer in Mississippi.

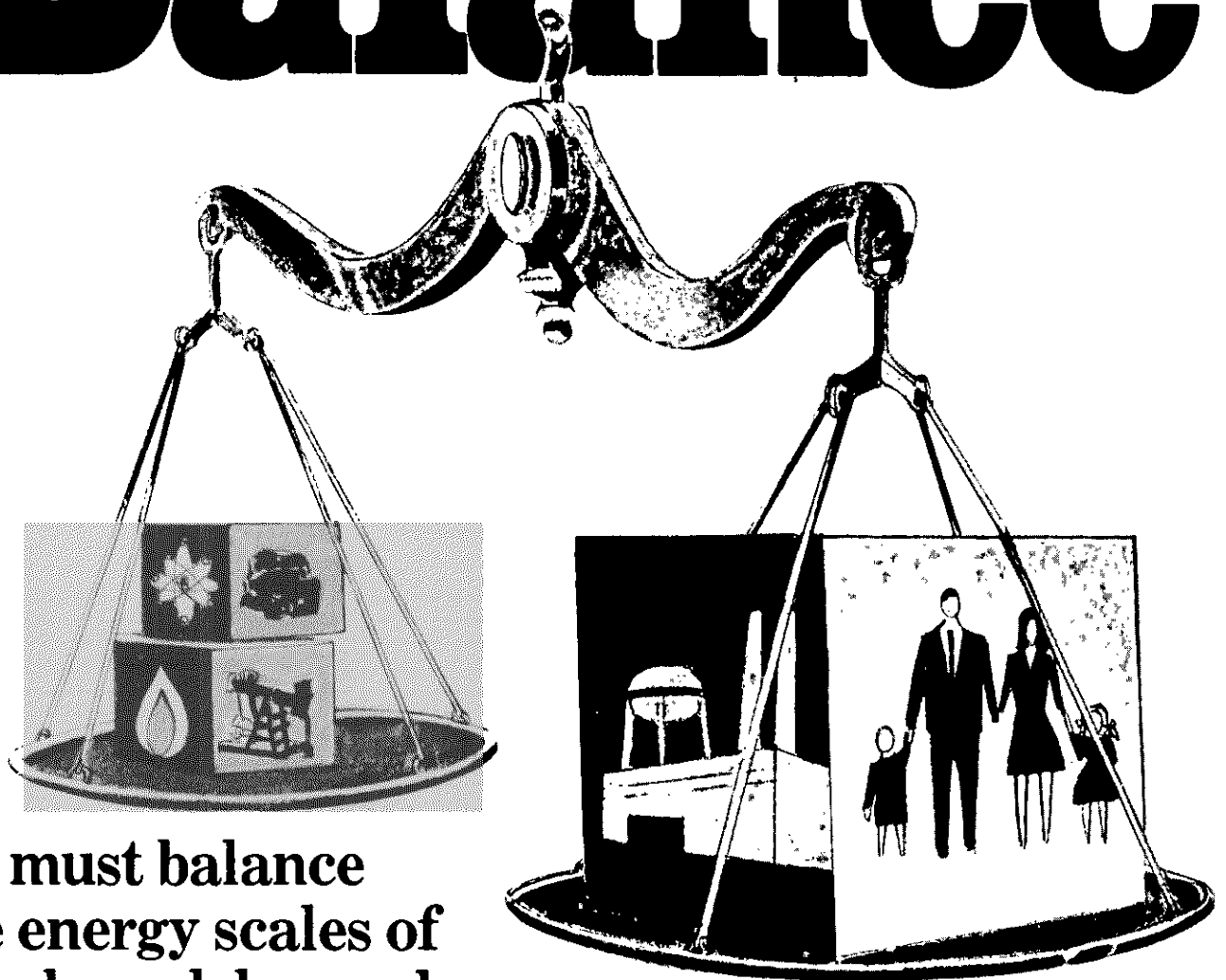
Freeman received an associate of science degree at Perkinson Junior College in 1958, a bachelor of science degree at Mississippi State University in 1961, and a master of science degree at Louisiana

State University in 1966.

Presently, he is a senior vice president at Waldemar S. Nelson and Company, Inc., having joined the firm in 1966. Prior to that, he worked for the U.S. Army Corps of Engineers in the Mobile and Savannah districts; and before that, was a junior engineer with the Mississippi State Highway Department.

He is married to the former Marilyn Solis and they have four children.

Balance



We must balance the energy scales of supply and demand.

The shortage of conventional fuels such as natural gas and oil, and the growth in population and industry in our area, have increased the need to find new sources of energy and improved ways of using old sources.

Energy sources such as fusion, solar, wind and geothermal could offer some help in the years to come. But for the immediate future, competent studies show that these sources cannot make significant contributions to our energy supply. We must rely increasingly on the use of nuclear power and coal for generating electricity. Coal is America's most abundant natural fuel resource and geologists estimate that at the present rate of consumption, there is enough coal to last our country for several hundred years.

As for nuclear power, it has been endorsed by an overwhelming majority of scientists in this country and throughout the world. The records show that nuclear power is safe, and environmentally acceptable.

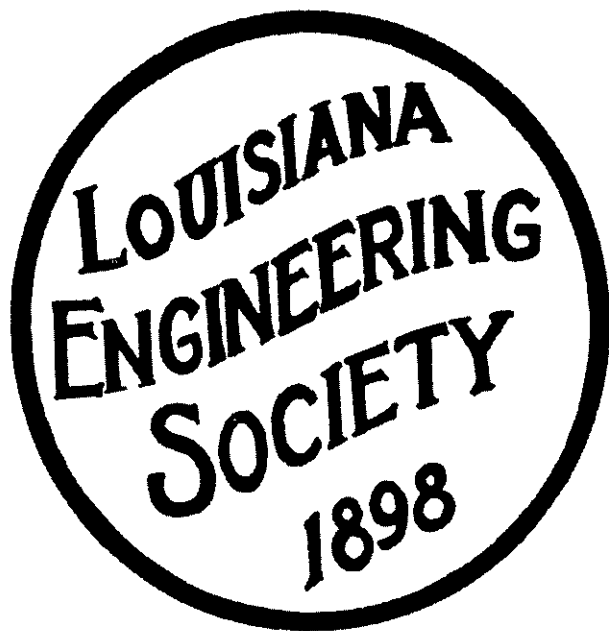
The law of supply and demand. It applies to electric energy just as it does to any other product. And nuclear power and coal can help balance the scales.

Energy Producers Who Believe In America's Future

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

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Vice Pres., Waldemar S. Nelson & Co.
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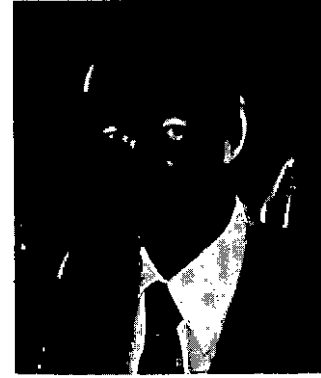
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Assistant Bridge Design Engineer,
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Development
Baton Rouge

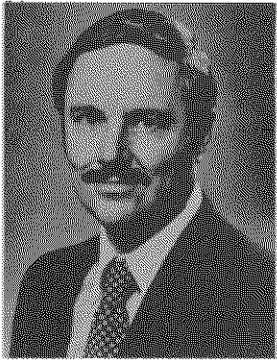


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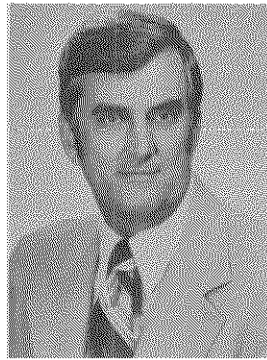
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Neil H. Klock, Jr., P.E.
Design Engineer, Meyer, Meyer,
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Alexandria



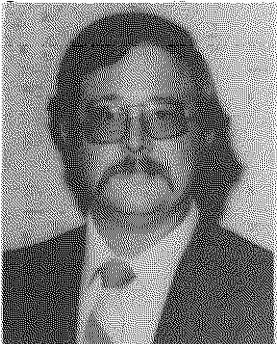
Baton Rouge
Vincent A. Forte, P.E.
Forte & Tablada, Inc.
Baton Rouge



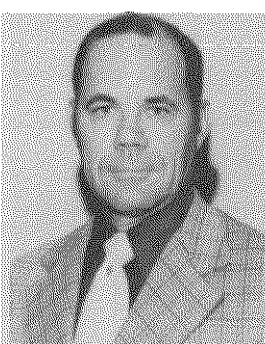
Bayou
Don I. McCullough, P.E.
Project Engineer, T. Baker,
Smith & Son, Inc.
Houma

Chapter Presidents

Chapters are the foundation of the Society's organization. Chapters are located at Alexandria, Baton Rouge, Lafayette, Lake Charles, Monroe, New Orleans, Shreveport and the Bayou serving Morgan City, Houma and Thibodaux areas.



Lafayette
Billy Bingham, P.E.
Consulting Engineer
Lafayette



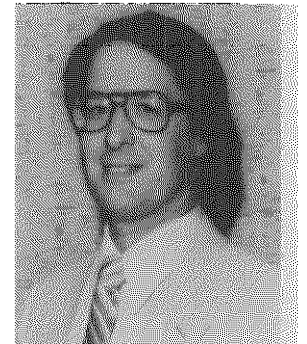
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Engr. Dept, La. Tech Univ.
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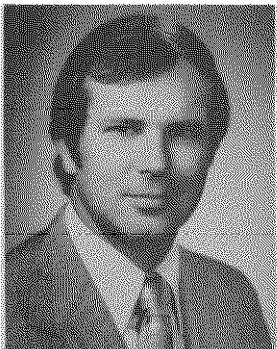
New Orleans
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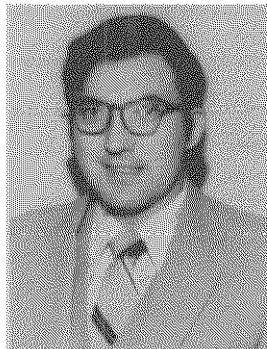
LES has five practice divisions, which provide the means for engineers to develop professional relationships with others in the same field of employment.



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Monroe



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Mechanical Engineer, Walk,
Haydel & Assoc.
Baton Rouge

1980 Legislative Wrap-Up

Thanks to the professional engineers and land surveyors from throughout the state in doing your job in contacting your Senators and Representatives, and convincing them of our need, our revised registration law, House Bill No. 656 by Representative Richard Baker, received good strong votes in the House of Representatives and the Senate. The bill has been forwarded to Governor Dave Treen for his approval and signature.

We also owe a great debt of gratitude to the Senators, Representatives and Governor Treen's administration for their help in modernizing our thirty-year-old registration law. We are especially grateful to representative Baker for the excellent handling of our bill on the floor of the House of Representatives, and to Senator Ken Osterberger for his likewise excellent handling of our bill on the floor of the Senate. The Bill was passed on the floor of the House with a good strong vote of 81 to 8. The 8 votes against the bill were Representatives: Fowler, D. Hebert, Lanier, Long, Reilly, Scoggin, Strain and Ullo. Representatives not voting on the Bill, probably because they were not present when the vote was taken, were: Hainkel, Dunn, Ensminger, Gee, Gunter, J. Jackson, Jenkins, Kember, Kimball, Landrieu, Lynn, O'Neal, Scott, Sour and F. Thompson. The other 81 Representatives voted for us.

Under Senator Osterberger's guidance the bill passed the floor of the Senate on July 10 by a vote of 33 to 0. The following Senators were absent when the vote occurred: Brinkhaus, Campbell, Chabert, Dykes, Kiefer and Lauricella. The other 33 Senators voted for us.

We were not so fortunate with our House Bill No. 1393 by Representative Clark Gaudin. This is the bill that sought to give back the right of engineering corporations to provide architectural services provided they employed licensed architects who are responsible for the architectural work on a given project. The language in the bill also gave the architectural corporations the right to provide engineering services provided they employed registered professional engineers who are responsible for the engineering work on a given project. We only asked that our rights be given back to engineering corporations since they were taken away from us by the architects through passage of their Act No. 225 of the 1979 regular session of the Louisiana legislature. Through excellent handling of the bill on the floor of the House of Representatives by Representative Gaudin, and Representative Harry Kember, the bill received a good strong vote of 81 to 3, with Representatives Andrepoint, Gunter and Lalonde voting against the bill. The following Representatives did not vote or were absent when the vote was taken: Adley, Baker, Chaisson, Connor, Crosby, Deen, Diesi, Downer, Fernandez, Grisbaum, D. Hebert, J. Jackson, Kimball, Landrieu, Lynn,

Martin, O'Neal, Sheridan, Sour and West.

Representatives of the Louisiana Architects Association waged a fierce battle against us on HB 1393 in spite of the many meetings and communications we initiated with them concerning the injustice and the problems the engineering profession had inherited as the result of their Act No. 225. They did an excellent job in lobbying and confusing the legislators; however, we were able to overcome this in our efforts in the House of Representatives. Unfortunately it was a different story when our Bill reached the Senate Commerce Committee and the floor of the Senate. Senator J. E. Jumonville and Representative Clark Gaudin handled our bill before the Senate Commerce Committee hearing, and Senator Jumonville handled the bill on the floor of the Senate. Both of these gentlemen fought hard to help us on passing this bill. We owe them a great vote of appreciation for their personal efforts.

On July 12 Senator Jumonville presented an amendment to our HB 1393 in an effort to strip off damaging amendments placed on the bill during the Senate Commerce Committee hearing. This vote failed and Senator Jumonville put the bill back on the calendar of the Senate, subject to call. On July 13 after some extremely vicious lobbying, including distortions, the bill came up again for a vote, and Senator Jumonville tried again to amend the bill by stripping off the damaging amendments placed on it during the Senate Commerce Committee hearing. Thanks to the architects there were many Senators who were totally confused about the amendments and the bill itself. When the vote on the amendment occurred we lost the amendment by 26 to 12 with one Senator not voting. The Senators were placed in a bad position between the engineering and architectural professions. We owe a deep sense of gratitude to the following Senators who voted for us on this amendment to HB 1393: C. Barham, Braden, Dykes, Gerald, Jumonville, Lauricella, Nicholson, Osterberger, Poston, Richey, Sevario and Windhorst. Senator Saunders did not vote. The other Senators voted against us.

We strongly urge all professional engineers and land surveyors to write letters of appreciation to your Senator and Representative who helped us on HB 656 and HB 1393. Please also write special letters of appreciation, whether or not they are your individual legislators, to Senators Jumonville and Osterberger, and Representatives Baker, Gaudin and Kember.

Through previous articles in the *LOUISIANA ENGINEER*, and our legislative alerts, we have informed you of the absolute necessity of monitoring each session of the Louisiana Legislature in view of the legislation that is filed that can be detrimental to the engineering and land surveying professions. To give you an idea of the broad range of

legislation affecting the professions we are also reporting on 33 bills that were filed during the regular session just ended.

H.B. 68 - By Rep. F. Thompson - Assigned to the Committee on Administration of Criminal Justice - This bill concerns trespassing on private property and we were able to get the author, Rep. Thompson, to accept an amendment exempting land surveyors from penalties when engaged in the "Practice of Land Surveying". The bill died in the house committee.

H.B. 95 - By Rep. Accardo - Assigned to the Committee of Transportation, Highways and Public Works - This bill re-creates, effective July 1, 1981, all of the statutory entities made a part of the Department of Transportation and Development by the Executive Reorganization Act, and provides for the effective termination date for all statutory authority for the existence of such statutory entities. This bill passed the legislature, was signed by Governor Treen and is now Act No. 174 of the 1980 regular session of the Louisiana Legislature.

H.B. 270 - By Rep. Laborde - Assigned to the Committee on Civil Law and Procedure. This bill, sponsored by construction contractors' organizations, concerned "hold harmless" clauses on public works projects. This bill died in committee.

H.B. 272 - By Rep. Laborde - Assigned to the Committee on Appropriations - This bill concerned the Louisiana Procurement Code. This Bill died in committee.

H.B. 407 - By Rep. Dunn - Assigned to the Committee on Appropriations - This bill tried to amend the public bid laws relative to closed specifications of technical equipment, apparatus, machinery, material or supplies. This bill passed the legislature and was sent to the Governor for his approval.

H.B. 431 - By Rep. Scott - Assigned to the Committee on Civil Law and Procedure - This bill would have amended the current law to require general contractors, subcontractors, master mechanics, engineers, etc., on immovable property to maintain a separate bank account with sufficient funds to pay all persons to whom he is obligated for matters governed by the provisions of the existing law. This bill died in committee.

H.B. 455 - By Rep. Scott - Assigned to the Committee on Civil Law and Procedure - This bill would have amended the existing law relative to privileges on immovable property to provide for the exploration of labor and material privileges on such property and the filing of a lawsuit thereon. This bill died in committee.

H.B. 472 - By Rep. Fernandez - Assigned to the Committee on Natural Resources - This bill amended current law by creating the Louisiana Resource Recovery and Development Authority which is intended to be

state-wide and governed by a Board of Directors, and provides for methods of financing resource recovery projects. This bill passed the legislature and has been forwarded to the governor for his approval and signature.

H.B. 510 - By Rep. Waddell - Assigned to the Committee on Appropriations - This bill would amend current law to increase the amount of purchases of materials or supplies by a public body requiring public bid. This bill died in committee.

H.B. 511 - By Rep. Gee - Assigned to the Committee on Labor and Industrial Relations - This bill would have repealed current law that requires payment of the prevailing wages on state projects. The bill was killed on the floor of the House of Representatives.

H.B. 616 - By Rep. Delpit - Assigned to the Committee on Civil Law and Procedure - This bill would have amended current law to exclude privileges for labor and materials for the repair or improvement of immovable property under certain federally funded housing rehabilitation programs. This bill died in committee.

H.B. 726 - By Rep. Lynn - Assigned to the Committee on Commerce - This bill is identical to Senate Bill No. 490. Both of these bills were sponsored by the architects to specifically authorize them to perform energy audits and energy analyses, and to specifically authorize architects to perform inter-disciplinary design that is "incidental to" the architectural aspects of a project. This bill was withdrawn.

H.B. 1017 - By Rep. Bruneau - Assigned to the Committee on Appropriations - This bill would have amended the current law by changing the method of appointments as members of the Louisiana Architects Selection Board. This bill was withdrawn.

H.B. 1022 - By Rep. Diez - Assigned to the Committee on Labor and Industrial Relations - This bill would amend current law to permit the Commissioner of Labor upon request by an electric utility company to appoint a boiler inspector employed by the company as a special inspector. This bill was withdrawn from the files of the House of Representatives.

H.B. 1274 - By Rep. Guidry - Assigned to the Committee on Natural Resources - This bill would amend current law by adding new law relative to building conservation, to provide for a building energy conservation plan, to authorize the Secretary of the Department of Natural Resources to develop rules and regulations establishing energy efficiency standards for buildings, to provide for the issuance of building permits and approval of plans and specifications for civil enforcement, etc. We had a special LES committee who studied this legislation and determined that it was premature and badly drafted. We had to lobby hard to defeat this bill. The bill ultimately died in committee.

H.B. 1311 - By Rep. LeBlanc - Assigned to the Committee on Civil Law and Procedure - This bill would amend current law by adding a provision for the invalidity of certain indemnity agreements affecting industries engaged in the development, exploration, and exploitation of sources of energy. This bill died in committee.

H.B. 1330 - By Rep. Laborde - Assigned to Committee on Civil Law and Procedure - This bill was sponsored by construction contractors on public works and would amend current law to prohibit hold harmless and/or indemnity agreements in public contracts. Our attorneys advised that this bill had to be amended to protect the rights of public governing bodies and engineers. By joining forces with other lobby groups we were able to amend the bill that resulted in it being much improved from our standpoint. The bill passed the legislature and was forwarded to Governor Treen for approval and signature.

H.B. 1467 & H.B. 1469 - By Rep. M. Thompson were both assigned to the Committee on Labor and Industrial Relations - Both of these bills concerned fees for inspection of boilers to be charged by the Department of Labor, and the fees for issuing certificates of inspections for boilers. Both of these bills died in committee.

H.B. 1593 - By Rep. Fowler - Assigned to the Committee on Commerce - This bill would allow the state to purchase pre-fabricated metal buildings, costing under \$80,000, without them having been designed by licensed professionals. This bill died in committee.

In addition to H.B. 68 reported upon concerning trespassing on private property, the following bills concerned this same subject matter:

H.B. 448 - By Rep. Bella - This bill died in the Committee on Municipal, Parochial and Cultural Affairs.

H.B. 489 - By Rep. Lowenthal - This bill died in the Committee on Administration of Criminal Justice.

H.B. 505 - By Rep. Martin - This bill died in the Committee on the Administration of Criminal Justice.

H.B. 819 - By Rep. Bella - This bill was passed by both houses of the legislature with our amendment exempting the personnel of and a professional land surveyor who is currently registered by our Board of Registration from penalties for trespassing while performing the practice of land surveying as defined in our registration law. This bill was signed by Governor Treen and became Act No. 153 of the 1980 regular session of the state legislature.

H.B. 1008 - By Rep. Crosby - This bill was also passed by both houses of the legislature with our amendment exempting professional land surveyors and their personnel from

penalties while engaged in the practice of land surveying. The bill has been forwarded to the governor for approval and signature.

H.B. 1377 - By Rep. Lynn - This bill died in the Committee on Administration of Criminal Justice.

Senate Bill No. 496 - By Sen. Keith - This trespass bill was withdrawn from the files of the Senate.

S.B. 490 - By Sen. McLeod - Assigned to the Senate Committee on Commerce - This is the identical bill to House Bill No. 726, sponsored by the architects to authorize them to perform energy audits and energy analyses in their architects' licensing law, and to authorize them to perform "inter-disciplinary design". During the hearing before the Senate Commerce Committee we strongly opposed this bill and it was put back on the calendar of the committee, and ultimately died there.

S.B. 545 - By Sen. Guarisco - Assigned to the Committee on the Senate and Governmental Affairs - This is the same legislation Senator Guarisco has introduced over the past few years to place lay people on licensing boards, and it would place two additional lay people members on our Board of Registration. This bill died in committee.

S.B. 549 - By Sen. Guarisco - was assigned to the Senate Commerce Committee - This bill would have required advertisement of fees for some professionals. This bill died in committee.

S.B. 895 - By Sen. Saunders - Assigned to the Committee on Transportation, Highways and Public Works - This was another hold harmless or indemnity bill. It died in committee.

S.B. 935 - By Sen. Saunders - Assigned to the Senate Committee of Judiciary C - This bill also concerned hold harmless or indemnity agreements affecting the construction industry in the performance of private works contracts. This bill died in committee.

S.B. 940 - By Sen. Osterberger - Assigned to the Senate Committee on Transportation, Highways and Public Works - This was another hold harmless or indemnity bill affecting the construction industry in the performance of public contracts. This bill died in committee.

It is obvious from the report on the foregoing bills that we were extremely successful in working together with other lobbying groups to help kill legislation detrimental to our professions, or amend legislation in such a way as to make it acceptable, and in some cases to assist in passing legislation favorable to us and the general public we serve.

It takes a considerable amount of effort, time and money to monitor each legislative session, and we MUST do so if we are to protect our professions and the public we

Report on 1980 Annual Convention

The annual LES convention, held at the Holiday Inn North in Lafayette on July 17, 18 and 19, was entertaining and productive. There were 82 engineers and 50 ladies registered for the three-day affair.

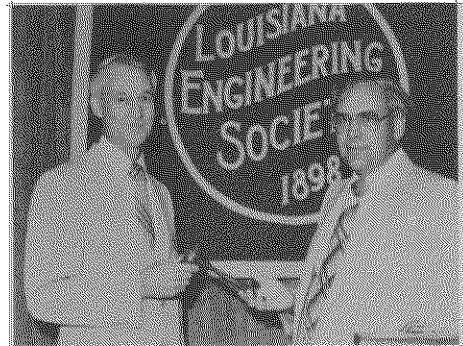
The convention got off to a good start on Thursday evening with cocktails sponsored by Lafayette chapter organizations and a delicious seafood dinner at the Holiday Inn. There were 91 attending the event.

Dr. Harry Munn, North Carolina State University, conducted an excellent workshop on Friday morning for approximately 60 engineers on the subject: "Your Communicative Attitude Can Attract New Members". The LES-PEI practice division co-sponsored the event with LES.

Edgar G. Mouton, executive counsel to the Governor, discussed the new ad-

ministration and the recent legislative session with 71 engineers and guests at the Friday luncheon.

One hundred thirty-one engineers and guests attended the installation banquet Friday evening. Waldemar S. Nelson, P.E., NSPE National Director, installed the 1980-81 LES officers.



Francis C. Roy, P.E., passing the gavel to Jerrel J. Freeman, P.E., 1980-81 LES president.

Thirty-two ladies enjoyed the tour, luncheon and style show on Friday. The LES ladies auxiliary held a business meeting on Saturday morning.

There were 16 golfers and 7 tennis players that participated in the activities at Acadian Hills Country Club for golf and the Townhouse Club for tennis on Thursday. Fifteen participated in the fishing contest on Thursday. Winners of the tournaments were:

Golf: Blaise Carriere, P.E., First
Ron Riley, P.E., Second
Neil Klock, P.E., Third

Ladies Tennis:

Marilyn Freeman, First
Kim Duck, Tied for second
Bonnie Gautreau, Tied for second

Men's Tennis:

Jerrel Freeman, P.E., First
Jim Bowie, P.E., Second

Fishing:

Best Fisherman, Al McKee, P.E.
Largest Fish, Jeff Shriver
Best Boat Captain, Bob Schoeffler

Well done and thanks to Larry Lafleur, P.E., convention chairman, and to Mary Vodrazka, ladies' activities chairman.

A Proposal Writer's Checklist

By Tim Whalen

In most proposal/grant writing efforts in education or business, there is a shortage of time and an abundance of deadlines and milestones. To meet these points and to deliver persuasive materials to the client is often a trying and exasperating experience. Yet the proposal can and must be done logically, thoroughly and to the satisfaction of the whole proposal team.

One of the ways that technical writers and editors can aid the difficult proposal writing effort is to provide the other members of the proposal team with a framework in which to work. By framework, I suggest that the writing should fall into the traditional beginning-middle-end pattern of all good writing.

The suggested form shown in Figure 1 is one way to divide proposal writing efforts and to control the flow of the text so that no necessary steps are omitted.

Naturally, each proposal is unique to client requests or demands so some writers may want to modify the steps to fit their own respective audience. Figure 2 is a visualization of what the proposal writing activity is all about — the flow of information from inception to completion.

Essentially, State I conceptualizes known factors and plans to investigate the unknown. The team exercises its spectrum of knowledge and makes technical decisions and analyses. Stage II is the preparation of all potential technical solutions, and the elimination of impractical and unrealistic approaches. Stage III consists of the polishing of the final, single design, approach or plan that was requested in the Request For Proposal. That final product will be the team's united, coherent and emphatic evaluations of the problems with which they are confronted.

