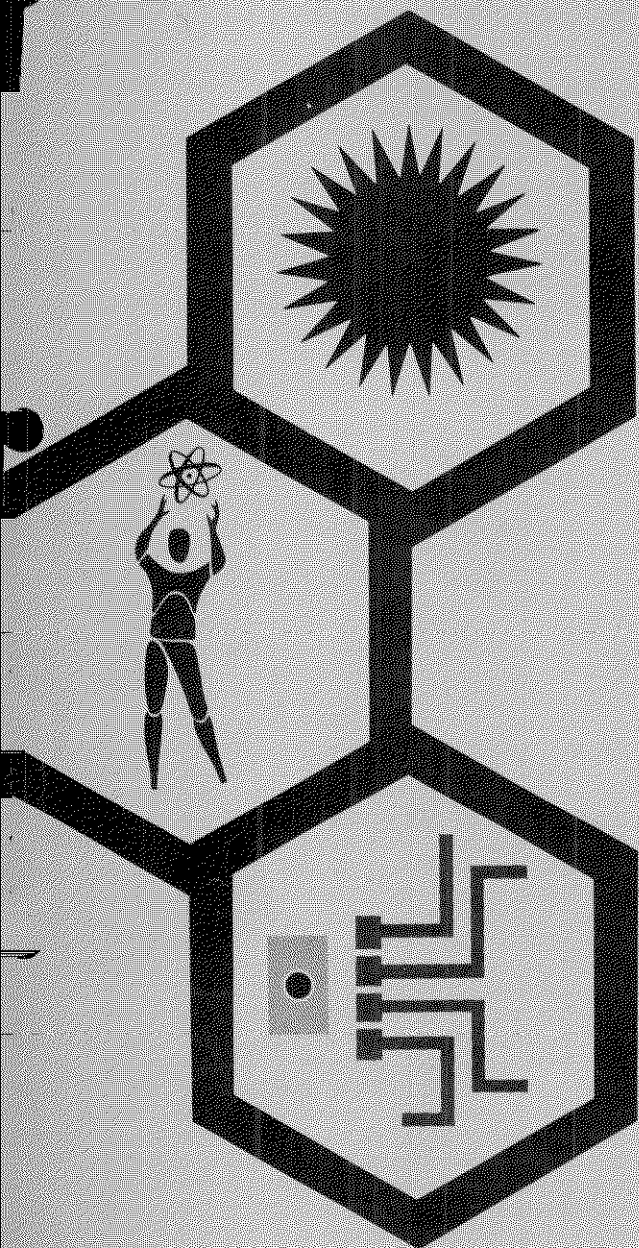
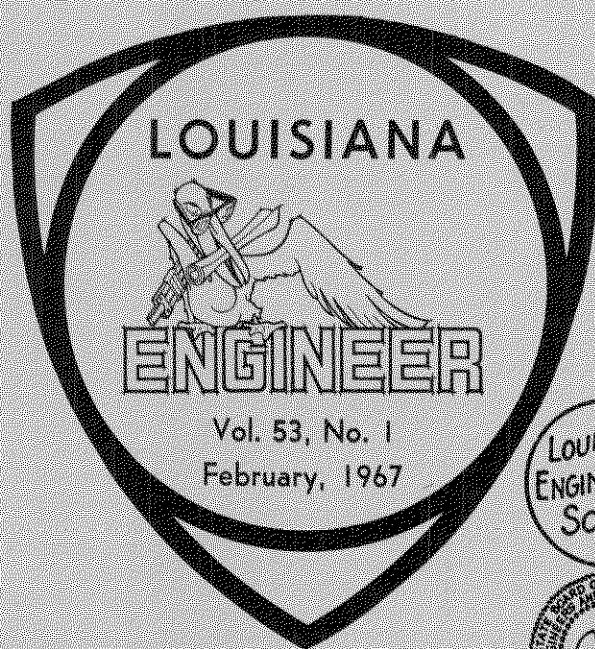




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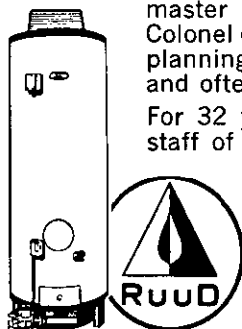


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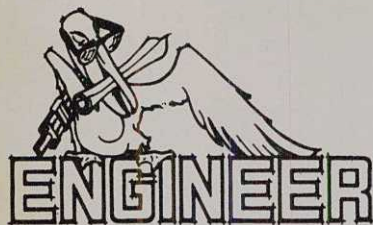
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LOUISIANA



FEBRUARY, 1967

Volume 53

No. 1



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- 9 **SPECIAL COMMITTEE FORMED**
To determine differences in Bench Mark elevations.
- 12 **NSPE NEWS**
- 14, 15 **THE 1967 SPRING CONVENTION**
Plans and arrangements for the Spring Convention are almost complete. The fine programs and speakers are shown on page 17.
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ZIP . . .

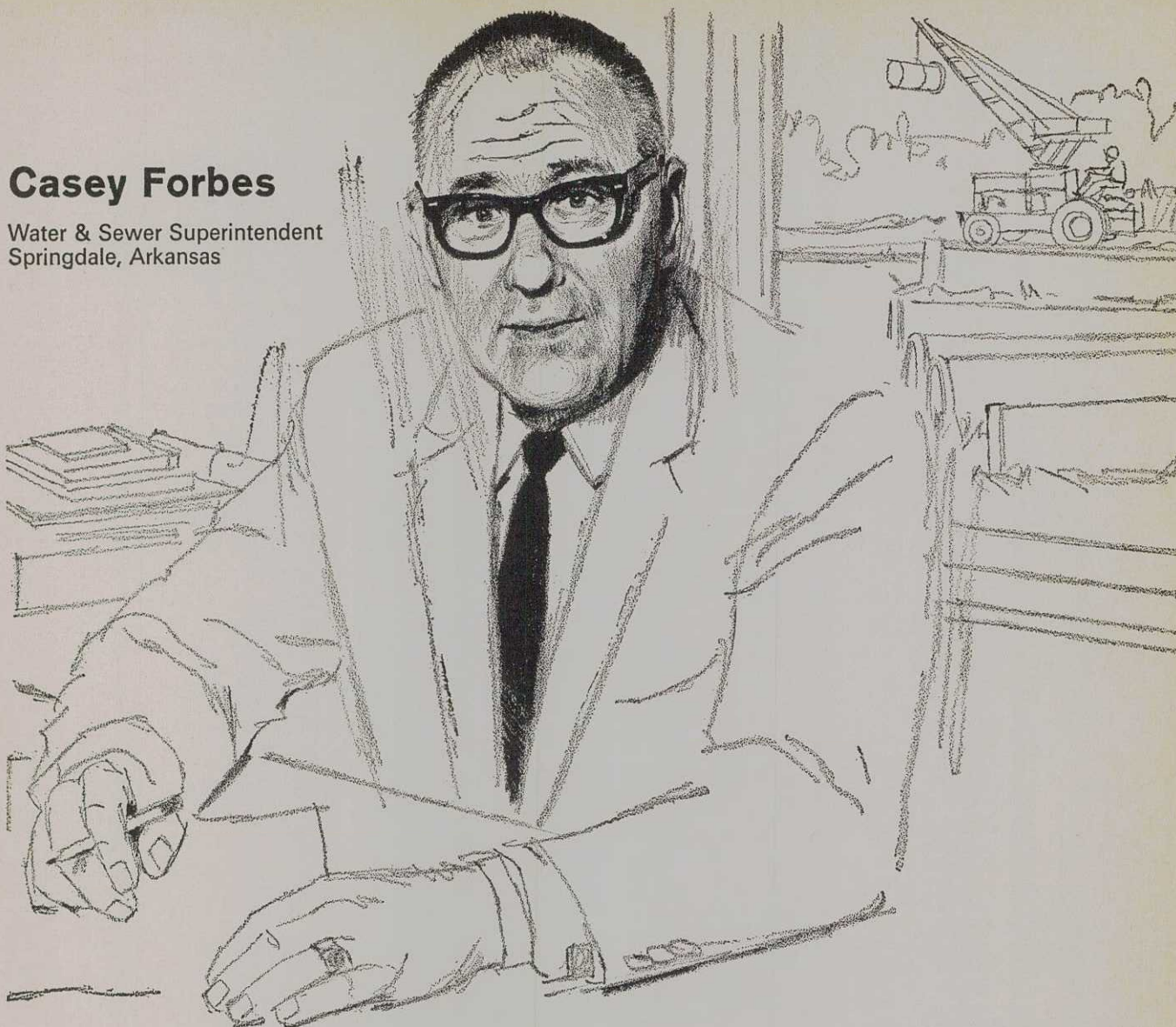
We need it . . . your Zip Code, that is.

In the near future all second and third class mail—which includes this magazine—MUST be Zip Coded. So, if we don't have your Zip code—or if it's incorrect—please notify the LES office right away, so you won't miss an issue of The Louisiana Engineer.

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and is published in February, April, June, August, October and December. Subscription \$2.00 per annum; single copy 50 cents. Second-Class Postage Paid at New Orleans, 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.

Casey Forbes

Water & Sewer Superintendent
Springdale, Arkansas



"I'd recommend Dickey Coupling Pipe any time because I'm convinced it's the best."

When new sewers were built in Springdale, Arkansas, two years ago, Dickey Coupling Pipe was selected by the Water & Sewer Commission. Casey Forbes tells why.

"We aren't a big city and our income from system revenues is somewhat limited. We have to be sure we invest carefully. To do this, we always consider more than initial cost.

"In the case of our municipal sewers, we considered all costs applicable to the project, not just the cost of construction but the cost of operation and maintenance. From past experience, the balance favored Dickey pipe.

"We knew this pipe would last...that it would resist acids that have a tendency to collect in the

system. And, the urethane joint Dickey has prevents the entrance of roots because the joints are tight. Also, our treatment costs would be held to a minimum because we wouldn't be handling ground water. We knew from the experience of other communities, too, that we could depend on Dickey Coupling Pipe. So, it was approved by the Commission."

Not much to add to what Casey Forbes said... except, use Dickey Coupling Pipe for your sanitary sewers.



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1967 Winter Meeting Set For Shreveport

The 2nd Annual Winter Meeting of the LES will be held at the Captain Shreve Hotel in Shreveport on Friday and Saturday, February 24, 25 1967. Hosting this meeting will be the Shreveport Chapter, and the agenda will be similar to the Alexandria Conference held in September.

LES President Louis Duclos will preside at The LES meeting and urges all state and chapter committees and functional section members to attend and help promote and increase the fine LES programs and activities begun in September. "With the new committee membership requirement which provides for 2 members from each chapter, continuity of committees and their programs have to improve," said Ed Jolly, Shreveport Chapter President.

A highlight of the meeting will be the participation of LES members who may elect to stay over and attend the final event of the Shreveport Engineering and Scientific Council's Engineers Week Program, a banquet at the East Ridge Country Club on Saturday evening. Featured speaker at this banquet will be Dr. Wernher von Braun, Director of the George C. Marshall Space Flight Center at Huntsville, Ala.

PLAN NOW
Winter Meeting
Feb. 24-25 — Shreveport

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MEETING AGENDA

Friday, February 24, 1967

Registration in Lobby.....2:00-6:00 P.M.
Functional Section Meetings.....3:00-5:00 P.M.

Section	Presiding	Room
Private Practice	A. J. Szabo	Marlin
Industry	Malcolm Hurstell	202A
Government	Hu B. Myers	202B
Social Hour, Mallard Room.....6:30-7:30 P.M. (Cash Bar)		
Dinner—(on your own).....7:30 P.M. Suggestions and directions at Registration Desk		

Saturday, February 25, 1967

COMMITTEE MEETINGS.....9:00-10:30 A.M.

Committee	Presiding	Room
Membership	Farrell Adams	202B
Public Relations	Dr. Roger W. Richardson	202A
Ethics & Professional Conduct	T. E. Pounds	Colonial B
Vocational Guidance	Col. Ferdinand Tate	204
Honors & Awards	Co. J. T. Knight, Jr.	West Lake
Legislative	C. P. Barnard	Marlin
Education	H. L. Henry	Colonial A
Society Business Meeting—Colonial A&B 10:30-11:30 A.M.		

LOUCHEON MEETING, MEMBERS AND WIVES

Lake Room.....12:00-2:30 P.M.
Presiding.....E. M. Jolly, President
Shreveport Chapter

Invocation
Committee Chairman Reports.....Louis Duclos, President
Louisiana Engineering Society
Introduction of Speaker
Address

LADIES STATE ADVISORY COMMITTEE

Mrs. Paul J. Plaisance, Jr.....Chairman
Alexandria Auxiliary President

Friday, February 24, 1967

Social Hour Mallard Room 6:30-7:30 P.M.

Saturday, February 25, 1967

Committee Meeting Mallard Room 10:00 A.M.
Luncheon Lake Room 12:00-2:30 P.M.

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Louisiana Engineering Society

Should L. E. S. Change Its Legal Domicile?

TO ALL MEMBERS:

Article V of the Louisiana Engineering Society's Constitution states:

"Section 1. The Board of Direction shall be domiciled and maintain its office in the City of New Orleans and shall maintain its records at said office and shall hold its regular meetings there, unless in the discretion of the President, it is necessary or convenient to meet elsewhere. The Board shall meet not less than four (4) times a year."

Furthermore, the Louisiana Engineering Society's Charter of 1898 by which it was founded, provides that the domicile shall be in the City of New Orleans.

At the Board of Direction meeting of July, 1966 President Duclos first proposed that L.E.S. look into the possibilities of an "ENGINEERING BUILDING FOR LOUISIANA". The Louisiana Engineering Society Headquarters Building Committee consisting of Messrs. L. Duclos, E. J. McNamara, Leo Odom, Waldemar Nelson, Charles Stokes and Eugene Sellers, were appointed and commenced a feasibility study. The type, size, function and feasibility of the proposed building will be dictated by its location. Before this study can be effectively continued, a very important decision is required: "Should we change our legal domicile or leave it as it is?"

A proposal to conduct a referendum vote to determine the membership's preference as to location of the Society's legal domicile was suggested and discussed at the November 8, 1966 Board meeting and confirmed at the meeting of December 8, 1966, and this letter and ballot approved at the January 12, 1967 meeting.

The following facts also requested by the Board relative to the referendum are provided for your information:

NEW ORLEANS

1. New Orleans has the largest number of members in the Society and the largest number of registered professional engineers of any city in the state. The large number of members means there is better probability the Executive Secretary will be able to discuss topics face-to-face with more committee members, board members, etc.
2. There are more associated engineering societies in New Orleans than any other city of the state and most of these maintain their state headquarters in New Orleans. Also, regional headquarters of most of the largest engineering-oriented companies of the nation are in New Orleans.
3. A close relationship exists between the Society and the State Board of Registration for Professional Engineers and Land Surveyors, which by law is domiciled in New Orleans. Both are concerned with the promotion of professional engineering in the state and work in this area can best be accomplished by having a close unison of the Boards of Direction and the Executive Secretaries.
4. Experience indicates the majority of our large meetings should be in New Orleans. More exhibitors have district offices in New Orleans. People prefer to visit New Orleans if possible, even for very short trips. More potential **Louisiana Engineer** advertisers have offices in New Orleans than any other single city in the state.

OTHER POSSIBILITIES: The number of engineers and importance of facilities available in other metropolitan areas of the state do not approach that of Baton Rouge and New Orleans. Even though some of us would like to have LES domiciled in our own home town, we cannot ignore the fact that Baton Rouge or New Orleans would be better than Lafayette, Lake Charles, Alexandria, Shreveport or Monroe.

The Board urges the membership to give the matter of the location of the Society's legal domicile careful and thoughtful consideration, and to vote on this matter in a referendum, the ballot for which is attached.

If the referendum vote favors leaving the domicile in New Orleans, no Constitutional Amendment will be necessary. If the referendum vote favors changing the legal domicile to another location, then a Constitutional Amendment must be proposed and voted upon; and if a change is agreed upon, then the Louisiana Engineering Society's Charter of 1898 must be amended.

BATON ROUGE

1. While New Orleans has a greater number of members than any other single chapter, the majority of the members are from the other chapters. Members tend to feel more a part of a statewide organization when it is located in the capitol city.
2. The best geographical location for headquarters would be in Baton Rouge, the location of the state capitol, which is easily accessible from all parts of the state.
3. Proceedings which have the most effect upon our Society are through the legislature and the state administration. Not only are the laws enacted important, but the manner in which such laws are administered and the rules and regulations which are promulgated as a result of these laws, can be equally, if not more, important than the laws themselves.
4. Since most statewide Associations are headquartered in Baton Rouge, there is a better and more frequent interchange of information between Executive Secretaries than when the Executive Secretary is headquartered in another city. Many times the latter will find himself out of touch with current state trends and thinking, to the detriment of his members. Also, lawmakers spend much time between sessions in Baton Rouge at various interim committee meetings, which would allow additional opportunities of becoming better acquainted with such legislators, under more leisurely circumstances.

Editor's Note: This referendum will be mailed to all members on February 15, 1967, for return by March 5, 1967. In addition, this matter will be discussed at a general meeting of the

Society on Saturday, February 25, 1967 at 10:30 a.m. at the Captain Shreve Hotel in Shreveport, during the Winter Meeting.

Chapter News - - -

EDITOR'S NOTE: Chapter Secretaries are urged to send in reports of their Chapter's meetings, social functions, or other interesting activities.

Lafayette

The regular monthly meeting of the Lafayette Chapter of the Louisiana Engineering Society was held at Lafayette Oak Grove Restaurant on January 16, 1967, with 39 members and guests present.

Varios persons introduced their guests.

The minutes of the December meeting were read by the Secretary and were approved.

Upon John Huffman's request for committee reports, A. J. Szabo commented on the winter meeting to be held in Shreveport on February 24 and 25.

Sylvin Richard told of the annual joint meeting of the various organizations in Lafayette to be held at the Petroleum Club February 20, 1967. An attempt is being made to get Governor McKeithen as the guest speaker.

Sylvin Richard told of plans to use billboards and newspapers to promote "Engineers' Week".

John Huffman told members of the new bulletin board for posting letters and other material and asked that everyone check it for interesting material.

Frank Wright read a resolution in honor of Mr. George Arnett who died January 2, 1967. The resolution was unanimously approved.

John Huffman outlined the agenda for the winter meeting to be held in Shreveport on February 24 and 25.

John Huffman announced that we will have a crawfish etouffee supper on March 17 for chapter members and State Board members. This will be held instead of the regular March meeting.

Earl Martin said that the annual convention will be held in New Orleans on April 27 and 28.

Mr. Gajan introduced Mr. John J. Morrison, former Board Chairman and President of Gulf States Utilities, as the guest speaker.

Mr. Morrison spoke on the "Knowledge Explosion in the New Frontier of Science". Mr. Morrison outlined the history of scientific knowledge and told of new concepts in science and astronomy.

The meeting was adjourned at 9:35 P.M.

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MEMORIAL

Myron George Arnett

Myron George Arnett passed away at 1:00 A.M. on January 2, 1967, in the Lafayette General Hospital, following a short illness. Mr. Arnett was born in Omaha, Nebraska, on August 8, 1898. He graduated from Seattle High School and studied Mechanical Engineering at Stanford University.

His early employment included time spent on Shoshone Reservoir Dam near Cody, Wyoming. In September, 1926, he was employed by the firm of Gannett, Seely & Fleming Engineers, Inc., a Central Louisiana Electric Company predecessor, as a construction engineer. At this time, Mr. Arnett was in Lafayette building the gas manufacturing plant which first served gas to Lafayette. On March 1, 1932, he was promoted to Field Engineer with Louisiana Public Utilities which was later merged with Gulf Public and later Central Louisiana Electric Co., Inc. From March, 1945, until June, 1957, he was Construction Superintendent and Superintendent of the statewide construction crews. In August, 1957, he was promoted to Senior Engineer and held this position until June, 1963, when he was transferred from Cleco to Louisiana Intrastate Gas Corp., in the capacity of Division Manager, L.I.C. South, a position he held until his retirement on August 31, 1963. Many of the plants and building stand today as monuments to his ability.

"Mr. George", as he was known throughout the properties, was always looked upon as the "can do" man of the company. He fought the problems of the lean years of L.P.U. and Cleco, the various mergers which included Gulf Public Service, and is considered by many to be the father of L.I.G. One of his greatest pleasures was to play host to outing with fellow employees on the good boat "Pat", a rusty and slow, but hospitable 25 footer. Several years before his retirement, he built a camp at Bayou Jack Marina south of New Iberia which was the scene of many so called "Safety Suppers" at which the word "safety" was seldom used. The newcomers to Cleco, Slapco and LIG missed the privilege of knowing Mr. George, a man of character, devotion to his job and most of all, a real friend.

He is survived by his widow, the former Rose Roy Evans, and one stepson, Larry Evans, who reside in Lafayette.

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The Board of Directors of the Louisiana Engineering Society has named a committee composed of the following:

Lew J. Bremenstul, Waldemar S. Nelson & Co., Inc.
 Hatley N. Harrison, Jr., La. Dept. of Public Works
 Prof. Beverly J. Covington, La. State University
 S. V. Langlois, U. S. Army Engineer District, N. O.
 Leo M. Odom, Contact man

The purpose is to determine why the large differences in bench mark elevations as indicated by USC&GS leveling runs made in 1951 and in 1955 and subsequent years.

The initial meeting of the committee was held on Wednesday, January 25, 1967 in the offices of the State

Department of Public Works in Baton Rouge with all members present and with Mr. Roy Odom representing Mr. Leo Odom. During the first meeting, the general scope of the problem was outlined and procedures for the initial study were established.

Future meetings of this committee will be scheduled after the basic information has been compiled."



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Shreveport Scholarship Awarded



Mr. Henry Poulan, P.E. (left), Monroe Chapter President looks on as Mr. Earnest T. Fegley, Jr. (center) receives the Shreveport Chapter's annual \$200.00 scholarship award from Mr. Ed Jolly, P.E., Shreveport Chapter President. The Award was presented November 8, 1966, at Monroe in connection with the State Board of Direction and the Monroe Chapter's joint meeting.

Mr. Fegley is a junior in Petroleum Engineering at Louisiana Polytechnic Institute at Ruston. His home is in Mansfield, Louisiana. Mr. Fegley was recommended by the La Tech engineers scholarship committee to the Shreveport Chapter's Executive Board which approved the Award.

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Chapter Membership Contest

The 1966-67 quotas have been established as 10% based on the number of members in each Chapter as of June 30, 1966. (See below)

Rules of the Contest

1. A Chapter must reach its 10% quota to qualify as the contest winner.
2. The Chapter with the greatest percentage increase, based on applications and re-instatement requests received by the State LES Office prior to July 1, 1967, will be the winner. (Student applications, transfers into a Chapter, or grade changes will not be counted as part of the quota or increase.)

The Prize

A portable rostrum with the winning Chapter's name and the date engraved on a plaque on its front. A Chapter winning the rostrum three years in a row will retain permanent possession.

Contest Standings

Here is your Chapters stand on new members as of December 12, 1966—

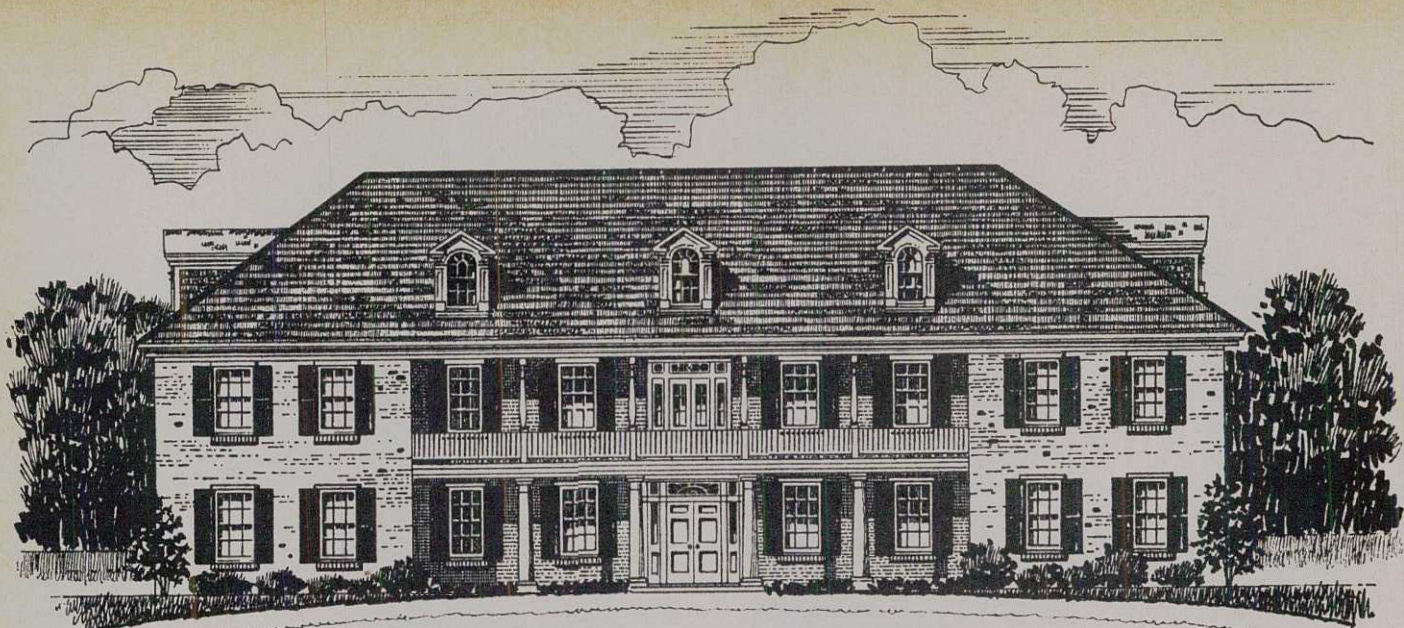
Chapter	Quota	Applications	% of Quota	Rank
Shreveport	15	17	113	1
Alexandria	9	5	56	2
Lake Charles	9	5	56	2
Lafayette	14	7	50	4
Baton Rouge	35	16	46	5
Monroe	9	3	33	6
New Orleans	76	20	26	7

Let's not kid ourselves—this is a poor showing!

As little as 10 minutes one day by every member could make every chapter quota if you would devote that much time to the job. The quota could be surpassed in less than one month with any kind of real effort. If it develops that you cannot find the small amount of time for this job, then don't hesitate—ask your Chapter Membership Chairman to assist you and furnish him the prospect's name.

Farrell Adams, P.E.
Chairman

**Have YOU
Asked Another
Engineer
To Join LES**



EUSTIS ENGINEERING COMPANY

After 20 years of professional engineering practice in this area, EUSTIS ENGINEERING COMPANY, INC., Soil and Foundation Consultants, recently moved into their new quarters located at 3011 28th Street in Metairie, Louisiana. It is in close proximity to the NE quadrant of Interstate Highway I-10 and Causeway Boulevard. Principals of the firm are J. Bres Eustis, Charles A. Bragg and John W. Roach, Jr. Ribbon cutting ceremonies took place on December 30, 1966, followed by an Open House Reception for clients and friends.

The new two-story building is typical South Louisiana style architecture of red brick veneer with white stone columns and green shutters. The interior is finished in a functional manner to take care of modern office equipment and procedures. The main building, containing 10,000 square feet of floor area, will be occupied by the Executive, Engineering, and Clerical Offices and the Soils Laboratory. The maintenance building (to the rear), which contains approximately 3500 square feet,

will serve as a base for the Company's drilling equipment used in making soil test borings.

Eustis Engineering Company, Inc., Consulting Engineers, specializes in soil mechanics and foundation engineering. Foundation Engineering and Soil Mechanics is a specialized branch of Civil Engineering wherein the physical properties of soils are determined, evaluated and utilized by the Foundation Engineer to assist Architects and Structural Engineers in their design of foundations for modern structures. Today, Foundation Engineering and Soil Mechanics occupy a vital place in the design of buildings of all types as well as airport runways, highways, dams, offshore structures, etc. Soil test borings, soil mechanics laboratory tests and engineering analyses are essential parts of a foundation investigation for any project. The Company operates eight rotary type drill rigs for making soil test borings, and maintains a completely equipped soils laboratory for analyzing the physical properties of the soils—the results of which are used in engineering computations for finalizing engineering reports of recommendations.



Pictured are Mrs. and Mr. Charles A. Bragg, Mrs. and Mr. J. Bres Eustis and Mrs. and Mr. John W. Roach, Jr.



The Ribbon-Cutting Ceremony.



NSPE News Notes

Winter Meeting Jan. 4-7, 1967 San Juan Puerto Rico

A report of the Pollution Control Committee recommending a "white paper" on environmental pollution control was accepted by the Board of Directors of the National Society of Professional Engineers at its Winter Meeting in San Juan, Puerto Rico, after the report castigated the engineering profession as having too often "followed" rather than "led" in the development of public policy with regard to the serious problem of control of environmental pollution.

Reporting as chairman of NSPE's Pollution Control Committee, Wesley E. Gilbertson, P. E., director of environmental pollution for the State of Pennsylvania and former chief of the Office of Solid Wastes, U.S. Public Health Service, said the NSPPE "white paper" would be a prelude to development and adoption of new policies in this area. He reported the paper would discuss the pros and cons of major issues, such as the economics, regulatory aspects, role of private enterprise, ethics, research and development, manpower supply, and the role of the Federal government in the field of pollution control.

Mr. Gilbertson, also a regional vice president of NSPE, said, "Although specialized elements of engineering are active in pollution abatement, the engineering profession as a whole unfortunately has not developed a positive posture with regard to control of environmental pollution." Committee recognized that policy issues

inherent in the pollution control problem are controversial and that development of positions will be difficult. However, the Committee stated that without these guiding statements the National Society will be rudderless and ineffective in this vital area.

A new film entitled "The Third Pollution," describing America's \$3 billion a year solid waste problem, viewed by the more than 260 NSPE delegates at the Winter Meeting representing all 50 United States and the Commonwealth of Puerto Rico.

NSPE President Thomas M. Linville, P.E., in his State of the Society address, emphasized that "NSPE's obligation is to speak for the engineer, keeping the lawmakers and the general public aware of the capabilities and progress of the engineering profession, especially in relation to the social problems of our times." Mr. Linville went on to say, "Our first obligation is to improve the system of state-granted PE licenses—and this includes solving the problems of interstate registration. Our next obligation is to present the best qualified P.E.'S for service on the state registration boards and to give them our solid support."

In other action at the San Juan meeting, NSPE Directors approved publication of seven cases reviewed by the Board of Ethical Review. Of particular interest was the case covering advertising in special newspaper sections in conjunction with National Engineers' Week. The Board of Ethical Review concluded that it is unethical for an engineer to include a listing of his firm name along with similar listings for business and commercial firms in general advertisements supporting local civic and charitable causes. However, if the engineer would put the same type of listing in the Engineers' Week section of his local newspaper, he would be acting in accordance with the NSPE Code of Ethics.

The Board of Ethical Review agreed that the purpose of Engineers' Week is to extend to the general public better understanding of the role of engineers in today's society and to illustrate the ways and means by which the profession enhances the welfare and safety of the public. Engineers' Week, in the

opinion of the Board, performs a laudable and commendable activity on behalf of the entire profession, and it therefore follows logically that all members of the profession may support that activity through advertising.

The other Board of Ethical Review cases covered sponsorship of social hours, contractual relationships between engineers, representation by sales organizations, contingent fees in lawsuits, contingent contracts on public works under certain conditions, and assistance in preparation of applications under the Federal Advance Planning Act.

NSPE's Water Policy Committee also reported that existing National Society policies are inadequate in order for NSPE to present strong statements before the Congress in matters of water resources. The Board of Directors agreed that a national commission independent of the responsibilities for current water policies and management be organized to comprise specially-qualified persons with recognized ability to understand and assimilate the range of political, legal, technical, economic and social problems associated with sound water management.

The NSPE Board approved a comprehensive insurance package for members recommended by the Membership Services Committee. The plan includes term life insurance, long term disability income, hospital expense benefits, accidental death and dismemberment, and other programs that might be desired by the NSPE membership. The Sid Murray Agency of Corpus Christi, Texas, developed the package and Mutual of New York will be the insurance carrier.

Meeting sites for the next four years were also authorized by NSPE Directors at the San Juan meeting, Washington, D. C., rather than Las Vegas, Nevada, has been designated the site of the January, 1968 Winter Meeting in order to allow members the opportunity to participate in the dedication of the new SPE headquarters building scheduled for completion next fall. NSPE will meet in Milwaukee in July, 1968; Las Vegas, January, 1969; Kansas City, July, 1969; Atlanta, January, 1970; and Portland, Oregon, July, 1970.

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412 Highland Ave. 71101



LOUISIANA ENGINEERING SOCIETY

833 Howard Ave. • New Orleans, La. 70113 • 525-9502



EARL M. MARTIN, JR.
Executive Secretary

January 16, 1967

Honorable John J. McKeithen, Governor
State of Louisiana
State Capitol
Baton Rouge, Louisiana

Dear Governor McKeithen:

The Louisiana Engineering Society is very pleased that you saw fit to issue Executive Order No. 50 dated October 12, 1966. It is gratifying to know that guidelines have been established for the selection of consulting engineers by Public agencies.

The Section of the Society for Engineers in Private Practice is particularly happy to note that, qualifications being equal, Louisiana engineering firms will be given primary consideration.

We in the Society assure you of our fullest support in regard to the intent and the administration of this executive order. We hope that your office and the State Agencies will feel free to call on us for any information which we can furnish.

As the largest professional engineering society in the State of Louisiana, we offer you our available resources, consultation, advice, and complete cooperation in all engineering matters which will be of mutual benefit and to the best interests of the people of Louisiana.

Sincere best wishes.

Yours very truly,

Louis Duclos

Louis M. Duclos, President
Louisiana Engineering Society

LMD/ss

NSPE News—Cont'd

NSPE's four functional sections also met in Puerto Rico and discussed current and new programs. Professional Engineers in Industry heard a panel discussion on what NSPE can do for the engineer in industry. Plans were also developed for another Industry Executive Workshop and for two Board of Governors meetings, one in Chicago in March and the other in Hartford in July.

Professional Engineers in Education prepared a draft for publication urging state society officers and members to consider the formation of PEE sections for professional ob-

jectives. The Professional Engineers in Private Practice held a two-day Board of Governors meeting and panel discussions on contingent contracts, competitive bidding for overseas work, and advertising for engineering services. The Professional Engineers in Government Executive Board gave final approval on a two-part program aimed at improving the professional development policies of governmental agencies at all levels. The program includes a recommendation that states implement Government Agency Professional Development Awards and a Government Professional Development kit to assist local agencies in evaluating and improving their programs.

1967 SPRING CONVENTION

JUNG HOTEL

Exhibitors Information and Schedule

"Prospective Exhibitors have been mailed a folder with information, and returns to date indicate increased interest in this part of the Convention program," Adoue said. "But Exhibitors Information is shown on this page for those who might be interested, but not contacted."

ALLOCATION OF EXHIBIT SPACE

Exhibit booths will be allocated on a first come first served basis. Requests for two or more adjoining booths will be granted as far as possible. The booth layout has been planned to provide equally good access to all booths. The exhibit committee reserves the right to make such changes and additions to the exhibit booth layout as are desirable or necessary. No changes in the floor layout or partitioning of space may be made without approval of the exhibit committee.

YOUR SPACE RENTAL INCLUDES

Attractive booth equipment including 8' drapery background and two side panels, booth sign with name of exhibitor, city and state, table, chair, ash trays, and one 110-volt electrical outlet. Additional electrical, air or water requirements must be contracted with the official decorator at exhibitors cost.

EXHIBITORS SCHEDULE

A. Set-up—Exhibits may be installed between the hours of 10:00 A.M. and 10:00 P.M. Wednesday, April 26, 1967, ready for opening.

B. Show Hours—Thursday, April 27—9:00 A.M.-8:00 P.M. Friday, April 28—8:00 A.M.-2:30 P.M.

C. Dismantling of exhibits may start after 2:00 P.M. Friday, April 28, and the area must be cleared by 12:00 noon Saturday, April 29, 1967.

Special Note: The Exhibit area is open, no registration is required to visit the exhibitors.

EXHIBITS CHAIRMAN:

Al J. Adoue, Jr.
1600 S. Peters St.
New Orleans, La. 70130

Area Code 504
Phone 529-4545
Extension 667

Convention Chairman Ray Maddux said, "All engineers, from all disciplines should find these topics most interesting and timely, and you are reminded that all engineers are invited to participate, be they LES members or not."

Thursday, April 27, 1967

(ASCE Sponsored)

ENVIRONMENTAL POLLUTION SYMPOSIUM

Moderators

Robert LeFleur, Exec. Ecty., *Stream Pollution Control Commission State of Louisiana*
John E. Trygg, Director, *Division of Public Health Louisiana State Board of Health*

8:30 — ENVIRONMENTAL POLLUTION—WHAT IS IT?

W. Byrne and E. Pavia
Pavia-Byrne Engineering Corporation

9:20 — GOVERNMENT AND INDUSTRY RELATIONSHIPS IN ENVIRONMENTAL POLLUTION

Dr. E. J. Martin, Asst. Chief, *Basic and Applied Science Federal Water Pollution Control Admin., Dept. of Interior*

10:45 — Coffee Break in Exhibit Area—Visit the Exhibits

10:45 — AIR POLLUTION—CONTROL OF INDUSTRIAL EMISSIONS

Dr. J. H. Fernandes
Combustion Engineering, Inc.

11:30 — Luncheon Break—Cocktails in Exhibit Area

12:30 — Luncheon

Speaker—Gov. John McKeithen
"How to Get New Industry for Louisiana"

1:45 — WATER IN INDUSTRY—A SURVEY OF ITS TREATMENT FOR EITHER DISPOSAL OR REUSE

Max Horton
Link Belt Company

2:30 — Coffee Break in Exhibit Area—Visit The Exhibits

3:00 — Round Table on Pollution

With all of the speakers in symposium. Questions from the floor only at Round Table.

6:00 — Exhibitors' Cocktail Party in Exhibit Area

SET FOR APRIL 27-28, 1967

NEW ORLEANS

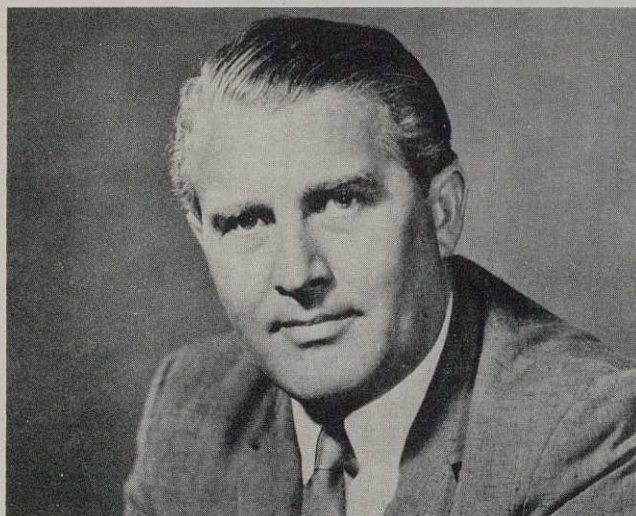
Thursday, April 27, 1967

- (IEE Sponsored)
8:30 — Meeting Room #2 Second Floor
COMPUTERS—USES IN YOUR PLANT
Speaker—General Electric Corporation
- (ASME Sponsored)
Meeting, Room #10 Second Floor
RECLAIMING WASTE HEAT IN YOUR PLANT
Speaker—Combustion Engineering, Inc.
- 9:45 — **Coffee Break in Exhibit Area—Visit The Exhibits**
- (ASME Sponsored)
10:30 — Meeting Room #10 Second Floor
DESALINIZATION
Speaker—Westinghouse Corporation
- (Petro-Chem. Sponsored)
Meeting Room #2 Second Floor
SPRAY IN INSULATION IN PETROCHEMICAL PLANTS
Speaker—Johns-Manville Corporation
- 11:45 — **Luncheon Break—Cocktails in Exhibit Area**
- 12:30 — Luncheon—Tulane Room
Speaker—Gov. John McKeithen
"How to Get New Industry for Louisiana"
- (Petro-Chem. Sponsored)
1:45 — Meeting Room #2 Second Floor
PLANT SITE SELECTION AND PREPARATION IN LOUISIANA
Speaker—Bechtel Corporation
- (ISA Sponsored)
Meeting Room #10 Second Floor
CONTROL SYSTEMS IN THE PLANT—SOLID STATE OR RELAY—
Speaker—K. R. Dodson, Bailey Meter Company
- 3:00 — **Coffee Break in Exhibit Area—Visit The Exhibits**
- (ISA Sponsored)
3:45 — Meeting Room #10 Second Floor
ESTHETICS IN ENGINEERING SYSTEMS
Speaker—Dr. Rudolfo J. Aguilar, Dept. of Civil Engineering, LSU
- (IEEE Sponsored)
Meeting Room #2 Second Floor
POWER GENERATION—ON SITE OR PURCHASED
Speaker—Michael Larinoff, Ebasso Services, Inc.
- 6:00 — **Exhibitors' Cocktail Party in Exhibit Area**

Friday, April 28, 1967

- South Hall of Americas Meeting Room
- 9:00 — A Round Table Discussion
"SHOULD SALES ENGINEERS BE REGISTERED—IF SO, AS WHAT?"
- Consultants—
Government—Ed Pavia, Partner, Pavia-Byrne Engineering Corp.
Industry—Fred Culpepper, V. P., Ford, Bacon & Davis
- Engineers—
Industry—John Breeden, Avondale Shipyards, Inc., Chief Mech. Engr.
Government—Ray Burgess, City of Baton Rouge, Louisiana
- Purchasing Agents—
Government—James Bond, New Orleans Sewerage & Water Board
Industry—Stan Mayo, Director of Purchasing, Freeport Sulphur Co.
- Sales Engineers—
Manufacturer's Agent—Harry Hammett, Partner, Mid South Sales
Representing Hagan Combustion Controls and Fireye Flame Safety Controls
Company & Mfg. Agent—Jack Knight, V.P., Equitable Equipment
Company—George Reece, Dist. Mgr., Riley Stoker Company
Moderator—Dr. Jesse Coates, Chairman of State Board of Registration for Professional Engineers and Land Surveyors
- 10:00 — **Coffee Break in Exhibit Area—Visit The Exhibit**
- 10:30 — Round Table Resumes Discussion
- 11:30 — **Luncheon Break—Cocktails in Exhibit Area**
- 12:00 — Luncheon—General Meeting of Louisiana Engineering Society
- 2:00 — Exhibits Closed
Afternoon free for exhibits, pleasure or committee meetings Golf—Green Fee Basis—Timberlane Country Club—Tee Time 1:00. Can be guaranteed only with reservation made by pre-registration.
- 7:00 P.M. Social Hour—Terrace Suites
- 8:00 P.M. DINNER—Tulane Room
Dancing

Shreveport Engineers Week Speaker



DR. WERNHER VON BRAUN

Dr. Wernher von Braun is the Director of the George C. Marshall Space Flight Center of the National Aeronautics and Space Administration, Huntsville, Alabama.

The Marshall Center is in charge of developing NASA's large launch vehicles and conducting related research. The Saturn space vehicles are being developed to carry out this country's goal of placing men on the moon and returning them safely to the earth.

Employing about 7,000 persons, the Marshall Center is capable of conducting all phases in the research and development of a large space rocket—from conception of the idea, through design, development, fabrication, and assembly of hardware, and testing.

Among the Center's current programs are the Saturn IB and Saturn V heavy space vehicles. The Saturn I series was successfully completed with the launch of SA-10 from Cape Kennedy on July 30, 1965. Beginning with the first launch on October 27, 1961, every flight test (there were 10 in the series) was successful. Three Pegasus meteoroid technology satellites were placed into orbit with a Saturn I launch vehicle; SA-8, SA-9 and SA-10.

The Marshall Space Flight Center also provided and launched five modified Redstone rockets for the Mercury man-in-space program of NASA. The Redstone booster successfully placed a chimpanzee, Ham, and two astronauts, Alan B. Shepard, Jr., and Virgil I. "Gus" Grissom, in sub-orbital flights.

At the Huntsville installation, Dr. von Braun directed the development of the 200-mile Redstone rocket, which was America's first large ballistic rocket. Later the von Braun group developed the Jupiter IRBM. The Pershing rocket development program was also directed by Dr. von Braun.

Special versions of the Redstone, the Jupiter C, and the Juno II were used by the von Braun team in launch-

LSU To Hold Workshop ON Digital Computers In Process Control

L.S.U. announces a short course on the **Concepts of Process Control With Digital Computers** March 6-7, 1967, and the second annual workshop on the use of **Digital Computers in Process Control** March 8-10, 1967.

The first event is a two-day (Monday and Tuesday) short course to introduce engineers and other technical people to the concepts of digital computer control of industrial processes which are typical of those encountered in the chemical industry. The second event is a three-day (Wednesday, Thursday, Friday) series of invited technical papers and group discussions on process control with digital computers. The primary purpose of the first event is to prepare people to participate and benefit from the second event. Separate registrations will be held for the two events, and people may register for either one or both of the events.