FIGURE 1

Initial Effort, Stage I

1. Read SOW and Client Specs. & Instructions; call buyer if required
2. Judge where similar data from old proposals could be tailored to fit new proposal (boilerplate)
3. Research contract files for similar programs
4. Interface with engineers for technical inputs
5. Interface with technical illustrators for art inputs
6. Check client instructions for odd arrangements and/or unusual requests — map out rough draft with rough technical data and approximate illustrations
7. GO/NO-GO decisions with own Mgt.; GO/NO-GO decisions with other Mgt. when required, mail Intent letter/form
8. Give in-house to Engineering/Mgt. copies of skeletal proposal; give subcontractors copies showing where their input goes if required; interface/answer their questions

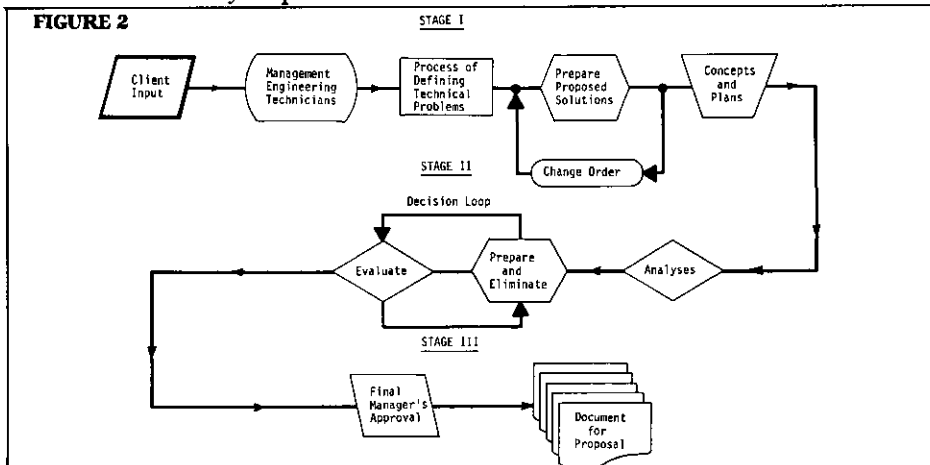
Mid Point, Stage II

9. Get feedback from Mgt., engineers, subcontractors in detail
10. Discuss overall goals, aims, strategies; see if rough draft is going correctly; get directions; fill in gaps
11. Rework drafts into intermediate stages; organize; edit; retype efforts
12. Select resumes and tailor each as it applies to the SOW and other RFP criteria
13. Check with tech illustrators and typing to foresee work loads, rough versions
14. Resolve all remaining technical questions; call client's buyer if necessary
15. Obtain packing materials to do the job; ensure correct address of buyer is on box/envelope; make travel arrangements
16. Edit incorporated text; proofread and make corrections
17. Ask editorial review to spot last minute inconsistencies and/or errors

Final & Submittal, Stage III

18. Ask final approval from Mgt.; last chance to make alterations
19. Did Addenda arrive?
Were there additions from buyer?
Were these acknowledged and acted upon, if not in proper test, at least in Addendum?
20. Final approved and in
21. Page numbering/references; correct to Tables & Figures
22. Overall final check; spot inspections
23. Label RESTRICTED pages; cross reference TITLE page
24. Fill in Table of Contents & List of Figures
25. Reproduce in #'s required; bind; tape; allocate; get TRANSMITTAL LETTER SIGNED
26. Mail/courier/deliver ORIGINAL (if required) and specified # of copies

FIGURE 2



A concrete example of...



a dependable water distribution main.

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EngiNEWS



T.J. Hogue, P.E. Ara Arman, P.E.

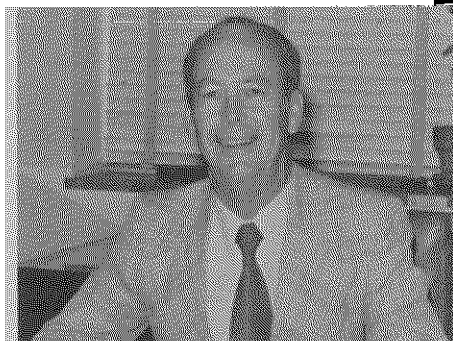
Hogue and Arman Elected to Engineer Selection Board

T.J. Hogue, P.E., and Ara Arman, P.E. both of Baton Rouge, have been elected to the Engineer Selection Board. Hogue will serve from July 1, 1980 to June 30, 1981 and Arman from January 1 to December 31, 1981.

Hogue has a BS degree in electrical engineering from LSU. He was president of the Baton Rouge Chapter in 1967 and president of LES in 1971-72. He replaced

Charles W. Hair, P.E., Baton Rouge, on the Board.

Arman has a BS degree in civil engineering from Robert College, Istanbul, Turkey, and an MS degree in civil engineering from the University of Texas, Austin. Arman is associate dean of engineering, LSU. He will replace William C. Monroe, P.E., Baton Rouge, on the Board.



Gerald R. Dyson Retires

Gerald R. Dyson, program administrator for the Office of Public Works, Department of Transportation and Development, retires June 30 with more

than 35 years of service to the state.

Dyson, born April 9, 1925 in Chopin, Louisiana, received his B.S. in civil engineering from Louisiana Tech in 1950 and his master's degree from Louisiana State University in 1954.

He began his career with the Louisiana Department of Public Works in 1952 as a hydraulic engineer and subsequently served as area engineer in Public Works' Northwest District and assistant district engineer in the South Central District before returning to Baton Rouge as a design engineer working directly under the chief engineer. In 1960 he was promoted to chief of the flood control and reports section.

Dyson was promoted to program administrator in June 1977. This position is responsible for the administration and supervision of the Toledo Bend Reservoir Project, Water Resources Study Commission, and coordination of federal water resources projects for and affecting Louisiana.

Dyson is a member of the American
Continued on page 18

Fall 1980 Engineering Management Courses 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 \$175 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. Fee is applicable toward the \$175 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
- Course J — Federal Income Taxation

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
- ☐ Federal Income Taxation

LOCATIONS

- ☐ Baton Rouge
- ☐ New Orleans
- ☐ Monroe
- I cannot attend on the following nights:
M. T. W. Th.

Name _____

Address _____ Phone _____

City & State _____ Zip _____

MAIL FORM TO:

Dr. L. Mann
Industrial Engineering Dept., CEBA Bldg.
Louisiana State University
Baton Rouge, Louisiana 70803

I wish to preregister for the course indicated. (Please show your first choice with a 1, second with a 2, etc. Show

Co-sponsored by the College of Business Administration, College of Engineering, LSU, and Louisiana Engineering Society.

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R. C. "Doc" Spears
Executive Secretary

A.I.Ch.E. Seminar

The Baton Rouge section of A.I.Ch.E. is sponsoring a two-day seminar on time management designed for engineers, scientists, and technical managers. The purposes of the seminar are: 1) To develop the proper attitude about time: knowing the importance of time, knowing you can and do control your time, and learning to admit when you are wasting time; 2) Goal setting; 3) Establishing priorities; 4) Gaining expertise in scheduling time; 5) Discovering more effective ways of utilizing time; and 6) using instruments to identify how effectively you are presently utilizing your time.

Seminar fee will be \$125.00 for A.I.Ch.E. members and \$150.00 for non-members, including a luncheon both days. Tentative location is the Baton Rouge Hilton on October 9 and 10, 1980.

Advanced registration is required and the number of course participants will be limited. Registrations will be accepted on a first-come, first-served basis. For further information, contact: Noel J. Ricord, Time Management Seminar 15345 N. Firewood, Baton Rouge, LA 70816 Telephone: (504) 292-3891 after 4:00 p.m. (504) 522-9464 (504) 343-9224, between 7:00 a.m. and 3:00 p.m.

New Officers Elected and Amendment Failed

A tellers committee met at the LES state

office on June 26 and counted the ballots for election of 1980-81 officers and one constitutional amendment. The following were elected:

John E. Ritter, P.E. President Elect
Lamon L. Moody, P.E. 2nd Vice President
Dudley Hixson, P.E. Secretary-Treasurer
A. Andre Amy, P.E. State Director
Charles S. Goodrich, P.E. State Director
Jerrel Freeman, P.E., president for 1980-81, was elected last year.

The officers were installed at the LES annual meeting on July 18 in Lafayette.

The constitutional amendment on the ballot failed by a vote of 371 for and 380 against. The amendment would have repealed the requirement that officers of LES be NSPE members. In addition, this amendment would have required applicants for LES membership, except student members, to join NSPE. All LES members on record of June 30, 1980, were exempt from the requirement.

LES Leads all States in Recognition Program

NSPE has released the names of 174 employers of engineers that were nominated by state societies for the employment recognition program. The program gives public recognition to those employers whose recruitment, employment, professional development, and termination and transfer policies conform to the NSPE Guidelines to Professional Employment for Engineers and Scientists.

LES leads all states with the number of organizations endorsing the Guidelines with 32 organizations. The complete story is pub-

lished in the June 1980 issue of the Professional Engineer magazine.

LES Membership Compared to Potential

In July 1980, a comparison of professional engineers and engineers-in-training members was made with the State Board of Registration's list of registered professional engineers and EIT's residing in the state. LES membership is 27% of the total potential membership.

The Alexandria chapter leads all chapters with a membership ratio of 52%. The Bayou chapter is second with 46%. Other chapters: Monroe, 37%; Lafayette, 34%; Baton Rouge and Shreveport, 30%; Lake Charles, 29% and New Orleans, 21%.

Lafayette Wins Contest

The Lafayette chapter won the 1979-80 membership contest with 152% of the quota and 270% of the contest. In addition to new LES members compared to quota, the chapter is credited with one point for each new NSPE member. The Lafayette chapter had a quota of 40 and they got 61 new members, 47 of which joined NSPE.

The Bayou chapter was second with 250% of the contest and the Baton Rouge chapter was third with 232% of the contest. All eight chapters made it over the 100% mark in the contest.

The LES State Office has moved to 1213 Nicholson Drive. The mailing address is still P.O. Box 2683, Baton Rouge, 70821 and the telephone number remains (504) 344-4318.

What is a deductible credit plan?

The Deductible Credit Plan is a new and exclusive feature of the CNA Architects' and Engineers' Professional Liability Insurance Program that could save you from 10% to 50% of your deductible obligation at the time of a claim. Or you can use your deductible credit to lower your premium without having to buy a higher deductible! And, best of all, for qualified insureds, it's a standard feature of our policy—no extra charge!

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The Deductible Credit Plan is subject to approval by state regulatory authorities and may not yet be available in some areas.

VLIET'S VIEWS

Daniel H. Vliet, P.E., Executive Secretary Louisiana State Board of Registration for Professional Engineers & Land Surveyors.

At its July meeting the Registration Board began efforts to revise existing rules and to add new rules in accordance with the provisions of the new registration law. This law charges the Board with the responsibility of adopting, promulgating and enforcing rules of professional conduct for professional engineers and land surveyors which may be reasonably necessary for the protection of the public. (The present registration law does not give the Board the authority to enforce such rules.)

The Board is anxious to receive suggestions and comments relative to its rules of professional conduct from those persons who are registered or certified in Louisiana. Consequently, I was requested by the Board to make this matter the subject of this issue of "Vliet's Views". At a later date the Board will request comments and suggestions from various professional and technical societies in Louisiana.

Last summer the National Council of Engineering Examiners (NCEE) adopted "Guidelines for Rules of Professional Con-

duct" to assist its member boards in efforts to adopt such rules. These suggested rules have received favorable comments from an inter-society task force on ethics that was established for the purpose of exploring and developing a common code of ethics for use by all engineering societies. This task force believes that the rules of professional conduct adopted by NCEE could become the core of a common code of ethics for the engineering profession. This core would contain those rules specifically intended to provide protection to the public that could be legally enforced. Codes of ethics also have rules to control the interaction between members to protect the interest of the profession. Such rules would not be "reasonably necessary for the protection of the public" and should not be adopted by a registration board. The "1979 NCEE Rules of Professional Conduct", presented below, should be of interest to those who are motivated to submit suggestions and comments to the Louisiana State Board of Registration for Professional Engineers and Land Surveyors.

I Registrants shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.

a. Registrants shall at all times recognize that their primary obligation is to protect the safety, health, property and welfare of the public. If their professional judgment is overruled under circumstances where the safety, health, property or welfare of the public are endangered, they shall notify their employer or client and such other authority as may be appropriate.

- b. Registrants shall approve and seal only those design documents and surveys which are safe for public health, property and welfare in conformity with accepted engineering and land surveying standards.
- c. Registrants shall not reveal facts, data or information obtained in a professional capacity without the prior consent of the client, or employer except as authorized or required by law.
- d. Registrants shall not permit the use of their name or firm name nor associate in business ventures with any person or firm which they have reason to believe is engaging in fraudulent or dishonest business or professional practices.
- e. Registrants having knowledge of any alleged violation of any of these rules of professional conduct, shall cooperate with the Board in furnishing such information or assistance as may be required.

II. Registrants shall perform services only in the areas of their competence.

- a. Registrants shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering or land surveying involved.
- b. Registrants shall not affix their signatures or seals to any plans or documents dealing with subject matter in which they lack competence, nor to any such plan or document not prepared under their direction and control.
- c. Registrants may accept an assignment out-

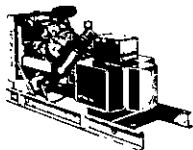
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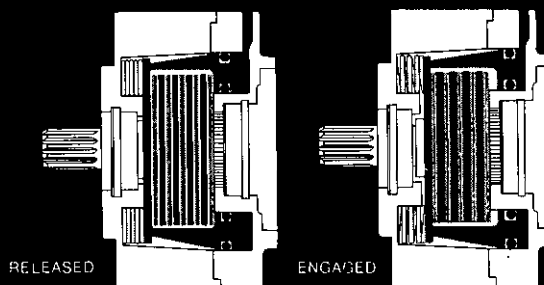
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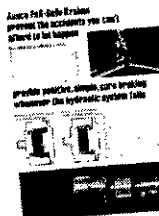
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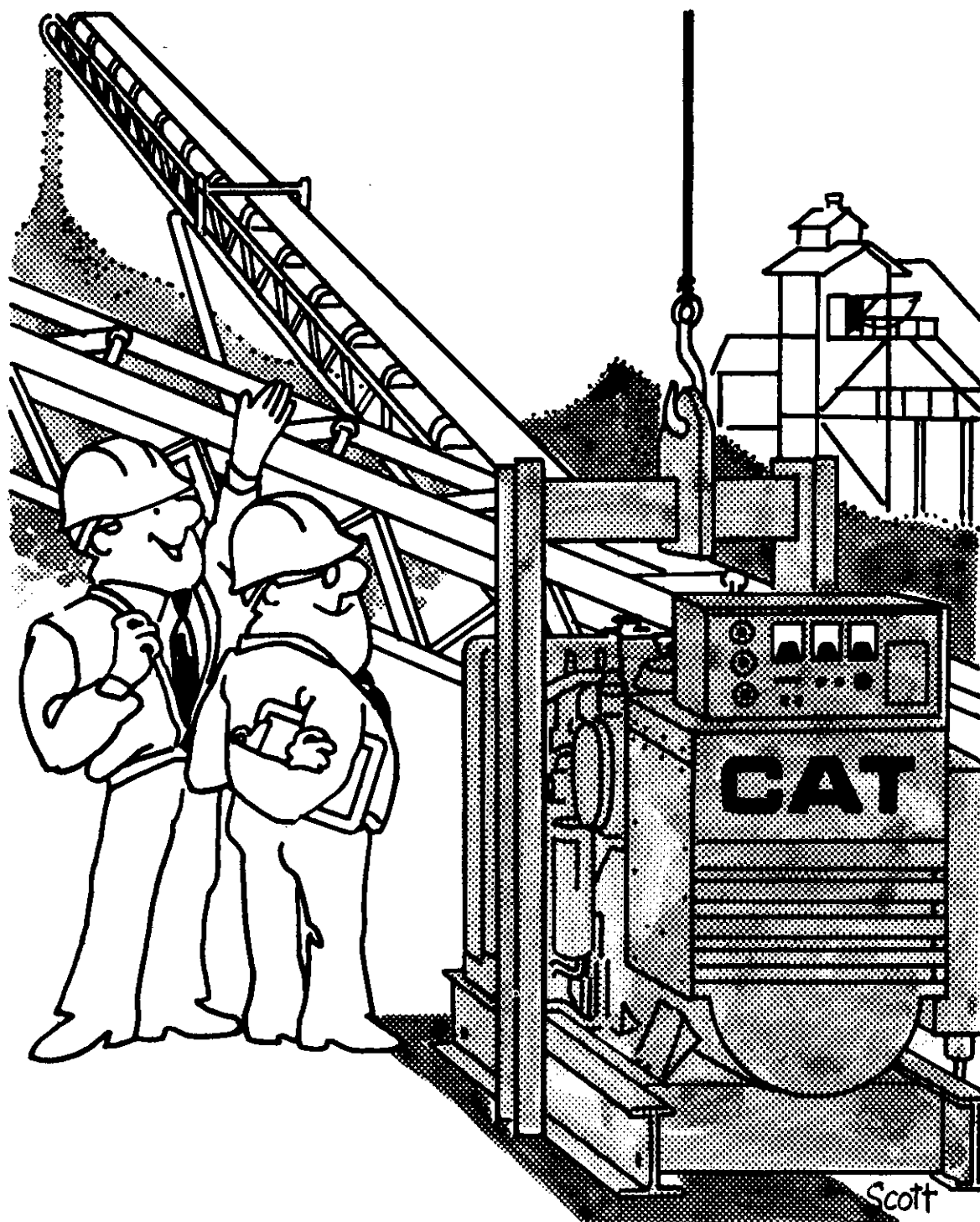
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THE SPEC SHEET

Warren J. Wilder
CEC/L Executive Director

CEC/L CONDUCTS ANNUAL MEETING AT HILTON

Consulting Engineers Council of Louisiana, Inc. recently held its 1980 mid-year seminar and annual meeting at the Baton Rouge Hilton Hotel. The seminar had as its theme "Mini Computers and Word Processors and Their Application in the Consulting Engineer's Office". There were several exhibits by major manufacturers and distributors. Each had a booth and were on hand throughout the day to demonstrate their products and explain their application. The seminar began with a panel discussion by six CEC/L members who presently use computers and word processors in their offices. Each engineer gave a brief description of his use of various equipment, problems encountered, and advantages. This was followed by a question and answer session. Following lunch, MacAuto representative, Woody Davis, gave an in-depth presentation on computer terminal use. The attendance at the seminar was modest; however, those that did go expressed favorable comments on the subject matter, the presentations and the demonstrations.

The Annual Awards Banquet was held that night. Outgoing president Fielding H. Johnson welcomed the group and introduced the head table. Representing Baton Rouge Mayor-President Woody Dumas, Ben Peabody, Jr. was on hand to present to the guest speaker, Congressman Phil Crane, the traditional key to the city and a certificate making Crane honorary mayor of Baton Rouge.

As noted, special guest and keynote speaker was Illinois Congressman Philip M. Crane. He has served in Congress for six terms. He is a ranking Republican on the powerful Ways and Means Committee with jurisdiction on energy, taxes, national health insurance, welfare reform and social security. He is also ranking minority member on the Health Subcommittee, serves on the Public Assistance and Unemployment Compensation Subcommittee, was a founding member and acts as vice chairman of the Republican Study Committee, and serves on the Republican Policy Committee's Task Force on Health. Crane delivered a very dynamic talk on some of the problems the

United States faces currently. He particularly emphasized the military weakness and vulnerability of the United States by comparing the arms strength of Russia to that of the United States. Crane was eloquently introduced by E.T.L. Ned Borie of Walk, Haydel & Associates.

Following Crane's talk, the four newest ACEC Fellows in CEC/L were presented certificates and pins by C. Carter Brown, also a Fellow. The new ACEC Fellows included Al Rayner, Rayner & McKenzie, Baton Rouge; Chris Demopulos, Demopulos & Ferguson, Shreveport; Emery Domingue, Domingue, Szabo & Associates, Lafayette; and R. Dale Hodges, Pan American Engineers, Baton Rouge. The other ACEC Fellows in CEC/L were also recognized by Brown. ACEC Fellows are individuals who have notably contributed to the advancement of consulting engineering in administrative leadership, design, science, by literature, in education, or by outstanding service to the profession.

Special recognition was given to George A. Heft, New Orleans, for 30 years of service to CEC/L. Heft is the only remaining Charter member of the Gulf Institute of Consulting Engineers (GICE), which became CEC/L several years ago. Quoting from minutes of a meeting held on January 10, 1950, "The objective of the meeting was to start the formation of a group of consulting engineers for their own benefit to improve the position of the consultant and all resulting in a better service to the community." Heft was presented a plaque by President Johnson.

Chris Demopulos, Shreveport, received the A. E. Wilder, Jr. Award. The award was established in 1976 in honor of CEC/L Executive Director, A.E. Wilder, Jr., who passed away in early 1976. The award is presented annually to an individual, not a member of the Board of Governors, who has contributed outstanding service to CEC/L. Demopulos has served in the past in various offices on the Board and as its president. He is currently chairman of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and serves on the CEC/L Legislative Committee.

Gordon P. Boutwell, Jr., Chairman of the Education Committee, presented plaques and stipends to the winners of the annual CEC/L Scholarship Contest. First place went to Gary Lee Sonnier, a student at University of Southwestern Louisiana, Lafayette. Sonnier is a 4.0 student. Second place went to Gary Trevor Bonie, a student at Tulane in New Orleans, with a 3.30 average.

Ralph Crosby was presented a plaque

upon his retirement as CEC/L's national director for 1979-80. Crosby was the organization's official representative at all national meetings. He has served on the Board for several years and was the 1977-78 president.

Johnson then introduced the outgoing Board of Governors and presented each a plaque of appreciation. He finally turned over the CEC/L gavel to incoming president, Robert D. Fenner, Shreveport. Fenner presented Johnson the past president's plaque and introduced his incoming Board of Governors.

CEC/L Executive Director, Warren Wilder, made some brief remarks and challenged the group to get involved in the organization and with the legislature.

WORLD ENERGY ENGINEERING CONGRESS

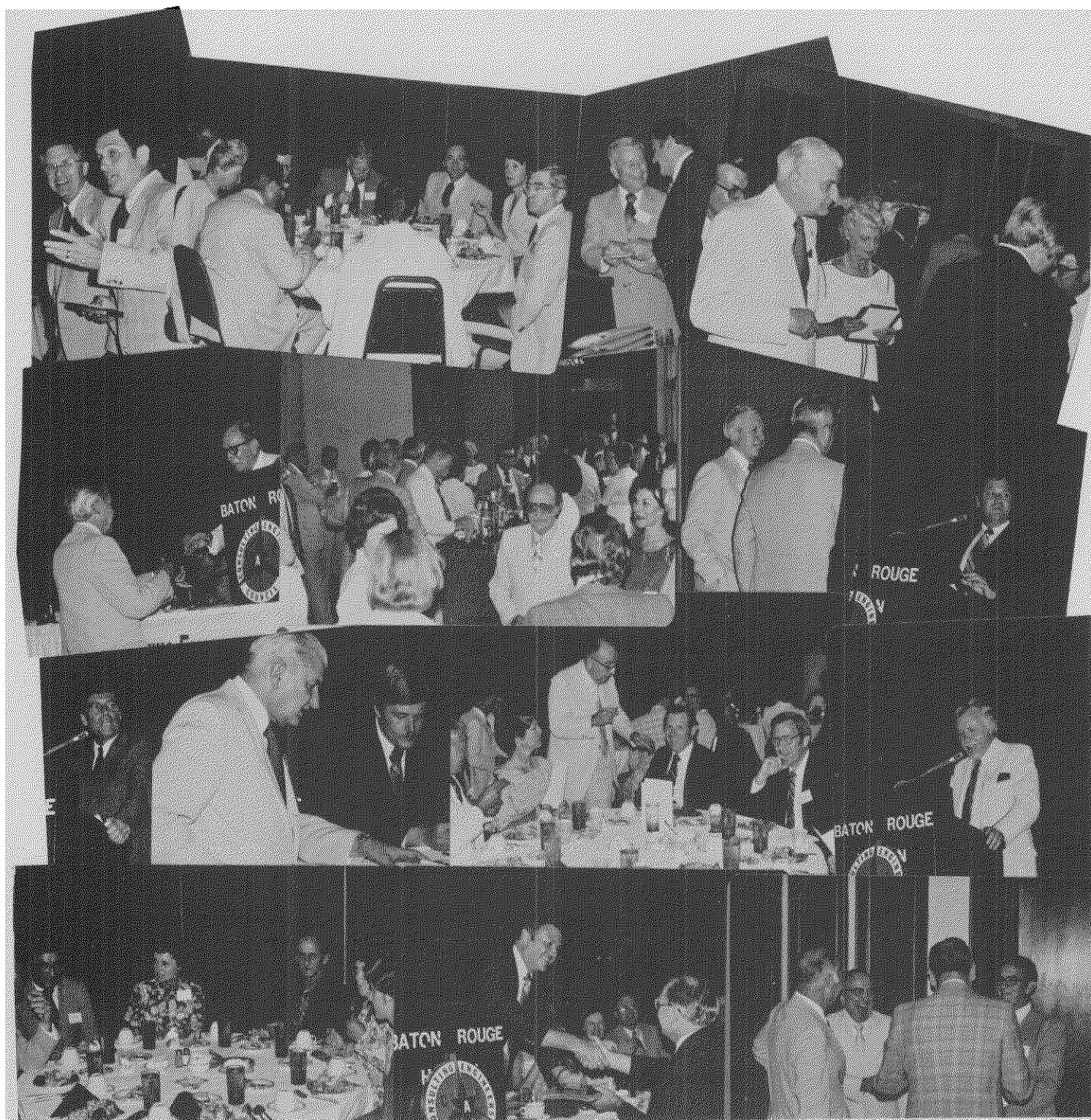
The Association of Energy Engineers (AEE) has announced sponsorship of its 3rd World Energy Engineering Congress in Atlanta, Georgia on October 13-16, 1980. The Congress is the state-of-the-art-conference and exhibition for those who are applying the latest technologies to conserve energy and develop new energy sources. Last year more than 1000 energy managers and specifiers attended the conference from 46 states and 5 countries. This year the program will highlight technology development for specific industries, advances in computer software, building energy performance standards, as well as special sessions on conservation policy and industrial energy user forums. The more than 100 technical presentations and 200 exhibits under one roof make this three-day program one of the best training values available.

This Congress brings together individuals with the responsibility of getting the job done—corporate and plant energy managers, consultants, architects and contractors, utility, government and R&D managers, and leading manufacturers. It encourages informal interchanges and offers these groups common grounds to exchange knowledge and experience. The Congress serves as the Association of Energy Engineer's annual convention; thus it includes a banquet, luncheon and tours. For more information, please write the Association of Energy Engineers, 4025 Pleasantdale Road, Suite 340, Atlanta, Georgia, 30340.

IF YOU ARE INTERESTED IN KNOWING MORE ABOUT CONSULTING ENGINEERS COUNCIL OF LOUISIANA, INC., PLEASE CALL OUR OFFICE AT (504) 387-0843 OR WRITE US AT P.O. BOX 1549, BATON ROUGE, LA. 70821.

LOUISIANA ENGINEER/AUGUST 1980

CEC/L 1980 Annual Meeting and Awards Banquet



EngiNEWS

Continued from page 12

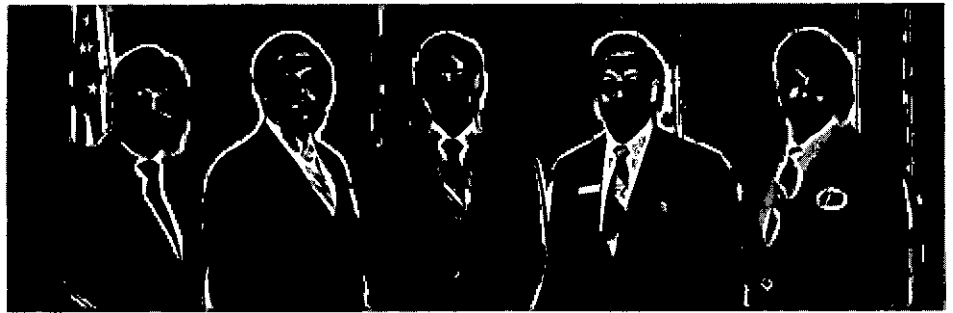
Society of Civil Engineers, the Louisiana Engineering Society, the National Society of Professional Engineers and Chi Epsilon Honorary Civil Engineering Fraternity. He and his wife Betty have three children and four grandchildren and are active members of the Goodwood Baptist Church in Baton Rouge.



Charles E. Jones presents ASME 100th Anniversary plaque to Governor Treen.

ASME Anniversary Celebrated

The Baton Rouge chapter of Region X of ASME culminated its centennial activities for 1980 with the presentation of a commemorative plaque to the people of the state of Louisiana. The presentation was made by the national president of ASME, Dr. Charles E. Jones to Governor Treen on Tuesday, July 1, 1980. The ceremony was witnessed by representatives from ASCE, LES, CEC/L, LLSA and ASME.



Attending the ASME Anniversary were: Charles Jones, President ASME; Warren Wilder, Executive Director, CEC/L; Francis C. Roy, P.E., President LES; Earl V. Fisher, ASME Region X Vice President; and Lamon L. Moody, P.E., LES Vice President.



Charles E. Prewitt (right), Denson Engineers, Inc., is new chairman of New Orleans Section, American Society of Mechanical Engineers for 1980-81, succeeding Bob Cook (left), New Orleans Public Service, Inc.



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VLIET'S VIEWS
Continued from page 14

side of their fields of competence to the extent that their services are restricted to those phases of the project in which they are qualified, and to the extent that they are satisfied that all other phases of such project will be performed by registered or otherwise qualified associates, consultants, or employees, in which case they may then sign and seal the documents for the total project.

- d. In the event a question arises as to the competence of a registrant in a specific technical field which cannot be otherwise resolved to the State Board's satisfaction; the State Board, either upon request of the registrant or on its own volition, shall admit the registrant to an appropriate examination.

III. Registrants shall issue public statements only in an objective and truthful manner.

- a. Registrants shall be objective and truthful in professional reports, statements or testimony. They shall include all relevant and pertinent information in such reports, statements or testimony.
- b. Registrants may express publicly a professional opinion on technical subjects only when that opinion is founded upon adequate knowledge of the facts and competence in the subject matter.
- c. Registrants shall issue no statements, criticisms or arguments on technical matters which are inspired or paid for by interested parties, unless the registrants have prefaced their comments by explicitly identifying the interested parties on whose behalf they are speaking, and by revealing the existence of any interest the registrants may have in the matters.

IV. Registrants shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.

- a. Registrants shall disclose all known or potential conflicts of interest to their employers or clients by promptly informing them of any business association, interest, or other circumstances which could influence their judgement or the quality of their services.
- b. Registrants shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed to, and agreed to, by all interested parties.
- c. Registrants shall not solicit or accept financial or other valuable consideration, directly or indirectly, from contractors, their agents, or other parties in connection with work for employers or clients for which the registrant is responsible.
- d. Registrants in public service as members, advisors or employees of a governmental body or department shall not participate in decisions with respect to professional services solicited or provided by them or their organizations.

- e. Registrants shall not solicit or accept a professional contract from a governmental body on which a principal or officer of their organization serves as a member, except upon public disclosure of all pertinent facts and circumstances and consent of appropriate public authority.

V. Registrants shall avoid improper solicitation of professional employment.

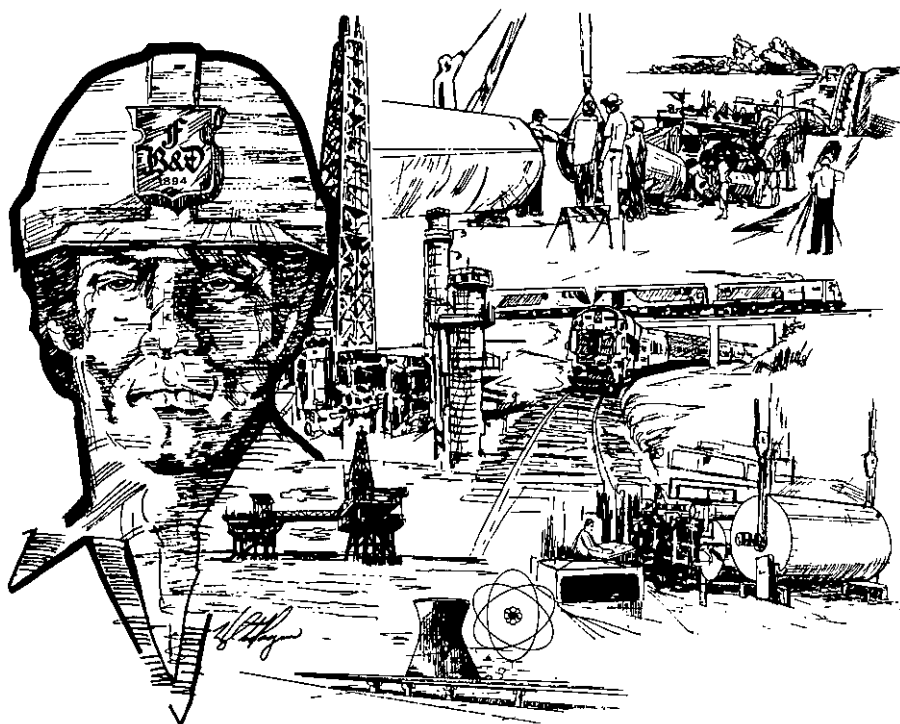
- a. Registrants shall not falsify or permit misrepresentation of their, or their associates', academic or professional qualifications. They shall not misrepresent or exaggerate their degree of responsibility in or for the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not

misrepresent pertinent facts concerning employers, employees, associates, joint ventures or past accomplishments with the intent and purpose of enhancing their qualifications and their work.

- b. Registrants shall not offer, give, solicit or receive, either directly or indirectly, any commission, or gift, or other valuable consideration in order to secure work, and shall not make any political contribution in an amount intended to influence the award of a contract by public authority, but which may be reasonably construed by the public of having the effect or intent to influence the award of a contract.

* 1979 NCEE Proceedings, National Council of Engineering Examiners, Seneca, S. C.

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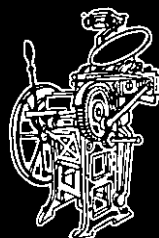
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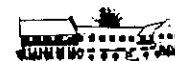
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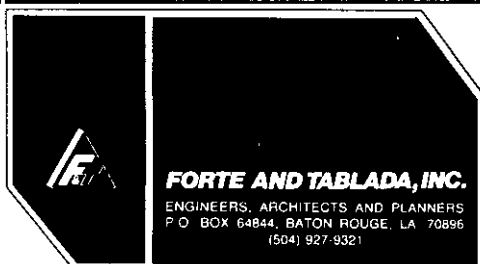
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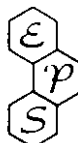
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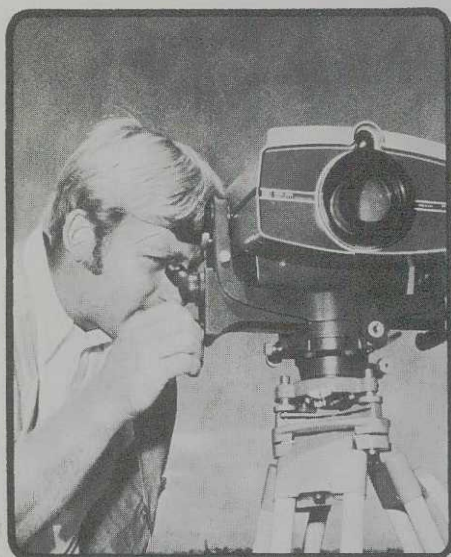
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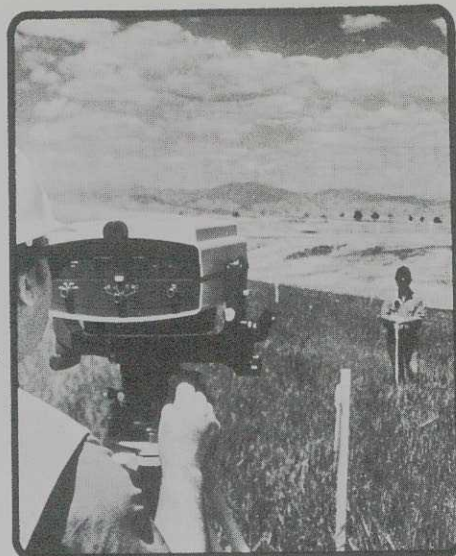
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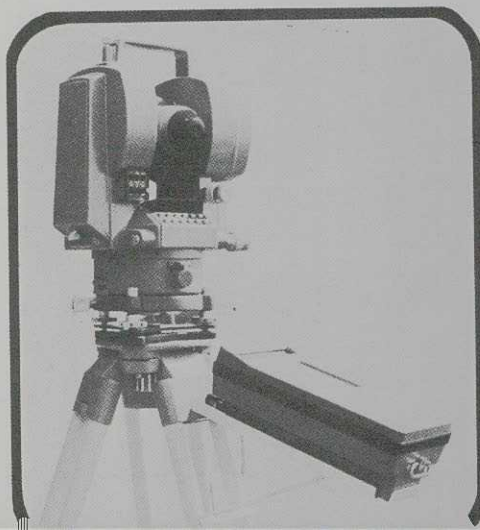
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Wild T-2
Complete with Tripod

RENTAL CHARGES:
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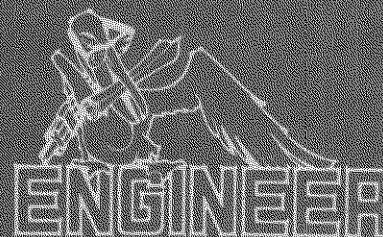
Wild T-1
Complete with Tripod

RENTAL CHARGES:
\$15 per/day 1-10 days
\$10 per/day thereafter





LOUISIANA



October, 1980

ACT 568 THE NEW REGISTRATION LAW



Governor David Treen signing the new registration law for professional engineers and land surveyors - ACT 568

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.

Carl H. Thomas, 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, 1980. Nominations for the awards must be submitted on the appropriate form. These forms were distributed to each chapter September 13. The forms should be supported by:

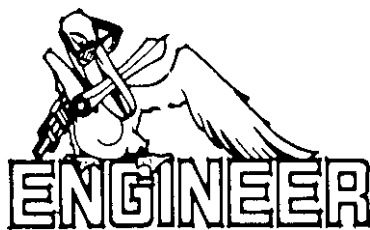
1. A full statement of the formal academic training, experience, progress, and notable technical or engineering contributions made by the nominee.
2. A statement of the basic reasons for submitting the nomination, and for believing that the nominee is eligible for the honor.
3. Such other information 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, 1980. The Honors & Awards Committee will meet shortly thereafter to select award winners.

Awards will be presented during the Society's spring meeting April 10, 1981 at the Holiday Inn, Houma.

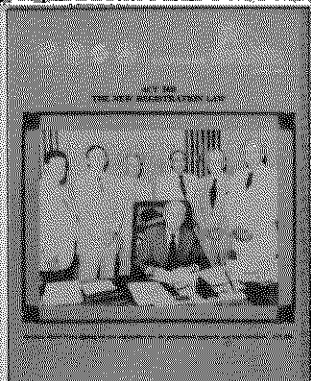
OCTOBER 1980

LOUISIANA ENGINEER



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About the Cover:

With Governor Treen at the signing of Act 568 are: L to R: Sammie Craft, President LISA; Robert W. McKenzie, P.E., President-Elect CEC/L; Robert W. Fenner, P.E., President CEC/L; Jerrel J. Freeman, P.E., President LES; R. C. "Doc" Spears, executive secretary LES; and Lamon L. Moody, P.E., VP LES and legislative committee chairman.

In This Issue	
LES Awards Program	2
Overview of Act 568	4
Presidential Privilege	6
Memoriams	6
Join NSPE/LES	9
Solar Collector Sizing	11
CEC/L	12
Potpouri	14
EngiNEWS	16
Ladies Auxiliary	17
New Members	18
New Registrations	18

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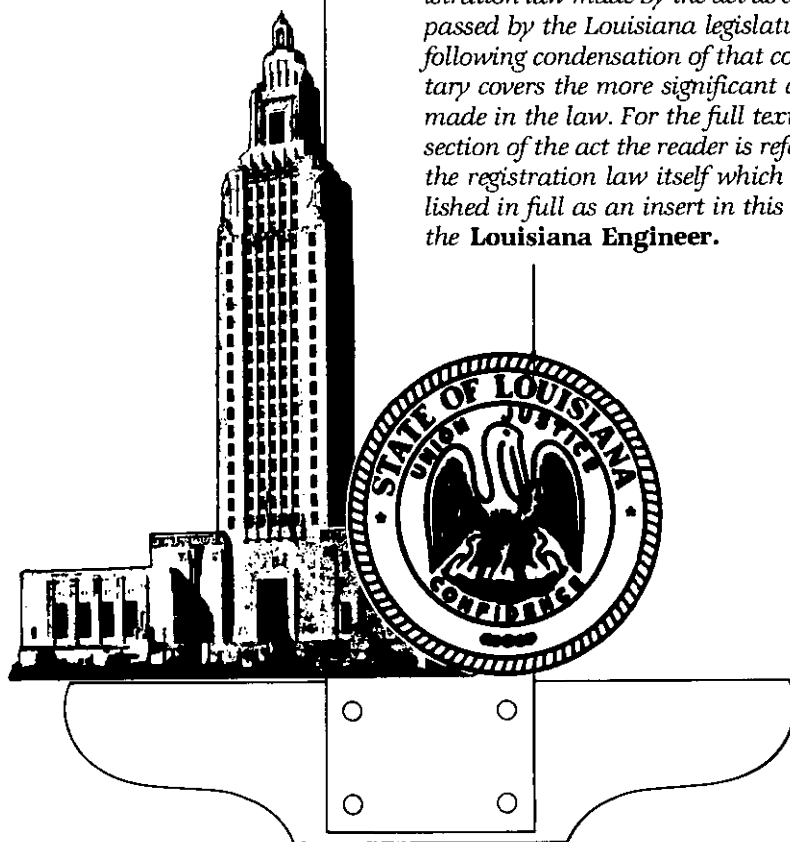
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ACT 568: Changes In The Registration Law

Editorial Note: *The Legislature Committee of the Louisiana Engineering Society requested the attorney retained by the society to assist the society in revision of the registration law, to prepare a commentary on the changes in the registration law made by the act as actually passed by the Louisiana legislature. The following condensation of that commentary covers the more significant changes made in the law. For the full text of any section of the act the reader is referred to the registration law itself which is published in full as an insert in this issue of the Louisiana Engineer.*



The more significant changes made in the registration law by Act 568 are as follows:

1. There are added definitions for essential words and concepts.

2. The comprehensive programs for engineers in training and land surveyors in training that historically have been fostered by rules made by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors have been given statutory authority.

3. Though the historical concept of "branch" registration has been continued, with the nine branches listed in the new law, the board has been empowered to recognize and approve additional "branches" for purposes of registration.

4. The terms for appointment of members to the board has been reduced from

nine years to six years. Present members will serve out their terms.

5. The method by which applicants become registered engineers has been modernized and streamlined. The new law will require applicants to be college graduates.

6. The authority of foreign and domestic corporations to practice engineering and land surveying, previously authorized by a board rule, have been given legislative authority. Such corporations in existence on September 12, 1980 do not have to apply for registration with the board.

7. The section dealing with the organization and the place of meetings of the board provides that the domicile of the board shall continue to be in the city of New Orleans, but also states the domicile of the board may be changed to some other place by a two-thirds affirmative

vote of the entire board at a regular meeting. Additionally, Act 568 changes the concept of a quorum from the historical six members to a simple majority of its members.

8. The section specifying the powers of the board now mandates the board to adopt and enforce rules of professional conduct for professional engineers and land surveyors, as well as engineers in training, land surveyors in training, and corresponding applicants and corporations. Additionally, this section now provides that the board may apply, in its own name, for injunctive relief.

9. A significant change is made in the provisions of the section dealing with records and reports, in that the act now provides that all records maintained by the board in connection with its administration of examinations, including the examinations, answer sheets, solutions, and grade sheets, together with all the background information involving personnel and employer references, shall be deemed confidential and as such, are exempt from the provisions of the Public Records Act. It is specifically provided, however, that any applicant shall have the right to examine his examinations, answer sheets and other documents pertaining to the examination that the particular applicant took.

10. Section 698 of Act 568 is new and there is no corresponding section in the old law. It deals generally with disciplinary actions and represents significant changes in the registration law. Section 698 expands the authority of the board to take disciplinary action against those whose fitness for practicing engineering or land surveying has been successfully challenged, and additionally, provides a vehicle by which the board can discipline persons and firms who have been found in violation of rules of professional conduct for professional engineers and land surveyors adopted and promulgated by the board.

11. Section 699 is essentially new and provides a procedure for the administration of disciplinary proceedings. This section provides that charges may be preferred against any registrant or certificate holder, either by board motion or by any person.

12. Section 703 contains traditional provisions unique to the act designed essentially to maintain the status quo for all persons otherwise affected by the adoption of the act, and to insure that no one is unnecessarily and adversely affected by the provisions of the restated licensing law.

**REGISTRATION LAW
FOR
PROFESSIONAL ENGINEERS
AND
LAND SURVEYORS**



**(Louisiana Revised Statutes 37:681 through
37:703 as amended by Act 568 of 1980)**

September 12, 1980

REGISTRATION LAW FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

(Louisiana Revised Statutes 37:681 through 37:703 as amended by Act 568 of 1980)

37:681. General Provisions

In order to safeguard life, health, and property, and to promote the public welfare, any person in either public or private capacity, or foreign or domestic corporation, practicing or offering to practice professional engineering or professional land surveying, shall be required to submit evidence that he is qualified to so practice and shall be registered as hereinafter provided; and it shall be unlawful for any person to practice or to offer to practice in this state, engineering or land surveying, as defined in this Chapter, or to use in connection with his name or otherwise assume, use, or advertise any title or description tending to convey the impression that he is a professional engineer or a professional land surveyor, unless such person has been duly registered under the provisions of this Chapter.

37:682. Definitions

The following words and phrases when used in this Chapter shall have the following meaning, unless the context clearly requires otherwise:

(1) "Applicant" shall mean any individual, foreign or domestic corporation seeking to practice engineering or land surveying in Louisiana, that has applied to the board for authority to practice the respective profession and render such engineering or land surveying services in Louisiana, or an individual who has applied to the board for certification as an engineer in training, or land surveyor in training.

(2) "Board" shall mean the State Board of Registration for Professional Engineers and Land Surveyors, provided for by this Chapter.

(3) "Certification" or "certificant" shall mean the recognition by the board and its issuance of a certificate to any individual seeking such recognition as an engineer in training or land surveyor in training, who has been successfully examined and is otherwise in good standing with the board.

(4) "Engineer" or "professional engineer" shall mean a person who, by reason of his special knowledge and ability to apply the mathematical, physical, and engineering sciences and the principles and methods of engineering analysis and design, acquired by an engineering education and engineering experience, is qualified to practice engineering as such term is hereinafter defined, as evidenced by his registration as such by the board.

(5) "Engineer in training" shall mean a person who has complied with the requirements for education, experience, and character, and has passed an examination in the fundamental engineering subjects, as provided in this Chapter, and has been issued a certificate by the board.

(6) "Land surveyor" or "professional land surveyor" shall mean a person who is qualified to practice land surveying, as such term is hereinafter defined, as evidenced by his registration as such by the board.

(7) "Land surveyor in training" shall mean a person who has complied with the requirements for education, experience, and character, and has passed an examination in the fundamental surveying subjects as provided in this Chapter, and has been issued a certificate by the board.

(8) "Practice of engineering" shall mean responsible professional service which may include consultation, investigation, evaluation, planning, designing, or inspection of construction in connection with any public or private utilities, structures, machines, equipment, processes, works, or projects wherein the public welfare, or the safeguarding of life, health, and property is concerned or involved, when such professional service requires the application of engineering principles and the interpretation of engineering data.

A person shall be construed to practice or offer to practice engineering, who practices in any branch of the profession of engineering; or who, by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself to be a professional engineer; or who represents himself as able to

perform, or who does perform any engineering service or work or any other professional service designated by the practitioner or recognized by educational authorities as engineering. The practice of engineering shall not include the work ordinarily performed by a person who himself operates or maintains machinery or equipment.

(9) "Practice of land surveying" shall include the measuring of areas, land surfaces, streams, bodies of water, and swamps, for correct determination and description, for the establishment, reestablishment, ascertainment, or description of land boundaries, corners, divisions, distances, and directions, the plotting and monumenting of lands and subdivisions thereof, and mapping and topographical work.

A person shall be construed to practice or offer to practice land surveying who engages in land surveying and who by verbal claim, sign, advertisement, letterhead, card, or in any other way represents himself to be a land surveyor, or who represents himself as able to perform or who does perform any land surveying service or work, or any other service designated by the practitioner which is recognized as land surveying.

(10) "Registrant" shall mean any individual, domestic or foreign corporation, practicing or seeking to practice engineering or land surveying in Louisiana that has received a certificate of registration from the board and is otherwise in good standing with the board.

(11) "Registered" or "registration" shall mean the recognition granted by the board to any individual, or domestic or foreign corporation, to practice engineering or land surveying in Louisiana.

(12) "Responsible charge" shall mean the direct control and personal supervision of engineering work or land surveying, as the case may be.

(13) "Rules of professional conduct" shall mean those rules promulgated by the board for the protection of the public which establishes standards of conduct for professional engineers, professional land surveyors, engineers in training, land surveyors in training, and corporations in keeping with the purposes and intent of this Chapter.

(14) "Responsible professional services" shall mean the technical responsibility, control, and direction of the investigation, design, or construction of engineering work requiring initiative, engineering ability, and its use of independent judgment.

37:683. Board; Appointments; Terms

A. The State Board of Registration for Professional Engineers and Land Surveyors is hereby created, whose duty it shall be to administer the provisions of this Chapter. The board shall consist of ten members, nine of whom shall be registered professional engineers, and one of whom shall be a registered professional land surveyor. The board members serving on July 1, 1980, shall continue to serve until the expiration of the term for which they were appointed. Thereafter all appointments of professional engineers and the professional land surveyor shall be for a six-year term. At all times hereafter, at least two members of the board shall be registered professional engineers who are active in the private practice of engineering, and for the purposes of this Section, an engineer engaged in private practice is a person legally qualified in the profession of engineering who practices engineering as a principal business and who provides analytical, creative design and design implementation capabilities devoid of judgment-biasing commercial or product affiliations to clients on a fee basis. At least two of the members of the board shall be registered professional engineers in government employment, at least two of the members of the board shall be registered professional engineers employed in the field of industry, and at least two of the members shall be registered professional engineers employed in the field of education. Not less than one member of the board shall be a registered professional engineer who is also a registered professional land surveyor, and who is engaged in the field of land surveying. One member of the board shall be a registered professional land surveyor who is engaged exclusively in the field of surveying, as the same may be construed in the broad generic sense.

B. The governor shall appoint members to the board from among nominees possessing registered professional engineering certificates recommended by the Louisiana Engineering Society or its duly recognized successor, and from nominees possessing registered professional land surveyor certificates who have been recommended by the Louisiana Land Surveyors Association or its duly recognized successor. Each appointment by the governor shall be submitted to the Senate for confirmation, and

beginning in 1984 every appointment confirmed by the Senate shall again be submitted by the governor to the Senate for confirmation every two years after the initial confirmation. All such nominees shall have the qualifications required by R.S. 37:684. At least five nominations shall be made for each appointment required, and each appointment shall be for a term of six years, which appointment shall be made by the governor in the same manner as the predecessor appointees were selected. In the event of the death or resignation of any member of the board, the appointment by the governor of his successor shall be only for the remainder of the unexpired term. No member who has served a full six-year term shall be eligible for reappointment. Each appointment by the governor shall be submitted to the Senate for confirmation, and beginning in 1984 every appointment confirmed by the Senate shall again be submitted by the governor to the Senate for confirmation every two years after the initial confirmation.

C. Each member of the board shall receive a certificate of appointment from the governor, and before beginning his term of office, shall file with the secretary of state his written oath or affirmation for faithful discharge of his official duty. Each member shall serve until his successor has been appointed and qualified. It shall be the duty of the president of the Louisiana Engineering Society in the case of registered professional engineers, or the president of the Louisiana Land Surveyors Association, in the case of the registered professional land surveyor member, duly authorized and acting on behalf of the said society or association, respectively, to make the nominations described above within sixty days after receipt of notice of the death, resignation, or removal of a member of the board, and at least thirty days prior to the expiration of the term of a member of the board.

37:684. Qualifications of Board Members

Each member of the board shall be a citizen of the United States and a resident of this state, and shall have been engaged in the practice or teaching of engineering or, in the case of the professional land surveyor member, the practice or teaching of land surveying, for at least twelve years, and shall have been in responsible charge of important engineering or land surveying work, as the case may be, for at least five years. Responsible charge of engineering or land surveying teaching may be construed as responsible charge of important engineering or land surveying work.

37:685. Compensation and Expenses

Each member of the board shall receive the amount set by the board, but not to exceed one hundred dollars per diem when actually attending to the work of the board or any of its committees, and for the time spent in necessary travel; and, in addition thereto, shall be reimbursed for all actual traveling, incidental and clerical expenses necessarily incurred in carrying out the provisions of this Chapter.

37:686. Removal of Members for Cause

The governor may remove any member of the board for misconduct, incompetency, or neglect of duty. Vacancies in the membership of the board shall be filled for the unexpired term by appointment by the governor, as provided in R.S. 37:683. Before the governor can remove a member for cause, he must serve the member with a written statement of charges against him and afford him an opportunity to be heard publicly on such charges. If the member thus served does not request a public hearing within ten days after service, the governor may proceed with his removal. If the member does request such a public hearing, it shall be heard by a special committee composed of three persons, namely: an engineer appointed by the president of the Louisiana Engineering Society to serve as chairman; the dean of the College of Engineering at Tulane University of Louisiana; and the dean of the College of Engineering of Louisiana State University. The recommendation of this committee shall be binding upon the governor. A copy of the charges, a transcript of the record of the hearing, and a copy of the recommendation shall be filed with the secretary of state.

37:687. Organization and Meetings

The board shall hold at least four regular meetings each year. Special meetings shall be held at such time and place as specified by a call of the chairman or secretary. Notice of all meetings shall be given in

writing to each member by the secretary. The board shall elect annually from its membership the following officers: a chairman, a vice chairman, and a secretary. The member of the board who is the registered professional land surveyor may be an officer of the board, however, he shall not cast a vote on matters exclusively related to registered professional engineers and engineers in training, including registration and revocation of registration and certification, and revocation of certification. A quorum of the board shall be a majority of its members. The board may appoint or employ an assistant secretary, executive secretary, treasurer, or other officers or employees not members of the board, to whom clerical and administrative duties may be assigned. The board shall fix the compensation of such persons not under the state civil service. The board shall be domiciled and maintain its principal office in the city of New Orleans and shall maintain its records at said principal office, and shall hold its regular meetings there, unless, in the discretion of the chairman, it is necessary or convenient to meet elsewhere. A change in domicile of the board may be made by a two-thirds affirmative vote of the entire board at a regular meeting.

37:688. Powers of the Board

A. The board shall have the power to make, adopt, alter, amend and promulgate all bylaws and rules not inconsistent with the constitution and laws of this state, which may be reasonably necessary for the proper performance of its duties, and the regulation of the proceedings before it. The board shall adopt and have an official seal.

Each member of the board shall have power to administer oaths, and the board shall have power to subpoena witnesses and compel the production of books and papers pertinent to any investigation or hearing authorized by this Chapter, and any employee of the board engaged in making any investigation shall have the power to administer oaths to, and take the depositions of persons, pertaining to any investigation. The board may require any law enforcement officer or any state agency, the sheriffs of the various parishes, or constables, marshals, or other law enforcement officers of any parish or municipality to serve such subpoenas and other process of said board. Whenever parish, municipal or other local officers are required to serve such subpoenas or other process of the board they shall be paid the same fees by the board as are provided by laws for similar services under processes issued by district courts. Any person who shall fail to appear in response to a subpoena or to answer any question or produce any books or papers pertinent to any such investigation or hearings or who shall knowingly give false testimony therein shall be guilty of a misdemeanor and subject to the penalties provided by R.S. 37:700. In case of contumacy or refusal to obey a subpoena issued to any person, any district court of the state of Louisiana within the jurisdiction of which the inquiry is carried on, or within the jurisdiction of which said person guilty of contumacy or refusal to obey is found, or resides, or transacts business upon application by the board, shall have jurisdiction to issue to such person an order requiring such person to appear before the board, its member or agent, and to produce evidence, if so ordered, or there to give testimony touching on the matter under consideration or in question; and any failure to obey such order of court may be punished by said court as a contempt thereof.