The registration fee for the workshop is \$60 which covers registration and all associated expenses. It does not cover meals and living accommodations.

Participants are encouraged to pre-register via the enclosed card to insure their acceptance. Acceptance is on a first-come, first-served basis.

It is planned to publish a bound copy of the PROCEEDINGS of the workshop which will include all papers. These PRECEDENTS will be furnished to all registrants. Others may obtain copies of the PROCEEDINGS for \$25 per copy.

For additional information concerning the academic aspects or technical level of these events, write or call:

Dr. Paul W. Murrill
Chemical Engineering Department
Louisiana State University
Baton Rouge, Louisiana 70803
Phone: 388-3121

ing the Western World's first satellites of the earth and sun, Explorer I and Pioneer IV, and in the first successful space flight and recovery of animal life.

Dr. von Braun has received many professional and scholastic honors for his leading role in rocketry and space research activity. In 1959 he was presented the distinguished Federal Civilian Service award by the President of the United States.

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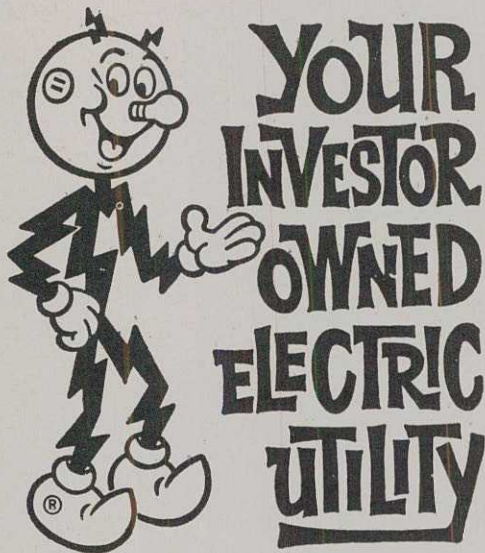
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Ralph Nader:

Says Engineers In Industry Are Not Professional

The engineer in industry, Ralph Nader has charged, "is hard put to meet a professional obligation to criticize or dissent from a product or process performance that he considers unsafe."

In a copyrighted interview in the September issue of *AMERICAN ENGINEER* magazine, the author of *Unsafe at Any Speed* states that "codes of ethics, however eloquently and lucidly they may define important social interests which the engineer is supposed to further, are mere semantic skins without content unless there are supporting structures and institutions to protect their adherence in practice."

Mr. Nader told *AMERICAN ENGINEER* editors that he felt "there are no engineering organizations that can compel recognition by industry of an engineer's right to inject professional ethics in his decisions as a corporate employee." He emphasized that the impetus for a Federal auto safety bill could have and should have come from the engineering profession.

"Dozens of engineers and scientists," he said, "have written or otherwise communicated with me approving my endeavor and the endeavor of others to spur the auto industry toward greater auto design safety. I recall receiving only one adverse letter from a writer who claimed an engineering degree. Such a positive reaction from engineers is not surprising, for who knows the range of practical engineering contribution to vehicle safety better than engineers? What is surprising is the reluctance of these engineers to make their expressions public in their own right. I think the situation in the industry which in the past has led to suffocating individual expression still continues to a great degree today."

Mr. Nader told the *AMERICAN ENGINEER* that he believed his own most significant contribution in the area of auto safety was "... simply a matter of disclosure. I think that if people realized the degree to which they're not getting the best in technology, the more their dissatisfaction sharpens, the more all the rest follows. The very idea that you can be in an accident and not get killed at certain MPH's for example, didn't come across to people. All the concentration was on how you prevent the accident. There was no appreciation that even if you had an accident you could cut the cause of chance if you had crash protection. This is the idea which had an electric impact on Congress, there's no question about it."

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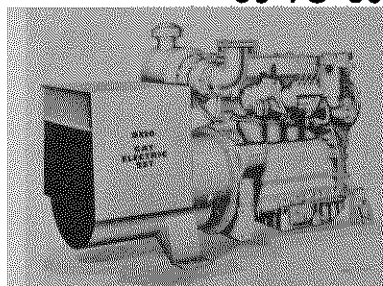
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Attention: Membership Committeemen

Newly Registered Engineers Are Good Prospects For LES Membership

The following professional engineers were granted registration November, 1966, by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors:

Allen, Rhesa McC., Ruston, La.
Allen, Tandy M., Houston, Texas
Barnett, James H., Huntsville, Ala.
Barron, Charles H. Jr., New Orleans, La.
Blalock, Paul J. Jr., Baton Rouge, La.
Bridgefarmer, Joe C., Dallas, Texas
Burke, Travis D., Bossier City, La.
Butler, Ronald W., Shreveport, La.
Callihan, Clayton D., Baton Rouge, La.
Chiu, Chung-Bun, Baton Rouge, La.
Clowe, James R., Lafayette, La.
Cox, James W., New Iberia, La.
Cummings, Timothy A., Campbell, Ky.
Daigle, Joseph D., Houston, Texas
Dunay, Edward Z., N. Hollywood, Calif.
Elliott, Richard M., Richardson, Texas
Eve, Robert F., New Orleans, La.
Frizzell, Herbert G., Lafayette, La.
Gardner, Douglas K., New Orleans, La.
Graner, Thomas J., Baton Rouge, La.
Heinrichs, Robert M., Baton Rouge, La.
Henderson, Elmer C. Jr., Webster Groves, Mo.
Hill, Carlos E. Jr., Pensacola, Fla.
Housey, John J. Jr., New Orleans, La.
James, Larry E., New Iberia, La.
Keplinger, Henry F., Houston, Texas
Kindle, Kenneth W., Longview, Texas
Maniscalco, Blaise A., Shreveport, La.
Marshall, Roy J. Jr., Shreveport, La.
McDaniel, Robert E., Houston, Texas
Mingledorff, Frank C., Roswell, Ga.
Moore, Roland B. Jr., Houston, Texas
Nelson, James R., Baton Rouge, La.
Nelson, John O. Jr., Monroe, La.
Normand, Belton J., Pasadena, Texas
O'Donnelly, James V., Houston, Texas
Olive, Marion J., Shreveport, La.
Otey, Glen R., New Orleans, La.
Payne, Dwight L., Shreveport, La.
Pellicciotto, T. A., Virginia Beach, Va.
Polk, Robert R., Houston, Texas
Poole, Marvin B., Denham Springs, La.
Ragsdale, Ralph, New Orleans, La.

Rash, Louis D., Baton Rouge, La.
 Reeves, John B., Lafayette, La.
 Robertson, Bruce L., Shreveport, La.
 Schexnayder, John B., Litcher, La.
 Schueler, Leo R., Lafayette, La.
 Smith, Robert B., Gretna, La.
 Taylor, Jack R., Norman, Okla.
 Thomson, Robert D., New Orleans, La.
 Tracey, Richard M., Seattle, Washington
 Vidrine, Dennis J., Lafayette, La.
 Villa, Rene, Aldan, Pa.
 Wheeler, Fred W., Shreveport, La.
 White, Rae B., Lafayette, La.
 Wood, David L., Houston, Texas
 Wood, Jeffie J., Lafayette, La.
 Young, Ben W., Dallas, Texas

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A load growth which doubles demand every six years, approximately twice the national average, spells opportunity for the qualified engineer. Interested? Write:

Training Director

Louisiana Power & Light Company

142 Delaronde St., New Orleans, La. 70114

The following professional engineers were granted registration January, 1967, by the Louisiana State Board of Registration for Professional Engineers and Land Surveyors:

Bass, Robert O., Tulsa, Okla.
 Bernard, David R., Kenner, La.
 Blockyou, Barney J., Shreveport, La.
 Bly, Herbert A., Cincinnati, Ohio
 Boudreaux, Charles L., Lafayette, La.
 Braden, Milton W. Jr., Lafayette, La.
 Bredeson, Duane H., Metairie, La.
 Brown, Emmett E., Shreveport, La.
 Brown, Roy L., Vidalia, La.
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 Burke, Kenneth R., Lafayette, La.
 Carroll, William R., Lafayette, La.
 Christofferson, Robert K., Lafayette, La.
 Conner, Melvin A., Tallahassee, Fla.
 Cox, Tom L. Jr., Morgan City, La.
 Dee, Albert L. Jr., Lafayette, La.
 Elder, Howard M. Jr., Shreveport, La.
 Fernandez, Juan M., New Orleans, La.
 Flint, Clarence M., Cohasset, Mass.
 Frasier, Gary E., Pampa, Texas
 Gilbert, Charles W., Pampa, Texas
 Green, Nathan E., Lake Charles, La.
 Haakenson, Dale J., New Orleans, La.
 Hammett, Ellis T., Lafayette, La.
 Hermann, Albert L., New Orleans, La.
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 Weingartner, Gerard E., Ft. Worth, Texas
 Wilson, Joe R., Ruston, La.
 Wilson, Robert E., San Francisco, Calif.
 Wolverton, Everett M., New Orleans, La.

LES CHAPTER MEETING DATES

Alexander Chapter	— Third Tuesday Monthly (evening)
Baton Rouge Chapter	— Third Thursday Monthly (evening)
Lafayette Chapter	— Third Monday Monthly (evening)
Lake Charles Chapter	— Second Monday Monthly (evening)
Monroe Chapter	— First Tuesday Monthly (evening)
New Orleans Chapter	— No regular monthly schedule
Shreveport Chapter	— First Tuesday Monthly (noon)

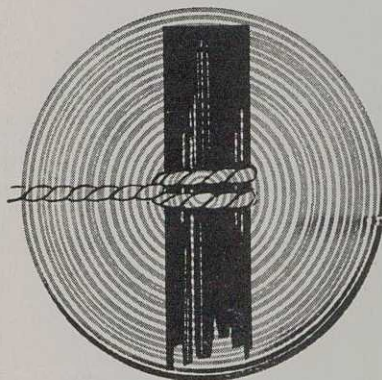
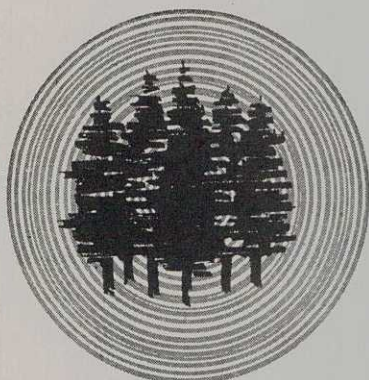
Editor's Note: Chapter meeting dates may vary to accommodate speakers or for special occasions.

LES MEETING DATES

February 24-25, 1967	— Winter Meeting — Shreveport Captain Shreve Hotel
April 27-28, 1967	— Spring Convention — New Orleans — Jung Hotel

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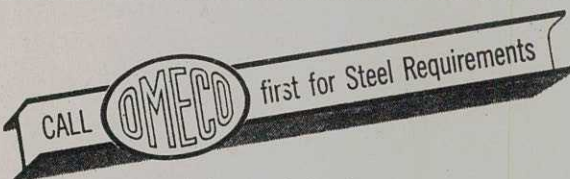
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Application Engineers to Southern Industry

While various anti-draft demonstrators and political figures have been claiming headlines with noisy attacks on Selective Service, two public-spirited organizations have been quietly telling employers and educators how to work with the system to utilize its built-in procedures for smoothing out uneven operations of the draft, in the interest of easing critical manpower shortages.

The Engineering Manpower Commission of Engineers Joint Council and the Scientific Manpower Commission represent major scientific and engineering societies with combined memberships of 800,000. Organized in the early 1950's to aid in improving manpower utilization in critical occupations, the two non-profit Commissions look on the draft as one aspect of the problem of allocating a scarce resource—technologically educated manpower—to best meet essential needs of both the Armed Forces and the national economy.

In addition to several handbooks and other publications tailored to the special needs of employers, educators, and students, the Commissions last October launched a series of workshops where people from industry and education could meet with knowledgeable officials of Selective Service to discuss problems in an atmosphere of helpful cooperation, rather than under the clouds of suspicion and criticism which have marked other, more publicized, conferences on the draft. More than 500 persons who have attended these workshops from both sides of the picture say they have found the sessions most helpful.

Representatives of the Engineering and Scientific Manpower Commissions feel that their educational efforts have helped avoid thousands of problems regarding occupational and student deferments over the years. Nevertheless, neither group believes that the selective Service System in its present form is without fault. Each organization, in position papers prepared at the request of the President's National Advisory Commission on Selective Service, recommends changes in legislation as well as in administration of the draft. Stressing its objective of optimum manpower utilization, the Engineering Manpower Commission's statement strongly opposes any lottery or similar proposal which would substitute chance for informed selection on the basis of the national interest.

Both Commissions point out that the country's limited supply of engineers and scientists is a vital national asset. Further, this supply can be assured in the future only by allowing adequate numbers of students to complete their education and enter employment in these fields. Since the Armed Forces draw 90% of their officers from college sources, student deferments enable thousands of these men to serve in military leadership positions instead of starting as buck privates. For these reasons, the Commissions feel any policy which would drastically curtail educational or occupational deferments would be detrimental to the national interest.

The Commissions plan to continue their publications and other services as long as the need exists. Additional workshops will be scheduled as required. For further information, write to the Engineering Manpower Commission of Engineers Joint Council, 345 E. 47th Street, New York, New York 10017.

Auxiliary Notes

New Orleans Auxiliary

The members of the Woman's Auxiliary to the Louisiana Engineering Society and their guests gathered in the Kendall Cram Room at the University Center on the Tulane Campus on Tuesday, December 20, 1966, at 1:30 p.m. Antiqued flowers and candles, all done in the Christmas mode, completed the setting for a gala tea and Christmas Program. Musical selections by the St. Dominic's Little Singers (boys' choir) entertained for this holiday event. Receiving with Mrs. John A. Haase III, President, were Mesdames Daniel H. Vliet, Edward N. McNamara, David L. White, Ronald P. Cressy, Jerry Dickson, William Herbst, and G. J. Groh. Alternating at the tea tables pouring were Mesdames John L. Porter, Albert J. Fransen, Lee H. Johnson, Frank C. Fromherz, Waldemar S. Nelson, Roy G. Cappel, Otha E. Barron, Jr., and Thomas A. Fromherz.

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Engineers Week Theme For 1967 Announced

"Engineering . . . for the Human Environment" will be the theme of the forthcoming 17th National Engineers' Week February 19-25, 1967, it was announced today by the National Society of Professional Engineers, which sponsors the annual observance.

Fortunately, people in the world today are concerned as never before about the quality of their environment. The world has become universally aware of the degree to which air and water pollution, human safety, transportation and solid waste disposal practices threaten our health and human environment.

The theme for the 1967 Week calls attention to the increasingly vital role engineering plays in our professed aspirations for clean air, water and land, and in the technological advances that carry traffic and mass transportation with greater efficiency, safety and dispatch.

The nationwide observance features high school career conferences, exhibits on engineering achievements, guided tours through industrial plants, talks by engineers before student and civic groups, and other local activities by engineering organizations to call attention to the importance of a sound educational background in mathematics and the physical sciences.

National Chairman for the 1967 Week is Rex P. Merilatt, P.E., Federal Aviation Agency engineering executive in Oklahoma City. State Chairman is Dean Roger W. Richardson, of Baton Rouge, with committee members James M. Watts and Mark Howard from Alexandria; Ralph B. Holloway and Joe G. Richard, Jr., from Baton Rouge; Sylvan J. Richard and W. Gayle Hebert from Lafayette; C. H. Edwards and Joe Herpin, Jr. from Monroe; Robert F. Burns, New Orleans; and Max P. Watson, and W. J. Googe from Shreveport.

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LOUISIANA ENGINEERING SOCIETY
BOARD OF DIRECTION MEETING

DECEMBER 8, 1966

OAK MANOR MOTOR HOTEL, BATON ROUGE, LA.

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Ewing, Walk, Szabo, Hogue, and Huffman. Also present were members of the Membership Committee, Messrs. Adams, Leo J. Odom, Gautreaux, and Stouse, and Earl Martin, Executive Secretary.

The minutes of the November meeting were accepted as mailed to members with editorial corrections on a motion by Mr. Odom, seconded by Mr. Bubenzer and passed.

The Financial Report for November was read by the Secretary-Treasurer, John F. Vogt, Jr.

It was pointed out that the program and speakers for the 1967 Spring Convention were almost all confirmed, and that planning and publicity were much further advanced than last year at this time.

The Annual Meeting of the Society was discussed so that a date and site for this meeting could be determined. It was proposed and agreed that the format of the meeting should combine the Officers' Indoctrination Conference, the Installation of Society Officers and the Presentation of Awards. President Duclos proposed that the Executive Secretary meet with the Lake Charles Chapter to determine if they want to host the combined Annual Meeting and Officers' Indoctrination Conference. Mr. Bubenzer moved that this be done, seconded by Mr. Fernandez and passed.

The proposed referendum to the membership from the Building Committee was discussed at length. Mr. Hogue stated his thought that the action taken in Monroe was to determine the feeling of the membership as to headquarters location only, which would be used by the Building Committee to make its feasibility study. The referendum as presented to the Board would indicate only if a building and its location was desired by the membership. It was pointed out that this was only a referendum, and that if a change was indicated, it would still have to be voted on by the membership. Mr. Nelson moved that the question of the Legal Domicile of the Society be debated in an article in the December issue of the LOUISIANA ENGINEER, and that a separate mailing be made shortly thereafter containing this article and the referendum. Mr. Odom seconded this motion and it passed. The Board approved a committee made up of Messrs. Nelson, Hogue, Ewing and Huffman to prepare the article for the magazine and for the mailing and to report the results of the referendum to the Board at its February meeting.

Mr. Walk reported that his committee had met and prepared a contract for the Society with Allen Johnson and Associates which would allow the Society to use his services when requested and to compensate him for advertising contracts secured or renewed. Mr. Odom moved acceptance of the contract subject to a further meeting of the committee with Mr. Johnson and Earl Martin to determine proper servicing of advertising accounts. Mr. Fernandez gave the second and the motion passed by a vote of nine affirmative and two opposed.

Mr. Odom reported that the two committees had been set up to work with the Department of Highways, and that the Directors of both Departments have responded to the LES offer of assistance.

The Board read a proposal that indicated the LES dues to EJC might be increased from \$50.00 to approximately \$300.00. Mr. Nelson moved that LES continue its affiliation with EJC even if the dues are raised, seconded by Mr. Ewing and passed.

The Alexandria Chapter requested that a committee be formed to meet with the Louisiana Society of Engineers in Civil Service regarding combining their activities. The Board referred this to the Membership Committee to determine if further action could be taken by the Board.

President Duclos reported with regret that Mr. Sellers had resigned as Chairman of the Membership Committee and requested ratification of Farrell Adams as Chairman. Mr. Bubenzer so moved, seconded by Mr. Fernandez and passed.

The proposed application card for new members was discussed at length. Mr. Odom made a motion that the card be approved, with the revisions suggested and that it be prepared for printing and distribution. Seconded by Mr. Ewing and passed. This procedure was considered satisfactory to the Membership Committee.

Mr. Odom moved that registration be accepted as fulfillment of the professional experience required for new applicants. Seconded by Mr. Hogue and passed. For non-registered applicants the Secretary would solicit information on applicant's work experience.

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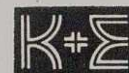
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Board Meeting Minutes—Cont'd

Mr. Nelson moved that the Qualifications Committee be advised that it is the opinion and understanding of the Board that the Constitution as written does not require that an applicant for any grade of membership in LES be a member of any other Society. Seconded by Mr. Odom and passed.

The change in Membership Grade as proposed by the Membership Committee was discussed. Mr. Nelson moved that no changes in membership grades or requirements be made until after the NSPE vote on changes in membership grade to be made in January. Seconded by Mr. Odom and passed.

The changes in Admission and Transfer procedures as proposed by the Membership Committee were discussed at length. Considerable discussion centered on methods presently used and alternate procedures that would speed up acceptance of new members. Mr. Hogue moved that the Board study these recommendations of the Membership Committee for 30 days, and that this matter be made the first item of business at the next Board Meeting. This motion was seconded by Mr. Huffman, with the request that the Secretary prepare and distribute to the Board an outline of the procedures presently used.

The Board agreed that the next meeting would be held in New Orleans on Thursday, January 12, 1967, at the Hilton Inn. Mr. Ewing moved that this meeting adjourn, seconded by Mr. McNamara and passed.

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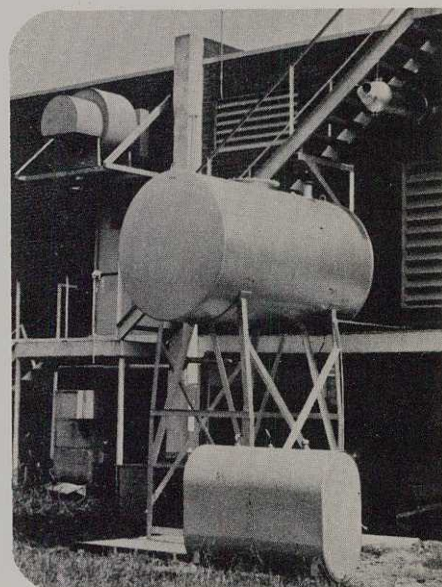
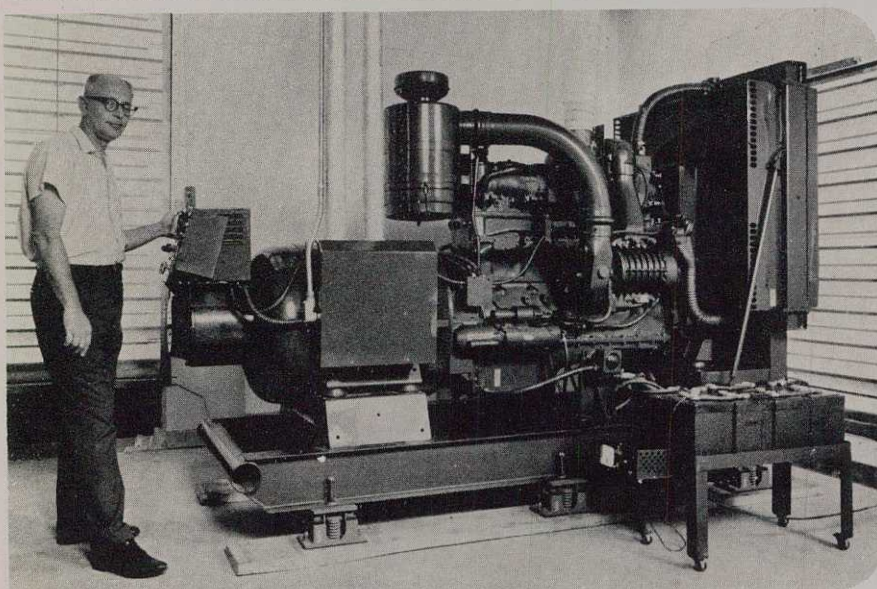
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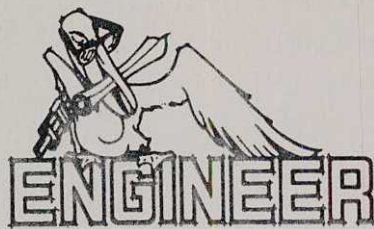
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Executive Secretary Resigns

To All Members Of The Louisiana Engineering Society

It has been my pleasure to serve as your Executive Secretary for the past two years. Effective July 1, 1967 I will assume the office of Executive Director of the Consulting Engineers Council of Louisiana.