B. The board shall adopt, promulgate, and enforce Rules of Professional Conduct for Professional Engineers and Land Surveyors, which may be reasonably necessary for the protection of the public and proper administration of this Chapter. These actions by the board shall be binding upon applicants for registration, engineers in training, land surveyors in training, and all persons registered or certified under this Chapter, and shall be applicable to corporations which must hold a certificate of registration. The board shall adopt and have an official seal, which shall be affixed to each certificate issued.

C. The board is hereby authorized in its own name to apply for relief by injunction in the established manner provided in cases of civil procedure to enforce the provisions of this Chapter, or to restrain any violation thereof. In such proceedings, it shall be unnecessary to allege or prove that either an adequate remedy at law does not exist or that substantial or irreparable damage would result from the continued violation thereof.

D. The board may subject an applicant to such examinations as it deems necessary to determine his qualifications.

37:689. Corporations

A. All domestic corporations and foreign corporations qualifying to do business in Louisiana, which offer to provide or provide professional engineering, land surveying, or professional engineering and land surveying services in Louisiana are subject to regulation and supervision by the board, and the board, in implementation of this Section, may issue rules further governing the conduct and activities of such corporation.

B. Within thirty days after the issuance by the secretary of state of a certificate of incorporation of a Louisiana corporation formed pursuant to the Louisiana Business Corporation Law, or the qualification of a foreign corporation in Louisiana which offers to provide or provides professional engineering or land surveying services, or both, in the state of Louisiana, said corporation shall file an application for registration with the executive secretary of the board on a form provided by the board.

C. Within fifteen days after the corporation files with the board the form required above, the board, in the event the corporation is otherwise in compliance with the provisions of this Chapter and the rules issued by the board governing corporations, shall cause to be issued on a form provided by the board, a certificate of registration. Any corporation having so qualified with the board shall have the authority to contract to deliver such engineering, land surveying, or engineering and land surveying services, shall be deemed registered, as that term is used in this Chapter, and therefore shall be subject to those disciplinary provisions provided for reproof (privately or publicly), suspension or revocation of the right to practice engineering or land surveying in the state of Louisiana.

37:690. Receipts and Disbursements

A. The secretary of the board, or any other person, or persons authorized by the board, shall receive, disburse, and account for all monies paid to or received by the board. He shall institute a system of books and financial records satisfactory to the supervisor of public accounts, who shall audit them annually. He shall open an account in a bank in the city wherein the board is domiciled, designated by the board as its official depository, and he and one other officer of the board shall both sign all checks disbursing funds of the board. All disbursements of funds shall be approved by the board. All funds of the board shall be deposited within seventy-two hours after receipt.

B. The board may employ such investigators, clerical, or other assistants as are necessary for the proper performance of its work, and may make expenditures from its funds for any purpose which, in the opinion of the board, is reasonably necessary for the proper performance of its duties under this Chapter, including the expenses of the board's delegates to annual conventions of, and membership dues to, the National Council of Engineering Examiners. The board may, if it deems necessary, or upon advice of the attorney general, hire counsel and investigators and pay traveling expenses thereof for the investigation and prosecution of any violator of this Chapter.

C. The board may, at its discretion, pay any witness subpoenaed to appear before the board an amount set by the board, but not to exceed one hundred dollars per diem, when actually in attendance, including time spent in traveling, not to exceed one day to and one day from the location of the board meeting, and in addition, the board may reimburse any witness for actual traveling expenses when furnished with proof of such expenses, including hotel, when a witness resides in a parish other than the one in which the board is meeting.

D. Under no circumstances shall the total amount of warrants issued by the board in payment of the expenses and compensation provided for in this Chapter exceed the amount of the examination and registration fees collected as herein provided.

37:691. Records and Reports

A. The board shall keep a record of its proceedings and a file of all applications, which file shall show a) the name, age, and residence of each applicant; b) the date of the application; c) the place of business of such applicant; d) his educational and other qualifications; e) whether or not an examination was required; f) whether the applicant was rejected; g) whether a certificate of registration or certification was granted; h) the date of the action of the board; and i) such other information which may be deemed necessary by the board.

The records of the board shall be prima facie evidence of the proceedings of the board set forth therein, and a transcript thereof, duly certified by the secretary of the board, under seal, shall be admissible in evidence with the same force and effect as if the original were produced.

All records maintained by the board in connection with its administration of examinations, including examinations, answer sheets, solutions and grade sheets, together with all the background information involving personnel and employer references shall be deemed confidential and as such, exempt from the provisions of Chapter 1, Title 44 of the Louisiana Revised Statutes of 1950, however, any applicant shall have the right to examine examinations, answer sheets, and other documents relating and pertaining to any action taken by the board with regard to such applicant.

B. The board shall submit to the governor by April 1 an annual report of its transactions of the preceding year, and shall also transmit annually to him a duly certified audit and financial statement prepared by a certified public accountant, showing receipts and expenditures of the board.

37:692. Roster

A roster showing the names and addresses of all professional engineers and the engineering branch under which each professional engineer has qualified, the names and addresses of all land surveyors, and the names and addresses of all engineers in training, and land surveyors in training that have been qualified by the board may be published at the discretion of the board. A roster for corporations may be published, at the discretion of the board. Copies of these rosters shall be mailed to each person or corporation registered or certified by the board upon request, and shall be placed on file with the secretary of state, and in the libraries of all colleges and universities in the state.

37:693. Requirements for Registration as a Professional Engineer or Professional Land Surveyor, and Certification as an Engineer in Training or Land Surveyor in Training

A. The board shall register or certify, as the case may be, each applicant as an engineer in training, a land surveyor in training, a professional engineer in one or more branches of engineering, or a professional land surveyor, as specified herein, as requested by the applicant when, in the opinion of the board the applicant has met the requirements of this Chapter, and is proficient and qualified to practice as such.

Professional engineers will be issued certificates of registration in one or more of the following branches: agricultural; chemical; civil; electrical; industrial; mechanical; metallurgical; mining; petroleum engineering; and such other branches established under the rules of the board.

B. The minimum requirements for registration or certification by the board shall be as follows:

(1) A certified engineer in training:

(a) shall be a graduate of an engineering curriculum of four years or more approved by the board as being of satisfactory standing, who is of good character and reputation, who has passed a written examination in the fundamentals of engineering, and who has satisfied the requirements of R.S. 37:694, or

(b) shall be a graduate of an unapproved engineering curriculum of four years or more who has obtained a masters degree in an engineering curriculum approved by the board as being of satisfactory standing, who is of good character and reputation, who has passed a written examination in the fundamentals of engineering, and who has satisfied the requirements of R.S. 37:694, or

(c) shall be a graduate of an unapproved engineering curriculum or related science curriculum of four years or more who has a specific record of four years or more of progressive experience on engineering projects of a grade and character satisfactory to the board, who is of good character and reputation, who has passed a written examination in the fundamentals of engineering, and who has satisfied the requirements of R.S. 37:694.

(2) A professional engineer:

(a) shall be an engineer in training who has met the requirements for progressive engineering experience in work acceptable to the board, who is of good character and reputation, who has passed a

written examination in the principles and practice of engineering approved by the board, and who has satisfied the requirements of R.S. 37:694, or

(b) shall be a graduate of an unapproved engineering curriculum, or a related science or related technology curriculum who has a record of eight years or more of progressive experience in engineering work of such quality that the applicant is competent to practice engineering, who is of good character and reputation, who has passed a written examination in the fundamentals of engineering, who has passed a written examination in the principles and practice of engineering approved by the board, and who has satisfied the requirements of R.S. 37:694, or

(c) shall be a person who holds a valid certificate of registration to engage in the practice of engineering issued to him by proper authority of a state, territory, or possession of the United States, or the District of Columbia, based on requirements that do not conflict with the provisions of this Chapter and which were of a standard not lower than that specified in the applicable registration laws in effect in Louisiana at the time such certificate was issued, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, and if the state, territory, or possession, or the District of Columbia, in which he is registered will accept the certificates of registration issued by the board on a reciprocal basis.

(d) On or before December 31, 1984, the board may register an applicant without written examination who presents the written recommendations of five or more professional engineers registered under this Chapter; and who submits proof that he has had at least twenty years of successful practice satisfactory to the board, not less than twelve years of which shall have been in the responsible charge of important engineering work.

(3) A certified land surveyor in training shall be a person who has met the education and experience requirements established by the board, who is of good character and reputation, who has passed a written examination in the fundamentals of land surveying, and who has satisfied the requirements of R.S. 37:694.

(4) A professional land surveyor:

(a) shall be a certified land surveyor in training who has met the requirements for progressive experience in land surveying as required by the board, who is of good character and reputation, who has passed the oral and written examinations required by the board in the principles and practice of land surveying, and who has satisfied the requirements of R.S. 37:694, or

(b) shall be a graduate holding a bachelor of science degree in a curriculum approved by the board (including the successful completion of at least six semester credit hours in land surveying courses approved by the board), who has a record of four years or more of combined office and field experience in land surveying (including two years or more experience in responsible charge of land surveying projects under the supervision of a professional land surveyor registered or licensed by appropriate authority), who has passed the oral and written examinations required by the board, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, or

(c) shall be a person who has successfully completed two years of formal education in a curriculum approved by the board, above the high school level, with at least sixty semester credit hours passed, or the equivalent approved by the board (including the successful completion of at least six semester credit hours in land surveying courses approved by the board), who has a specific record of six years or more of combined office and field experience in land surveying (including four years or more experience in responsible charge of land surveying projects under the supervision of a professional land surveyor registered or licensed by appropriate authority), who has passed the written examination in the fundamentals of land surveying, who has passed the oral and written examinations required by the board in the laws, procedures and practices of land surveying, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, or

(d) shall be a person who has a specific record of eight years or more of experience in land surveying work of a character satisfactory to the board (including six years or more experience in responsible charge of land surveying projects under the supervision of a professional land surveyor registered or licensed by appropriate authority), who has passed the written examination in the fundamentals of land surveying, who has passed the oral and written examinations required by the board in the laws,

procedures and practices of land surveying, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, or

(e) shall be a person who holds a valid certificate of registration to engage in the practice of land surveying issued to him by proper authority of a state, territory, or possession of the United States, or the District of Columbia, based on requirements that do not conflict with the provisions of this Chapter, who has passed a written examination of a duration of four hours or more in the laws, procedures, and practices pertaining to land surveying in Louisiana, who is of good character and reputation, and who has satisfied the requirements of R.S. 37:694, and if the state, territory, or possession, or the District of Columbia in which he is registered will accept the certificates of registration issued by the board on a reciprocal basis, or

(f) shall be a person granted a license as a professional engineer on the basis of earning a bachelor of science degree from an engineering curriculum approved by the board requiring no less than six semester credit hours of land surveying courses approved by the board, who is of good character and reputation, who has satisfied the requirements of R.S. 37:694, and:

(1) who has a specific record of two years or more of experience in land surveying work of a character satisfactory to the board, or

(2) who has passed the oral and written examinations required by the board.

C. No person shall be eligible for renewal of registration as a professional engineer or professional land surveyor, nor renewal of certification as an engineer in training or land surveyor in training who is not, in the opinion of the board, of good character and reputation.

D. In considering the qualifications of applicants, engineering teaching may be construed as engineering experience and land surveying teaching may be construed as land surveying experience.

E. The satisfactory completion by an applicant for certification as a land surveyor in training or for registration as a professional land surveyor of each year of a curriculum, approved by the board, without graduation, shall be considered as equivalent to a year of experience in this Chapter; however, no applicant shall receive credit for more than four years of such equivalent experience.

F. The execution, as a contractor, of work designed by a professional engineer or the supervision of the construction of such work as a foreman or superintendent shall not be deemed to be a violation of R.S. 37:700. However, such work may be considered toward qualification required for registration as a professional engineer under this Chapter.

G. Any person having the necessary qualifications prescribed in this Chapter entitling him to registration or certification shall be eligible for such registration or certification although he may not be practicing his profession at the time of making his application.

37:694. Application and Registration or Certification Fees

A. (1) Application for registration as a professional engineer or professional land surveyor shall be on forms prescribed and furnished by the board, shall contain statements made under oath, showing the applicant's education and detailed summary of his technical work, and shall contain not less than five references. Three or more of the five references furnished by applicants for registration as professional engineers shall be registered professional engineers having personal knowledge of his engineering experience as such. Three or more of the five references furnished by applicants for registration as professional land surveyors shall be registered professional land surveyors having personal knowledge of his land surveying experience as such.

(2) Application for certification as an engineer in training or land surveyor in training shall be on forms prescribed by the board, shall contain statements made under oath, showing the applicant's education and detailed summary of his technical work, if any, and shall contain such references prescribed by the board.

(3) Application for registration by a foreign or domestic corporation shall be in accordance with Section 689 of this Chapter, and rules of the board.

B. (1) The registration or certification fee for professional engineers, professional land surveyors, engineers in training, land surveyors in training and foreign and domestic corporations shall be

established by the discretion of the board, but shall not exceed thirty-five dollars and said fee shall accompany the application.

(2) If the board denies the issuance of a certificate of registration, or certification to any individual applicant after written examination, the fee shall be retained by the board. An unsuccessful individual applicant shall pay the prescribed fee for each subsequent reexamination.

37:695. Examinations

A. (1) When oral or written examinations are required, they shall be at such time and place as the board shall determine. When examinations are required on fundamental engineering subjects (such as are ordinarily given in college curricula) the individual applicant may be permitted to take this part of the professional examination prior to his completion of the requisite years of experience in engineering work and satisfactory passage of this portion of the professional examination by such individual applicant shall constitute a credit for a period of ten years. The board shall issue to each such applicant, upon successfully passing the examination in fundamental engineering subjects, a letter stating that he has passed the examination and that the fact has been properly recorded.

(2) The scope and administration of the examinations shall be prescribed by the board.

37:696. Certificates, Seals

A. The board shall issue a certificate of registration or certification, as appropriate, containing such information and in the format as the board shall specify, in its discretion, to each engineer, land surveyor, engineer in training, land surveyor in training, and corporation.

B. The board shall adopt rules and regulations providing for and governing the use of seals.

37:697. Expiration and Renewals

Certificates of registration and certification shall expire at a time specified by the board and shall become invalid after that date unless renewed. It shall be the duty of the executive secretary of the board to notify by letter to his last known address, every person and entity registered or certified under this Chapter of the date of the expiration of the certificate and the amount of the fee that shall be required for its renewal; such shall be mailed at least one month in advance of the date of expiration of such certificate. Renewal of registration as a professional engineer, professional land surveyor, or corporation, or certification as an engineer in training or land surveyor in training may be effected at any time during the month prior to expiration by the payment of a fee not to exceed fifteen dollars per year, at the discretion of the board. The failure on the part of any person or entity to renew his certificate, as required above, shall not deprive such person or entity of the right of renewal, but the fee to be paid for the renewal of a certificate after it has expired shall be increased ten percent for each month or fraction of a month that payment of renewal was delayed. The maximum fee for delayed renewal shall not exceed twice the normal renewal fee.

37:698. Disciplinary Action; Revocation; Suspension or Reprimand

A. The board shall have the power, by majority vote of its entire membership authorized to participate in a proceeding to suspend, refuse to renew, or revoke the certificate or reprimand any registrant, or certificate holder found by the board, guilty of:

- (1) The practice of any fraud or deceit in obtaining a certificate of registration or certification;
- (2) Any fraud, deceit, gross negligence, misrepresentation, violation of contract, gross incompetence, or misconduct in the practice of engineering or land surveying, or violation of any provision of this Chapter;
- (3) Any felonious act;
- (4) Violations of Rules of Professional Conduct for Professional Engineers and Land Surveyors adopted and promulgated by the board.

B. The board shall adopt and promulgate Rules of Professional Conduct for all registrants, and certificate holders as provided for in this Chapter, which shall be made known, in writing, to every

applicant for registration, registrant, and certificate holder under this Chapter. The board may revise and amend these Rules of Professional Conduct for Professional Engineers and Land Surveyors from time to time and shall forthwith notify each registrant and certificate holder, in writing, of such revision or amendments.

C. The board shall have the power to 1) revoke a certificate of registration or certification issued to an individual, or 2) a certificate of registration of any foreign or domestic corporation if one or more of its officers, directors, employees, agents, or representatives has been guilty of a violation of any provision of this Chapter.

37:699. Disciplinary Action; Procedure

A. Charges may be preferred against any registrant, or certificate holder in the following manner:

(1) The board, on its own initiative and by a majority vote of its entire membership authorized to participate in a proceeding, may prefer charges of violation of any provision of this Chapter or violation of the Rules of Professional Conduct for Professional Engineers and Land Surveyors, or violation of any rules and regulations issued by the board against any registrant, or certificate holder.

(2) Any person may prefer charges of violation of any provision of this Chapter, or violation of the Rules of Professional Conduct for Professional Engineers and Land Surveyors, or violation of any rules or regulations issued by the board, against any registrant, or certificate holder. Such charges shall be in writing and shall be sworn to by the person or persons making the charges and shall be filed with the secretary of the board.

B. Any registrant, or certificate holder charged in the manner set forth in Subsection A of this Section shall be mailed, within twenty days of the board's election to file charges, in the event the charges are initiated by the board, or within ten days of the receipt by the secretary of the board of written charges filed by any other person, a copy of said charges.

C. In the event of the board determines after investigation that the charges so filed are completely unfounded or trivial, the board shall so advise the person or corporation charged, in writing, of its determination. Otherwise, all charges shall be heard by the board within four months after date on which they shall have been preferred by either the board or by any other person.

D. The time and place for said hearing shall be fixed by the board and a copy of the charges, together with a notice of the time and place of the hearing, shall be personally served on or mailed to the last known address of such individual registrant, or certificate holder, at least thirty days before the date fixed for hearing. At any hearing, the accused individual, registrant, or certificate holder shall have the right to appear in person, or by counsel, or both, to cross-examine witnesses in his or its defense, and to produce evidence, and witnesses in his or its own defense. If the accused person or corporation fails or refuses to appear, the board may proceed to hear and determine the validity of the charges.

E. If, after such hearing, a majority of the entire board membership authorized to participate in the proceeding vote in favor of sustaining the charges, the board shall reprimand, suspend, refuse to renew, or revoke, the individual's or corporation's certificate of registration, or the individual's certificate of certification. The final disciplinary action of the board may be published in the official journal of the board within ninety days of such board action. Any charges found by the board to be unfounded, trivial, or untrue, shall be published in the official journal of the board within ninety days of such board finding, if requested, in writing, by the person or corporation charged. The board, for reasons it may deem sufficient, may reissue a certificate of registration or certification to any person, or a certificate of registration to any corporation, whose certificate has been revoked, if a majority of the entire board membership authorized to participate in the proceeding vote in favor of such reissuance.

F. A registrant, or certificate holder aggrieved by any action of the board in denying, suspending, refusing to renew, or revoking his certificate of registration or certification or a corporation's certificate of registration, may appeal therefrom, pursuant to the provisions of the Administrative Procedures Act of the state.

G. The board may, by majority vote of its entire membership authorized to participate in the proceeding and upon petition of an individual, registrant, or certificate holder, reinstate his or its application, certificate of registration, or certification.

37:700. Violations and Penalties

A. Any person or corporation, foreign or domestic, who shall practice, or offer to practice, engineering or land surveying in this state without being registered in accordance with the provisions of this Chapter, or any person presenting or attempting to use as his own, the certificate of registration or the seal of another, or any person who shall give any false or forged evidence of any kind to the board or to any member thereof in obtaining a certificate of registration or certification, or any person who shall falsely impersonate any other registrant or certificand of like or different name, or any person who shall attempt to use an expired or revoked certificate of registration or certification, or any person, applicant, registrant, or certificate holder who shall violate any of the provisions of this Chapter, shall be guilty of a misdemeanor, and shall, upon conviction, be sentenced to pay a fine of not less than three hundred dollars, nor more than fifteen hundred dollars, or suffer imprisonment for a period not exceeding three months, or both. Any corporation, company, partnership, firm, or business entity who violates any part of this Chapter shall be guilty of a misdemeanor and shall, upon conviction, be sentenced to pay a fine of not less than fifteen hundred dollars, nor more than five thousand dollars. Each day of violation shall be a separate offense.

B. It shall be the duty of the attorney general, all district attorneys, and all duly constituted officers of the law of this state, or any political subdivision thereof, to enforce the provisions of this Chapter and to prosecute any persons violating same. The attorney general of this state, or his assistant, shall act as legal advisor to the board if the board requests such and render such legal assistance as may be deemed necessary by the board in carrying out the provisions of this Chapter, provided that this shall not relieve the local prosecuting officers of any of their duties under the law as such.

C. The board is charged with the duty of seeing that the provisions of this Chapter are enforced and the board shall investigate any complaint relating to the violation of any provision of this Chapter, and dependent upon the result of such investigation, the board shall present the facts of their findings to the district attorney in whose district such violation has occurred, and shall aid in the prosecution of the violator; or the board may, if it deems necessary, prosecute any violator directly and in its own name, in any district court of this state. Such action may be instituted by any member, officer, attorney, or agent of the board.

37:701. Public and Private Work; Application of Provisions

A. Persons performing subprofessional work as defined in the rules or bylaws of the board, or acting as construction or process superintendents or foremen, need not be registered under this Chapter, but their work shall be supervised by a registered professional engineer when their work involves the practice of engineering, and by a professional land surveyor when the work involves the practice of land surveying.

B. It is not the intent of this Chapter that the planning, specifications, drawings, or construction, in relation to the construction of private homes or dwellings, or by an individual of a domestic structure or work for his own use, or any agricultural work done on farmlands, shall come under the jurisdiction of this Chapter.

C. This Chapter shall not apply to, affect, interfere with, or in anywise regulate employees of a person, firm, or corporation engaged in industrial operations, including, but not limited to, producing, processing, manufacturing, transmitting, distributing, or transporting, when performing services in the course and scope of the business of said person, firm, or corporation, or affiliates thereof; however, this exemption shall not apply to the practice of civil engineering or land surveying, with the exception of resident industries producing manufactured products within the state of Louisiana, in the event any of the activities set forth in this Subsection shall fall within the definition of practice of engineering as defined in Paragraph (8) of Section 682 of this Chapter, such activities shall be under the supervision and charge of a professional engineer, duly registered under the provisions of this Chapter.

D. From and after September 1, 1970, all land surveying shall be performed by a registered land surveyor, who, for purposes of this Subsection, shall be any person who practices the profession of land surveying within the meaning and intent of this Chapter, and who, by verbal claim, sign advertisement, letterhead, card, or in any other way represents himself to be a land surveyor.

E. A person shall not be construed as practicing land surveying who establishes lines and elevations for canals or levels for irrigation or erosion control on lands owned, rented, or leased by him, if such person performing the work received no remuneration of any kind for his services.

F. Services performed by employees of persons, firms, or corporations in determining lines within established boundaries and between established corners of property owned by, leased to, or under the control of their employers in the course and scope of such employer's business, and in locating drilling sites, lines of pipe, or improvements on such property, shall not be construed as falling under the definition of "practice of land surveying" within the meaning of this Chapter, and are not covered by this Chapter.

G. Nothing in this Chapter shall be construed as permitting any person, other than a registered professional engineer, to affix his signature as such to engineering plans, specifications, or estimates.

H. Professional agricultural engineers are exempt from the provisions of Subsection D of this Section, while performing land surveying work pertaining to drainage, irrigation, erosion control, mapping, and topographical work required in agricultural engineering activities.

37:702. Saving Clause

This Chapter shall not be construed to prevent or to affect:

(1) Other professions or trades including the practice of architecture as defined in Chapter 3 of Title 37 of the Louisiana Revised Statutes of 1950; or the practice of any legally recognized profession or trade; or the professional practice of the physical sciences, such as: chemistry, physics, geology, mathematics, so long as they do not involve the practice of engineering; or

(2) The practice of a person not a resident of and having no established place of business in this state, practicing or offering to practice herein the profession of engineering, when such practice does not exceed sixty days in any calendar year, provided such person is legally qualified by registration to practice the said profession in his own state, territory, or possession of the United States, or the District of Columbia, in which the requirements and the qualifications for obtaining a certificate of registration are not lower than those specified in this Chapter, and provided further, that before beginning such temporary practice in this state, the person shall have applied to the board, paid the prescribed fee, and received a temporary permit, and upon the conclusion of such work he shall advise the board as to the period of time that he has practiced in the state under such temporary permit.

(3) The practice of officers and employees of the government of the United States while engaged within this state in the practice of engineering or land surveying, for said government.

(4) Cooperatives under the rural electrification administration; engineering performed by cooperatives under the Rural Electrification Acts.

(5) The practice of engineering exclusively as an officer or employee of a public utility corporation authorized to do and doing business in this state, by rendering to such corporation such service in connection with its facilities and property which are subject to regulation with respect to safety and security thereof by the Public Service Commission of the state of Louisiana, or other duly authorized utility regulatory body, and so long as such person is thus actually and exclusively employed, and no longer, and the practice of engineering as an officer or employee of a person, firm, or corporation, furnishing products, services, or facilities used primarily by a public utility corporation regulated by the Public Service Commission of the state of Louisiana, or other duly authorized utility regulatory body, and so long as such officer or employee is thus actually and exclusively employed and no longer, provided this does not apply to the practice of civil engineering or land surveying.

37:703. Transitional Provisions; Applicants, Registrants, Certificate Holders, Engineers in Public Employment, and Corporations at the time this Chapter becomes effective

A. On the effective date of this Chapter, all applications for registration or certification pending with the board shall be processed and governed in accordance with the provisions of Chapter 8 of Title 37 of the Louisiana Revised Statutes of 1950, as amended through Act 197 of the 1976 Regular Session, and by such rules of the board as may have been in effect prior to September 12, 1980.

B. All persons who, on September 12, 1980, have received from the board certificates of registration in a particular branch as a professional engineer, or as a professional land surveyor, shall continue in such capacity, under the authority of this Chapter, and without the necessity of reapplying for registration, until the expiration of the certificate of registration; on September 12, 1980, all such registrants shall be governed by the provisions of this Chapter.

C. On September 12, 1980, all persons who have been registered by the board as civil engineers and land surveyors in public employment pursuant to the provisions of R.S. 37:697(B), as amended by Act 197 of the 1976 Regular Session shall continue in such capacity and under the authority of this Chapter, without the necessity of examination or application, and upon expiration of the certificate of registration issued by the board, shall be eligible for renewal of same under the terms and conditions of R.S. 37:697(B), as amended by Act 197 of the 1976 Regular Session, and notwithstanding any provision of this Chapter to the contrary, it being specifically provided, however, that except insofar as concerns the method of registration and renewal, said persons shall otherwise be subject to the provisions of this Chapter.