I could not leave you without expressing my personal appreciation to all of the members of the Society who have worked so hard for it, especially the State and Chapter Officers, all Committee and Functional Section Chairmen and their committeemen who put forth the extra effort needed to guide the Society through these years of change.

The experience I have gained with the Society is beyond measure. The fellowship and the friends I have made will endure the rest of my years. And, while I am sorry that I will not be working for and with you, I am pleased to continue to be associated with engineers and this fine profession.

Please be assured that I stand ready to assist each of you in any way possible to improve the Society and the profession.

I look forward to seeing each of you as I cover the state for the CEC.

Sincerely,
Earl M. Martin, Jr.

The LOUISIANA ENGINEER is the official publication of the Louisiana Engineering Society and of the Louisiana State Board of Registration for Professional Engineers and Land Surveyors and is published in February, April, June, August, October and December. Subscription \$2.00 per annum; single copy 50 cents. Second-Class Postage Paid at New Orleans, 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.

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Chairman—H. L. Henry, P.E., Box 875, Tech Station, Ruston, La. 71271.

Legislative Committee:

Chairman—Charles P. Barnard, P.E., Box 15648, Baton Rouge, La. 70815; Vice Chairman—Frank M. Heroy, Jr., P.E., Box 4245, Capitol Station, Baton Rouge, La. 70804.

Ladies State Advisory Committee:

Chairman—Mrs. Paul J. Plaisance, Jr., 5311 Air View Drive, Alexandria, La. 71303.

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Professional Engineers in Industry

Section of LES Formed and Bylaws Proposed

At Shreveport Meeting

At the Professional Engineers in Industry (PEI) in conjunction with the Spring Meeting of the Louisiana Engineering Society, a set of proposed Bylaws for a PEI Section was adopted. These Bylaws are printed in this issue of the "Louisiana Engineer."

These Bylaws provide for an Executive Committee consisting of Chairman, Vice Chairman, Secretary and one director from each LES Chapter. The directors are to be selected by the respective chapters. Directors will normally serve for two year terms, with terms of office staggered to provide continuity. Initially, the directors from the Alexandria, Lafayette, Monroe and Shreveport Chapters shall serve for one year, and the directors from Baton Rouge, Lake Charles and New Orleans shall serve for two years.

At the Spring Meeting the following officers were nominated - Chairman, M. L. Hurstell, New Orleans; Vice Chairman, A. M. Moore, Alexandria; Secretary, R. G. Trumps, New Orleans. The election of officers will be held at the Annual Meeting in Lake Charles on July 24. Nominations for the various offices will be accepted from the floor at that time.

It is felt that membership in PEI will be mutually advantageous to the individual members and to LES. Therefore, those interested should fill in and return the membership application printed in this issue.

BYLAWS

I - NAME

The name of this organization shall be the FUNCTIONAL SECTION FOR PROFESSIONAL ENGINEERS IN INDUSTRY of the Louisiana Engineering Society, hereinafter called the Section.

II - ORGANIZATION

This Section is organized under the provisions of the Charter of the Louisiana Engineering Society, and the applicable provisions of said Charter, Constitution and Bylaws shall be followed in all activities of the Section.

III - OBJECT

The objectives of this Section are to provide effective forums for discussion and united action, to develop programs and activities, and to supplement and support the activities of the Louisiana Engineering Society as applied to industry-employed engineers; and further, to stimulate the development of industry-employed engineers in a professional manner.

IV - MEMBERSHIP

Section 1 - The membership of this Section shall be limited to members of the Louisiana Engineering Society who are in good standing, and who are employed as Engineers in Industry, or who were employed as Engineers in Industry at the time of retirement.

Section 2 - An Engineer in Industry, for the purposes of these Bylaws, shall be defined as one who performs professional engineering services for, and is a full-time employee of an industrial organization, or a former Engineer in Industry who is retired.

Section 3 - Applications of prospective members shall be subject to approval of the Executive Committee of the Section.

Section 4 - All rules of the Louisiana Engineering Society applicable to membership in good standing shall govern membership in the Section.

Section 5 - Any member may withdraw his Section membership by written resignation addressed to the Secretary of the Section.

V - ADMINISTRATION

Section 1 - Direction of the Section shall be vested in an Executive Committee which shall consist of a Chairman, a Vice-Chairman, a Secretary, and Directors, (one Director from each Chapter of the Louisiana Engineering Society). The responsibilities of the members of the Executive Committee shall correspond, respectively, to those of the President, President-Elect, Secretary, and Directors of the Louisiana Engineering Society as defined in the Constitution and Bylaws thereof.

Section 2 - The terms of office of the Chairman, Vice-Chairman and Secretary shall be one year. The terms of office of the Directors shall be two years, with election of alternate years, with the exception that, at inception, the Directors from the Alexandria, La-

APPLICATION FOR P.E.I. MEMBERSHIP

Malcolm Hurstell, P.E.
State Committee Chairman
Professional Engineers in Industry
Louisiana Engineering Society
P. O. Box 60340
New Orleans, Louisiana 70161

I am a member in good standing of the Louisiana Engineering Society and would like to become a member of the Professional Engineers in Industry Section of the Louisiana Engineering Society.

(Please Print or Type)

Name

Street Address

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By Laws Cont'd. . . .

fayette, Monroe and Shreveport Chapters shall serve for one year and the Directors from the Baton Rouge, Lake Charles and New Orleans Chapters shall serve for two years. The Directors shall be selected by the respective Chapters, in a manner determined by the respective Chapters.

Section 3 - Nominations for succeeding officers shall be made by the incumbent Executive Committee. Nominations may also be made from the floor at the Annual Meeting.

Section 4 - Notice of nominations shall be mailed by the Secretary to each member not later than fifteen days prior to the election. Officers shall be elected by the Section participants at a general meeting of the Section held at the time of the Annual Meeting of the Louisiana Engineering Society.

VI - MEETINGS

Section 1 - Section meetings shall be held at the time and place of each Annual Meeting of the Louisiana Engineering Society. Additional meetings may be called by the Executive Committee provided that notice of each meeting shall be mailed by the Secretary to each member not later than twenty days prior to the meeting.

Section 2 - A quorum shall consist of 5 per cent of the membership of the Section or 10 members, whichever is greater.

Section 3 - The Executive Committee shall meet prior to each regular Section meeting and at other times at the discretion of the Chairman or a majority of the Executive Committee.

Section 4 - The Secretary shall submit a copy of the minutes of all meetings to the Board of Direction of the Louisiana Engineering Society.

VII - DUES

The assessment of Section dues shall be made by the Executive Committee when ratified by a simple majority of the membership of the Section and approved by the Board of Direction of the Louisiana Engineering Society.

VIII - APPROVAL

Section 1 - The stated objectives of the Section and its Bylaws shall be approved by the Board of Direction of the Louisiana Engineering Society as a condition for activation of the Section.

Section 2 - All proposed programs, as well as activities to formulate or to implement existing Louisiana Engineering Society policy, shall be submitted for approval to the Board of Direction of the Louisiana Engineering Society. All public statements, recommended policy action, or any action affecting other functional sections or segments shall be processed and released in accordance with the regular procedures of the Louisiana Engineering Society.

IX - AMENDMENTS

These Bylaws may be amended by a concurring vote of not less than 2/3 of the membership of the Section present at any meeting, provided that the text of the proposed Bylaws shall be mailed to each member of the Section at least ten days prior to the meeting at which a vote on the proposed Bylaw is to be taken; and provided that each proposed Bylaw shall receive approval of the Board of Direction of the Louisiana Engineering Society.

X - PARLIMENTARY PROCEDURE

Robert's Rules of Order Revised shall govern matters of parliamentary procedure at all meetings.

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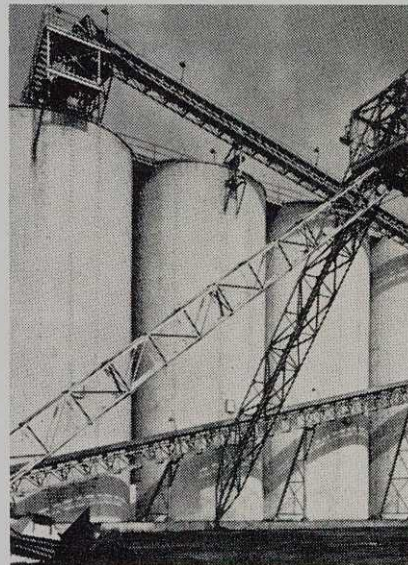
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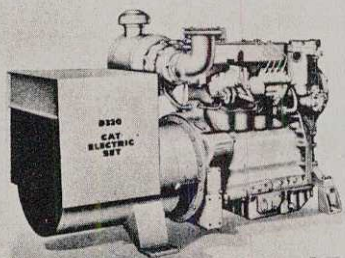
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A Status Report by The . . .

Benchmark Elevation Study Committee

The committee has met several times both in Baton Rouge and in New Orleans since it was appointed. During the first meeting, the scope of the study and method of approach was discussed. It rapidly became apparent that a limited area would have to be taken at a time since the coverage is quite extensive.

The principal task is to ascertain why the large adjustment in elevations was made by the USC&GS in 1955-56. There are a number of possibilities to cause benchmark adjustment.

1. Human error in leveling.
2. Method of adjustment
3. Local subsidence.
4. Areal subsidence.

Since adjustments made prior to 1951 and subsequent to 1956 were minor, the large adjustment between the above years appeared suspect. Mr. Harrison of the State Department of Public Works began to compile records of benchmarks on the level run from Baton Rouge towards New Orleans; Mr. Langlois of the Corps of Engineers commenced record research in the New Orleans area.

A letter was sent to the Director of the Coast and Geodetic Survey by the Department of Public Works (see enclosure No. 1) informing them of the formation on the committee.

In the meantime, Mr. Harrison's research appeared to reveal inconsistencies in the various adjustments made by the Survey.

A reply was received from the Survey (See enclosure No. 2) indicating that they felt that a review by them of adjustments made dating back to 1941 appeared necessary. The Survey also requested that this committee defer their study until they had performed their review.

It is recommended that this committee defer the study for the time being but remain active to maintain contact with the Coast and Geodetic Survey until their review is completed and this committee's report is finalized. It is the intention of the committee to submit a preliminary report upon receipt of background information from the Coast and Geodetic Survey. This information is being requested by the Department of Public Works in their reply to enclosure No. 2.

Respectfully submitted,
Lew J. Bremenstul, Chairman
Committee on Benchmark Elevations

(See Enclosures 1 & 2, next page)

(Continued from Page 7)

Admiral James C. Tison, JR., Director
Coast and Geodetic Survey
Environmental Science Services
Administration
Rockville, Maryland 20852

Dear Admiral Tison:

At the request of the Louisiana Engineering Society, the Department of Public Works has agreed to make a study to determine the causes for the discrepancies between the elevations which the United States Coast and Geodetic Survey is reporting as a result of recent releveling work in Louisiana, and to prepare report setting forth its findings. At this time we are confirming our study to the Baton Rouge-New Orleans area where most of the releveling has been concentrated since 1938.

I would welcome any suggestions you might have as to how we should proceed with this study, the factors to be considered, and any other information that you deem appropriate. If necessary, I shall be glad to send a representative of the Department to Rockville to discuss the matter in greater detail at your convenience. The Department of Public Works will reimburse the Survey for any expenses incurred in connection with this project.

Sincerely,
CALVIN T. WATTS
Assistant Director

Mr. Calvin T. Watts
Assistant Director
State of Louisiana
Department of Public Works
Baton Rouge, Louisiana 70800

Dear Sir:

A preliminary review of the adjustment of our leveling in Southern Louisiana indicates that a complete review is in order. It is therefore recommended that your study be deferred until we can complete a detailed review of our leveling in this area.

The adjustments of our 1950-51 and 1955 levelings in the New Orleans area did not involve a connection to previous Alluvial Valley Supplementary Adjustment of 1941 elevations at New Orleans since this was indicated to be a settling area and no releveling was then done to Baton Rouge. Our preliminary study indicates the need for a re-evaluation of the 1941 adjustment and possibly of our later adjustments.

Mr. Duclos' letter of November 29, 1966, states: "The check levels over the USC&GS bench marks begin run in South Louisiana at this time indicate substantial settlements in areas which have previously been considered by the profession to be very stable while reported results in other areas do not indicate as much settlement as was considered probable." Specific information in regard to these areas would be most helpful in our re-evaluation.

Sincerely yours,
J. O. Phillips
Captain, USESSA
Chief, Geodesy Division

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A Status Report by The

Geodetic Survey Committee

Attached is a report of the Geodetic Survey Committee which was prepared by the committee appointed by you on November 29, 1966. The report is general in nature — the present status of horizontal control surveys is outlined, activities in other states and communities are reviewed, some benefits are listed, and a proposed survey program is recommended.

The committee is of the opinion that the details of a statewide horizontal control survey program should be formulated by the state agency or surveying organization which would ultimately supervise the work. The committee will be glad to assist this group in any way possible.

Very truly yours,
George E. Jones, Chairman
Geodetic Survey Committee

The Report

Because of Louisiana's rapid industrial growth and in order to promote the development of its natural resources, an extensive horizontal survey control system is sorely needed. There are a number of benefits which are derived from a usable control network with stations which are readily available and of sufficient accuracy to be used by all engineers and surveyors.

BENEFITS OF HORIZONTAL CONTROL SURVEYS

A. The State Highway Department is one of the agencies which benefits

most as a result of a statewide control survey network. Their work covers the whole state and much of it is accomplished by local projects which are separated from other projects. Extensive use of the control system increases the quality and accuracy of the survey work performed by the Highway Department. Isolated projects are coordinated with other work so that blunders are eliminated. The aerial mapping for location and design of highways and structures is improved and more easily coordinated with ground surveys. The location and acquisition of right-of-way is expedited because of the use of a common reference system. Future improvements and extensions are located according to the common reference system; thus saving countless hours of work in trying to establish a relationship between two different surveys which were done many years apart.

B. Each of our cities and more densely populated communities are faced with the difficult task of relating the streets, utilities, and property boundaries which are on the surface, underground, and in the air. A common reference system is absolutely essential for the effective planning, construction, and maintenance of these facilities. The local control systems in use in some communities today are rapidly becoming outmoded as the suburban areas merge with the cities and the industrial areas extend farther into the rural areas.

C. The extensive industrial development in progress in Louisiana creates

an immediate need for a usable control survey network. Most factories and plant sites utilize a grid system of some sort for the orderly planning and construction of their structures. An arbitrary grid is used if state control monuments are not readily available. The use of the state control system for location and description of the industrial facilities results in better coordination with community and state agencies which handle street and road construction, zoning and installation of utilities.

Transmission lines, pipe lines, and other cross-country facilities could be related to local facilities, property boundaries, and rights-of-way through the use of a statewide coordinate system. This would result in a considerable savings in the planning, construction, and maintenance of these systems.

D. There are considerable advantages for the individual citizen and property owner which can be realized through the use of a state-wide control system. The location of his property lines is based on a common reference system which will result in reduced costs of future surveys and in fewer boundary disputes and lawsuits. The location of his property with relation to existing and future streets, utilities, and zoning restrictions is readily available. Uniform indexing and location of all property in a Parish Uniform indexing and location of all property in a Parish, precinct, block or other area may be facilitated by use of a computer data bank and descriptions in accordance with a state-wide control system.

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EXISTING HORIZONTAL CONTROL IN LOUISIANA

The Coast and Geodetic Survey began their work in Louisiana about 1856 and it has continued to the present day. Approximately two hundred and ten stations have been established in the last six years. The horizontal control monuments established by the C. & G.S. are used as the basic control stations for the networks which are developed by most other agencies. Most of the monuments in the basic control networks crossing Louisiana are spaced about eight to ten miles apart. The spacing of stations around cities and in the vicinity of navigable water ways is about three miles. The southern portion of the state and the northern portion are reasonably well covered with basic second order triangulation. The remainder of the state is crossed with several networks, but there are some areas in central and western Louisiana which are eighteen miles from the closest station.

B. U.S. Geological Survey

The Geological Survey has monumented a number of points which are widely scattered over the state. The control work was done in connection with the topographic mapping and the preparation of Quadrangle Maps. The stations are sufficient for general mapping purposes but they are not accurate enough for basic control which can be used for most all purposes.

C. Corps of Engineers, U.S. Army

The Corps of Engineers has established control stations along the waterways and levee systems for their own use. The reference system used to describe the stations is different from that which is used by most other agencies. The accuracy of the surveys is below the standard which should be used for a state-wide control system.

D. Louisiana Geodetic Survey

The Louisiana Geodetic Survey established approximately 20,000 stations in Louisiana during the mid-thirties. There was extensive coverage in the southwest portion of the state. Most of the stations were placed along roads and were spaced about one-half mile apart. The reliability and accuracy

of the stations vary, some of the work was good but other stations cannot be accepted for basic control work. An inspection of some 1,700 stations in various parts of the state indicated that approximately 65 per cent of the stations have been destroyed.

E. Louisiana Department of Highways

The Louisiana Department of Highways began a control survey program in 1964 in connection with the Interstate Highway Program. One survey party has established approximately 300 second order stations along the Interstate Highway System at a cost of approximately \$450 per monument. The work has been coordinated with the Coast and Geodetic Survey and the results will be published by them.

F. Private

A number of engineering and surveying firms, heavy industry, and oil companies have established their own survey control stations in limited areas. The accuracy of this work varies and the monumentation is inadequate for extension into a basic control network.

WHAT ARE OTHER STATES AND COMMUNITIES DOING ABOUT CONTROL SURVEYS

Most of the states have adopted the State Plane Coordinate Systems which have been developed by the Coast and Geodetic Survey. The use of coordinates in property descriptions is permissible in most states. Some communities require state coordinates for the description of new subdivision corners and insist that the subdivision be adequately monumented according to certain standards before it is approved by the appropriate governing body.

Approximately twenty states have taken advantage of the Bureau of Public Roads control survey program. Some of the control survey work is done before the construction of the interstate highways but most of the control survey work is done after the highways are constructed. A number of the states have utilized the services of the Coast and Geodetic Survey; either for the establishment of basic control which is supplemented by state survey parties or for consultation on the technical phases of the program. Most state highway departments use their own survey crews for the control

work. Contract survey crews have been used in some of the states to supplement the work done by the highway department survey parties.

Many communities such as Los Angeles, Detroit, Akron, Reno, and the counties surrounding New York City have established local survey control organizations. These agencies have established high density control in metropolitan areas. In most cases the basic control was established by the Coast and Geodetic Survey. The use of coordinates in property descriptions is permissible in most states. Some communities require state coordinates for the description of new subdivision corners and insist that the subdivision be adequately monumented according to certain standards before it is approved by the appropriate governing body.

Approximately twenty states have taken advantage of the Bureau of Public Roads control survey program. Some of the control survey work is done before the construction of the interstate highways but most of the control survey work is done after the highways are constructed. A number of the states have utilized the services of the Coast and Geodetic Survey; either for the establishment of basic control which is supplemented by state survey parties or for consultation on the technical phases of the program. Most state highway departments use their own survey crews for the control work. Contract survey crews have been used in some of the states to supplement the work done by the highway department survey parties.

Many communities such as Los Angeles, Detroit, Akron, Reno, and the counties surrounding New York City have established local survey control organizations. These agencies have established high density control in metropolitan areas. In most cases the basic control was established by the Coast and Geodetic Survey on a partial reimbursable basis and then the local survey crews established intermediate monuments throughout the area.

The state of North Carolina established a State Geodetic Survey organization in 1959. This agency consists of fifteen men who do control work throughout the state. The work is usually done at the request of various state agencies and local planning groups. The North Carolina Geodetic Survey serves as a clearing house for all control survey information in the state.

(Continued on Page 12)

The Louisiana Engineer

Results of LES Constitutional Amendments Ballot

For Against

389 21 Article VII "Admission to Membership or Transfer to Another Grade. (See pages 1, 2, attached)

390 20 Articles II, VI, VIII and XI relative to Membership, Dues, Resignation of Membership and Forfeiture of Membership. (See pages 3, 4, 5, 6, attached)

296 119 Article V—Meetings—relative to the legal domicile of the Society. (See page 7 attached)

Final Results Chapter Membership Contest

Standing	Chapter	Quota	Applications	% Quota
1	Shreveport	15	40	267
2	Baton Rouge	35	46	131
3	Lake Charles	9	11	122
4	Lafayette	14	16	114
5	Alexandria	9	10	111
6	Monroe	9	9	100
7	New Orleans	76	45	60
		167	177	106%

Contest Quotas For The 1967-68 Contest

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Monroe—10

Baton Rouge—39

New Orleans—70

Lafayette—16

Shreveport—17

Lake Charles—10

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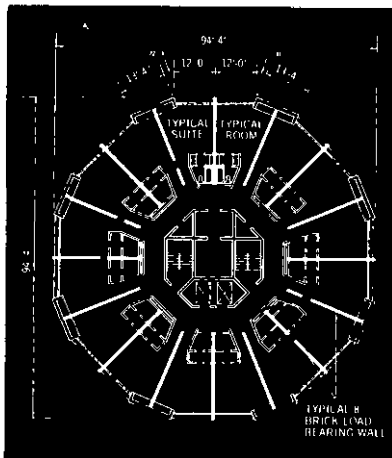
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(Continued from Page 10)

HORIZONTAL CONTROL SURVEY PROGRAM FOR LOUISIANA

In order for Louisiana to have an effective and usable horizontal control survey network throughout the state, a considerable amount of work must be done. The stations established by the Coast and Geodetic Survey and those recently established by the Louisiana Department of Highways are sufficiently accurate and reliable to be used in the network. Little can be salvaged from the monuments established by other agencies because of the lack of uniform standards and sufficient accuracy required in those programs.

Coordination of a state control survey program by one agency in the state is absolutely essential if uniform standards, effective planning, and centralized distribution of information is to be maintained. The Department of Highways seems to be the most logical agency for the coordination of the program in Louisiana because it has been performing accurate control surveys during the past few years, it has been filing and distributing some control information, it has state-wide interests and organization, and it has the largest number of trained survey personnel.

The control work for the basic system should be of Second Order Accuracy or better. The monuments should be standardized and the sites should be carefully selected so that the monuments are available for future users. The information about the stations should be published in a standard format and be readily available to users. The distance between stations should be (a) no more than two miles in metropolitan areas, (b) no more than four miles in developing areas, and (c) no more than ten miles in rural areas.

The primary networks should be surveyed by the Coast and Geodetic Survey and adjusted into the national system. Much of this has been done but there is a need for about twice as many stations as presently are available. The Department of Highways should increase the density of stations in the primary network. This is being done along the new interstate system at present, but this is only a beginning. A considerable increase in the amount of money and man-power will be required to effect a usable control system. The municipalities should extend the control network within their jurisdiction by the use of their Engineering De-

partments or by contracts with engineering and surveying firms. All of this work should be planned, coordinated, inspected, and approved by one agency.

FINANCING THE HORIZONTAL CONTROL SURVEY PROGRAM

There are a number of different sources of funds which could be used to finance a State Horizontal Control Survey Program. Since it is primarily a state program the state will have to provide most of the money; this would be channeled through the Department of Highways.

The Coast and Geodetic Survey will pay for any program which they initiate and is a part of their routine duties. They will do work for other agencies, particularly states and municipalities on a cooperative basis. The Coast and Geodetic Survey has paid as much as 75 per cent of some of those projects, while the local agency paid the remainder of the cost.

The municipalities should finance most of the work in their immediate area. There are a number of federal programs for urban development and related activities which can supplement the cities' contribution to this program immediately.

Individual developers of subdivisions should finance part of the program by being required to have an approved survey and monumentation of a subdivision before it is approved. The local zoning and planning commissions can implement this.

CONCLUSION

A usable state-wide horizontal control survey network is essential for the development of the State of Louisiana. A program for the achievement of this objective will require five to ten years and an expenditure of several million dollars. The benefits from such a program are tremendous and the sooner that it is effected, the greater the ultimate savings to the citizens of Louisiana.

Since there is no agency in Louisiana that is directly responsible for this survey it is imperative that all those who will receive the major benefits of the program should encourage and support it. This is particularly true for those who are most involved in the day to day use of control surveys — the engineers and surveyors.

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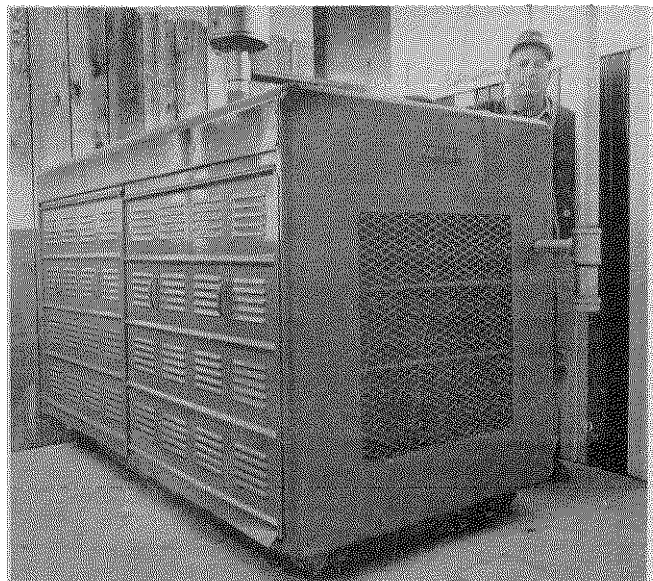
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Professional engineers granted registration May 16, 1967, by the Louisiana State Board of Registration for Professional Engineers & Land Surveyors:

Alderson, Robert E., *Civil*
1015 Hickory Dr., Marietta, Ga.
Alexander, William A. Jr., *Civil*
660 Fielding Ave., Gretna, La.
Baker, Everard G. Jr., *Chemical*
205 White Dr., Starkville, Miss.
Banister, Billy N., *Civil*
475 Kay Dr., Baton Rouge, La.
Barnett, George G., *Electrical*
1212 Sunset Ave., Lakeland, Fla.
Bennett, William G., *Petroleum*
Rt. 4, Box 324 Monroe, La.
Benoit, Louis L., *Petroleum*
227 Main St., Baton Rouge, La.
Bragg, Floyd O., *Mechanical*
138 Hollywood Dr., Metairie, La.
Brantley, Kenneth L., *Electrical*
Rt. 2, Box 115, Farmerville, La.
Bright, James E., *Civil*
1013 McCall St., Lake Charles, La.
Brookshire, William A., *Chemical*
4914 Goose Creek Dr., Baytown, Texas
Broussard, Joseph C., *Petroleum*
Box 344, Harvey, La.
Brown, Frederick J., *Electrical*
81 Mason Ave., Gretna, La.
Brown, Kenneth R., *Electrical*
5300 Waterbury Rd., Des Moines, Iowa
Brune, Lawrence *Mechanical ½ Electrical*
4625 Spain St., New Orleans, La.
Calongne, George C. Jr., *Petroleum*
311 Claymore Dr., Lafayette, La.
Cambre, Ronald G., *Chemical*
3529 N. Labarre Rd., Metairie, La.
Campbell, Robert K., *Mech/Indus.*
648 Ashbourne Dr., Shreveport, La.
Cannon, Harry L., *Electrical*
175 Chelsea Dr., Shreveport, La.
Casey, David G. Jr., *Petroleum*
1526 Eighth St., New Orleans, La.
Cecil, Leland B., *Petroleum*
1538 Tropic Dr., New Orleans, La.
Chalmers, Robert A., *Mechanical*
126 Chantilly Lane, Slidell, La.
Conley, George D., *Civil*
6038 Lancaster, Houston, Texas

Cowen, Henry H., *Civil*
5642 Elm Spring, Houston, Texas
Davis, Robert G., *Mechanical*
233 Bellmead, Shreveport, La.
de Quintana, Manuel L., *Agricultural ½ Mechanical*
4075 N. Maiden, Baton Rouge, La.
Diehl, Edwin H. Jr., *Civil*
3756 Barbara Dr., Metairie, La.
Dupaquier, Edouard M., *Petroleum*
123 Third St., Houma, La.
Ellebracht, James F., *Petroleum*
Box 168, Venice, La.
Farinas, Julio H., *Mechanical*
Route 2, Box 773, Port Allen, La.
Fernandez, Gerard R., *Petroleum*
676 Korina St., Vandenberg AFB, Calif.
Franke, Robert E., *Electrical*
Box 934, Nederland, Texas

Freeman, Jerrel J., *Civil*
2601 Carondelet, Apt. C, New Orleans, Louisiana
Gall, Luis G., *Mechanical*
1434 St., Andrew, Apt. 1, New Orleans, Louisiana
Graham, Robert W., *Petroleum*
6868 S. Hill, Littleton, Colo.
Hall, Wilmer R., *Civil*
848 Reddoch St., Memphis, Tenn.
Hamilton, DeWitt C. Jr., *Mechanical*
323 - 10th St., New Orleans, La.
Harper, Donald E., *Civil*
4217 Goodfellow Dr., Dallas, Texas
Hawkins, Harold M., *Petroleum*
2643 Nick Dr., New Orleans, La.
Hayden, Tommy H. Jr., *Civil*
12241 Mollylea Dr., Baton Rouge, La.
Hollowell, William G., *Civil*
4115 N. 14th Ct., Abilene, Texas
Holt, Jack M., *Petroleum*
112 Brentwood Blvd., Lafayette, La.
Horton, Lyman G., *Civil*
1625 Pegfair Estates Dr., Pasadena, California
Houser, Daniel M., *Mechanical*
928 Jefferson Ave., New Orleans, La.
Hrubecky, Henry F., *Mechanical*
76 O.K. Avenue, Harahan, La.
Huckabay, Houston K., *Chemical*
500 N. Everett, Ruston, La.
Hunter, Felix M., *Electrical*
P.O. Box 87, State College, Miss.
Izakson, Zussia *Civil*
425 Riverside Dr., New York, N.Y.
Jones, Grady C. Jr., *Mechanical*
912 Williams St., Pascagoula, Miss.
Jones, Sidney F. Jr., *Petroleum*
7220 Blanke St., Metairie, La.
Jordan, Michael A., *Civil*
2056 Asilomar Dr., Oakland, Calif.
Kan, W.K., *Civil*
6118 Patton St., New Orleans, La.
Keen, Donald R. Sr., *Mechanical*
3643 Buffwood Dr., Baker, La.
Kilroy, John C. III *Mechanical*
1104 Green Acres Rd., Metairie, La.
Kleier, C. Robert Jr., *Civil*
4315 Robin Dr., Jackson, Miss.

Koćmich, Edward G. Jr., *Electrical*
2073 Pepper Ridge Dr., Shreveport, La.

Kramer, Ferd B. Jr., *Electrical*
4415 Fleet Dr., bBaton Rouge, La.

LeBlanc, Samuel J. Jr., *Mechanical*
4791 Rosalia Dr., New Orleans, La.

Lee, William W., *Mechanical*
2627 Hillegass Ave., Berkley, Calif.

Link, James B., *Civil*
4110 Glen St., Bossier City, La.

Long, Douglas R., *Civil*
3108 Jodie St., Metairie, La.

Mardick, Max L., *Petroleum*
7008 Gillen St., Metairie, La.

McLeod, Lamar W., *Mechanical*
10 N. Kingshighway, St. Louis, Mo.

McNeely, Wayne E., *Petroleum*
805 N. Everett, Morgan City, La.

Meahl, Thomas E., *Petroleum*
245 Marilyn Dr., Lafayette, La.

Mendenhall, Irvan F., *Civil*
3704 Prestwick Dr., L.A., Calif.

Mikle, Franklin O., *Civil*
Box 481, Covington, Va.

Minto, James G., *Electrical*
1001 Manor Pl., Shreveport, La.

Moore, Bobby C., *Civil*
2161 Daniels Rd., Gretna, La.

Moore, Waldon, E., *Civil*
2000 Mary Ellen, Pampa, Texas

Nelson, Edward R., *Chemical*
940 S. Holly Pl., W. Covina, Calif.

Newell, James F. Jr., *Mechanical*
5470 Carew St., Houston, Texas

Nichols, Don A., *Petroleum*
Box 168, Venice, La.

Paddock, Robert D., *Civil*
4801 N. Byron, Oklahoma City, Okla.

Pharr, James C., *Electrical*
10128 Honolulu Dr., El Paso, Texas

Piasecki, Andrew L., *Electrical*
5844 Walnut St., Pittsburgh, Pa.

Pippin, Aubrey E., *Mechanical*
3101 Elysian Fields Ave., New Orleans, La.

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Rushing, Robert M., *Mechanical*
5323 Manor Creek Lane, Houston, Texas

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20 Phillips Dr., Old Bidge, N. J.

Seto, Yeb Jo *Electrical*
4842 Purdue Dr., Metairie, La.

Sikes, Eugene E. Jr., *Mechanical*
407 Birch, New Iberia, La.

Sogin, Harold H., *Mechanical*
6312 Patton St., New Orleans, La.

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8905 Sweetbriar Lane, Shreveport, La.

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Spitzer, Harry J., *Civil*
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4808 Henican Place, Metairie, La.

Tomlinson, Thomas K., *Petroleum*
2602 Hutchins Lane, El Campo, Texas

Totty, Charles R., *Mechanical*
3636 Dellview Fr., Hueytown, Ala.

Trinker, Thomas A., *Chemical*
573 Focis St., Metairie, La.

Vories, David W., *Civil*
6812 Blanke St., Metairie, La.

Wardlaw, Andrew B., *Electrical*
631 Homestead Ave., Metairie, La.

Warren, Robert H., *Civil*
1241 Westlawn Dr., Jacksonville, Fla.

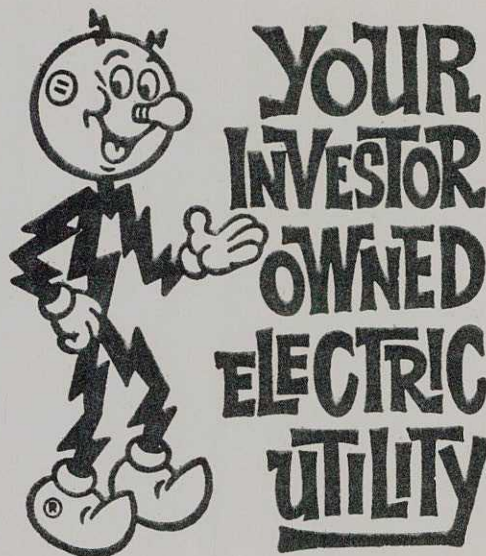
Wilkins, Archie M., *Chemical*
2239 St. Nick Dr., New Orleans, La.

Williams, Joel E., *Mechanical*
609 Azalea St., Port Allen, La.

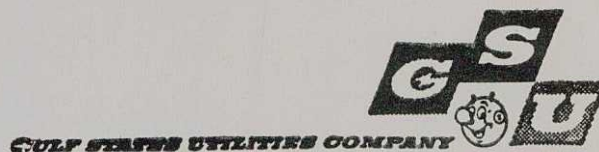
Wright, Stephen C., *Mechanical*
405 - 20th St., Austin, Minn.

Young, Robert L., *Electrical*
Rt. 1, Box 181-A, Broussard, La.

**Urge Your Fellow Engineers
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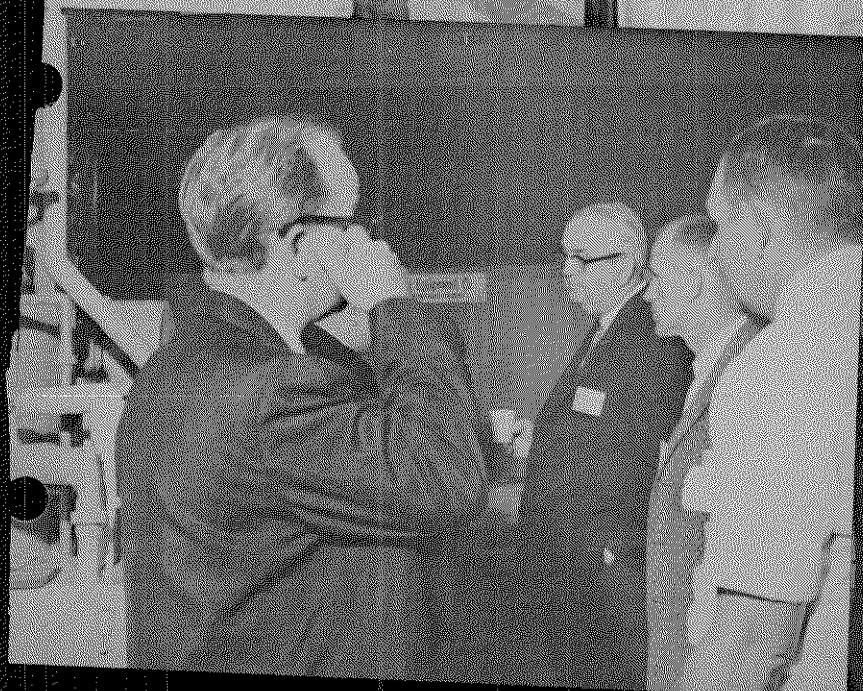


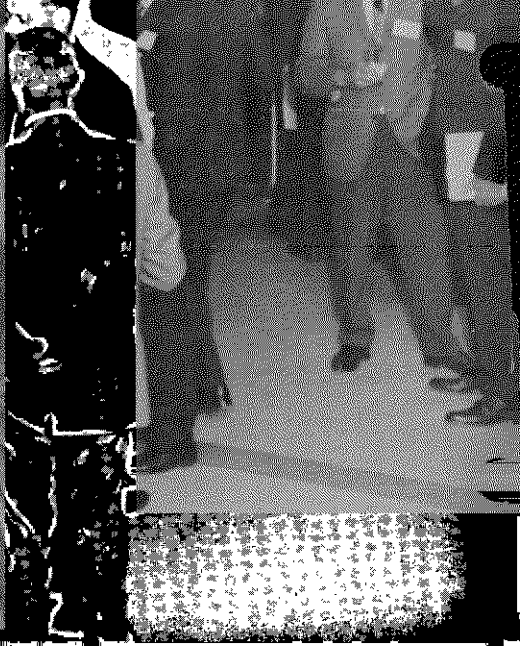
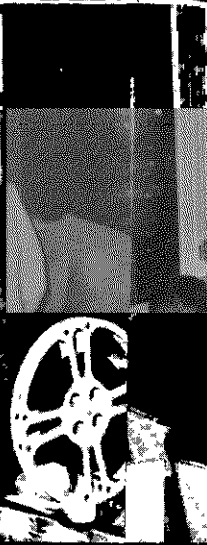
—building ahead for continued growth
and progress of the bustling Baton
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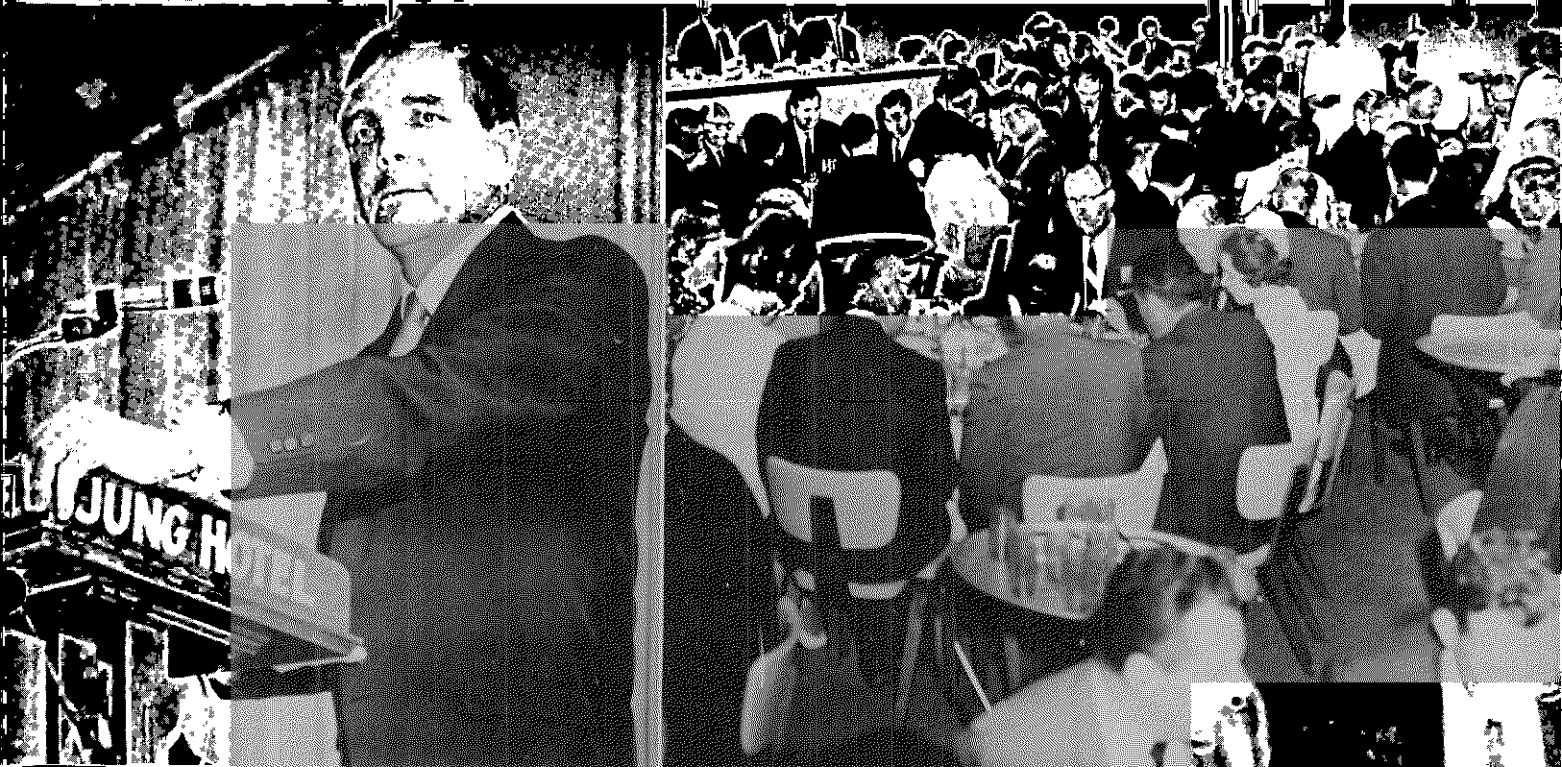


A Pictorial Record '67 Spring Convention

A full two days of outstanding programs, interesting and informative exhibits and crowded social events are recorded on these pages. Many plaudits to Chairman Ray Maddux and his crew, including Jack Grogh, Al Adoue, Hoyt Brown, M. A. Steele and Mrs. John Haase.









Auxiliary News Notes

New Orleans Auxiliary



Seated—Mrs. Daniel H. Vliet, President. Standing—Mrs. Jerry L. Dickson, Vice-President; Mrs. C. J. Sperry, Recording Secretary; Mrs. Seymour Cambias, Financial Secretary; Mrs. Ronald Cressy, Treasurer.

The members of the Woman's Auxiliary to the New Orleans Chapter of the Louisiana Engineering Society will have their Annual Meeting with the Election and Installation of Officers on Tuesday May 16, 1967 at 1:30 p.m. at the Metairie home on Mulberry Drive of Mrs. Raymond K. Goode.

Following the meeting Mrs. Goode will be assisted in receiving for tea by the president Mrs. John A. Haase, III and the outgoing officers — Mmes. Daniel H. Vliet, Edward N. McNamara, David L. White, Ronald P. Cressy, William Herbst, Jerry Dickson, and G. J. Groh.

Pouring will be Mmes Seymour Cambias, Jr., C. J. Sperry, Jr., Francis Favaloro, Bernard Ruckstuhl, John W. Roach, Jr., Blaise Carrier, Lee H. Johnson, Edward J. Welsch, Landry Murphn and Thomas A. Fromherz.

Tea girls include Misses Alison Ann Goode, Kathryn Herbst, Donna Dickson, Margot Vliet, Lesley Fromherz, Barbara Jean Cambias, Jeanne Marie Cressy and Louise and Anne Roach.

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Lafayette Auxiliary



Shown from left: Mrs. John H. Huffman, Vice President; Mrs. A. E. Faulk, Treasurer; Mrs. Warren Hollier, President.