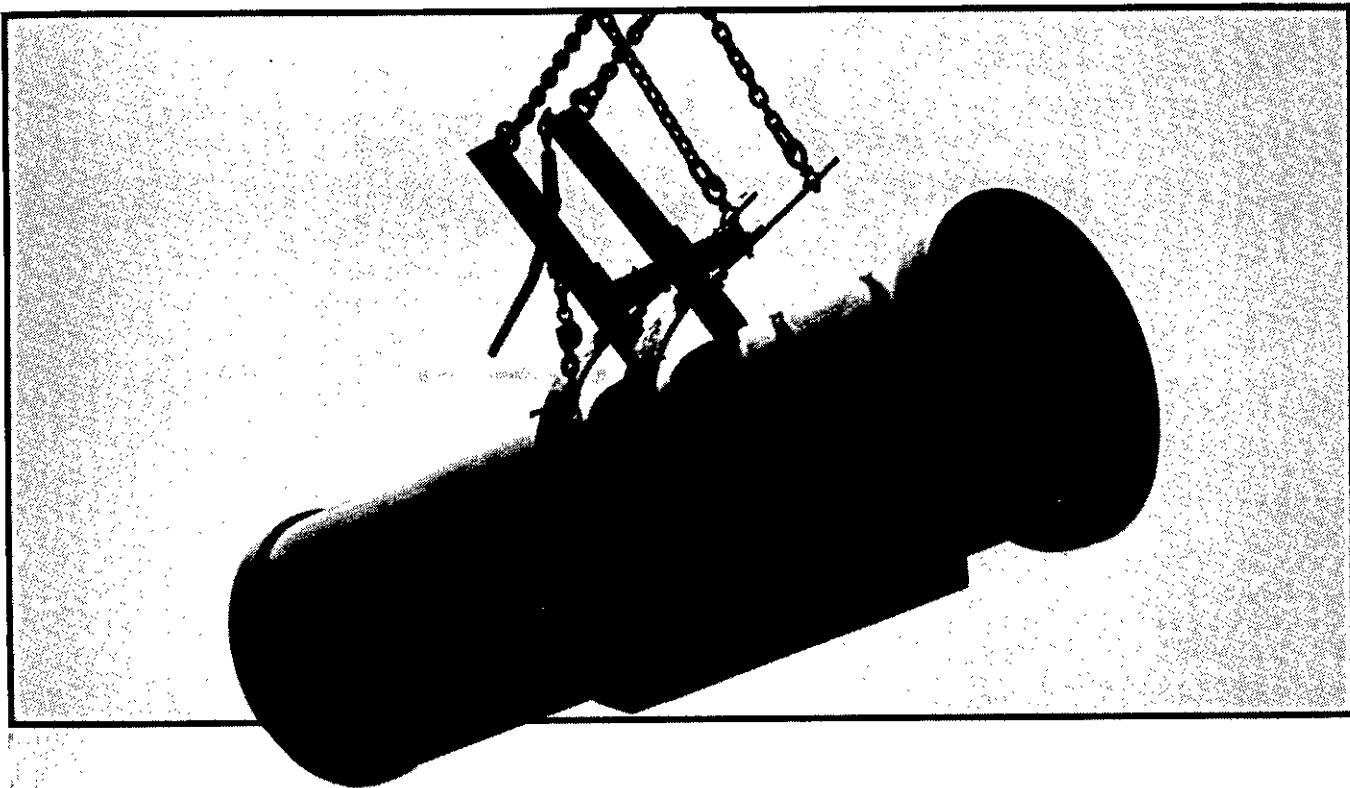
D. All persons who, on September 12, 1980, have been certified by the board as an engineer in training, or land surveyor in training, under the rules of the board in effect prior to September 12, 1980, shall continue to be recognized by the board as certified in such capacities and shall be eligible and entitled to registration as a professional engineer, or professional land surveyor, as the case may be, in due course and under the terms and conditions of Chapter 8 of Title 37 of the Louisiana Revised Statutes of 1950, as amended through Act 197 of the 1976 Regular Session, and under the rules and regulations issued by the board and in effect prior to September 12, 1980.

E. All applications for registration as a professional engineer under the provisions of R.S. 37:692(A) (1) (b), as amended through Act 197 of the 1976 Regular Session, submitted to the board on and within one year from September 12, 1980, shall be governed in accordance with the provisions of Chapter 8 of Title 37 of the Louisiana Revised Statutes of 1950, as amended through Act 197 of the 1976 Regular Session, and by such rules of the board as may have been in effect prior to September 12, 1980.

F. Any foreign or domestic corporation in existence on September 12, 1980, and which has received from the board a certificate of registration or authorization to practice and which is otherwise in good standing with the board, shall be deemed registered within the meaning of Section 689(E) of this Chapter for registration requirements, shall continue in such capacity, under the authority of this Chapter, and without the necessity of reapplying for registration, until the expiration of the certificate of registration; on September 12, 1980, all such corporations shall be governed by the provisions of this Chapter.

G. Contracts to provide engineering, land surveying, engineering and land surveying by corporations in existence and qualified with the board, on September 12, 1980, shall be deemed valid and binding upon both contracting parties thereto, if otherwise in compliance with law.

H. Any and all rules and regulations of the board adopted prior to September 12, 1980, apply to subjects the board is authorized to adopt pursuant to this Chapter shall be and shall remain effective without readoption or further promulgation by the board.



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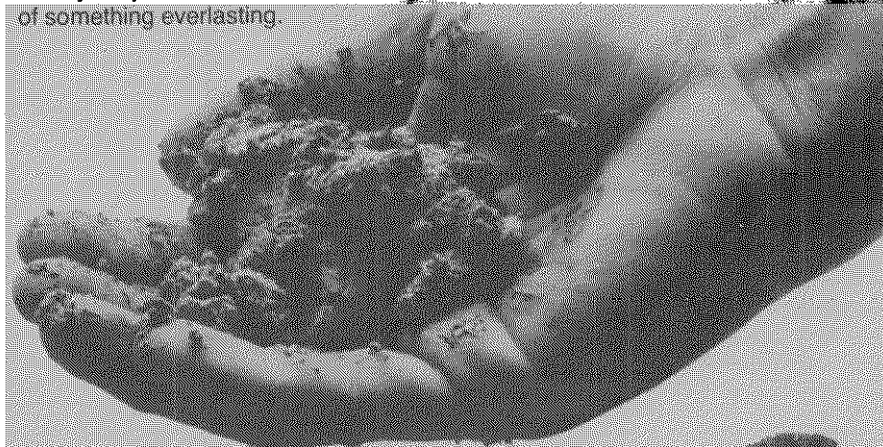
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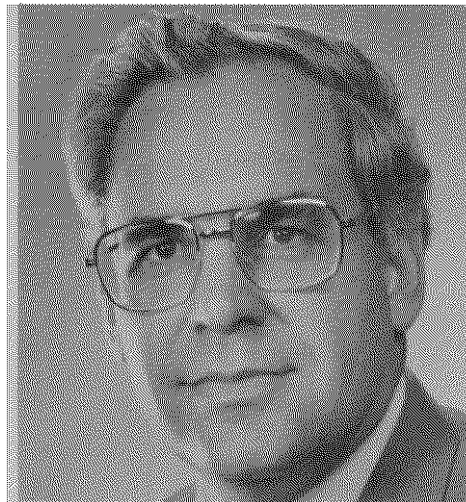


PRESIDENTIAL PRIVILEGE

Anyone who has actively tried to recruit new members for LES or has tried to get an inactive member to become active has at sometime or other been asked, "What has LES done for me? I never see anyone working or anything that LES has done!" Most of our work is not dramatic or highly visible and few of the fruits of our labors are as tangible as the new registration law reprinted as an insert in this issue of the Louisiana Engineer. The new registration law, Act 568 of 1980, took effect on September 12, 1980 and requires the Board of Registration to take actions that were not mandated under the old registration law. As I read Act 568 and the opinions of others who have studied it, I found one outstanding feature that will most certainly affect the lives of most professional engineers in this state — the new code of conduct.

If you are the least concerned with your profession, I urge you to read your personal copy of the new registration law that is enclosed and to read the article giving a brief overview of changes wrought by this new legislation. Make yourself knowledgeable and prepare yourself to contribute to this aspect of your profession, for even though the legislature has done its job, the work is not yet complete. The legislature in its wisdom has seen fit to direct the Board of Registration to make and administer rules of conduct. The Board needs input from the profession and possibly the public as it goes about its business of creating this corollary to the new registration law.

Act 568 requires that the Board of Registration enact a code of conduct and en-



Jerrel J. Freeman, P.E.
LES President

force this code. In my opinion, the Board of Registration now has an opportunity to do a great service to the people of Louisiana and to the engineering profession. The Board should develop a clear, unequivocal set of standards that can apply to all registered engineers and land surveyors, not just those in private practice but to those in construction, education, government and industry as well. Then, this new code can become a solid foundation on which engineers can take a stance in dealing with each other as well as with public and private clients.

The members of the Board most certainly are facing an arduous task in developing a meaningful code of conduct. There will be temptations as well as pressures to excerpt portions of the various engineering "Codes of Ethics" adopted

by the various engineering societies. There is nothing wrong with these codes of ethics — indeed I believe most are very good — but there must be a distinction made between a "code of ethics" and a "code of conduct". The first is a statement of principles to be used as a guide in determining actions to be taken; the second, a statement of actions to be taken or avoided.

For example, a set of rules saying "An engineer must be fair in dealing with others," would be a cop out! Besides not being meaningful to the public or to the engineer, such a code would not be enforceable, and the new law mandates the Board to enforce the code of conduct. I believe the new code of conduct must be explicit and enforceable. I don't believe it need be enacted in haste, nor do I believe it must be enacted "in toto" originally. There will be some fairly obvious areas to be covered initially and some obscure aspects that will not be apparent as problems for some time to come.

Now is the time for you to speak out, to let your views be known to the Board. The LES will most certainly try to assist the Board in gathering data for the development of "our" code of conduct, so if you wish you may talk, or write, to the officers of your Society and tell them what you think should be included in this new code. If you prefer dealing with the Board directly I am sure they will be glad to accept written comments from you. Whatever you do, do it now, don't wait until after the code is enacted to complain. The paper is blank, what would you have written on it?

MEMORIALS

Hardy Booth Fowler, P.E.

The Society was saddened to hear of the death of Hardy B. Fowler, a New Orleans consulting engineer, on July 15, 1980.

Mr. Fowler was president and founder of the H. B. Fowler Company, Inc., New Orleans, which constructed the original Bunge Dock, Berth Three of the New Orleans grain elevator and numerous projects in South America and Trinidad. His firm specialized in marine structures and vessels.

He was a graduate of the U.S. Naval Academy and served in the South Pacific during World War II. He was a regis-

tered mechanical engineer in Louisiana and a member of the Louisiana Engineering Society.

The Society extends its deepest sympathy to his wife, three daughters and one son.

Waldeck F. Guilbeau, P.E.

With the death of Waldeck F. Guilbeau, on April 19, 1980, the engineering profession and his many friends suffered a great loss.

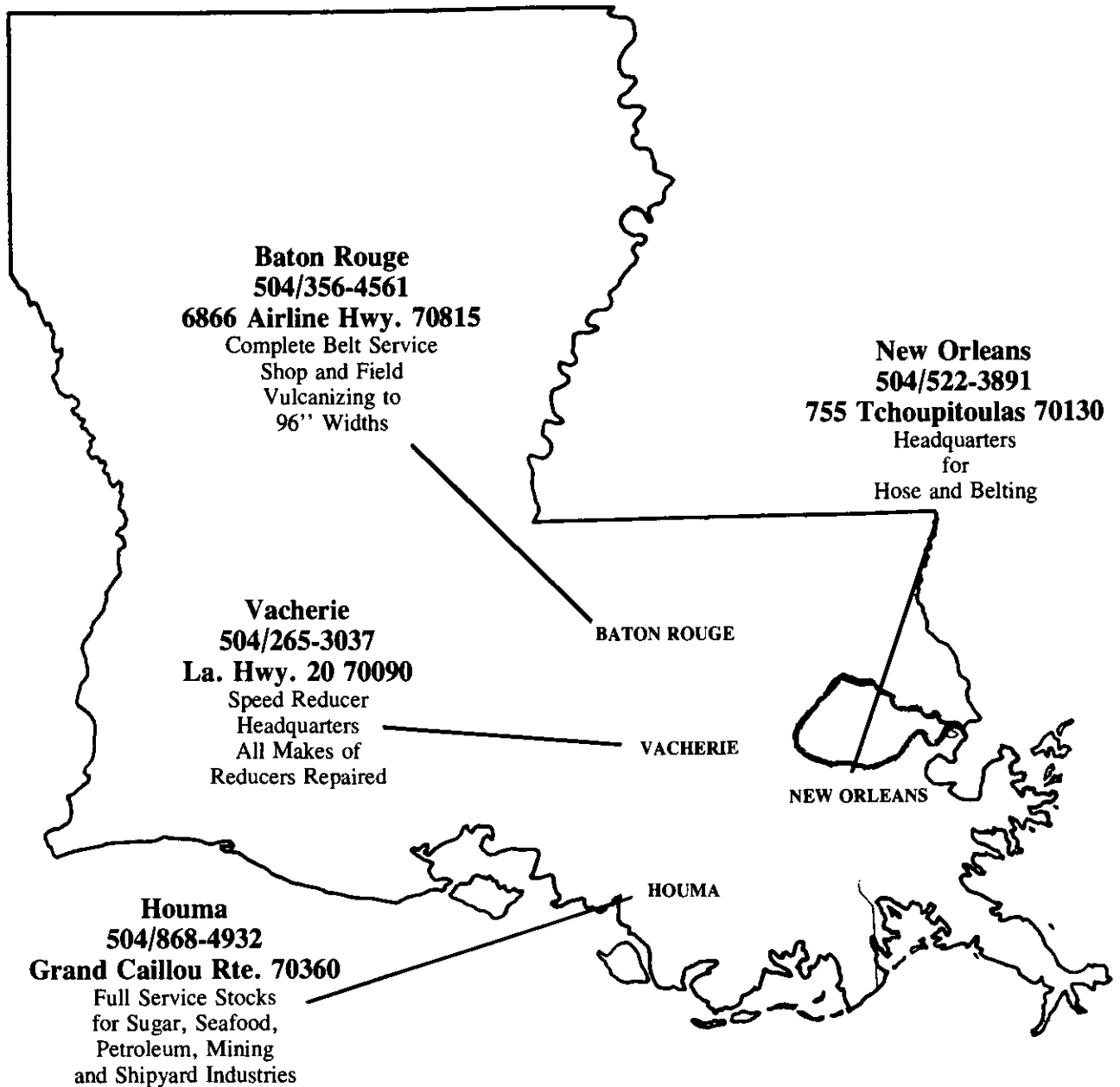
Mr. Guilbeau received a B.S. degree in sugar engineering from LSU in 1924. He was a registered chemical engineer in Louisiana. He joined the Louisiana En-

gineering Society in 1943 and became a life member in 1973.

His various positions included: chemist, Godchaux Sugar Co., Raceland; chemical engineer, C. & H. Sugar Refinery, Crackett, California; chemical engineer and superintendent, Hershey Sugar Co.; Industrial Sugar Corporation, Chicago; Seagram Distillery, Louisville; U.S. Sugar Corporation, Clewiston, Florida; and the U.S. Department of Agriculture, Southern Regional Research Laboratory, New Orleans. He was inactive for the last number of years.

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

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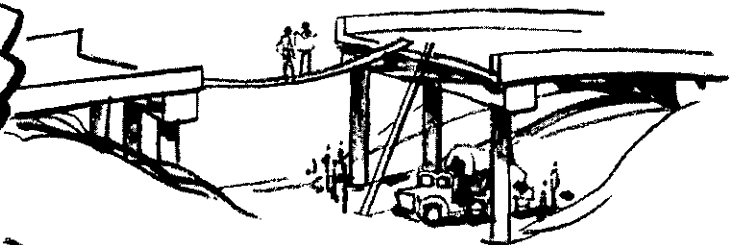
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South Central Bell

JOIN NSPE/LES FOR ABOUT 22 CENTS A DAY

The Louisiana Engineering Society is composed of approximately 30% of the registered professional engineers and engineers-in-training living and working in Louisiana. The legislature asks us every year why LES claims they represent the engineering profession in Louisiana and why LES makes nominations to the Governor for many Boards and agencies in state government. Our best answer: LES has the most representation of any engineering organization in the state. No other organization comes close. While this is true, we would be a lot stronger if we could claim more than 50% of all engineers in the state as members. Why do so many of you that receive the LOUISIANA ENGINEER fail to participate in your professional society?

Engineers have a responsibility to set standards of excellence for their profession and to make sure those standards are observed. LES and NSPE continually promote quality in engineering through attention to ethical practices.

LES is the only organization representing engineers of all disciplines in lobbying before the legislators and dealing with state agencies.

I know you receive the Louisiana Engineer magazine. So do all the other registered engineers in the state, but that doesn't mean you are a member of LES. Won't you join?



Sound initial education and ongoing professional growth are hallmarks of a profession. LES and NSPE promote both through scholarships, guidance, continuing education and professional development programs.

A professional work environment for employed engineers — this LES considers essential. The Society working closely with NSPE promotes adequate compensation for engineering talent and a work environment conducive to technological innovation through many programs.

Almost 2600 engineers are already members of LES. They ask you to join with them to make LES even bigger and more successful in its operation. More members mean adequate finances and manpower to give LES the necessary tools to carry through its all-inclusive programs for Louisiana engineers. It is only through the combined action of hundreds and thousands of Louisiana engineers that an effective VOICE for the engineering profession can be heard. Help us to tell legislators that LES has more than 50% of all engineers in the state as members.

You are an engineer. It is your profession. Why procrastinate? Join today! Fill in the form below, clip or reproduce and mail to LES, P.O. Box 2683, Baton Rouge, La. 70821. NSPE and LES dues total \$81 a year (22 cents a day). A very small investment for your profession.

APPLICATION FOR MEMBERSHIP

Complete, detach and mail today!

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

LOUISIANA ENGINEERING SOCIETY APPLICATION FOR MEMBERSHIP

GENTLEMEN:

I hereby apply for admission into the Louisiana Engineering Society and agree to comply with the Constitution and Bylaws and the Code of Ethics of the Society. I also apply for admission into the National Society of Professional Engineers, if qualified and if I have indicated 'yes' to question No. 8 opposite.

Please assign me to the Chapter Checked below:

- | | |
|---------------------------------------|---------------------------------------|
| Alexandria ☐ | Lake Charles ☐ |
| Lafayette ☐ | Bayou ☐ |
| New Orleans ☐ | Monroe ☐ |
| Non-Resident ☐ | Shreveport ☐ |
| Baton Rouge ☐ | ☐ |

Date _____

Signed: _____

FUNCTIONAL DIVISION PREFERENCE (Check One)

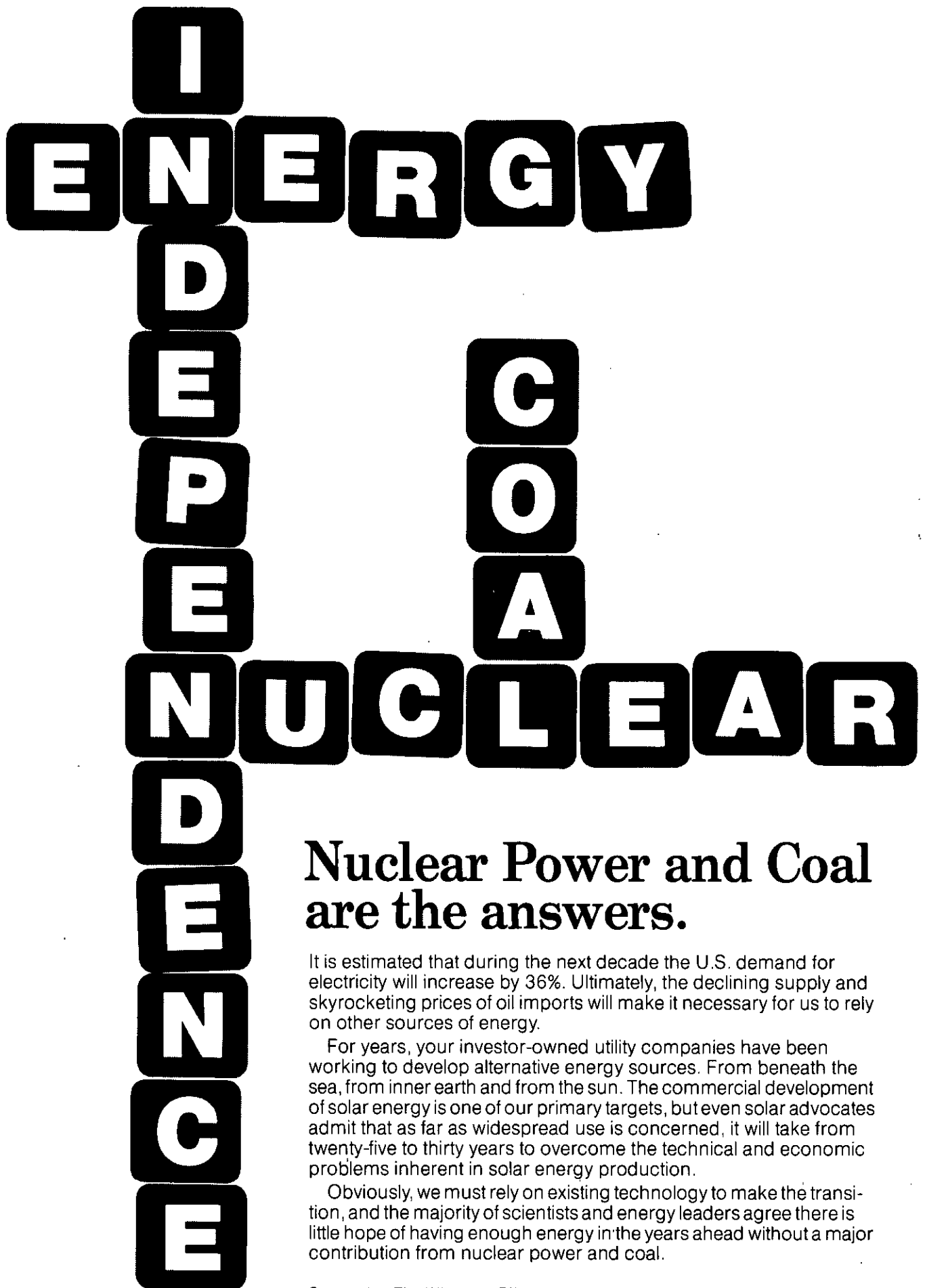
- | | |
|---------------------------------------|---|
| ☐ Government | ☐ Private Practice |
| ☐ Industry | ☐ Education |
| ☐ Construction | |

PLEASE COMPLETE THE FOLLOWING SPACES

- Name _____
Last First Initial
- Home Address _____
Street City and State Zip Code
- Business Affiliation _____ Position or Title _____
- Business Address _____
Street City and State Zip Code
- Telephone: Home _____ Office _____ Please Send All Mail To: Home _____ Office _____
- REGISTRATION: PE ☐ LS ☐ EIT ☐ None ☐
State _____ Reg. No. _____ Branch _____
- Are you now affiliated with NSPE Yes ☐ No ☐ If yes, what state? _____
- If no, do you want to become a member of NSPE? Yes ☐ No ☐
- Have you ever been a member of LES? Yes ☐ No ☐
- Birth Date _____ Age _____ Spouse's First Name _____
- Education _____
School Date Graduated Degree Obtained
- Major Engineering Discipline _____

NOTE: If you are a PE, EIT or LS only one LES Member Sponsor is needed, otherwise please list the names of three LES members as your references. A brief professional experience record must be attached if you are not a PE, EIT or LS.

1. _____ 2. _____ 3. _____



Nuclear Power and Coal are the answers.

It is estimated that during the next decade the U.S. demand for electricity will increase by 36%. Ultimately, the declining supply and skyrocketing prices of oil imports will make it necessary for us to rely on other sources of energy.

For years, your investor-owned utility companies have been working to develop alternative energy sources. From beneath the sea, from inner earth and from the sun. The commercial development of solar energy is one of our primary targets, but even solar advocates admit that as far as widespread use is concerned, it will take from twenty-five to thirty years to overcome the technical and economic problems inherent in solar energy production.

Obviously, we must rely on existing technology to make the transition, and the majority of scientists and energy leaders agree there is little hope of having enough energy in the years ahead without a major contribution from nuclear power and coal.

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

Solar Collector Sizing for a Louisiana Environment

Edwin P. Russo, Ph.D., professor of mechanical engineering, University of New Orleans

William S. Janna, Ph.D., associate professor of mechanical engineering, University of New Orleans

R. Bruce Turner, mechanical engineering student, University of New Orleans

Solar energy is a field that is receiving increasing attention in Louisiana. To help satisfy energy needs, more and more designers are considering solar energy. Currently collector size estimating for domestic hot water usage requires the use of computer programs, e.g. f-chart or Solcost, which are not always readily available or economically justifiable. The authors have carried out an extensive computer analysis for the Louisiana environment and reduced the data to a form which is concise, readable and immediately useable. A similar analysis has been carried out on a more general basis for the United States as a whole (See Reference 1); whereas the results presented in this paper are specifically for Louisiana.

The curves shown in the figure may be used to estimate the solar collector area required for hot-water service in Louisiana buildings having typical hot-water systems. The computations were made using the f-chart computer program as described in Reference 2. The system is assumed to be pumped liquid type, without antifreeze (i.e. open loop), delivering hot water to scheduled residential users from 6:00 a.m. until midnight. The collectors are assumed to be single glazed, tilted at an angle equal to the latitude (plus or minus 5 degrees) and directed due south. However a deviation of 10 to 15 degrees east or west of south will not substantially alter the results. The sizing curves are approximate and should yield results within 10 percent of actual value for domestic hot water applications.

The vertical axis shows the fraction of the annual water heating load supplied by solar. The horizontal axis gives values of the parameter, $\bar{H}A/8.34 \text{ GPD } (T_H - T_C)$, which includes the average daily January radiation on a horizontal surface, $\bar{H}$ (BTU/ft²-Day); the required collector area, A (ft²); to supply a certain percentage of the daily hot water load, GPD (GALLONS PER DAY) at a desired temperature, T_H (°F) from a cold water supply, T_C (°F). The average domestic hot water consumption can be taken to be 15 to 20 gallons per day per person. The

January average daily total radiation $\bar{H}$ and T_C at locations in Louisiana are given on the graph. Other locations in the state can be estimated by their proximity to these cities. The curves are not applicable for solar percentages greater than 90.

It should be remembered that the service hot-water load will be nearly constant throughout the year while solar energy collected will vary from season to season. A system sized for January, with collectors tilted to the latitude angle, will deliver high-temperature water and may even cause boiling in the summer. On the other hand, a system sized to meet the load in July will not provide all of the load in the winter months. Orientation of the collector can partially overcome month to month fluctuations in radiation and temperature.

Once the required collector area has been determined the storage tank may be sized by using the rule of thumb estimate of 1.5 to 2.0 gallons of storage per square foot of collector area. Also typical collector sizes are approximately 24 square feet; therefore, the total number of solar collectors required may be estimated.

SIZING EXAMPLE

Determine the approximate size, number of collectors, and storage tank capacity needed for a solar heating system to provide 60% of the annual hot water load for a family of four in a residential building in Shreveport, Louisiana.

Solution: The average daily service hot water load for a family of four is 80 GPD. The desired service water temperature is taken as $T_H = 120^\circ\text{F}$. The cold water temperature for Shreveport is $T_C = 52^\circ\text{F}$. The total average solar radiation $\bar{H}$ available in January for Shreveport is 855 BTU/ft²-Day. For the system to provide 60% of the annual load, the figure gives $\bar{H}A/8.34 \text{ GPD } (T_H - T_C) = 0.73$. Therefore

$$A = \frac{0.73 (8.34) (80 \text{ GPD}) (120 - 52)}{855 \text{ BTU/ft}^2\text{-Day}}$$

or $A = 38.73 \text{ ft}^2$. With typical collector areas being approximately 24 ft², then: number of collectors needed

$$= \frac{38.73}{24} = 1.6,$$

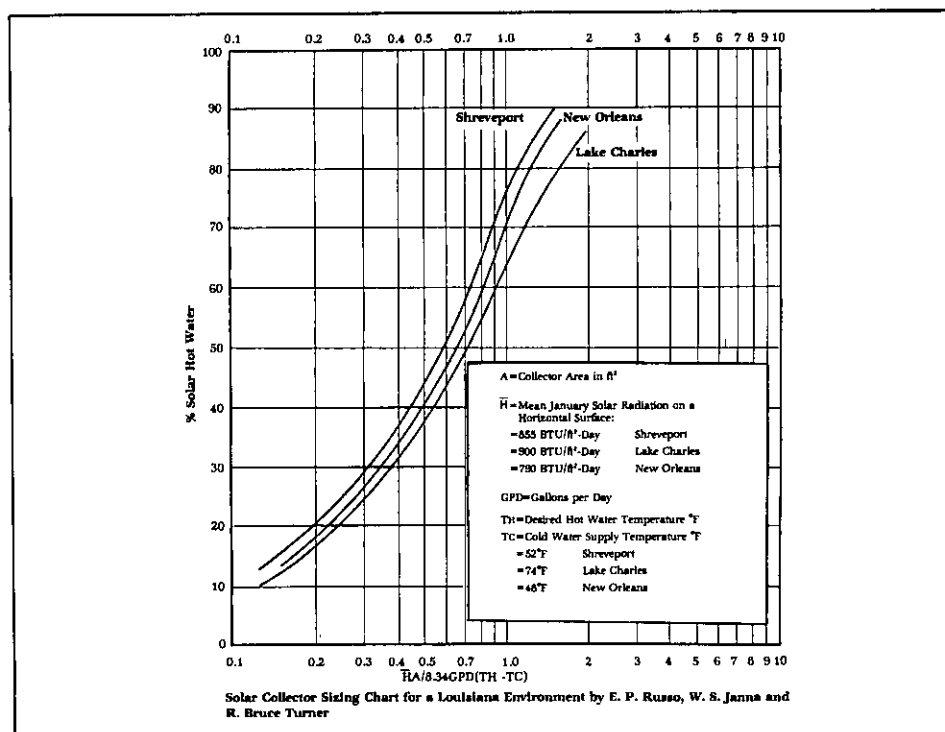
or 2 collectors are needed.

With 2 collectors, A is actually 48 ft²; further, the term $\bar{H}A/8.34 \text{ (GPD)} (T_H - T_C)$ becomes $855 (48) / (8.34) (80) (120 - 52)$ or 0.905. Using the figure again shows that selecting 2 collectors will make the percentage of annual load supplied by solar to be closer to 71% than the intended 60%. The storage tank size is estimated as:

Tank size = $1.75(48) = 84$ gallons, where 1.75 gallons per square foot of collector has been assumed.

References

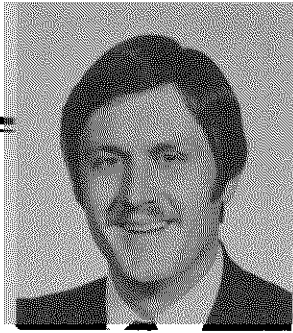
1. U.S. Department of Energy, "Introduction to Solar Heating and Cooling Design and Sizing", DOE/CS-0011, August 1978.
2. Beckman, W.A., Klein, S.A. and Duffie, J.A. "Solar Heating Design", John Wiley and Sons, New York, 1977.



Consulting Engineers Section

THE SPEC SHEET

Warren J. Wilder
CEC/L Executive Director



FENNER ELECTED 1980-81 PRESIDENT OF CEC/L

Robert D. Fenner, Aillet, Fenner, Jolly & McClelland, Shreveport, Louisiana, has been elected 1980-81 president of CEC/L.

Bob was born in El Dorado, Arkansas, and educated in the public schools of Lake Charles. He received his B.S. in civil engineering from Louisiana Tech, Ruston, in 1953 and his M.S. in civil engineering from L.S.U. in 1957. He is registered in both Louisiana and Texas. Bob is an active member in ASCE, NSPE, LES and the American Concrete Institute. He has served on the CEC/L Board of Governors for several years as chapter president, treasurer, secretary, 2nd vice president and president-elect.

The other members of the 1980-81 Board of Governors include:

President-Elect

Robert W. McKenzie

Rayner & McKenzie, Baton Rouge, La.

Vice President

Peter R. Quirk

Walk, Haydel & Associates, New Orleans, La.

Secretary

Vernon F. Meyer

Meyer & Associates, Sulphur, La.

Treasurer

William Firesheets

Mayers, Crosby & Firesheets, Baton Rouge, La.

Director (ACEC)

Fielding H. Johnson

Barber & Johnson, Baton Rouge, La.

Member-at-Large

John F. Grosch III

Woodward-Clyde, Baton Rouge, La.

Member-at-Large

John Roach

Eustis Engineering Company, Metairie, La.

Member-at-Large

Lauren Wreyford

Wreyford & Associates, Shreveport, La.

Baton Rouge Chapter President

Hugo Marrero

Marrero, Couvillion & Assoc., Baton Rouge, La.

New Orleans Chapter President

Rudy Dietrich

McClelland Engineers, New Orleans, La.

Alexandria Chapter President

Kerry LaBauve

Beard & LaBauve, Alexandria, La.

Shreveport Chapter President

Bill Ferguson

Demopulos & Ferguson, Shreveport, La.

Lafayette Chapter President

James Poche'

Richard, Gaudet, Poche' & Assoc., Lafayette, La.

Monroe-West Monroe Chapter President

Donald Harrison

Landmark Engineering, Monroe, La.

ORDINANCE REPEALED

East Baton Rouge City-Parish Council voted to repeal Ordinance 5421 on Wednesday, September 10, 1980. The action came in the face of a \$4 million lawsuit against the council and the parish attorney (both as a group and individually) by a local engineer, who claimed the ordinance deprives him of earning a living as a registered professional engineer by forcing him to obtain liability insurance.

The ordinance which was adopted by the City-Parish Council in February, 1980, was drafted by a joint committee of CEC/L, LAA, and LES/PEPP as an effort to help curtail the activities of "plan stampers" and "moonlighters". It was prompted by the collapse of a building in Baton Rouge which killed three workmen in 1974. It was discovered later that the architect who stamped the plans had no insurance, which then shifted the financial liability burden over to the city.

Ordinance 5421 states that no permit shall be issued on any construction where a licensed or registered architect or civil engineer has filed with the building official a certificate of professional liability insurance, approved as to form by the parish attorney's office, issued by an insurance company authorized to do business in this state.

There was a question as to the constitutionality of the ordinance. There is sup-

posed to be an effort being made by the parish attorney to obtain a declaratory judgement on the ordinance.

The Executive Committee of the City-Parish Council recommended repeal of the ordinance but with the understanding that the professional organizations would work together to draft a suitable alternative to the repealed ordinance.

The engineer did agree to drop the suit if the council agreed to repeal the ordinance.

DEPARTMENT OF JUSTICE SUES ACEC

The American Consulting Engineers Council today called a Department of Justice suit against three provisions of the council's professional conduct guidelines "tantamount to the government repainting and resurfacing a bridge 45 days before it is to be replaced by a better structure."

Everett Thompson, president of the 3,700-member firm council, said that the antitrust division's Aug. 15 suit charging antitrust violations came after ACEC had twice advised Justice Department officials that new profession-wide provisions were scheduled for adoption at the fall meeting of the Board of Directors Oct. 1-4 in Indianapolis.

Additionally, the selected guidelines—covering members' acceptance of contingent contracts, provision of free services except to charitable or church institutions and participation in design competitions unless competing firms are compensated—were guidelines only and had never been enforced, Thompson said.

"It is difficult to appreciate the Justice Department's motives in filing suit at this time," he said. "The department has been aware since last May that these guidelines were not being enforced, were about to be substantially revised, and in effect were moot. Apparently they could not wait another 45 days. We hope the Justice Department remembers, in its search for antitrust violations, that these measures like all provisions of ACEC's guidelines were adopted in an attempt to protect both public and private purchasers of engineering services as well as consulting engineers and to promote competition."

The guideline on contingency fees sought to prevent conflicts of interest as might occur when a consulting engineer agrees to analyze and determine a project's feasibility at no cost so long as he or she is assured of payment if the project goes forward. "We have always presumed that this kind of agreement is an invitation to the engineer to come up with

a favorable recommendation in order to assure payment for services," Thompson said.

The guideline on free services, except for civic, charitable, religious or philanthropic organizations, was intended to protect smaller firms from losing ground to large firms which could afford to obtain a business foothold by initially offering free advice.

The guideline against participation in design competitions except where competitors were compensated for submitting design concepts or preliminary designs, was developed to protect firms submitting innovative and creative ideas that were later incorporated by others into the developed project.

ACEC, Thompson said, has been working with other professional organizations—the National Society of Civil Engineers—toward development of a uniform ethical code for engineers. The guidelines to be considered at the October meeting are being developed as a step toward a uniform code for all professional engineers.

"The council, a professional and trade organization, is a federation composed of 49 state and regional member organizations whose voluntary member firms may have no affiliation or ownership which may bias their independent judgement. The council's disciplinary procedure permits ACEC to investigate allegations of violations of the guidelines or illegal activities such as complicity in extortion, bribery, kickbacks or other similar acts. However, after confidential hearings, the extent of permissible disciplinary action is only suspension or termination of membership. Again, the three cited provisions have never been enforced," Thompson said.

"The role of the Justice Department's antitrust division should be to find wrong-doing and take corrective action. The division argues a weak case to call these provisions "wrong-doing" and in any case, they are already scheduled to be 'corrected.' It is a needless expense to taxpayers and members of ACEC to challenge these virtually defunct provisions, which we anticipate will be dropped in October," Thompson said.

Also questioned by Thompson was the failure of the Justice Department to address almost identical guidelines of other architect and engineer groups whose codes the government has previously attacked as antitrust violations. "At the very least this appears discriminatory," said Thompson.

CEC/L REFERRAL SERVICE

During this time of economic instability, CEC/L has initiated an informal re-

ferral service. Here's how it works: if an engineering firm finds it necessary to lay off some of its personnel, please contact the CEC/L state office with the name or names of those laid off, along with their particular skills and qualifications. Also those firms, who are in need of additional personnel, are requested to contact the CEC/L state office and indicate their needs. In this way, those that are laid off can be directed to those firms that are in need.

Please direct all contacts to the CEC/L Office, P.O. Box 1549, Baton Rouge, La. 70821 or call (504) 387-0843 or 387-0844.

CONFERENCE FOR DESIGN FIRMS

Weld Coxe announced today that his firm The Coxe Group, Inc. and the management newsletter PSMJ will co-

sponsor a one-day Conference on Mergers and Acquisitions Among Design Firms at the Hyatt Regency in Dallas, Friday, December 12.

The conference will be an opportunity for design firm principals to share the experience of those who have been through merger or acquisition.

The focus of the day will be on actual case studies by firms that have been involved in merging, acquiring or consolidating design firms. Among the issues discussed will be why each party decided to merge/acquire; how the particular match was made; how the deal was struck; what was done to make it work; and what has happened since.

To obtain a copy of the descriptive brochure, contact Carol Gosselin at PSMJ, P.O. Box 11316, Newington, CT 06111 (203) 666-9487.

LOUISIANA ENGINEERING OPPORTUNITIES

**If you are interested in living and
working in North Louisiana, please read on.**

Ford, Bacon & Davis is the largest industrial designer in the state, and business is better than ever. Our benefits are excellent, and include a non-contributory profit sharing plan in addition to a pension plan, hospitalization, educational assistance and more. Many challenging career-oriented positions are now open at our Monroe facility for engineering and technical personnel who have a minimum of 5 years experience.

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POTPOURRI

R. C. "Doc" Spears
Executive Secretary
Louisiana Engineering Society



LES Training Conference

The 24th Chapter Officer's Training and State Planning Conference held September 11-13, at the Sheraton Inn, Alexandria was attended by 96 engineers and 25 ladies. Fifty-four engineers and guests attended the Thursday evening early bird cocktails and dinner at England Air Force Base.

The Friday morning training session was conducted by Jerrel J. Freeman, P.E. Each activity chairman presented a comprehensive report on aspects of his area to the new officers and committee members:

State Office	R. C. Spears
Scholarships	Paul Hale, P.E.
Inter-Society Relations	John Grosch, P.E.
State Board of Registration	Dan Vliet, P.E.
Membership	Dale Hunn, P.E.
Legislative	Lamon Moody, P.E.
Meetings & Programs	James W. Reeves, P.E.
Young Engineers	Jack Laws, P.E.
Engineering Education	Fred Brown, P.E.
Ethics & Professional Conduct	James S. Janssen, P.E.
Public Relations	Al McKee, P.E.
Practice Divisions	Dudley Hixson, P.E.
Louisiana Engineering Foundation	Vince Forte, P.E.

Eighty-two engineers and guests attended the luncheon Friday and enjoyed an excellent video presentation "60 Minutes-Our Version" moderated by Henry Markel, P.E. This presentation told all those additional things about nuclear power plants that were cut out of the recent "60 Minutes" television program.

One hundred and six engineers and guests enjoyed a delicious beef dinner at the Alexandria Civic Center Friday evening. Our sincere thanks again to Louisiana Industries, Inc. for hosting the pre-dinner refreshments. Three door prizes were given and Francis Roy, P.E. entertained the gathering with a couple of Cajun stories that he said were especially for our guests, Mr. and Mrs. Richard Pettigrew, Clovis, New Mexico. Pettigrew is vice president of NSPE-PEPP Southwest region.

Fifty-two engineers and guests attended the Saturday breakfast. Jerrel Freeman, P.E. presented a portable podium to the Lafayette chapter of LES for winning the 1979-80 membership contest. James W. Reeves, P.E. accepted the podium for the chapter.

The ladies show, Interior Decorations by Clark-Dunbar and lunch at Gail's Cottage, was enjoyed by 19 ladies.

Membership Report Shows Increase

The membership committee under the leadership of Carroll Fuselier, P.E. surpassed the membership quota by almost 16% in

1979-80 with a total gain of 378 new members. However, as of September 9, we have 210 delinquents. The delinquents will be dropped from the rolls on December 31, 1980. Each chapter has been given a delinquent membership list and requested to make personal contacts to get these members back into the fold before the drop date.

Number of delinquent members by chapter as of September 9:

Alexandria	10
Baton Rouge	61
Bayou	17
Lafayette	25
Monroe	15
New Orleans	57
Shreveport	14

In addition, we picked up 17 new out-of-state members in 1979-80 but have 45 delinquents in the out-of-state category.

Soybean Oil in Diesel Fuel Researched by LSU Engineers

Louisiana's soybeans may soon be joining the energy battle, yielding their oil to help ease the diesel fuel crunch down on the farm.

Research by an LSU team of agricultural and mechanical engineers shows that diesel fuel burned in many agricultural, industrial and truck engines could be extended by blending it with partially refined soybean oil.

The investigators state that soybean oil is definitely "viable as an extender of diesel fuel." Their confidence is based on tests of diesel-soybean oil mixtures containing 10, 20, and 40 percent soybean oil in a single-cylinder engine and a multi-cylinder tractor engine. They report that engine tests reveal no difference in horsepower, but there was a slight increase in thermal efficiency per unit of fuel with the diesel-soybean oil blends, for which the researchers have coined the name "diesol."

Researchers estimate that, based on current costs of diesel fuel and soybean oil, a diesol blend containing 10 percent soybean oil would cost approximately \$1.18 per gallon, decreasing to \$1.06 if diesol were given state and federal tax breaks.

The LSU research was reported in a paper delivered at the National Energy Symposium September 29-October 1 in Kansas City, Missouri.

PAR Employment Service Lists More Than 1,000 Engineers

Professional Abstracts Registries (PAR), the computerized employment information service recently endorsed by NSPE, reports that it now has more than 1000 engineers and

scientists entered in its data base and that more than 125 corporations are now subscribing to the service.

The PAR system places plain language engineering resumes in a central data base where employers may search them on a names-protected basis, and have the PAR office send job descriptions to engineers in whom they have an interest. The basic charge to engineers for a full-year listing is \$14, or \$10 to NSPE members. NSPE will pay the full fee for unemployed members willing to accept an "open" listing with their names available upon request by employers.

Employers are charged on the basis of the number of job descriptions they wish to send engineers, rather than search time, and are not charged a percentage of the new hires' first-year salary, as is the case with conventional employment agencies.

For further information contact NSPE, 2029 K Street N.W., Washington, D.C. 20006 (202) 463-2332.

Harry Bovay Honored in Texas

H.E. Bovay, Jr., P.E., chief executive officer and chairman of the board of Bovay Engineers, Inc., has been honored with the Texas Engineering Foundation's prestigious "Distinguished Engineer of the Foundation" award. The honor was conferred at a recent TSPE annual convention.

The foundation is a non-profit educational organization established in 1968 by the Texas Society of Professional Engineers. The stated goals of the foundation are to promote the study of engineering sciences; facilitate the publication of special works pertaining to mathematics, physical, and engineering sciences; improve communications between the engineering profession and other sectors of society; improve standards of engineering education; and provide scholarships and teaching fellowships to engineering schools.

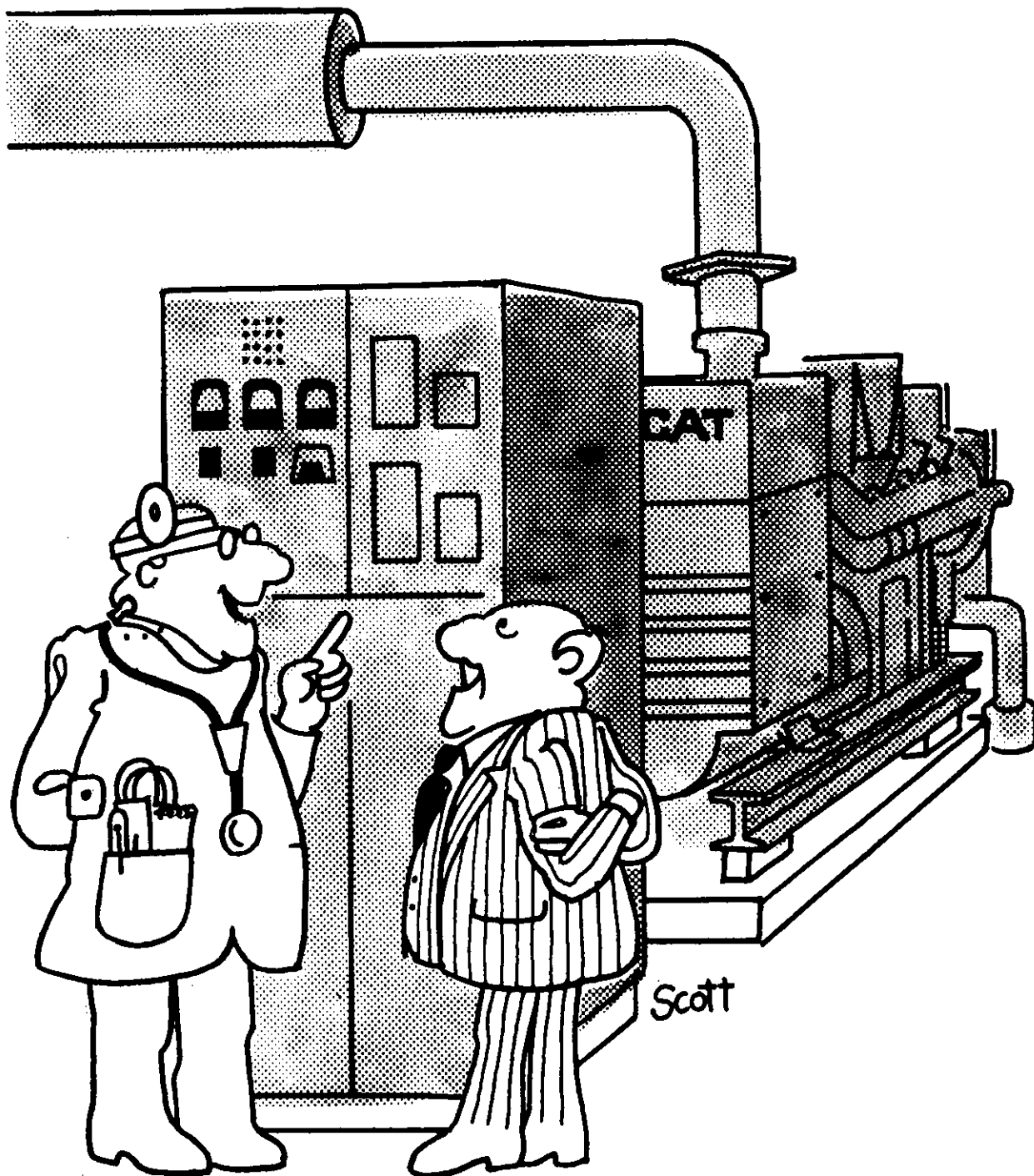
Status of I-49 Discussed

Bob Bruce, P.E., Howard, Needles, Tammen & Bergendoff, and project manager for I-49, gave an interesting talk at the Baton Rouge Chapter meeting on September 18, CEBO building, LSU. His topic was "Status of I-49", the north-south highway. The right of way (through downtown Alexandria and lignite coal deposits of northwest Louisiana), the mileage (186), the cost (average 4 million a mile), and the planned completion date (1986) were of extreme interest to the 42 engineers of the Baton Rouge chapter. The Lafayette, Alexandria and Shreveport chapters might note that Mr. Bruce and his talk would be of interest to their members.

NSPE Announces New EIT Home Study Course

NSPE announced the availability of a new home study program, P.E. Readiness, Course No. 1, EIT Exam Preparation, on a 15-day free trial basis. The price of the course in the U.S. and Canada is \$195 in U.S. currency. The price includes all course material and the

Continued on page 16



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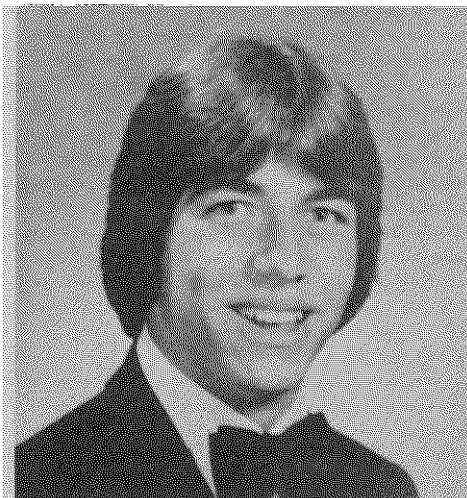
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1980 Recipients of LES Scholarships

The LES Board authorized three scholarships in 1980, grants of \$1,000, \$500 and \$250.

Michael J. St Pierre, Gramercy, was awarded the \$1,000 scholarship. Michael is very interested in chemistry, and aware of the many chemical plants

along the river, he has chosen to study chemical engineering at LSU, Baton Rouge.

Michael J. Alline, Slidell, was awarded the \$500 scholarship. Michael's mother is a nurse and his father is a mechanical engineer employed at Kaiser Aluminum. He plans to study electrical engineering with a medical option at LSU, Baton Rouge.

Our \$250 recipient, Monica Sue Sonnier, did not answer our letters but the dean of engineering at LSU reports she is enrolled and now married. Her new name is Monica Sue O'Halloran.

POTPOURRI

Continued from page 14

services of an instructor/partner to review and comment on the student's exercises. P.E. Readiness can be obtained without advance payment by writing to Dept. ED104, NSPE, 2029 K Street, N.W. Washington, D.C. 20006.

The course material for PE Readiness Course No. 1 includes an EIT Exam Preparation loose-leaf manual, master schedule and 17 mini-exams, the fifth edition of the 760-page EIT Review Manual containing 265 solved example problems, a solutions manual and a practice EIT exam.

Roster Addition

In the February LOUISIANA ENGINEER a roster of chief executives of each constituent

component of the engineering profession was prepared and published. Please add the following to your roster:

AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS (AIAA)

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Construction Contracts Seminars Will Be Held in October

Professional Education Systems will conduct three seminars in Louisiana next month: October 22, Shreveport, Bossier Hilton; October 23, Baton Rouge, Sheraton; and October 24, New Orleans, Hilton. The subject for the seminars is construction contracts formation and enforceability, lien law and bonding. They are of six hours duration and the fee is \$75 which includes a copy of a manual, "Construction Law in Louisiana."

For further information contact: Mark Hill-and, Box 1428 Eau Claire, Wisconsin 54701, (715) 836-0060.

ASEE Executive Director to Retire

The American Society for Engineering Education's executive director, Donald E. Marlowe, announced that he will retire in the beginning of 1981. The past president of ASEE has appointed a seven-member search committee for the task of finding someone to replace Marlowe.



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In the five years Marlowe has been executive director, he has led the society along new avenues of growth, prestige and activity. Perhaps the highlight of Marlowe's career with ASEE came with the creation of the American Association of Engineering Societies (AAES). One of the prime movers in developing AAES, Marlowe has often spoken of his high hopes that the association will prove to be engineering's long sought unity organization.

Louisiana Engineering Foundation

Leo M. Odom, P.E. has offered to sell his building at 1213 Nicholson Drive to the Louisiana Engineering Foundation for \$150,000. Mr. Odom will contribute \$75,000 of the purchase price subject to an appraisal and obtaining an IRS non-profit classification for the foundation. The Louisiana Engineering Society and the Consulting Engineers of Louisiana are presently occupying the building under a lease agreement.

The building will give LEF an interim headquarters for promoting the physical and spiritual focus of engineering activities in Louisiana. The LEF Board of Directors has this generous offer under consideration.

All engineers are urged to comment and offer support for this development. Send contributions to LEF, P.O. Box 2683, Baton Rouge 70821.

Profit and Cash Flow Management for Non-Financial Managers

A two-day seminar on this subject will be held at the University of New Orleans on October 27-28.

Sponsored by the UNO College of Business Administration, the seminar is designed to explain in simple, clear language, what cash flow management is, why it can improve profitability, and how a businessman can effectively communicate with financial experts.

For further information, call Dr. Barry Render at UNO, (504) 283-0248.

Dow Corning Named 1980 Winner of IPDA

U.S. Area Facilities and Plant Engineering of the Dow Corning Corporation, Midland, Michigan, has been selected as recipient of the 1980 NSPE Industrial Professional Development Award, for outstanding engineering employment practices.

The national award winner is selected from nominations submitted by the 54 state and territorial engineering societies affiliated with NSPE. In addition to the national winner, the following three organizations were selected for regional awards for their contributions to professional development for their engineering employees:

- The Rust Engineering Company, Birmingham, Alabama (Southeastern Region)
- Ralston Purina, St. Louis, Missouri (North Central Region)
- El Paso Products Company, Odessa, Texas (Southwestern Region)

Who is Who in Engineering

More than 13,000 engineers who have distinguished themselves within the engineering community are listed in AAES's newest publication, *Who's Who in Engineering*. Compiled in alphabetical order, biographical sketches of the engineers listed in *Who's Who in Engineering* identify work vocation, education, awards, age and membership affiliation. The

comprehensive volume also features a tabulation and description of national awards by engineering and scientific societies.

The fourth edition of *Who's Who in Engineering* is published by the American Association of Engineering Societies. The 800-page volume sells for \$75.00 and can be ordered through Department R. of AAES, 345 47th Street, New York, N. Y. 10017 or call (212) 644-7840.

LES LADIES' AUXILIARIES

Activities of the Bayou Chapter Ladies Auxiliary



Dee McCullough, President

The Bayou Chapter Ladies Auxiliary of the Louisiana Engineering Society has awarded a scholarship to a student majoring in engineering science or engineering technology at Nicholls State University since 1973. The student must be a junior or a senior from the area and must maintain a 2.0 average. Financial

need is the overriding consideration in awarding the scholarship. Character, purpose and scholastic achievements are also considered.

The Bayou auxiliary meets with the men every meeting except in February when they observe Engineers Week by inviting student chapter members from Nicholls State University.

The auxiliary strives to promote unity in the engineering profession by encouraging friendly, social and educational contacts among professional engineers, technicians, land surveyors and their families.

The officers for the 1980-81 year are Dee McCullough, president; Carol Duke, vice president; Marilyn Peterman, secretary and Cheryl Broussard, treasurer.

The Bayou chapter auxiliary extends an invitation to Louisiana ladies to attend the Spring Convention in Houma on April 9-11, 1981.

Editor's Note: The Bayou chapter ladies do not claim credit for the chapter's outstanding membership promotion, but their influence and involvement helped the chapter to win the state membership contest eight times since the chapter was established in 1969.