The Maison Rouge Room of the Evangeline Hotel was the setting recently for the Founders Day Luncheon and installation of officers, held by the Lafayette Chapter of the Louisiana Engineering Society Auxiliary. Mrs. Harry L. Dula conducted the installation ceremony for the officers who will serve during 1967-1968. Mrs. Warren Hollier, will assume the office of president for the coming year. Mrs. Hollier will serve with Mrs. John Huffman, vice president; Mrs. Emery Domingue, secretary; Mrs. A.E. Faulk, treasurer.

Mrs. Walter Vincegt opened the luncheon meeting with "The Engineers Wives Prayer". Mrs. James E. Reed, Jr., retiring president, conducted a brief business meeting, before she presented the gavel to Mrs. Hollier. A gift of silver was presented to Mrs. Reed in appreciation of her year of outstanding leadership, by Mrs. Eugene Y. Sellers, retiring vice president.

The long table was centered with an unique arrangement of yellow and white shasta and marconi daisies, which were placed on a white gift box. At intervals along either end of the table were yellow tapers in bases of daisies and English ivy. Current and incoming officers were presented corsages of yellow and white daisies. To complete this color scheme, each place setting held favors in small white gift boxes which were tied with yellow ribbon. Mrs. Earl Robichaux and Mrs. J. R. Gaugler served as chairmen of the table decorations and favors.

The centerpiece was awarded as a door prize to Mrs. Eugene Sellers.

Mrs. Jmaes E. Reed, Jr., retiring president, entertained the Auxiliary members with a Sherry Party, preceeding the luncheon, at her home on West St. Joseph Street. The Sherry table and reception rooms were decorated with arrangements of spring flowers. Mrs. T. Allen Bonnet assisted with the serving.

Members who attended these functions were: Mmes. E. Raymond Desormeaux, John Huffman, Eugene Y. Sellers, James E. Reed, S. J. Richard, Warren Hollier, D. Ralph Cafery, Wayne P. Wallace, T. Allen Bonnet, Raymond J. Laurent, A. E. Faulk, F. R. Wright, Frank G. Love, Roland W. Laurent, T. Brooks Metcalfe, Lawrence N. Hunsinger, Jr., J. R. Gaugler, Walter Vincent, Harry L. Dula, Earl J. Robichaux, and Mrs. Don O'Rourke.

Memorial

John Edward Monroe, Jr.

On the fourth of March the Society lost a member of over 22 years when John E. (Jack) Monroe, Jr. at the age of 51 was felled by a massive cerebral hemorrhage. The sulphur industry also lost a pillar of knowledge and experience as most of Jack's professional life has been devoted to the vast array of problems related to the production, handling and utilization of sulphur. At the time of his untimely passing he was Assistant Vice President of Freeport Sulphur Company, charged with directing all the firm's production and quality control operations.

A native of New Orleans, Jack earned bachelor of science and bachelor of engineering degrees from Tulane University. Starting with Freeport in 1937 as a chemist at Grande Ecaille, he advanced to chief chemical engineer in 1945, and was named superintendent of production there in 1953. He was elected assistant vice president at Port Sulphur in 1957 and was transferred to the New Orleans office in 1961.

He was blessed with immense drive, energy, integrity, and a delightfully quick and keen sense of humor. His love of life and concern for others was outwardly expressed by his many outside activities. He found time to serve as a board member of the Better Business Bureau, to hold active

memberships in the Society of Mining Engineers, American Institute of Chemical Engineers and the Petroleum Club of New Orleans. For many years he gave unstintingly of his time to the Boy Scouts of America, serving at the time as a board member of the Greater New Orleans Area Council. The service he rendered his church over the past 20 years would have worn an ordinary man down.

He will long be remembered by the Society of Mining Engineers members for his work in the Industrial Minerals Division, for his service on numerous important SME committees, and especially for his interest in the Council of Education and Engineers Council for Professional Development. He had a burning concern for the future of the minerals industry and particularly for the young people in high school and college on whom its future depended.

Jack was deeply devoted to his family. How he found time to do all he did and yet always give his family topmost priority was a marvel to us who knew him well. He leaves behind his lovely wife, Louise, two daughters, Ann and Kay, his son, John, and the pride of his life, three grandchildren.

For those who knew him even casually, his passing is a deep personal loss. For those of us who were privileged to know him well and to work with him, there can be no replacement.

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NSPE News Notes

The National Society of Professional Engineers issued a seven-page written statement to all members of the House Education and Labor Committee flatly opposing a bill to legalize common-situs picketing after being denied an opportunity to testify before special subcommittee hearings on the matter on grounds that engineers have no direct interest in the legislation.

The legislation, favorably reported out by the full Labor Committee, would make it lawful for a construction union having a dispute with a signal employer at a construction site to picket the entire project to induce a total shut-down. Such picketing is now unlawful under the secondary boycott prohibitions of the National Labor Relations Act.

Despite protests from NSPE and a number of other interested groups seeking to testify, the subcommittee terminated hearings on the controversial legislation within a period of two weeks after rigidly restricting the number of witnesses permitted to testify.

In the detailed written statement, NSPE Executive Director Paul H. Robbins, P.E., pointed out to the committee members various instances where both direct and indirect pressures have been brought against engineering firms performing professional services at construction sites to coerce their employees to join a particular union. Mr. Robbins told the House members that enactment of the bill in its present form would strip from engineering and surveying firms much of the protection they now have against such operation.

JOINT STATEMENT ON GAO REPORT

"Government-Wide Review of the Administration of Certain Statutory and Regulatory Requirements Relating to Architect-Engineer Fees"

By: American Institute of Architects
American Institute of Consulting Engineers
American Society of Civil Engineers
Consulting Engineers Council
Engineering Division, American Road Builders' Association
National Society of Professional Engineers

The recommendation in the GAO report that Congress repeal the present Federal statutes limiting A-E fees to six percent of estimated construction cost is in full accord with our joint recommendations and will receive the strong support of the engineering and architectural societies when considered by Congress. We believe that implementation of this recommendation will be a constructive step in providing to the Federal Government the fullest range of A-E services on the most efficient and economical basis and is in the public interest.

We also welcome the GAO recommendation that Congress should clarify the intent of the law as regards the application of competitive negotiation procedures to A-E contracts. Although the report does not conform to our view that the competitive negotiation provisions of Federal law are not appropriate for, or applicable to, A-E professional services, the report does recognize that the question is a complex one and should be resolved by Congress as a policy matter. We also concur with GAO's advice to the Federal agencies that "present procedures may be followed until the Congress has had an opportunity to consider the matter."

Our organizations will be prepared to appear before appropriate Congressional committees to present our views and to recommend that the law be amended to specifically exempt professional services from the competitive negotiation provisions of present law.

The GAO report is an important step forward in defining the role of A-E's in Federal contracts and attests to the wisdom of the engineering and architectural societies in working jointly and in unison on this problem of mutual concern.

St. Patrick's Day Party At The Engineers Club



The Engineers Club of New Orleans celebrated the birthday of our patron saint with a real donnybrook. Ronnie Cressy of Waldemar S. Nelson & Co. arranged the affair which was a tremendous success. Val Barbara's band provided the dance music which Howard McAfee, a New Orleans Public Service engineer and a man of many talents sang solos and also lead the group singing of Irish songs. Mrs. McAfee accompanied him on the piano.

The principal attraction of the evening was the Pas de Deux (also known as the Irish Jig) from the "Rites of St. Patrick," danced by those two premier danseurs and virtuosos of Terpsichorean art, Roni Mouton, P.E. and Henri Markel, P.E. This has been recorded for posterity in the accompanying photograph.

Recent research reveals that St. Patrick is the patron saint of engineers because by driving the snakes out of Ireland he thus developed the first recorded "worm drive", an early engineering accomplishment.

"This bit of erudite information was supported by Orest Meykar, P.E., former Orleanian and renowned researcher, now residing and practicing in Washington, D.C.

New Officers Elected La. Land Surveyors Asso.



The co-sponsored Louisiana Land Surveyors Association - Louisiana Section, American Congress on Surveying and Mapping convention was held on February 9, 10, and 11 at the Jung Hotel in New Orleans.

New LLSA officers for 1967 were names as follows:

President:	Secretary-Treasurer:
Henry Messinger	Frank M. Tessier
Bastrop, Louisiana	Baton Rouge, Louisiana
Vice-President:	
William L. Farmer Jr.	
Baton Rouge, Louisiana	

The highlight of the convention was the participation in our program of Mr. Curtis Brown, renown author and surveyor and immediate past-President of the American Congress on Surveying and Mapping.

Regan Opens New Branch

Vidalia, La. (Special) - Regan Equipment Company, distributor of Waukesha natural gas and diesel engines, has announced the opening of its newest branch at Vidalia, La.

Equipped to handle any phase of drilling or production engine repair, the Reagan shop is strategically located to service the very active Natchez, Mississippi - Vidalia, La. area. Manager Merrill Baker, a veteran of over 20 years in oil field engine work, announced the new facility. He said that response to the new branch has been almost overwhelming, with expansion scheduled already to keep up with the demand.

Reagan at Vidalia offers 24-hour field service and engine repairs.

The shop is completely equipped for all heavy engine repairs, and includes a modern magneto and starter shop. It is supported by a complete stock of replacement parts which are kept current by data processing inventory control.

Also offered is Reagan's unique CPS (Contract Power Services) program, which includes guaranteed cost engine maintenance and engine use plans. These plans enable the engine user to operate with a constant, predictable, low power cost, with high dependability. A fringe benefit is the freeing of production personnel of the tedious chore of engine maintenance.

As at all Reagan facilities, the emphasis is on competent, experienced personnel. In addition to Manager Merrill

Engineering Graduates Earnings Rise Again

Salaries of engineering graduates continued their upward trend of the last thirteen years, according to survey results just released by the Engineers Joint Council. The biennial salary survey, conducted by the Engineering Manpower Commission of EJC, is the most comprehensive and authoritative of its kind, incorporating replies from 1,145 employers of 189,407 engineers, about one third of the engineering graduates employed in the United States today.

The salary of the median engineer, a man with about 12 years of experience in 1966, was 14.5 per-cent higher than the same individual's earnings two years ago, according to Clifford H. Doolittle, Chairman of the Commission. The rise, he explained, is a direct result of the shortage of engineering graduates which has been growing more acute in recent years. The entire 1966 salary structure has moved upward by 3.5 per-cent to 7 per-cent annually, as shown by the EMC survey curves. (See attached chart, "Trend in the Earnings of Engineering Graduates, 1953-1966.")

Striking evidence of the great demand for recent graduates is seen in the relatively higher increase in the professional income of those with three years of experience or less, whose median salary rose by one-half to two percentage points more than the average. Most older engineers, however, chalked up actual gains of \$1,100 to \$1,300 since 1964, compared to about \$900 for the younger group.

As in past years the survey revealed that engineers in supervisory positions can expect to earn substantially higher incomes than those in non-supervisory jobs.

Median salaries for these groups are as follows:

Non-supervisors (all degree levels combined) - \$12,550

Supervisors (all degree levels combined) - \$15,650

The value of higher education is also brought out in the following figures for all engineers, supervisory and non-supervisory combined, when analyzed by degree level:

Bachelor's Degree Holders - \$12,100

Master's Degree Holders - \$13,600

Doctor's Degree Holders - \$16,350

The new EJC report also includes detailed charts and tables for 25 industry groups, three levels of government, and six subdivisions of engineering teachers. Salaries are presented in terms of median, upper and lower quarter, and upper and lower tenth as a function of years' since graduation, thus giving a full picture of the salary structure at all levels of responsibility and experience. Although engineers in all fields of employment showed income gains, increases in the fabricated metals, machinery manufacturing, research and development, aerospace, and educational areas appear particularly noteworthy in comparison with 1964.

Copies of the complete report, *Professional Income of Engineers 1966-67*, may now be ordered in advance of publication at \$5.00 each, prepaid, from Engineers Joint Council, Department "P", 345 East 47th Street, New York, New York 10017. Publication date is scheduled for late May or early June.

Baker, Vidalia personnel includes Parts Manager M. L. Foster, who was transferred from Jackson, Mississippi, Mechanics, Bill Criswell, Bobby Bounds and Lehman Jones.

Reagan, with main offices in Harvey, La., also has branches in Jackson and Heidelberg, Mississippi.

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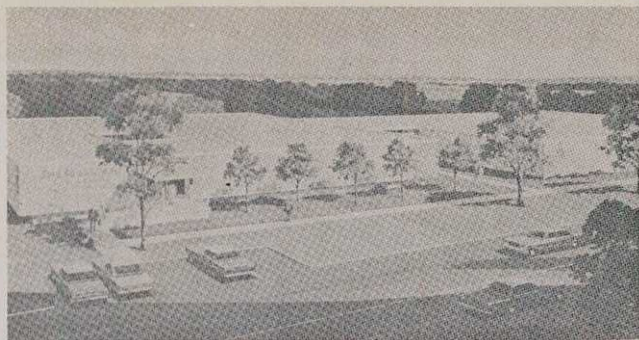
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Spring Convention Prize Winner

The Louisiana Wood Preservers Advisory Council had the pleasure of exhibiting at the LES Spring Meeting, which concluded on Friday, April 28.

For the interest of the many who attended the exhibits and registered at our booth for the free television set, which was given away Friday afternoon, the winner in the drawing conducted by Miss Sandra Soilleau, Secretary to the Executive Secretary of the Louisiana Engineering Society, Mr. Earl Martin, was Mr. Daryl Patin, of Box 1510, Jarreau, Louisiana.

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President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Cade, Ewing, Stokes, Szabo, Hogue, Huffman, and Jolly, present. Also present were M. Hurstall, PEI Chairman, Farrell Adams, Membership Committee Chairman, Earl Martin, Executive Secretary, George Landry, Baton Rouge Membership Committee, James Mohr, Vice-President Shreveport Chapter, John T. Knight, Jr., Chairman, and Dr. Frank McDonald, member of the Council of Past Presidents.

The Minutes of the December Board meeting were accepted as mailed on a motion by Mr. McNamara, seconded by Mr. Cade and passed.

The financial report for December was read by the Secretary.

The Secretary reported that a comparison of budget and expenditures indicates that our operations are about as anticipated for the period July 1 through December 31, 1966.

Mr. Nelson requested that a study be made to indicate the effect to the Society of possible regulation by the Internal Revenue Service relative to taxation of advertising income of magazines of nonprofit organizations. The Finance Committee was asked to study this matter and report back to the Board.

Mr. Odom indicated that changes in the layout of the magazine should be considered. President Duclos requested Mr. Odom to forward some of his suggestions in writing to the Finance Committee so that the effect on the cost of the publication can be studied.

A discussion of the recommendations made by the Membership Committee relative to changes in the Constitution was discussed. It was agreed that the discussions and motions made by the Board would serve as a guide to the Constitution and Bylaws Committee in preparing changes to the Constitution for subsequent consideration by the Board and membership.

Under Article II - Sections 1 and 2, the matter of changing grades of membership was discussed at length. Mr. Cade made a motion to amend Article II, Section 2, "That non-registered engineers may be admitted as Members with full status in the Society." Mr. Hogue offered an amendment, "That the non-registered engineer not less than twenty-six years of age, shall be a graduate of a school of engineering of approved standing, and in addition, shall have four (4) years of satisfactory practice in engineering." Messrs. Stokes and Bubenzer gave the second and the motion with the amendment passed by a vote of 8 to 5.

There were no changes recommended to Article II, Section 3, 4, and 5.

Mr. Vogt made a motion that Section 6 be amended to include the statement "And shall be exempt from payment of dues." Seconded by Mr. Fernandez and passed. Under Section 7, it was recognized that "Member" should be changed to "member" without the capital "M". No change was recommended to Section 8.

Mr. McNamara moved, seconded by Mr. Hogue and passed, that Article VI - Dues, Section 1, be amended as follows: Delete the "Plus NSPE dues" from Member line and add, "In addition to the above and when applicable National Society of Professional Engineers (NSPE) dues will be paid for any grade. Should disassociation of the Society and NSPE occur, then the collection of NSPE dues shall cease. No provisions of this Section shall be construed as changing or extending the requirements for membership as set forth in Article II - Membership."

The next item discussed was Article VII - Admission to Membership or Transfer to Higher Grade. A chart of the average time needed to process the last 35 applications was presented by the Secretary, showing steps presently followed in accepting new members or transfers. After much deliberation and discussion, Mr. Fernandez moved, "That no change be made in Article VII except that the letter ballot be eliminated and that the list of applicants be published in the next issue of the LOUISIANA ENGINEER." This was seconded by Mr. McNamara and passed by a vote of 11 to 1.

Mr. Huffman moved that the Constitution and Bylaws Committee prepare these revisions and present them to the Board for further action. Mr. Jolly requested that Mr. Ewing be appointed to serve with this committee. Mr. Stokes gave the second and the motion passed.

President Duclos expressed the Board's thanks to the Membership Committee for its work in preparing recommendations.

The revised Referendum on the Legal Domicile of the Society was discussed. A letter from the Past President's Council was read by Col. J. T. Knight, Jr., Council Chairman. Dr. Frank McDonald a member of the Council also expressed his thoughts on the referendum. Mr. Stokes made a motion that this matter be discussed at the April Convention of the Society, in a general meeting of the membership, and then mailed to the membership for a vote.

Mr. Odom made a substitute motion which passed that the referendum be mailed to the membership on February 15, for return by March 4, with the additional notice that the referendum will be discussed at the Winter Meeting of the Society in Shreveport, Saturday, February 25, 1967.

The tentative program for the Winter Meeting as mailed to Board Members was discussed. The program was adjusted to provide time at 10:30 A.M. on Saturday, February 25, for a general meeting of the Society, at which time the referendum to change the legal domicile would be discussed. Mr. McNamara moved that this program be accepted and used for the meeting in Shreveport February 24, 25, 1967, seconded by Mr. Fernandez and passed.

A report on the Spring Convention was given by the Executive Secretary.

The combined Annual Convention and Officers Induction Conference that was agreed on at the December Board Meeting was discussed. Mr. Stokes indicated that the Lake Charles Chapter would host this meeting if so desired by the Board. There being no objection, the meeting will be held in Lake Charles in late June or early July.

Mr. Odom made a motion that all Awards of the Society that could be prepared in time be presented at a general meeting of the membership during the Spring Convention in New Orleans April 27, 28. Seconded by Mr. Stokes and passed.

President Duclos announced that the next Board Meeting would be in Shreveport Saturday, February 25, and that the March Board Meeting would be held in Lafayette on Friday, March 17.

The meeting was adjourned on a motion by Mr. Odom, seconded by Mr. McNamara and passed.

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Ewing, Walk, Stokes, Hu Myers, Szabo, Hogue, Huffman, Poulan, Kellerman and Jolly present. Also present were Dick Bennett, Alexandria, Rod Singleton, Lake Charles, Farrell Adams, Shreveport, Pierre Stouse, New Orleans, and Earl Martin Executive Secretary.

The minutes of the January Board Meeting were accepted with editorial changes as mailed, on a motion by Mr. Nelson seconded by Mr. McNamara and passed.

The Financial report for January was read by the Secretary. Mr. Vogt also presented a Comparison of Income and Expenses with Budget Estimates for the year to date, which indicated operations were as provided for in the budget.

Communications were received relative to:

1. Louisiana Rating & Fire Prevention Bureau request for assistance in the preparation of a program for Building Code Officials Seminar at Northeast College in Monroe. Referred to Chapter President for further action.

2. NSPE State President's Conference in Michigan. Mr. McNamara, President-Elect, indicated he would attend this conference.

3. NSPE Committee Appointments from Louisiana. This matter was referred to the President-Elect and two National Directors for determination of nominees to be submitted.

4. The Executive Secretary's Conference in San Antonio, Texas March 21, 22. Mr. Nelson made a motion that LES Executive Secretary attend this conference. Seconded by Mr. Logue and passed.

The Secretary-Treasurer requested the Board to consider a resolution to authorize change in Homestead Accounts to obtain the best rate of interest on these funds.

Mr. Odom made a motion to authorize the Secretary to change Savings & Loan Accounts and to redirect monies from bonds that have matured. Seconded by Mr. Walk and passed.

The Report on the 1967 Spring Convention was given by the Executive Secretary, outlining the need for assistance in the solicitation of exhibits, the only area in the program that is not in good shape. All other meeting arrangements, programs, etc. are confirmed.

The report of the Constitution and Bylaws Committee was discussed and the differences between the Committee Report and the Constitutional Revisions proposed by 16 members outlined. The President appointed a Committee, made up of the present Membership Committee members, with Farrell Adams as Chairman, to cooperate with the Constitution Committee in preparing amendments to the Constitution that would be reported at the March Board Meeting and subsequently presented to the membership for their vote.

Mr. McNamara reported on the effect of losing our advertising revenue on the Society's operation. The letter from the NSPE Executive Secretary explaining the present status of possible action by International Revenue was read, and a comparison of Advertising Receipts and Disbursements for the past year was presented, showing a possible loss of \$2,000 income to the Society with Advertising curtailed. It was also pointed out that this figure would be considerably longer in the 1966-67 fiscal year, since an Editor's fee is no longer paid.

Mr. Nelson made a motion that the report be accepted with thanks, but that further action be deferred until Internal Revenue took some positive stand in the matter. Seconded by Mr. Walk and passed.

Mr. Odom outlined the need of assistance from all members in the upgrading of the Louisiana Engineer, and that members need to furnish articles of local interest as well as more personal material for the publication. Mr. Hogue moved that the President request each Chapter to provide a corresponding Secretary for contributing material to the Louisiana Engineer, seconded by Mr. Szabo and passed. Mr. Stokes urged Chapter President to make use of their Public Relations Chairman.