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Rathke, Richard Martin
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Civil
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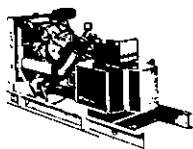
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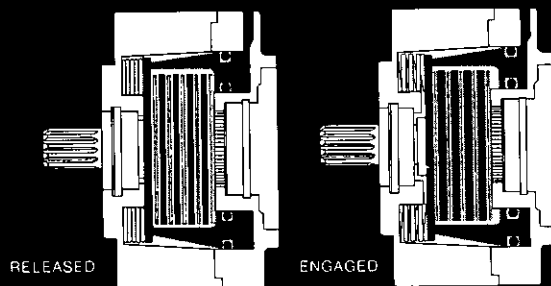
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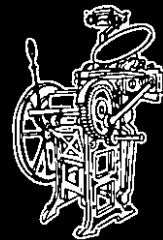
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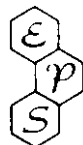


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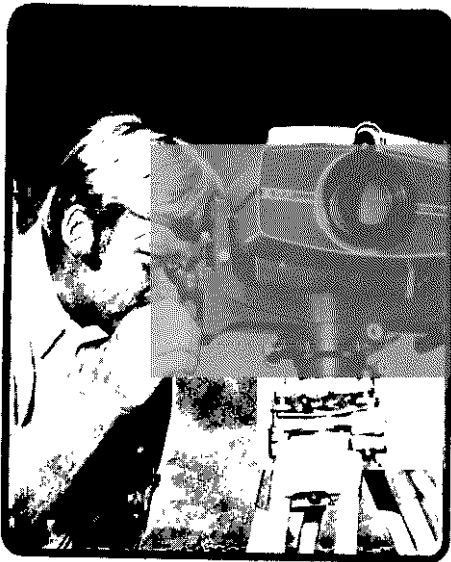
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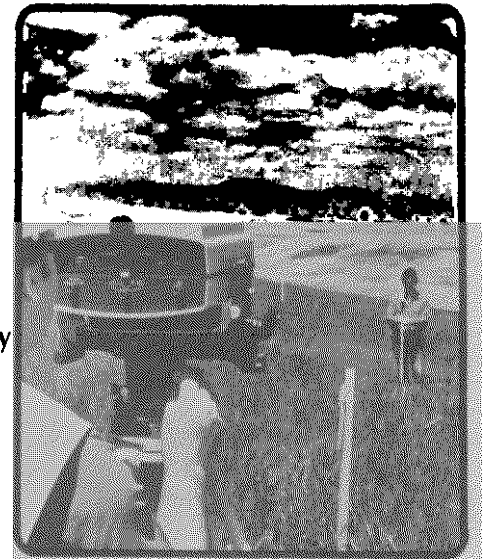
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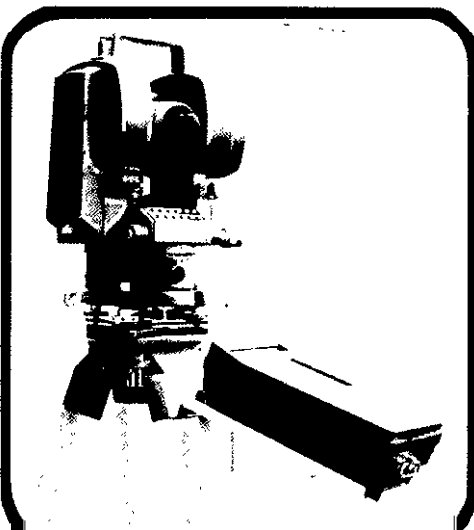
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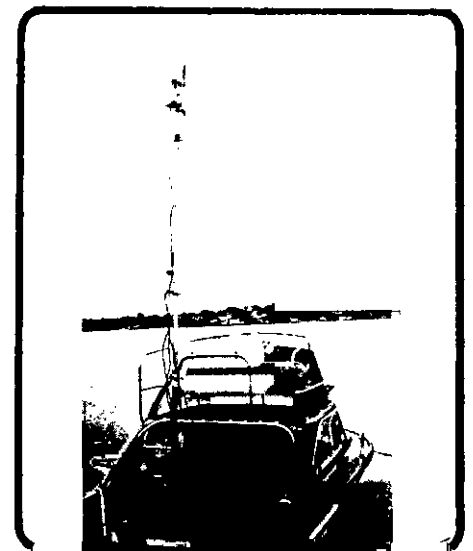
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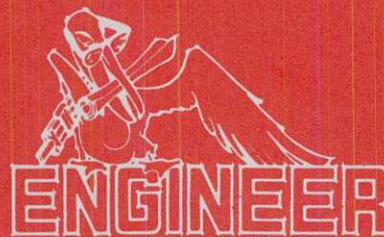
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1980 Legislative Wrap-Up

Thanks to the professional land surveyors from throughout the state for doing your job in contact with our Representatives, and our need, our revised registration Bill No. 656 by Representative Martin, O'Neal, St...

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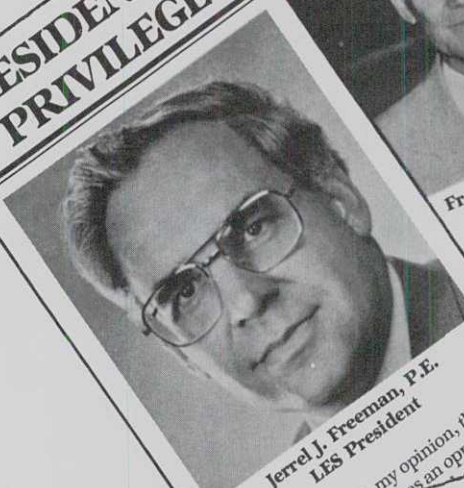
Francis C. Roy, P.E.
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started, we might have a better solution." I said it was the rainmaker got it going," I injected. I pressed to repeat the summer evening home in topic

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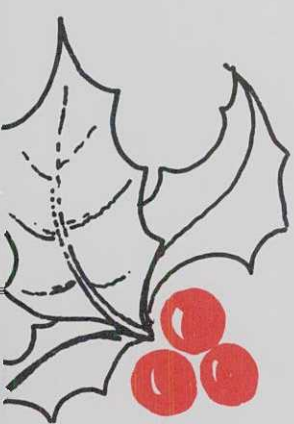
Daniel H. Vliet, P.E., Executive Secretary Louisiana State Board of Professional Engineers

LES Honors Five Outstanding Engineers

Introducing LES's 1980-81 Board of Direction

Then, this foundation on w a stance in de as well as with The mem tainly are facing veloping a meaning there will be temptations to excerpt portions of

competence as a requirement for the renewal of licenses of professionals. Although the interest in this subject seems to have subsided, I continue to receive on the average of at least one questionnaire a month. Most ask if there is interest in Louisiana to have



FROM THE LOUISIANA ENGINEER

Balance



We must balance the energy scales of supply and demand.

The shortage of conventional fuels such as natural gas and oil, and the growth in population and industry in our area, have increased the need to find new sources of energy and improved ways of using old sources.

Energy sources such as fusion, solar, wind and geothermal could offer some help in the years to come. But for the immediate future, competent studies show that these sources cannot make significant contributions to our energy supply. We must rely increasingly on the use of nuclear power and coal for generating electricity. Coal is America's most abundant natural fuel resource and geologists estimate that at the present rate of consumption, there is enough coal to last our country for several hundred years.

As for nuclear power, it has been endorsed by an overwhelming majority of scientists in this country and throughout the world. The records show that nuclear power is safe, and environmentally acceptable.

The law of supply and demand. It applies to electric energy just as it does to any other product. And nuclear power and coal can help balance the scales.

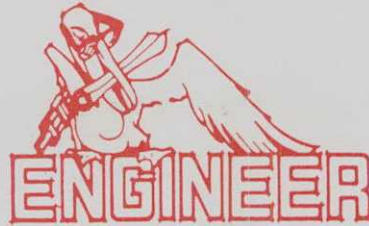
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About the Cover:

The Louisiana Engineer extends greetings for the holiday season.

In This Issue:

Presidential Privilege	4
Engineering At LSU	5
Roster of Engineering Societies	8
Management Course	9
Vliet's Views	10
Potpourri	11
CEC/L	12
EngiNEWS	16
New Members	17
New Registrations	18

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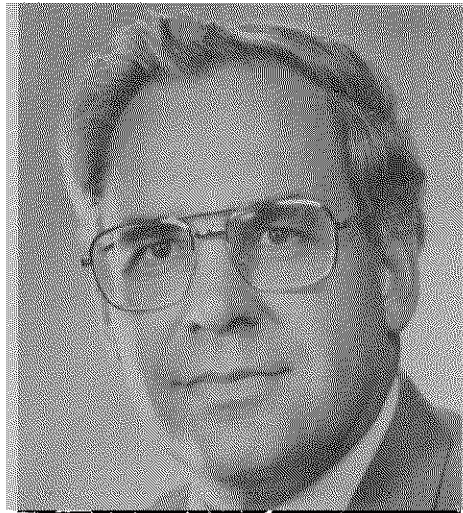
PRESIDENTIAL PRIVILEGE

We are approaching the ending of an old and the beginning of a new calendar year, the traditional time of self-examination and renewed resolve to improve. So pause with me, if you will, and let us examine not only our personal habits but our professional activities as well.

Some of us have been occupied with our jobs, our families or some other important facet of our lives that must necessarily come first in our lives. Although these do take precedence over professional activities, I do not believe that these demands are so all consuming that each of us, at some point in our careers, cannot contribute some time and talent to the benefit of our profession. There are approximately 14,000 registered professional engineers in the state of Louisiana and approximately 3,000 members in the LES. I will not presume that the LES is the only worthwhile way to serve our profession, and we can assume, for the time being, that the other 11,000 P.E.'s in Louisiana are doing what they can through the technical societies or in some other way.

Let us confine our thoughts to those who have chosen to join the LES while we indulge in a little fanciful arithmetic. Only about 10% of our members show up regularly at chapter meetings. Their accumulated participation time might be estimated to be two hours per meeting for nine meetings a year for a total of approximately 5,400 man-hours. Of these 10% "active" members perhaps half devote another two hours a month to other Society business such as committee meetings, thus adding another 3,600 man-hours to our accumulation. About 20 board members give another eight hours a day once a month for ten board meetings a year; this adds another 1,600 man-hours to our total. We have now accounted for about 10,600 man-hours, quite a respectable amount in my opinion.

If the other 90% of the members would devote an average of only one half an hour per month, the additional available manpower would be 16,200 man-hours—an additional 150% of what is currently being used. This would be the equivalent of having a full time staff of



Jerrel J. Freeman, P.E.
LES President

eight people in addition to the three we presently have in the state office in Baton Rouge and in addition to the efforts already being put forth by the active members.

We cannot realistically expect 100% participation at any one time, but we can strive for participation from 100% of our membership during some part of their careers. If only one out of every four of the 90% save an average of two hours a month, then we would still have the 150% estimated increase.

You may not agree with my estimates and you may find errors in my arithmetic, but I don't believe my conclusion is wrong—we can have a dramatic increase in the capability of our Society with a minimal commitment from the "inactives".

"So what?" you ask.

"What will the Society do with all of this additional manpower?"

Perhaps a sampling of current activities and activities under consideration will give you an idea of how this resource could be used. Hopefully, this recount of activities will also strike a chord of interest in you and bring you to be more active, even if only for a short time.

We are, of course, continuing our legislative activities. Although we will not have the full-scale program of last year, we are approaching this year with an increased awareness that we must be conscious of other legislation that could affect the public or the engineering profession. This is legislation that we can

contribute to by participating in the legislative process in Baton Rouge. Also, we are beginning a program of regularly reviewing the Louisiana Register in which the proposed rules of state agencies are published before becoming effective. These rules can have the force of law and might be enacted without benefit of the legislative process or public input unless we, or someone like us, take the trouble to monitor, to evaluate, and when appropriate, to act.

It has been proposed that the Society update a study made several years ago of the curricula in the engineering schools in Louisiana. This will require the assistance of engineers knowledgeable in the educational process as well as the needs of industry and business.

Problems such as the professional liability of engineers working in government also need to be addressed. Legal issues that might affect large segments of the profession seem to be arising more frequently, and we should be aware of these and consider intervention in the courts when it seems to be in the best interest of the public or the profession.

Of less pressing concern, but important none the less, are the tasks necessary for the day-to-day operations of the Society, public relations, aid to students through scholarship programs and interaction with other professional, technical and business organizations. These are a few of the areas to which we might apply some of the unused talent we just estimated to be available. There is undoubtedly a wide variety of interest, experiences and abilities in this underutilized resource pool, and there is a place to use any combination of these attributes an individual might possess at any given time.

Again I ask you to pause and reflect: has your time come, can you resolve to contribute to your Society, to your fellow engineer, to your fellow man?

On behalf of the officers and staff of the LES I extend greetings of the season to each of you. And to all of our friends, old and new, Marilyn, the children and I say
Merry Christmas and Happy New Year!

Engineering at LSU: New and In The Future

Richard A. Matula, P.E., dean of engineering at LSU, has prepared and published an excellent brochure, "LSU Engineering in the 80's." He covers the University's role and objectives, status of college and challenges and opportunities. The following comments are extracts from the brochure. Complete copies of the brochure are available from LSU College of Engineering, 3304 CEBA, Baton Rouge 70803.

During the '80s, the nation will continue to face a crisis in technological innovation and productivity. The nation's recent record in technological innovation has been such that, in many areas, other countries, such as Japan and West Germany, have taken the mantle of leadership away from the United States. At present, less than 60 of the top corporations in the world are American. Many reasons are given for this decline, including the failure of the government to support basic research; the cuts in industrial research and development budgets in the face of profit squeezes; the inadequate supply of M.S.- and Ph.D.-level engineers

and scientists to develop and activate innovative technology; and the perceived need to focus efforts exclusively on projects that promise near-term payouts. All of these negative pressures on technological innovation are predicted to intensify in the decade ahead. The problems of the United States auto and steel industries are focusing attention on our present technological lag.

Engineering leaders in industry, government, and universities believe that increased technological innovation will solve the productivity crisis and also be an important key for controlling inflation, increasing jobs and reducing unemployment, balancing foreign trade payments, improving job satisfaction, improving quality of life, increasing tax revenues, and enhancing the stature of the U.S. But major new ventures by industry, government, and universities are required to regain our technological and economic leadership in the '80s.

There are indications from those who are knowledgeable about higher education (the Carnegie Commission on High-

er Education, the National Academy of Engineering, the National Research Council, etc.) that the 80s and '90s will be a period of severe retrenchment for many, if not all, universities. Demographic studies indicate that the number of high-school graduates will drastically decline in some states in excess of 40% during this period. Projected increases of older and nontraditional students are not expected to make up the difference for the loss of high-school graduates entering colleges.

The challenge is before us! Where will engineering education be at LSU in 1990? In this decade, operation and survival alone will be costly and difficult, to be a winner will require bucking national trends and riding waves of transformation and change. It will take more than the optimism and hard work of a few people. It will take more than the devotion and energy of University personnel. It will require the concerted efforts and the unparalleled dedication of LSU, government, industry, alumni, and friends.

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One of the biggest challenges facing the engineering education community in this decade is the dearth of highly qualified faculty. The National Council of Engineering Deans estimates that there are now approximately 2,000 unfilled engineering faculty positions in the United States. The problem will get worse in the next 10 years because of three trends: Continued increase of engineering enrollments; the retirement of an unusually large number of engineering faculty; and the trend of engineering Ph.D.s leaving the teaching profession for financially attractive positions in government, industry, and private business.

The supply/demand picture for future engineering educators and engineers with the background to support the nation's research and development needs is particularly bleak when one realizes the critical shortage of American students pursuing advanced degrees in engineering. In the period since 1972, the number of Ph.D. degrees awarded by United States universities has dropped 26%, and the doctoral enrollment has decreased by a similar amount. Presently nearly 50% of the students enrolled in engineering graduate programs are not citizens of the United States.

Two things are needed to solve the dilemma of faculty availability. The first is to increase graduate and Ph.D. enrollments to provide the pool of candidates available for faculty appointments, and the second is to halt the exit of present faculty from universities by keeping faculty salaries and benefits competitive with markets for similar personnel in industry and government. Neither solution will be implemented unless there are coordinated efforts among several segments of society addressing the problems together.

Faculty salaries need special support considerations. Outstanding engineering faculty should be provided with more opportunities for being named to professional chairs, for holding named professorships, for receiving awards for excellence in teaching and research, and for consistently receiving salary increments for significant merit.

Graduate student enrollment in engineering can be increased by transmitting to undergraduate students the excitement of research settings; by informing undergraduate students of the expanded professional vistas open to engineers with undergraduate-level educations by insuring that the earnings of engineers with graduate educations are favorable when compared with baccalaureate salaries; and by expanding

scholarship and fellowship opportunities for engineering graduate students.

In the 1960s, engineering graduate student stipends were approximately 50% of the average engineering baccalaureate starting salary. Inflation and high demand has escalated beginning salaries rapidly while graduate stipends have received only moderate increases. Consequently, today graduate stipends are approximately only 25% of beginning B.S. salaries. University funds for graduate education will have to be supplemented by other sources of funding. Such funding could conceivably come from the following: Special post-baccalaureate student support programs in engineering offered by the federal government through the National Science Foundation and other agencies; forgivable loan programs to students enrolled in engineering Ph.D. programs who subsequently accept positions in higher education established by private foundations, state legislatures, and the federal government; and fellowship support by industry of priority areas in engineering graduate programs.

Increased numbers and quality of engineering graduate students will, of course, do more than increase the availability of engineering faculty. With the nation heavily dependent on technological capability, increased graduate and Ph.D. enrollments will provide essential leadership for innovation and productivity. Increasing numbers of individuals with advanced specialized educations are needed to regain the U.S. position of technical dominance and influence in the world.

Another challenge for the '80s is one posed by the escalating student demand for undergraduate engineering education. The increased demand for engineering education has placed severe strains on the ability of the College to maintain outstanding undergraduate programs even with the increase in College resources obtained during the past few years. Funding to increase student enrollment above a certain level requires a quantum jump rather than a proportional increment because it is imperative, at some point, to duplicate faculty and costly facilities for a small number of additional students. This is due to the nature of engineering education which requires individualized attention in professional courses and project design as well as hands-on laboratory experience.

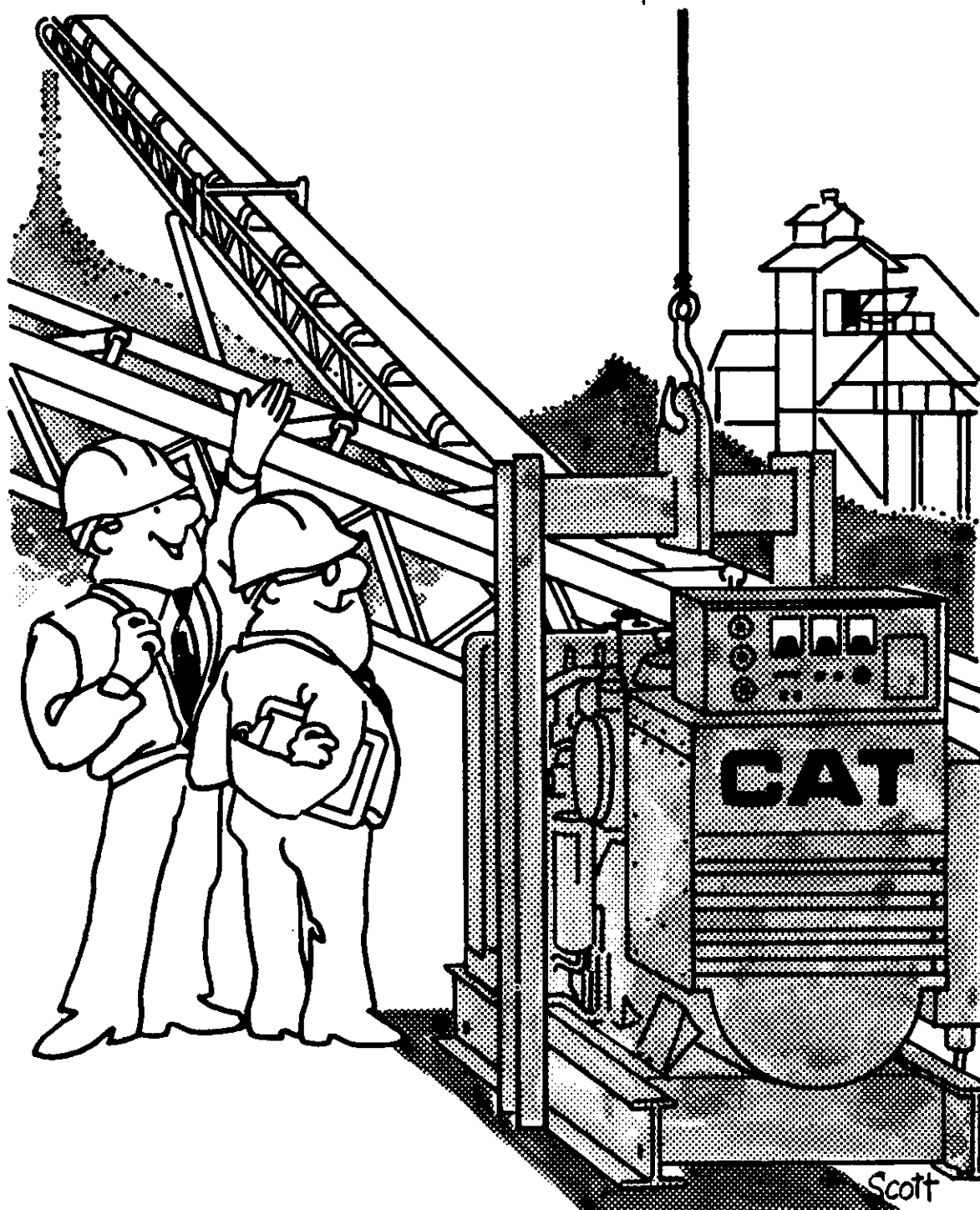
The College is presently determining optimum undergraduate enrollment for resources available in light of its mission of educational excellence. National en-

gineering enrollment trends have forced many colleges of engineering to limit enrollment, and others have enrollment limitations under consideration. It is quite possible that the study of undergraduate engineering enrollment at LSU will indicate the necessity of limiting undergraduate enrollment in the College. Before a decision is reached on this important issue, it must be determined whether it is appropriate to impose enrollment limitations in a period when demand for engineering graduates at all degree levels far exceeds the supply.

The future will hold a continuing challenge for purchasing new and modern instrumentation and equipment to keep the programs in the College abreast of latest developments. The quality and quantity of engineering laboratories declined nationwide during the '70s. LSU has been fortunate to have upgraded many of its laboratories recently, and is in a more favorable position than many other colleges of engineering. However, to insure laboratories from becoming obsolete, provide students laboratory experiences commonly used in professional practice, and maintain research programs at the cutting edge of technology, this priority area must continue to develop.

It becomes obvious that for the LSU College of Engineering to be a star in the '80s, its funding cannot be based solely on resources available from the state. If we are to achieve our goals, in addition to increased funding from legislative appropriations, we must generate increased support from alumni, friends of the University, foundations, and industry. I believe it is in the enlightened self-interest of our constituents to support the continued growth and development of the College of Engineering.

Dean Richard A. Matula possesses a background of over twenty years in engineering education in a number of professional roles. His experience provides a broad perspective for analyzing the status of engineering and engineering education in the '80s. He was named Dean of the LSU College of Engineering in August 1976, after having served as chairman of the Department of Mechanical Engineering and Mechanics, as Director of the interdisciplinary Environmental Studies Institute, and as a Professor of Mechanical Engineering at Drexel University. He also served on the faculties of the Colleges of Engineering at the University of Michigan and the University of California, and has had extensive experience consulting for engineering programs in government and industry. His academic degrees are from Purdue University.



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Roster of Engineering Societies

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 in-

terested 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.

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Executive Director

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Monroe, La. 71201
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(318) 742-4942

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(318) 325-1791

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(504) 665-1515

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(504) 292-5955

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Baton Rouge Section
Industrial Coating Consultants & Dist.
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Baton Rouge, La. 70896
(504) 924-7361

Society of American Military Engineers (SAME)

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USCG, President
Louisiana Post
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New Orleans, La. 70129
(504) 589-3074

Louisiana Society of Professional Engineers in Civil Service

Henry G. Pylant, P.E.
P.O. Box 44311 Capitol Sta.
Baton Rouge, La. 70804
(504) 342-7520

Society of Women Engineers (SWE)

Susie Parker, President
La. Section
P.O. Box 241
Baton Rouge, La. 70821
(504) 359-4942

Spring 1981 Engineering Management Courses 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 \$175 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.

Please complete the following form and return it with the \$10 preregistration fee to the address below if you are interested in the fall program. (Classes will begin during the week of January 19, 1981)

Name _____
Address _____ Phone _____
City & State _____ Zip _____

MAIL FORM TO:

Dr. L. Mann
Industrial Engineering Dept., CEBA Bldg.
Louisiana State University
Baton Rouge, Louisiana 70803

I wish to preregister for the course indicated. (Please show your first choice with a 1, second with a 2, etc. Show

Co-sponsored by the College of Business Administration, College of Engineering, LSU, and Louisiana Engineering Society.

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. Fee is applicable toward the \$175 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
- Course J — Federal Income Taxation

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

- () Project Management
- () Engineering Economy
- () Finance
- () Operations Research
- () Engineering Statistics
- () Cost Estimation
- () Engineering Management and the Law
- () Federal Income Taxation

LOCATIONS

- () Baton Rouge
- () New Orleans
- () Monroe
- I cannot attend on the following nights:
M____T____W____Th____

VLIET'S VIEWS

Daniel H. Vliet, P.E., Executive Secretary Louisiana State Board of Registration for Professional Engineers & Land Surveyors.

At its meeting November 25, 1980, the Board reviewed a proposed set of Rules of Professional Conduct for Professional Engineers and Land Surveyors. I was asked to publish these proposed rules in this issue of the *Louisiana Engineer* so that interested persons may have the opportunity to submit comments and suggestions. These rules are as follows:

Proposed Rules of Professional Conduct for Professional Engineers and Land Surveyors

Preamble

In order to safeguard life, health and property, to promote the public welfare, and to establish and maintain a high standard of integrity and practice, the following Rules of Professional Conduct shall be binding on every REGISTRANT.

All REGISTRANTS under Louisiana Revised Statute 37:681 through 37:703 as amended by Act 568 of 1980 are charged with having knowledge of the existence of these Rules of Professional Conduct, and shall be deemed to be familiar with their provisions and to understand them.

In these Rules of Professional Conduct, the word "REGISTRANT" shall mean any engineer, land surveyor, engineer-in-training, land surveyor-in-training, domestic or foreign corporation holding a license or certificate issued by this Board.

I. REGISTRANTS shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.

a. REGISTRANTS shall at all times recognize that their primary obligation is to protect the safety, health, property and welfare of the public. If their professional judgment is overruled by non-technical authority, they will clearly point out the consequences, notifying the proper authority of any observed conditions which endanger public safety and health.

b. REGISTRANTS shall approve and

seal only those design documents and surveys which are safe for public health, property and welfare and are complete and accurate in conformity with accepted engineering and land surveying standards or practice.

II. REGISTRANTS shall perform services only in the area of their competence.

a. REGISTRANTS shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering or land surveying involved.

b. REGISTRANTS shall not affix their signatures or seals to any plans or documents dealing with subject matter in which they lack competence, nor to any such plan or document not prepared under their direction and control.

c. REGISTRANTS may accept an assignment outside of their fields of competence to the extent that their services are restricted to those phases of the project in which they are qualified, and to the extent that they are satisfied that all other phases of such project will be performed or supervised by registered qualified associates, consultants, or employees, in which case they may then sign and seal the documents for the total project.

d. In the event a question arises as to the competence of a REGISTRANT in a specific technical field which cannot be otherwise resolved to the State Board's satisfaction; the State Board, either upon request of the REGISTRANT or on its own volition, shall admit the REGISTRANT to an appropriate examination.

III. REGISTRANTS shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.

a. REGISTRANTS shall disclose all known or potential conflicts of interest to their employers or clients by promptly informing them of any business association, interest, or other circumstances which could influence their professional judgement or the quality of their professional services.

b. REGISTRANTS shall not accept compensation, financial or otherwise, from more than one party for professional services on the same project, or for professional services pertaining to the same project, unless the circumstances are fully disclosed to, and agreed to, by all interested parties.

c. REGISTRANTS shall not solicit or accept, directly or indirectly, benefits of any substantial nature,¹ or significant

gratuity¹, from any supplier of materials or equipment, or 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.

d. When in public service as a member, advisor or employee of a governmental body or agency, or under contract to provide consultation, advice, technical reviews and recommendations to a governmental body or agency, REGISTRANTS shall not participate in considerations or actions with respect to professional services provided by them or their organization to that governmental body or agency.

e. REGISTRANTS shall not solicit or accept an engineering and/or surveying contract from a governmental body of which a principal, or officer of the REGISTRANT'S organization, serves as a member, except upon public disclosure of all pertinent facts and circumstances and consent of appropriate public authority.