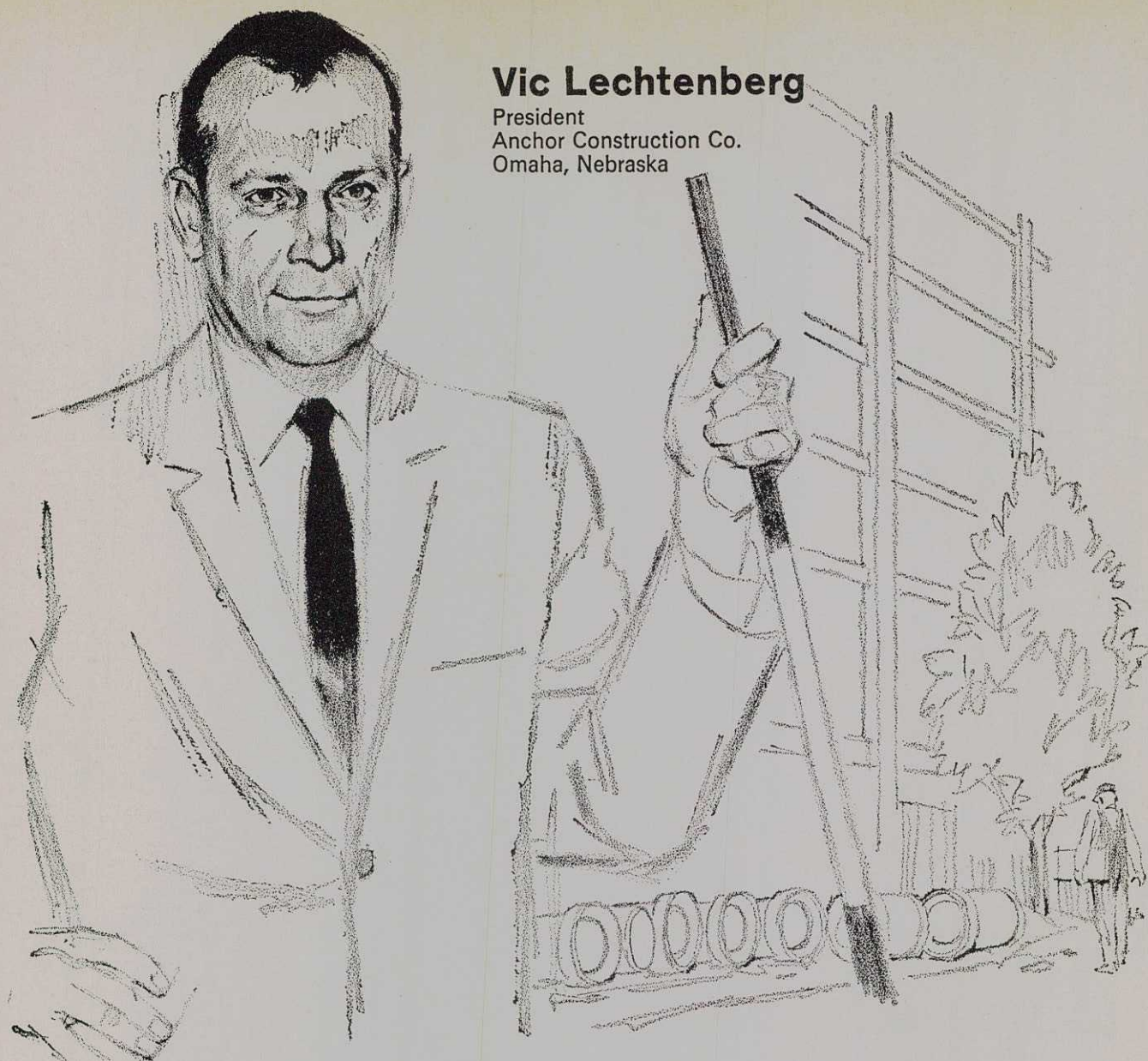
The Honors and Awards Committee reported that selections had been made for the Technological Accomplishment, Civic Activities and Engineer-In-Management Medals, for the Louisiana Engineer Award and of one Honorary Member. Mr. Stokes, acting Committee Chairman, requested approval of a \$100.00 expenditure for the preparation of Award pamphlets and a \$200.00 expenditure for the preparation of certificates and frames for all past awardees. Mr. Nelson so moved, establishing a maximum limit of \$300.00, seconded by Mr. Walk and passed. The Executive Secretary was instructed to furnish a complete set of pamphlets to each Chapter President to help in determining nominations for awards.

The Membership Committee report was read by M. B. Swing. Mr. Walk moved that the Membership card be used for all grades of membership, and that an applicant who is not licensed must attach a "Work experience record". Seconded by Mr. Szabo and passed. On motion by Fernandez, seconded by Nelson and passed it was agreed that the membership card alone would be satisfactory for an EIT applicant. Mr. Adams pointed out that references are required for all grades even though work experience has been waived for registered engineers. The matter of Introductory Membership was discussed but was left with the Committee for further study.

Mr. Myers reported on the recommended salary schedule proposed by the PEG Section, which included a request for a committee to visit the Governor with these salary recommendations. Mr. Hogue commented that the work done by the PEG Section is commendable, and moved that the Board endorse this Salary Schedule and comply with the request of the PEG. Seconded by Mr. Nelson. Mr. Stokes moved an amendment to the motion, that a better sales promotion be prepared with transmittal letter, including possible loss of manpower, the cost associated with implementation of the program, and the dollar value of the work government engineers (Federal and State) are responsible for. Seconded by Mr. Odom and passed. Mr. Myers, PEG Chairman, with any help he may request was asked to prepare the statement and a delegation composed of Mr. Gary, Mr. Stewart, and representatives of Engineers in Industry and Private Practice was authorized. Mr. Fernandez moved that Mr. Nelson be authorized to present these schedules at a meeting of the Civil Service League, seconded by Mr. Walk and passed.

Mr. Azabo reported on the PEPP Section meeting. Mr. Szabo moved that Executive Order No. 50 be put in the next issue of the Louisiana Engineer, seconded by Mr. Poulan and passed. Mr. Lolly moved that the possibility of a "Fee Schedule" jointly sponsored by CEC and PEPP be studied, seconded by Mr. Nelson and passed. Mr. Walk moved that discussions should be held with CEC about a combined office staff, seconded by Mr. Odom. A committee made up of Messrs. Nelson, Walk, Odom, Szabo and Jolly was appointed to work on this matter.

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Mr. McNamara reported on the Professional Engineers in Industry meeting: Upon learning that on return of the personnel data cards back to Society headquarters that 200 members recently have indicated their desire to belong to a PEI functional section; therefore, we motion unanimously that the following be accomplished.

1. That the informational pamphlets as published by NSPE be forwarded to the 200 members indicating their desire to form a statewide functional section.

2. That the draft of a proposed operating policy and suggestions prepared by the Committee be also mailed to these members asking them to review and comment thereon, mailing their comments and recommendations to Melcolm Hurstall, Chairman of the Committee.

3. That the President of the Society address a letter to all chapter Presidents enclosing a list of those chapter members so indicating a desire to form a functional section and request that the chapter Presidents appoint delegates (in accordance with the suggested ratio in the "Operating Policy") to the Spring Convention in New Orleans for the first organizational meeting and election of officers of the functional section.

4. A meeting time of 2:30 P.M. on Friday, April 28, has been requested of the Spring Convention Program Committee for this meeting.

Mr. McNamara moved that the Board act in accordance with the recommendations of the PEI committee.

Mr. Hogue gave the second and the motion passed.

The next meeting of the Board of Direction was set for Monday, March 20, 1967 in Lafayette.

The meeting then adjourned.

LOUISIANA ENGINEERING SOCIETY MINUTES

Board of Direction Meeting
Monday, March 20, 1967
Petroleum Club, Lafayette, La.

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Nelson, Cade, Ewing, Stokes, Szabo, A. E. Meyer, Hogue, Huffman. Also present were Malcolm Hurstall, Earl Martin and Frank Wright, Lafayette Secretary-Treasurer, Farrell Adams, Membership Committee Chairman and U. J. Gajan, Lafayette Vice President.

The minutes of the February Board meeting were accepted as mailed on a motion by Mr. Cade seconded by Mr. Nelson and passed.

The Secretary read the financial report for February, and a comparison of Income and Expenses to Budget estimates was distributed. The matter of advertising income was discussed, and Mr. Nelson moved that the Committee formed to work out the Allen Johnson contract be authorized to contact Allen Johnson and let him know increased advertising sales are expected and that this is a condition of his contract. Seconded by McNamara and passed. Mr. Weing moved that any chapter member instrumental in securing additional advertising would obtain commissions similar to Allen Johnson for his chapter treasury. Seconded by McNamara, with the request that Chapter officers be advised of advertising rates and basic technical or production information.

Mr. Vogt reported that the State Board of Registration had sent their check for \$7,000.00 to be used in the Society's Public Relations Program, and that the usual letter would be written expressing the appreciation of the Board of the LES.

The Results of the Referendum Ballot to determine the membership's feeling as to where the legal domicile should be located was as follows: New Orleans 387, Baton Rouge 279, other locations 2, spoiled 3. These results were referred to the Building Committee.

Representatives of the Lafayette Chapter submitted a written and signed petition to amend the Constitution, Article V and Bylaw 2, pertaining to the legal domicile of the Society. The Secretary accepted the petition, and will be guided by the appropriate constitutional procedures.

The February membership ballots received totaled 289, with all candidates elected.

Correspondence received included:

Messrs. Henry Messinger and Robroy Young from Monroe applied for reinstatement of membership and Mr. Paul Andry of New Orleans applied for reinstatement. Mr. Nelson moved that these members be reinstated, seconded by Mr. Stokes and passed.

A letter and check for \$42.00 from Mr. Robert Henry, President of the USL Student Chapter, indicating active chapter status at this school.

Mr. Nelson reported on Building Committee activities since receipt of the referendum ballot totals. He outlined the needs and uses of a building, and showed sketches of buildings from his files. He also gave figures on property value as well as the alternative of purchasing an existing building. Since the matter of domicile would again come to a vote the committee was requested to continue general studies and investigations until the vote was final.

Committee Reports:

The Membership Committee gave a status report on the proposed changes to the Constitution that will be discussed at the next general meeting of the Society. Mr. Odom moved that the membership requirement in paragraph (b) Section 2, Article II, remain as is in the present Constitution. Seconded by Mr. Huffman and passed. Mr. Ewing moved that the payment of one year's dues for reinstatement be removed to help secure more reinstatements of former members. These Board changes will be made in the proposal mailed to the members.

The Legislative Committee report was read: The possibility of a Land Surveyors Licensing Bill being introduced was discussed, and referred back to the Committee for a recommendation of further action. T. J. Hogue explained action taken by the Industrial Engineers Society relative to changing registration law. Leo Odom commented on the Registration Board's reaction to this proposal that Industrial Engineers be granted separate registration. This was also referred to the Legislative Committee to report at the April meeting of the Board.

The Education Committee report was discussed. Mr. Duclos told of a meeting he and Mr. Odom held with Mr. Hall of the American Society of Engineering Education. Mr. Odom explained that Mr. Hall discussed having an objective study made of Engineering Education in Louisiana by sending a group of educators into the state to make the study to establish existing weaknesses and to recommend future needs and preparations to handle industrial growth in Louisiana. Such a study could be made for \$2500 to \$5000. Dean Daniels of LSU was following this matter and would report to the Education Committee, for that Committee to recommend further action to the LES Board. Mr. Nelson moved that the list of Engineering Colleges in Louisiana with the degrees offered be published in the LOUISIANA ENGINEER, seconded by Mr. Weing and passed.

The Ethics & Professional Conduct Committee is making a study of available "Codes of Ethics" to determine and make recommendations on a new Code for LES.

The Honors and Awards Committee reported that three awards would be given during the Spring Convention and the others during the Annual Meeting. Mr. Stokes moved that the President select the person to present the awards, seconded by Mr. Szabo and passed.

The Nominating Committee submitted the following nominees for state offices: Leo M. Odom, President-Elect; John F. Vogt, Jr., Vice President; T. J. Hogue, Secretary-Treasurer; Marion Bubenzer, National Director; Messrs. Jack Thigpen and James (Fred) Williams, State Directors. All of the above have committed themselves to serve if elected.

The PEI Committee to form a Functional Section outlined the plans made in Shreveport to accomplish the formation of the Industry Section at the Spring Convention in April in New Orleans, and requested that Mr. Duclos send a letter to the Chapters requesting that official delegates be appointed.

The Government Section reported that a delegation would visit the Governor on April 29 to present the Salary Schedule approved by the Section and the LES Board in Shreveport.

The Private Practice Section reported that the mailing of "Manuals of Practice" to all consultants in Louisiana was underway, and other activities were progressing.

The Spring Convention Committee reported that the program was finalized, but that sales of exhibit space were not as anticipated. Board Members were asked to help in any way to secure additional exhibitors.

The Board tentatively agreed to meet on Thursday evening April 27 or Friday morning April 28 at 10:00 A.M. The meeting then adjourned to attend the Lafayette Chapter meeting.

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Hot-weather concreting

There are a number of ways to produce the best job of concreting during hot weather. Some of these suggested procedures are listed below.

When to take Precautions

Many specifications require that concrete, as placed, should have a temperature of less than 85 or 90 degrees F. In addition to temperatures, very dry weather and high winds have significant effects on the evaporation of water from concrete.

Rapid evaporation or drying can cause strength reduction, plastic shrinkage cracks or early setting of concrete.

The best solution to avoiding problems connected with hot-weather concreting is to control the temperatures of the concrete materials.

Before Placing

A few simple precautions may save many dollars. These procedures will also give the concrete an earlier strength gain, greater durability, and will greatly reduce chances of surface defects. To assure a quality concrete job, at little or no additional cost, here's what you can do before and after placing and finishing concrete:

1. Schedule work so that concrete can be placed with the least delay. Jobs could be started late in the afternoon during extremely hot periods to take

advantage of lower evening temperatures and light winds.

2. Use cool materials. If you job mix, keep all materials cool by storing aggregates in shade if possible, sprinkling coarse aggregates with water, and protecting water supply from direct sun rays. Mixing water may be chilled in very hot weather by refrigeration or by using ice as a part of the mixing water. The ice should be melted by the time the concrete leaves the mixer. Most ready mix producers follow these procedures to provide you with cool concrete.

3. Prevent absorption. Thoroughly moisten subgrade, reinforcing steel, and wood forms just before placing concrete so that they will not absorb water from the mix.



After Placing

1. Place temporary covers, such as burlap kept continually wet, over the fresh

concrete immediately after striking and darbying. When ready for floating and/or final finish, uncover only a small section immediately ahead of the finishers. Cover again at once after final finish and keep the cover wet.

2. Protect concrete by placing a wind-break on the windward side when high winds prevail. It may also be necessary to spray over new concrete with a mist of water.

3. Protect concrete from direct sunlight on hot days by erecting a sunshade or delaying placing operations until late in the day and by taking advantage of the shade from nearby buildings or trees.



4. Start curing as soon as surfaces are hard enough to resist marring. Cover the concrete with polyethylene film, waterproof paper, or waterholding materials such as straw or burlap, or by spraying on a curing compound. If curing compound is to be used, apply it immediately after final finishing. See that adequate and uniform coverage is obtained.

5. Keep the concrete surface constantly wet to avoid alternate wetting and drying during the curing period. Continue curing for at least 3 days and preferably for a week. Water not only acts as a curing agent but also cools the slab.

Testing Specimens in Hot Weather

Test cylinders definitely should be kept shaded and damp and must be transferred at the age of 1 day to the laboratory (or other suitable location) where they will receive continual standard moist curing until tested. Damp sand, wet burlap, or fog sprays will ensure retention of water by the specimens.

EFFECT OF CONCRETE TEMPERATURE ON SETTING TIME

TEMPERATURE (°F)	SETTING TIME (hr./min.)	
	INITIAL	FINAL
35	5:00	10+
45	3:00	7:30
60	2:30	6:00
80	2:00	5:30
100	0:45	3:10

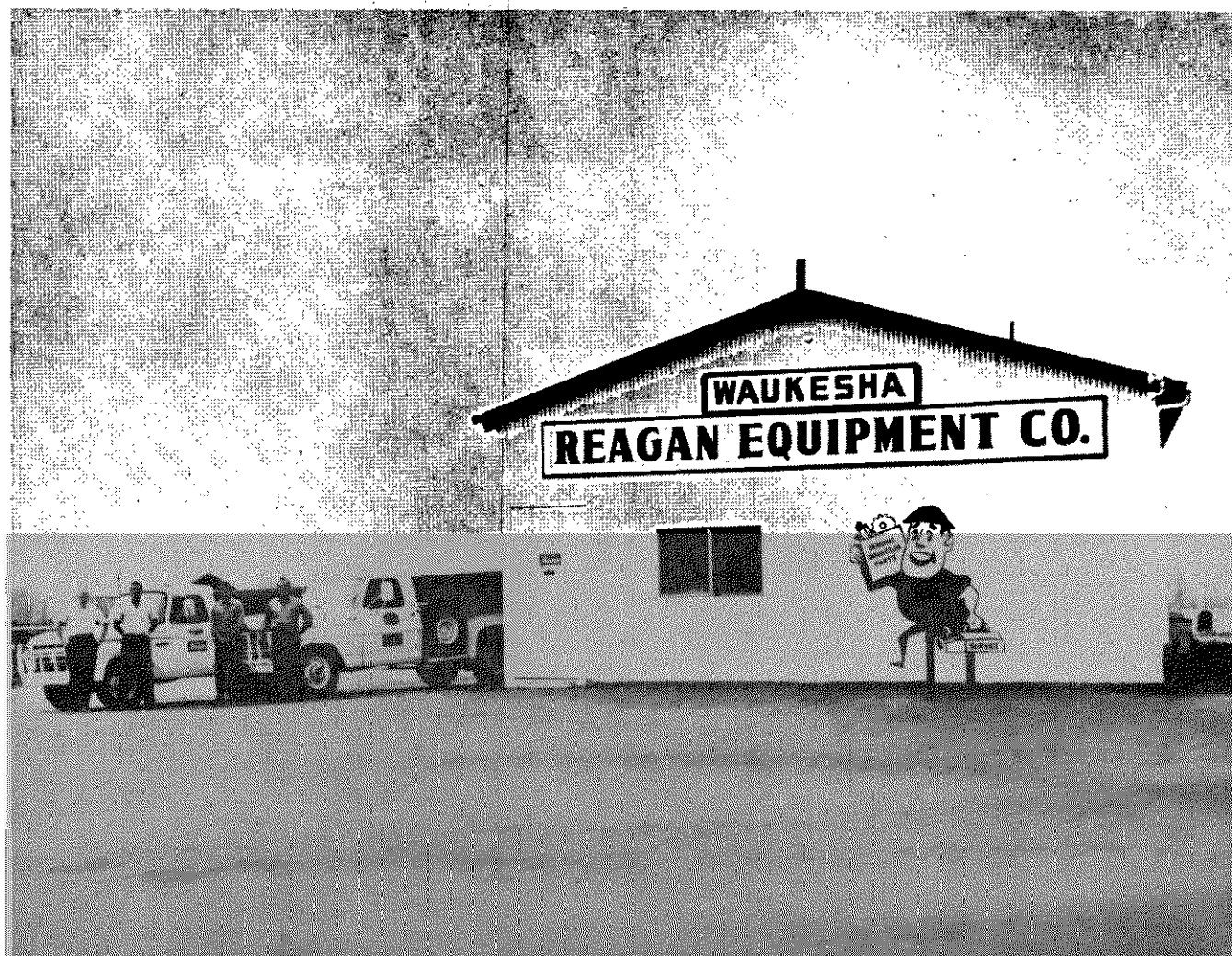
For more information, send for free literature on hot-weather concreting.

PORTLAND CEMENT ASSOCIATION

1130 International Trade Mart, New Orleans, La. 70130

An organization of cement manufacturers to improve and extend the uses of portland cement and concrete

Newest Branch Opening Highlights



*Reagan personnel in Vidalia include (from left):
M. L. Foster; Manager Merrill Baker;
Bobby Bounds; and Billy Criswell*

The Reagan Story In Vidalia, Louisiana

Vidalia, La. (Special)—Opening the newest branch in Vidalia, Louisiana marks the beginning of yet another chapter of the Reagan story in Mississippi and Louisiana. Strategically located to service the very active Natchez-Vidalia area, the shop is equipped to handle any facet of drilling or production engine repair.

Announcement of the new facility was announced by Merrill Baker, a veteran of over 20 years in oil field engine work. Response to the new branch's opening has been almost overwhelming, with expansion already slated to keep up with the demand. Reagan is the distributor of Waukesha Natural Gas and Diesel Engines and Reagan at Vidalia offers 24-hour field service and engine repairs. The shop is completely equipped for all heavy engine repairs, and includes a modern magneto and starter shop. It is backed up by a complete stock

of replacement parts which are kept current by data processing inventory control.

Also offered is Reagan's unique CPS (Contract Power Services) program, which includes guaranteed cost engine maintenance and engine use plans. These plans enable the engine user to operate with a constant, predictable, low power cost, with high dependability. A fringe benefit is the freeing of production personnel of the tedious chore of engine maintenance. As at all Reagan facilities, the emphasis is on competent, experienced personnel. In addition to the Manager, Merrill Baker, Vidalia personnel includes Parts Manager, M. L. Foster, who was transferred from Jackson, Mississippi; Mechanics, Bill Criswell, Bobby Bounds and Lehman Jones.

REAGAN



REAGAN EQUIPMENT COMPANY
Harvey, Louisiana • Jackson, Mississippi
Vidalia, Louisiana • Heidelberg, Mississippi

Looking Back— 50 Years Ago

Editors Note:

This article was taken from the February 1917 issue of Proceedings of the Louisiana Engineering Society, and is as true today as it was 50 years ago.

To Our Advertisers. The Louisiana Engineering Society publishes this journal because its members feel that they should have some means of keeping a permanent record of the technical activities and business transactions of the Society. It serves further as a means of keeping the members in closer touch with each other and with the affairs of the Society. We could not afford to publish the journal if it were not for the financial assistance we secure from the advertisements. We do not propose to offer you an advertising medium with the enormous circulation of the Saturday Evening Post or the Ladies' Home Journal; you would not advertise in these papers because they would not reach the people whom you wish to reach with your advertisement. We

do offer you, however, an advertising medium which will carry your Ad to the very class of people in this community whom you desire to reach especially. While we cannot guarantee that the individual engineers, members of the Society, will always patronize exclusively the firms who advertise in our journal, yet we can state that there is a very strong feeling throughout our membership that this is the proper policy, and the majority of our members will, whenever possible, give preference to the advertisers who patronize us. We are all working in a common cause, and the aid which you thus extend to us will bear fruit in the additional profit which will come to you.