IV. REGISTRANTS shall avoid improper solicitation of professional employment.

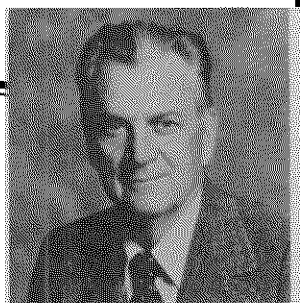
a. REGISTRANTS shall not falsify or permit misrepresentation of the REGISTRANT'S or any associate's academic or professional qualifications; the misrepresentation or exaggeration of the REGISTRANT'S degree of responsibility in or for the subject matter of prior assignments or the misrepresentation of pertinent facts concerning employers, employees, associates, joint ventures, of the REGISTRANT'S or their organization's past accomplishments with the intent and purpose of enhancing their qualifications and their work.

b. REGISTRANTS shall not pay or offer to pay, directly or indirectly, any commission, or gift, or other valuable consideration in order to secure work, exclusive of securing salaried positions through employment agencies.

¹The 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 receivers, or otherwise compromise their ability to exercise their own judgement, without regard to such benefit or gratuity.

POTPOURRI

R. C. "Doc" Spears
Executive Secretary
Louisiana Engineering Society



Engineers Week 1981

Engineers Week 1981 will be celebrated the week of February 22-28. The theme this year is "Engineers plus Opportunity—Progress". The week will be proclaimed by presidential and gubernatorial proclamations.

According to the Chairman of the NSPE Engineers Week Committee, the theme was chosen because engineers "must have the opportunity to turn ideas into action. We can work directly through the profession and by other routes, such as running for public office. We must help to educate our citizens and national decision-makers so they will work to eliminate unnecessary costly restraints and impediments to the country's progress."

Many activities will be conducted in Louisiana during Engineer's Week. Some of them will be discussed in later issues of the *Louisiana Engineer*.

New Officer for Shreveport Corp of Engineers

Captain Patrick Ono of the U.S. Army Corps of Engineers has been assigned as assistant engineer for the Shreveport area office of the New Orleans district. Captain Ono, a native of Kailua, Hawaii, will assist area engineer John Gillespie in overseeing projects in the northern part of the district, particularly the Red River Waterway project restoring navigation to Shreveport.

He graduated from Kailua High School in 1969 and entered the University of Michigan in Ann Arbor, where he received a degree in engineering in 1973. He is currently enrolled in the University of Southern California master of science systems management extension program.

Concrete Formwork Conference

The department of civil engineering,

Louisiana Tech University, in cooperation with the Construction Industry Advancement Fund of Shreveport and Vicinity and the Shreveport chapter of The Associated General Contractors of America, Inc., will conduct a one day conference on Concrete Formwork. The sessions will take place on the Tech campus in Ruston, Louisiana on Thursday, January 15, 1981. Speakers will include Mr. Eduardo Salse, Construction Technology Laboratories, PCA; Mr. Robert C. Bates, Technical Coordinator, Skidmore, Owings and Merrill; Mr. Dan Litt of Linden-Alimak; Mr. James A. Normand, Senior, V.P., M. M. Sundt Construction Co. The fee is \$100 which includes the noon meal and a copy of the ACI Concrete Formwork Manual.

For further information contact: Cliff Schexnayder, Department of Civil Engineering, Louisiana Tech University, Ruston, LA 71272, (318) 257-3176.

New Low Cost Coal and Water Fuel Successfully Tested

The Babcock & Wilcox Company announced on October 21 that it has successfully burned a new coal and water slurry called Co-Al.

The slurry, consisting of 71 percent Eastern bituminous coal (dry basis), water, and a minimum amount of chemical additives, was burned in a combustion test facility at the Babcock & Wilcox Research Center. The advantage of a high-solid slurry like Co-Al is that it can be transported like a liquid and

Continued on page 14

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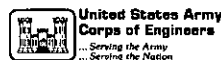
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THE U.S. ARMY ENGINEER DISTRICT, NEW ORLEANS, IS CURRENTLY ENGAGED IN THE DESIGN AND CONSTRUCTION OF SEVERAL MAJOR NAVIGATION LOCKS AND DAMS, HURRICANE PROTECTION BARRIERS, FLOOD CONTROL STRUCTURES, EXTENSIVE LEVEE SYSTEMS AND OTHER CIVIL WORKS PROJECTS. VACANCIES EXIST FOR CIVIL ENGINEERS AND OTHER ENGINEERING DISCIPLINES. IN OUR PLANNING, DESIGN CONSTRUCTION AND OPERATIONS FUNCTIONS WE OFFER A CHALLENGING CAREER WITH OUTSTANDING PROFESSIONAL DEVELOPMENT OPPORTUNITIES, A STABLE WORK ENVIRONMENT, PLUS THE EXCELLENT PAY, LEAVE, RETIREMENT AND OTHER BENEFITS OF FEDERAL EMPLOYMENT. WE ARE AN EQUAL OPPORTUNITY EMPLOYER.

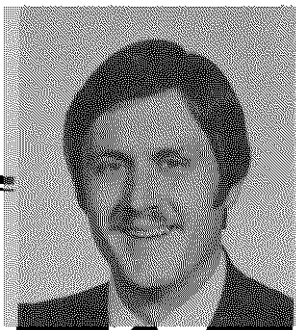
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OUR ENGINEERING TEAM

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USA ENGINEER DISTRICT, NEW ORLEANS
ATTN: PERSONNEL OFFICE
P.O. BOX 60287
NEW ORLEANS, LA 70160
OR PHONE: (504) 838-2792 COLLECT

THE SPEC SHEET

Warren J. Wilder
CEC/L Executive Director



set forth regulations establishing energy conservation standards for new nonresidential buildings in the state. Provision was made for enforcement by local building departments through the building permit process.

The regulations specified that drawings accompanying an application for a building permit include a statement, signed by the designer, that the regulations had been reviewed and that "the design submitted *conforms substantially* with these regulations" (emphasis added).

Many local building officials, however, were apparently not satisfied with the language set forth in the code. Some municipalities responded with a requirement that design professionals execute a certificate of compliance. The following language was taken verbatim from one locality's "Nonresidential Energy Design Certificate":

I, _____, certify that the plans, specifications, calculations, and other documents submitted in support of this application for a construction permit at _____, dated _____, comply with the current requirements of the regulations and/or laws.

No emphasis is needed to stress the odious nature of this requirement. To certify means to attest authoritatively and may constitute an express warranty. By signing such a certification, a design professional makes an assumption of liability which would not be his under common law nor expected of him by a knowledgeable client. It can also create a major insurance problem, since every underwriter of professional liability insurance in the United States has in its policy of insurance an exclusion of coverage of liability assumed under contract, including (but not limited to) warranties, guarantees, and certifications.

It would be proper for an engineer or an architect to issue a statement that, to the best of his knowledge and belief, his design conforms substantially with a specific code; it would be improper for him to certify compliance. There is a significant difference between the two. A statement is an allegation which, if made in good faith, would require the proving of negligence should the person making it be wrong. A certification does not require the proving of negligence to establish liability — only the proving that it is incorrect.

California's nonresidential energy regulations also require a certificate of construction compliance, signed by the own-

WHEREAS although it is recognized that taking bids or competitive price proposals for professional services may lower the fees paid by the client, it must be also recognized that the smaller fees do not necessarily represent genuine savings, and that, in short, fee bidding encourages firms to offer less than their best since offering their best will almost certainly eliminate them from consideration; and

WHEREAS many of the worst and/or most crucial construction problems stem from subsurface difficulties;

NOW THEREFORE BE IT RESOLVED that all members of the Consulting Engineers Council of Louisiana are strongly encouraged to exercise every proper means available to them to discourage the use of the bid and/or competitive price proposal procedure of selection and to encourage the negotiated procedure for selecting soils or geotechnical consultants.

CERTIFICATION WATCHING THE WATCHDOGS

Public officials at all levels of government are understandably eager to carry out their duty to protect the public interest. Occasionally, lest a deceptive stone be somehow left unturned, they become overzealous in their attempts to do so. Too often, the consequences leave one hard pressed to understand how the public interest is being served.

A typical case in point was recently brought to our attention by the California Council of the American Institute of Architects and a number of others concerned with governmental incursions on professionalism in the design practice. On February 8, 1978, the California Energy Commission released an amendment to Section 24 of the California Administrative Code. The amendment

CEC/L BOARD ADOPTS SOILS SERVICES RESOLUTION

The Board of Governors (state officers) of Consulting Engineers Council of Louisiana, Inc., at their November board meeting, adopted the following resolution relative to the procurement of soils or geotechnical engineering services:

RESOLUTION REGARDING PROCUREMENT OF SOILS OR GEOTECHNICAL ENGINEERING SERVICES

WHEREAS the Consulting Engineers Council of Louisiana unequivocally recognizes soils or geotechnical engineering as an important professional engineering service, and that the entire engineering and construction team depends substantially on the competency of the soils or geotechnical consultant; and

WHEREAS the soundness of each soils or geotechnical engineering decision is dependent upon the accuracy and applicability of data obtained in field and laboratory investigations, which makes it imperative that these investigations be under the supervision and control of the soils or geotechnical engineer responsible for the decisions resulting from the field and laboratory investigations, which necessitates the inclusion of the field and laboratory investigations as an integral part of the professional soils or geotechnical engineering services; and

WHEREAS it has come to the attention of the Consulting Engineers Council of Louisiana that a number of clients have continued to request bids or competitive price proposals from soils or geotechnical engineers for either or all field and/or laboratory investigations and/or soil or geotechnical engineering services, to include engineering analyses and the preparation of soils or geotechnical engineering reports with conclusions, opinions and recommendations; and

er, general building contractor, architect, engineer, or approved independent inspector, to be submitted to the appropriate building official at the time a request is made for final inspection. This certificate must indicate that the completed work appears in every material respect to be in compliance with the approved plans and specifications.

Unless he were on the jobsite full-time and had observed every aspect of the work, it would be a rare design professional indeed who could certify that the work was performed and materials installed in compliance, in every material respect, with plans and specifications. Nevertheless, some California cities have indicated their wrongful intention to require just that. Design professionals should avoid signing such a certificate. In this particular case, they might do so by including language in the construction specifications requiring that the certificate be submitted by either the general contractor or an independent inspector.

When a design professional agrees to undertake a design task, his obligation is to provide professional services to the best of his ability and in conformance with the professional standards within his community.

He is no more obligated to guarantee a flawless outcome than are lawyers or doctors obligated to guarantee the success of their professional endeavors.

As a design professional in private practice, you should go to great lengths to avoid widening your burden of responsibility through certification. If you are confronted with a demand that you certify your work, seek help through your professional association or your own leg-

al counsel. Design professionals have been successful in securing dozens of form changes from governmental agencies which have mistakenly asked them to certify their work or the work of others. Often, this takes little more than an opportunity to discuss the matter with the legal staff representing your government client. You need not assume liability for perfect performance, nor for conditions which are beyond your control.

ACEC PUBLISHED NEW PROFESSIONAL LIABILITY INSURANCE GUIDE

The American Consulting Engineers Council has published a new timely and informative guide to "Understanding Professional Liability Insurance," designed to assist consulting engineers in obtaining professional liability protection.

The 31-page document includes a discussion of special coverage problems, a review of exclusionary clauses and alternative types of insurance and advice on the selection of proper coverage and completing insurance forms.

"Premiums for professional liability insurance have risen dramatically in the last decade," notes Howard Cottrell, chairman of ACEC's Professional Liability Committee. "The cost of coverage has become an overriding factor as increasing numbers of design professionals are giving consideration to 'going bare' or without professional liability coverage.

"This need not be the case. This document presents consulting engineers with information to better understand the terms and conditions of his or her professional liability insurance policy, as well

as advice on how to improve coverage."

The document, prepared under the direction of ACEC's Professional Liability Committee, was authored by Atlanta attorney Larry McReynolds.

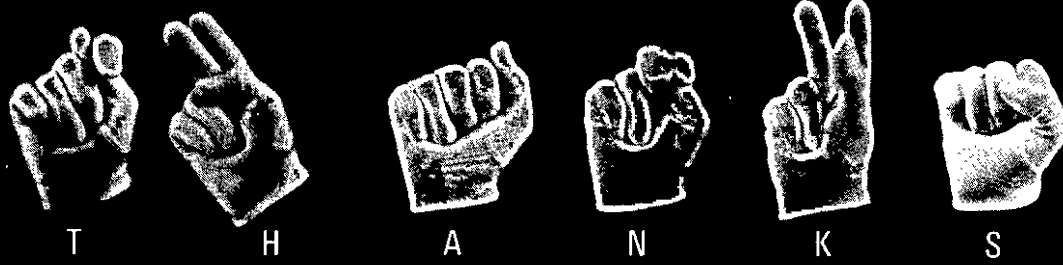
ACEC is the organization which represents over 3,700 consulting engineering firms throughout the country. "Understanding Professional Liability Insurance" is the latest in ACEC's continuing efforts to provide information on important business practice issues to its member firms.

The cost of the new publication, No. 91, is \$5.00 prepaid. Order from ACEC, 1015 15th St., N.W., Washington, D.C. 20005.

WHAT IS CEC/L?

Consulting Engineers Council of Louisiana, Inc. (CEC/L) is a professional organization serving the engineer in private practice. It is unique in that the consulting engineering firm is the member with its principal or principals acting as its representative in Council business. CEC/L places its emphasis on the business management end of the practice rather than on the technical aspects of engineering, which sets it apart from the other professional societies. There is a Consulting Engineers Council in almost every state, including Hawaii. All the Consulting Engineers Councils are member organizations of the national American Consulting Engineers Council, headquartered in Washington, D.C.

If you have questions about membership or want more information about CEC/L, please call the state office (504) 387-0843, or write to P.O. Box 1549, Baton Rouge, La. 70821.



Thanks for the helping hand.

Thanks to you, the Capital Area United Way is happy to announce that our 1980 goal of 3.7 million dollars has been surpassed.

Thanks to the local corporations, employees and individuals who contributed, the vital human services provided by the more than sixty-four local participating agencies will continue for another year.

Thanks to the hundreds of volunteers throughout the six parishes represented by the Capital Area United Way who gave unselfishly of their time and energy, our 1980 campaign drive was effectively and efficiently conducted and managed.

To all who participated thanks for the helping hand. For, thanks to you, it works for all of us.



CAPITAL AREA United Way

Serving Ascension, East Baton Rouge, Iberville, Livingston, St. James, and West Baton Rouge Parishes.

(©) The ad was created and produced by Geographic Communications, Inc. Photography by Bob Davis.

Continued from page 11

burned without undergoing the expensive dewatering required with most conventional water-based slurries.

Marketing rights and project management for the commercial development of the process are the responsibility of Slurrytech, Inc., of Miami, Florida. Slurrytech officials expect Co-Al to have four major applications: displacement of oil in utility and industrial boilers; pipeline transportation of coal; oil tanker transportation of coal; and feed stock for coal gasifiers.

New Technology

An interesting and provocative response was made by William S. Lee, P.E., president and chief operating officer of Duke Power Company when he received the NSPE Award in Detroit, July 1980. The response in part follows:

"The sidewalks are paved with pickets carrying banners and placards of protest. Shill voices decry the new and dangerous technology; it can kill! The media carry inflammatory reports of the protest and of the danger. Investors panic, the company's stock plummets, and the New York Stock Exchange suspends all trading in the company's securities. People do not understand the new technology nor how its dangerous and unseen emanations affect the human body, much less how they are measured. The public is frightened."

"Sound familiar? The scene is Philadelphia. The year is 1879, 101 years ago. The company was Wanamakers Store that had just announced it would replace gas lights in its store with electric lights. The new technology was electricity, and it was widely known that electric shock could be lethal. The telegraph and newspapers spread the news. It was difficult to understand voltage and electromagnetic radiation. Electricity's mystery, and hence its perceived risk to health and safety, created fright."

"Today, there are other technologies that are mysterious, and about which public policy is uncertain. As professionals, we must do all we can to increase public understanding of society's options about hard to understand technology. That, my friends, requires our commitment to communicate."

Worldwide Technical Specialty Listing Offered by NSPE

Among the many services NSPE offers to practicing engineers and engineering firms is the ability to have their technical competence and professional experience in special fields of practice listed in a computerized data bank referred to by more than 4,000 users or potential clients throughout the world.

By agreement between NSPE and Control Data Corporation a data base on engineering

experience is being established within the worldwide Technotec System. This innovative NSPE service is called DPTSI-Design Professions Technical Specialty Index.

An engineering firm or individual practicing engineer wishing to list experience in special fields of practice may apply to NSPE for such listing. The engineer will be sent forms on which essential information as to the technical fields involved, the capabilities of the engineer, the languages in use, the countries or geographical areas served, the terms on which service may be available and the persons to contact within the engineer's office may be listed. The information is then reviewed by NSPE and entered into the DPTSI computerized data base. There is a charge for listing with discounts to NSPE members and PERP sustaining firms.

Once the engineer's technical specialties are listed in the data bank the data becomes a part of the worldwide Technotec System which is linked by telephone, teletype and satellites of Control Data's worldwide Cybernet Services network. It is thus accessible to more than 4,000 existing users of this system consisting of industrial firms, research organizations, government agencies, contractors, engineers, and other potential clients. Any such user seeking data on engineering firms specializing in a particular technical field of practice may access the DPTSI index and will

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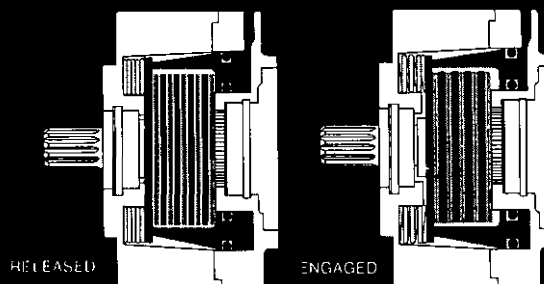
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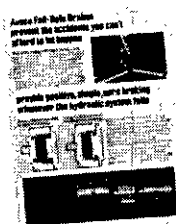
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be given data on all such firms listed.

The service was initiated by NSPE late last year and has had phenomenal success with its initial listings. Based on six months of operation, the November 1980 issue of *Engineering Times* reports that all of the 62 listings reviewed had been accessed several times and more than one-third of the engineers listed had contact information requested at least once. These figures indicate a very high rate of information exchange.

Engineers wishing more information on DPTSI may find it in the December 1979 and May 1980 issues of *Professional Engineer* magazine or may get descriptive brochures and application forms from NSPE Headquarters, 2029 K Street, N.W., Washington, D.C. 20006, telephone (202) 463-2300.

NSPE Winter Meeting

The National Society of Professional Engineers will hold its Winter meeting in Little Rock, Arkansas, January 18-24, 1981.

The Society's Board of Directors will review the finished National Water Policy Report as presented by the Water Policy Task Force. They will also consider a review of the current engineering technology certification programs. At present 65,000 technicians and 500 technologists are certified.

The executive boards and board of governors of the Society's five practice divisions will examine a number of important programs and issues. Accelerating the recent trend to offer continuing education programs during its national meetings, the Society is providing a seminar series:

Protection for Whistle Blowers—Explores the prospects for avoiding unreasonable, arbitrary retaliation and penalty for technical employees of government and industry who find themselves in situations where their only recourse for maintenance of ethical integrity is to "blow the whistle";

Opportunities for A&E Services in Energy Projects—Is designed to guide A&Es in their efforts to secure contracts;

Potable Water Supply in the 21st Century—Looks at probable sources, treatment requirements and quality of supplies as well as events and attitudes that affect those supplies;

New Product Design—Shows how to reduce engineering changes, increase productivity, reduce engineering and manufacturing costs and more. This seminar is specifically designed for engineers in industry but can have value for other technical and managerial persons;

Energy Audit Approaches—Analyzes steps in performing an energy audit, costs/profits, benefits/cost and more.

The Little Rock Meeting will also include a special luncheon for state society presidents and a trade show with more than 70 exhibitors expected.

Baton Rouge WALES Honors Charter Members

The Woman's Auxiliary to the Baton Rouge Chapter of the Louisiana Engineering Society honored their charter members and past presidents with a Founder's Day Coffee at the home of Mrs. Harold Odom, 204 Woodstone in Baton Rouge on November 19.

In a lovely setting of fall flowers, members and their guests were welcomed by Mrs.

Odom, Mrs. M. M. Christensen, President, and Mrs. Frank O'Quinn, Chairman of the event.

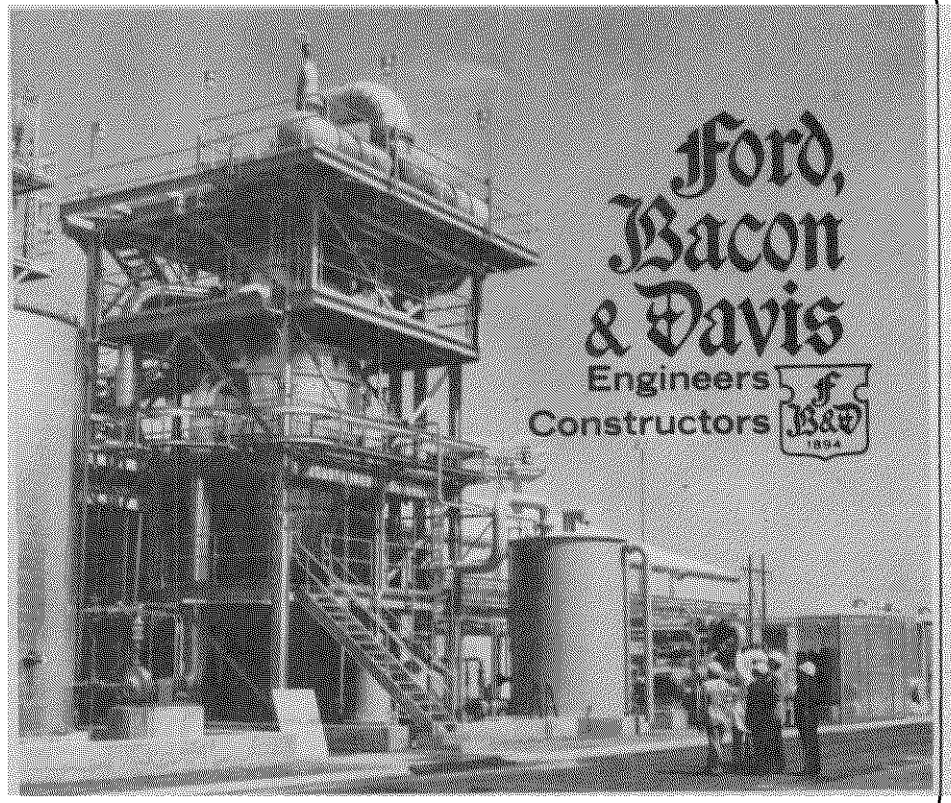
Serving with Mrs. O'Quinn were committee members: Mrs. A. P. Batchelor, Mrs. Fred Bell, Jr., Mrs. Edward T. Borie, Mrs. Lee Campbell, Mrs. Wallace Hargrave, Mrs. Samuel J. Helfman, Mrs. Charles Meyer, Mrs. Richard C. Robert, Mrs. Don Ray Schmieder, Mrs. W. A. Wintz, Jr., Mrs. Humphreys Turner, and Mrs. Ronald Muller.

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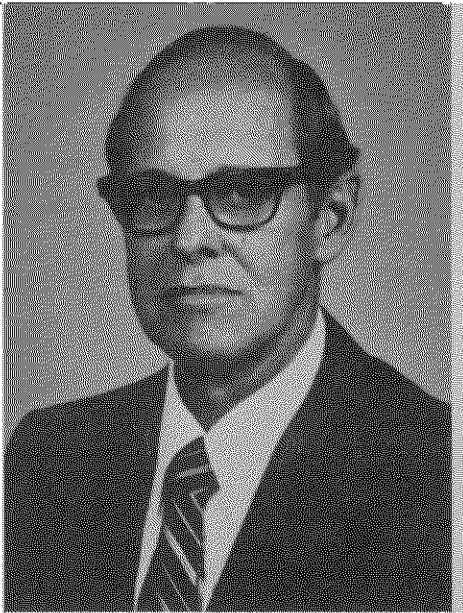
MEMORIAM

D. Ralph Caffery, P.E.

The Louisiana Engineering Society expresses its deepest sympathy to the family of D. Ralph Caffery, 55, who passed away on October 6, 1980. He was president of D. Ralph Caffery and Associates, Lafayette.

Mr. Caffery received a B.S. degree in civil engineering from the University of Southwestern Louisiana in 1949, the same year he became a member of the Louisiana Engineering Society. In 1979, he became a life member of the Society. Mr. Caffery was a registered professional engineer in Louisiana, Texas and Mississippi.

The Society is saddened by the loss of this true friend and active member.



D. Ralph Caffery, P.E.

William J. Rountree, P.E.

It is with deep regret that the members of the Louisiana Engineering Society record the passing of William J. Rountree, 69, Alexandria on November 1, 1980.

Mr. Rountree retired in 1972 as the 8th District construction engineer for the state Department of Highways and was most recently employed as a civil engineer with L. H. Bossier, Inc.

He joined the Louisiana Engineering Society in 1955 and was president of the Alexandria chapter in 1961. Mr. Rountree was a charter member of the

Louisiana Professional Engineers in Civil Service. He is a registered professional engineer in Louisiana.

The society extends its deepest sympathy to his wife, four daughters and two sons.

N. O. Society of Women Engineers Holds Charter Banquet

The Greater New Orleans Section of the Society of Women Engineers (SWE) held its charter banquet on Wednesday, October 15, 1980, at the New Orleans Marriott. Sixty-six persons were in attendance, including representatives of Governor Treen and Mayor Morial. Representatives from area businesses and industries were also present. Mary Landrieu, Louisiana State Representative - District 90, addressed the group on "The Future of Business and Industry in New Orleans." Carolyn Phillips, past president of national SWE, presented the section's charter and was given a key to the city by Ms. Landrieu. Ms. Phillips also installed the section's officers and charter members. The 1980-1981 officers are: President - Claire Shortall, Gulf Oil; Vice-President - Judith Evans, Exxon; Secretary - Christye Robley, self-employed; Treasurer - Terry Cirone, Gulf Oil; and Section Representative - Sharon Irish, D. H. Holmes.

The national organization of the Society of Women Engineers was incorporated in 1952 as a professional, non-profit, educational service organization dedicated to making known the need for women engineers and encouraging young women to consider a career in engineering. SWE serves as an information center on women in engineering and also encourages women engineers to attain high levels of educational and professional achievement. Membership is open to all graduate engineers and men and women with equivalent engineering experience. Corporate memberships are also available. SWE is a member of the

NSPE Liaison Society, the American Association of Engineering Societies, and the Federation of Organizations for Professional Women.

SWE administers many award, certificate and scholarship programs, including the Lillian Moller Gilbreth Scholarship, awarded since 1958 to a junior or senior woman engineering student of outstanding potential and achievement. The SWE Achievement Award, granted annually since 1952, is the highest honor bestowed by the Society, recognizing a woman engineer for outstanding achievement. The Distinguished New Engineer Award was established in 1978 to honor SWE members who have demonstrated outstanding performance in engineering and participation in SWE.

Activities for the 1980-1981 year will emphasize the goals of SWE. Members will be working with women engineering students, high school students and guidance counselors in the metropolitan area and will also be working to develop their own professional and personal skills.

For more information contact Claire Shortall, (504) 566-2753.



SWE section officers are: 1st row, Terry Cirone and Sharon Irish; back row, Judith Evans, Claire Shortall, Christye Robley.



Carolyn Phillips receives key to the city from Mary Landrieu.

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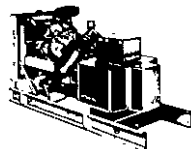
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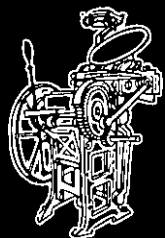
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