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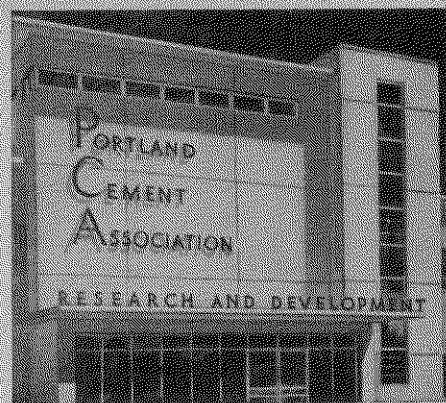
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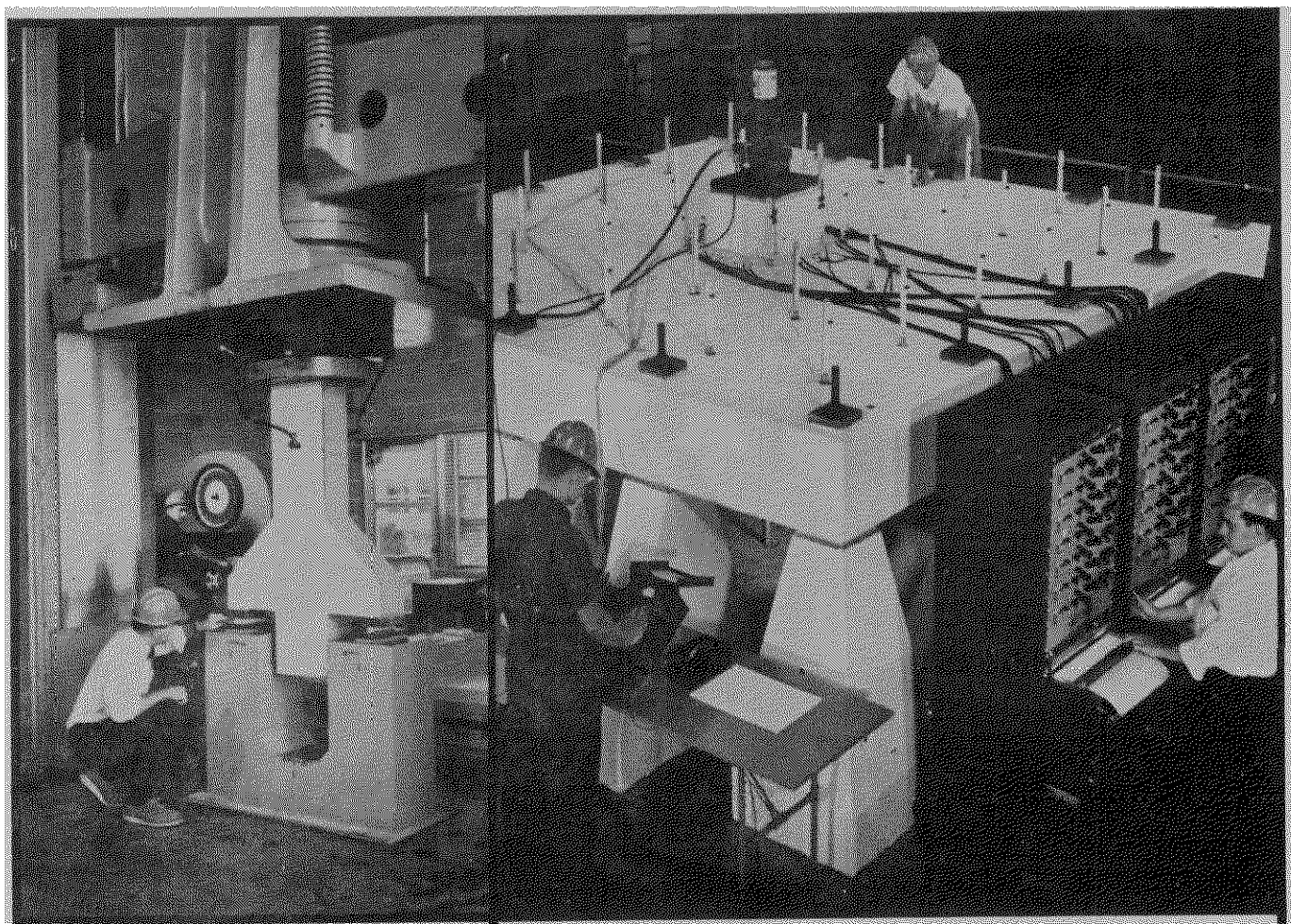
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The laboratories of the Portland Cement Association in Skokie, Illinois, contain the world's largest assembly of scientists and engineers, instruments and equipment devoted exclusively to the study of portland cement and concrete. Some of the research is fundamental—designed to increase basic scientific knowledge of the nature of cement and concrete. Most of the research is applied in character and directed to development of new and improved uses of these materials, and to new construction techniques. Any patentable discovery is dedicated to public use. This research program works directly for you. All results are published by PCA and distributed free of charge to architects, engineers and builders through PCA's 38 district offices, located in major cities throughout North America.



How to put a \$10,000,000 concrete research program to work for you



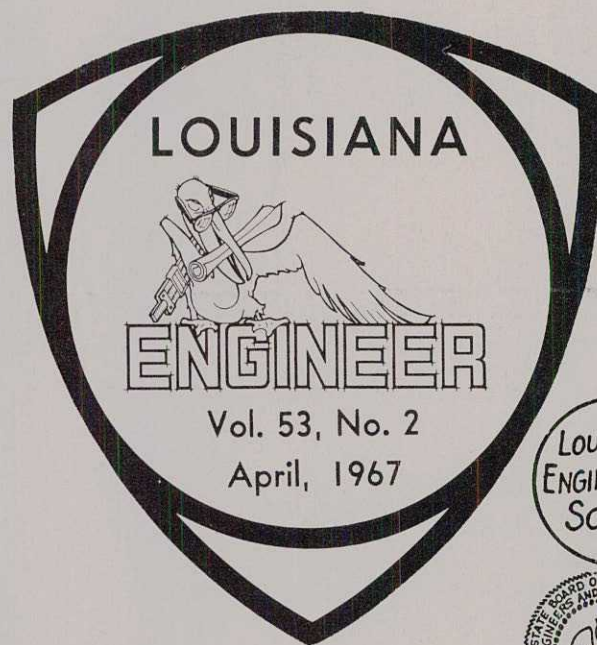
Experimental concrete column bracket is tested in machine capable of exerting a force of one million pounds.

Flat plate behavior is studied in Structural Laboratory where the building itself serves as a giant testing machine.



Convention Time...

Will You Be There?





Take a good hard look at our picture...

Reagan's main office and plant located on the Harvey Canal

The Reagan Story at Harvey, La.

For more than 20 years Reagan Equipment Company has been growing with the oil industry in the states of Louisiana and Mississippi. The expanding scope and complexity of the offshore oil industry in the Gulf of Mexico has produced ever-increasing demands for custom design, engineering, installation and service of Waukesha gas and diesel engines.

Today, with some 2,000 platforms in the Gulf and a steadily increasing demand for more equipment and service, Reagan is performing feats of design, installation and service that would have been unheard of 20 years ago in the Gulf.

Visit the Harvey Canal plant of Reagan Equipment Company and see the bustle of men working on giant Waukesha units mounted on platforms with houses built around them in complete packages weighing up to 100 tons. See a giant derrick barge pick up the Reagan power package, and swing it around to a barge docked on the Harvey Canal where it begins its journey out to the Gulf of Mexico.

There the giant derrick again hoists the hefty package and sets it in place on a platform 40 miles out in the Gulf. Again Reagan is on the scene with a trained serviceman to provide initial start-up.

Visit also the large parts and services department where thousands of spare parts vital to the operation of these offshore units are kept current by data processing inventory control, and trained servicemen are dispatched 24 hours a day, seven days a week, to insure continuous operation of the Waukesha power units.

Examine Reagan's complete transportation facilities: a booming, barge-laden industrial canal at one doorstep, a railway at the other. Seaplanes landing and taking off in the Harvey Canal; trucks rolling in and out, minutes away from main west bank arteries.

Study the whole Reagan picture in Harvey like Sherlock Holmes. Among the many clues:

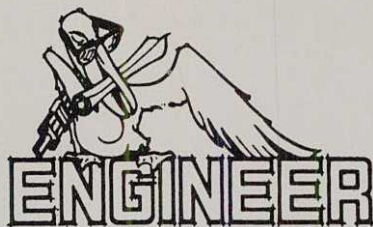
The toughness of Reagan-built units is equal to the roughness of the job. (*It's elementary, my dear Watson, elementary.*)

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REAGAN EQUIPMENT COMPANY

Harvey, Louisiana • Jackson, Mississippi
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PEI SECTION MEETING

Minutes of Meeting of PEI meeting
The Committee to study the formation of a Functional Section of Engineers in Industry met with ten in attendance.

The Committee recommends to the Board of Direction that upon learning that on the recent submission of the personnel data cards back to society headquarters that 200 members have indicated their desire to belong to a PEI functional section; therefore, we motion unanimously that the following be accomplished:

1. That the informational pamphlets as published by N.S.P.E. be forwarded to the 200 members indicating their desire to form a statewide functional section.

2. That the draft of a proposed operating policy and suggestions be also mailed to these members asking them to review and comment thereon, mailing their comments and recommendations to M. Hurstell, Chairman of the Committee.

3. That the President of the Society address a letter to all chapter Presidents enclosing a list of those chapter members so indicating a desire to form a functional section and request that the chapter Presidents appoint delegates (in accordance with the suggested ratio of "Operating Policy") to the Spring Convention in New Orleans for the first organizational meeting and election of officers of the functional section.

4. A meeting time of 2:30 P.M. on Friday, April 28, has been requested of the Spring Convention Program Committee for this meeting.

E. J. McNamara, P.E.
Acting Secretary

WINTER MEETING PHOTOS AND COMMITTEE REPORTS



MEMBERSHIP COMMITTEE AT WORK

Membership Committee Report

Present: Farrell Adams, Chairman, Shreveport, M. B. Ewing, Alexandria, E. J. McNamara, New Orleans, R. M. Singleton, Lake Charles, G. Trammell, Monroe, L. Duclos, Baton Rouge, P. J. Stouse, New Orleans, J. F. Vogt, Jr., New Orleans.

The above attendance record shows no representation from Lafayette nor was there any Chapter Membership personnel from Shreveport, Alexandria, Lake Charles, or Baton Rouge.

Chairman Adams called the meeting to order at 9:00 a.m. President Duclos had no message except to "get more members!" Mr. Adams reviewed the agenda list as mailed to the Committee on February 9, 1967, and mentioned additional items.

Item 1 The new IBM card size application card was reviewed and under present requirements it can be used only for a P.E. prospect, because the Board has not waived the

"work experience record" for other grades. The old long application form may be used indefinitely for all grade applicants. Several errors on the card were pointed out, specifically the fact that there is no Introductory Membership under our present constitution. The committee recommended that the card be used until NSPE's changes are known and our constitution changed. (Later this day the Board ruled that this application form could be used for an E.I.T. The engineer who is not licensed may use the card, but must attach a "work experience record"—so it would be simpler to use the old long form.)

Item 2 The matter of an Introductory Membership was discussed and is to be recommended for the next constitutional change. The IM to be proposed is that a newly registered P.E., E.I.T., or Land Surveyor dues shall be waived for one year provided he completed an application form. References not required within two months of date of registration.

(over)



PEI SECTION MEETING

Membership...

(Continued)

Item 3 The new hand out piece of literature (LES Form 200) was reviewed. One typographical error was noted, an "if" should be "it". The committee recommended that the State office include a copy of this Form 200 and the application form in a letter to all newly registered P.E.'s and E.I.T.'s.

Item 4 Sustaining Membership wherein an employer of engineers would pay an amount, part of which would be applied to his engineers' individual dues, was discussed. This was tabled.

Item 5 Recent Board rulings were discussed. Particular emphasis was placed on the fact that references are required for all grades even though work experience has been waived for P.E. The free membership certificate was discussed and the recommendation that each Chapter make a formal presentation was discussed.

Item 6 The review of the Alexandria meeting revealed that 13 out of 20 recommendations had been acted upon.

Item 7 Mr. Adams reported that the NSPE Membership Memo for January showed Louisiana in 6th place in our size group, but first place in February. This is the largest net gain of members per thousand of registered prospects.

Item 8 The Committee did not desire to oppose the Board's actions on the matter of grades of membership.

Item 9 "Project 10,000"—This is a follow up of the NSPE experiment last year. Mr. Adams distributed cards from the experiment to those chapter representatives present and said he would mail the rest. He will write a special letter to the Committee regarding the new "Project 10,000" which is about to get underway.

Item 10 Mr. Adams ended the meeting at 10:30 a.m. with the statement that the past year had been devoted largely to getting some membership points cleared up and for all practical purposes we should be able to devote most of the coming year to **GETTING NEW MEMBERS!**

M. B. Ewing, P.E.
Acting Secretary



LEGISLATIVE COMMITTEE MEETING

LEGISLATIVE COMMITTEE

The meeting was called to order at 9:10 A.M., February 25, 1967, by Mr. D. Ralph Caffery, Acting Chairman, by request of Mr. Charles P. Barnard, who was unable to attend. Committee members present were: Lloyd Alexander, Shreveport; D. Ralph Caffery, Lafayette; Orville Ice, Shreveport; and Leo Odom, Baton Rouge (Board Sponsor). Others present were Earl Martin, Executive Secretary L.E.S.

The first order of business was the reading of the minutes of the meeting held on September 9 & 10, 1966, at the Hotel Bentley, Alexandria, Louisiana, by Mr. Lloyd Alexander. After a brief discussion, the minutes were approved as read.

There followed a general discussion of the forthcoming spring session of the Louisiana Legislature, which is to handle principally fiscal matters. It was brought out that there were indications that a Bill might be introduced to require the licensing of Civil Engineers as Registered Land Surveyors as a prerequisite to the practice of Land Surveying. It was noted that, at some colleges, courses in surveying were not mandatory in the Civil Engineering curriculum.

Practices of the Louisiana Department of Conservation pertaining to the certification of test data and other reports by oil industry personnel were then discussed at length. Apparently, the only regulation requiring certification by a registered Engineer or Land Surveyor was in regard to the location plats for well locations. It was the consensus of opinion that other data and reports concerned information which was

pertinent to the safety and protection of the public and should also be certified by registered engineers. It was moved by Mr. Alexander, seconded by Mr. Caffery, that the President of L.E.S. be requested to appoint a committee, composed of one (1) representative from each State Chapter Area, to investigate the matter, report their findings and make recommendations to the Legislative Committee for review and further action. The committee members are to be selected from names submitted by each Chapter Legislative Committee through the Chairman of the State Legislative Committee to the President.

It was reported by Mr. Ralph Caffery, Chairman of the Sub-Committee to investigate the publishing of a Legislative Bulletin, that no action had yet been taken. The primary purpose of the proposed Bulletin is to inform the membership, through the local Chapter Legislative Committees, of bills to be introduced in the State Legislature which directly affect the engineering profession. It was proposed by Mr. Caffery, and approved by those present, that Mr. Earl Martin be requested to prepare a brief memo type form providing for entry of the bill sponsor, number and title, and a short note of explanation.

These bulletins would be mailed to the Chairmen of the Legislative Committees of each State Chapter for further dissemination of the information and action by the membership. To be effective, the information and response would require hasty action by all.

There being no further business, the meeting was adjourned at 10:40 A.M.

D. Ralph Caffery, Acting Chairman

(Continued on Page 26)

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Results of Referendum Ballot To Determine Legal Domicile

The following is the count of the ballots received in connection with the referendum ballot on the legal domicile of the Society, submitted to the membership in February.

New Orleans	387
Baton Rouge	279
Alexandria	1
Lafayette	1
Spoiled Ballots	3
TOTAL BALLOTS	671

John F. Vogt, Jr., P.E.
Secretary-Treasurer LES

Chapter Membership Contest

The 1966-67 quotas have been established as 10% based on the number of members in each Chapter as of June 30, 1966. (See below)

Rules of the Contest

1. A Chapter must reach its 10% quota to qualify as the contest winner.
2. The Chapter with the greatest percentage increase, based on applications and re-instatement requests received by the State LES Office prior to July 1, 1967, will be the winner. (Student applications, transfers into a Chapter, or grade changes will not be counted as part of the quota or increase.)

The Prize

A portable rostrum with the winning Chapter's name and the date engraved on a plaque on its front. A Chapter winning the rostrum three years in a row will retain permanent possession.

Contest Standings

Here is your Chapter's stand on new members as of December 12, 1966—

Chapter	Quota	Applications	% of Quota	Rank
Shreveport	15	34	227	1
Lafayette	14	12	86	2
Monroe	9	6	67	3
Baton Rouge	35	23	66	4
*Alexandria	9	5	45	5
*Lake Charles	9	5	45	5
New Orleans	76	24	32	6
Totals	167	109	66%	

* Tie.

At LSU....

Two Short Courses on Automatic Process Control Theory

This is a formal announcement of two identical sessions of a short course on "Automatic Process Control Theory."

This course is designed primarily for technical people associated with the process industries and other similar industries. It is not intended that registration in the course be limited to instrument engineers, although they will have a major interest in this subject. The course is also designed to be of direct benefit to engineers in design, production, and research.

Registrants should have had mathematics through calculus (although not necessarily in recent years). To the extent that they are used, differential equations will be taught in the course.

To promote maximum participation and to insure adequate coverage of the material, each session of the course will be limited to twenty (20) registrants.

This course is to be conducted on the campus of Louisiana State University, Baton Rouge, Louisiana during April 10-14, 1967 and then again on May 15-19, 1967. The course is sponsored by the General Extension Division of the University, and questions concerning the nature of the course or registration can be answered by contracting:

Dr. Paul W. Murrill, Associate Professor
Department of Chemical Engineering
Louisiana State University
Baton Rouge, Louisiana 70803

Lectures on Basic Operations Research For Engineers

This is a series of lectures to be given in the field of Operations Research. The topics to be covered in this series include Matrix Manipulations and Linear Equations, Simplex Method, and Practical Applications.

Those expected to attend the lectures will be L.S.U. Faculty and Staff, industrial personnel and graduate students.

The background required for an appreciation of these lectures is that equivalent to a Bachelor's Degree in engineering or science.

Operations Research is the scientific study, using theoretical techniques, undertaken to understand the behavior of operations. Its object is that of facilitating prediction and control of operations. This lecture series has as its purpose the introduction of the audience to the Linear Programming field. Emphasis will be placed on illustrating practical problem solutions.

For additional information concerning the academic aspects of this seminar, write or call:

Dr. Lawrence Mann, Jr.
Industrial Engineering Louisiana State University
Baton Rouge Louisiana 70803
Phone: 388-4428

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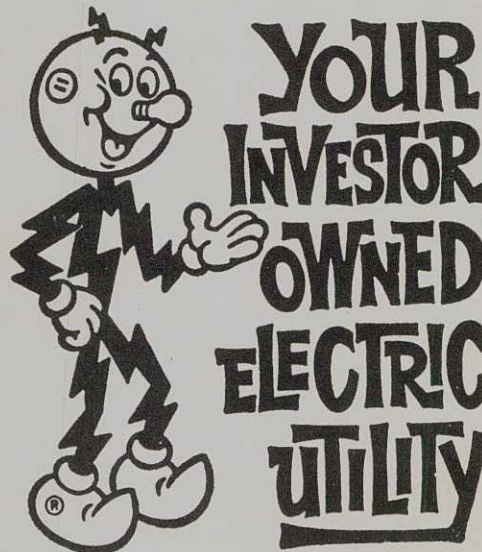
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Membership Committee

Asks Approval of Proposed Constitutional Changes

In the first week of May all members will receive a ballot with several proposed Constitution changes. We offer this brief discussion of all the changes except the one concerning domicile location.

During the past year your Membership Committee devoted most of its efforts to determining why we were not getting more new members, and to making recommendations to change this situation.

We found that our Constitution prohibited us from doing the best job. In most cases this involved procedures and clarification or elimination of a few conflicts within our Constitution.

The most important change we are recommending is to change Article VII—Admissions procedures. Basically we recommend creating at all Chapters and at the State level several Admissions Committees any one of which will receive applications, investigate, determine the proper grade and fix the date of membership. Then the next issue of the **LOUISIANA ENGINEER** would publish the new members name and if not more than two negative votes were received then the member is confirmed. In the case where the Chapter Admissions Committee does not function for any reason, the State Admissions Committee will

handle that Chapters applications. This change takes this membership task from under the Board of Direction and will cut short the time it takes an applicant to become a member. We know this will impress most new members. Another benefit is that it will eliminate the cost of preparing and mailing the present ballot and also the new member can be charged dues almost immediately after he makes application.

The proposed changes to Article VII; Bylaw 6; Article II, Section 2; Article VI, Section 3; and Article VIII all relate to the above Admissions procedures.

The proposed changes to Article II, Sections 3, 5, 6, and 7; and Article VI, Section 1 are minor ones to conform with actual logical practice, clarifications and typographical changes. We urge you to compare the present and proposed Constitution to see the minor changes in the above and vote for these changes.

Briefly, the changes are recommended because of the following reasons: Article II, Section 3, under our present Constitution we drop Junior Members when they reach 32 years of age,—we propose to transfer them to Affiliate Member automatically rather than lose them as members. Section 5, the word "higher" changes to "another" be-

cause our Constitution does not define which grade is "higher". Section 6, merely adds the dues information to be consistent with Section 7. In Section 7, the word "Member" is changed to "member" to clarify that any member may qualify for Life Member. Article VI, Section 1, is needed to clarify that our Membership requirements as set forth in Article II are not subject to misinterpretation because of NSPE dues.

The new Article II, Section 9, concerning Introductory Membership is recommended to bring our policy into agreement with NSPE's policy of Introductory Membership. We feel that most newly registered PE's will become members under this new section.

The change to Article IX on reinstating a dropped member is an attempt to regain those former members, by removing the payment of one years dues for reinstatement.

The Membership Committee requests that each of you voting Members give serious consideration to the above recommended changes and vote for them when you receive your ballot.

Constitutional Changes will be discussed on Friday, April 28, at the Noon Luncheon & Business Session of the Convention.

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1967 Engineers Week Activities



Baton Rouge Mayor Woodrow Dumas and General MacDonnell, Guest Speaker, listen as Roger Richardson, Dean, College of Engineering, LSU, tells about chapter activities.

BATON ROUGE

"Engineering for the human environment is a many-faceted job that involves satisfying many requirements," Maj. Gen. MacDonnell, president of the Mississippi River Commission, said here Thursday.

MacDonnell spoke at the Engineer's Week banquet of the Baton Rouge Council of Engineering and Scientific Societies. Theme for the observance is "Engineering for the Human Environment."

The general noted that the Mississippi River Commission has long been charged with the responsibility of providing flood control and navigation channels along the river.

The council presented awards to three of its members at the banquet. Hulen B. Williams, head of the LSU department of chemistry and author co-author of 17 publications and 2 textbooks, was cited for his outstanding contribution to the field of education.

C. N. Kimberline Jr., who has been with the Esso Research Laboratories for 34 years, was recognized for outstanding technical contribution in the field of chemistry. Kimberlin holds 160 U.S. patents.

Sugar Technology Recognized

Arthur G. Keller was cited by the Baton Rouge chapter of the Louisiana Engineering Society for his contributions to the profession. Professor of chemical engineering at LSU since 1934, Keller is widely known for his achievements in the field of sugar technology.

Mac Donnell said the commission now also includes "esthetic values" in its planning. He said, however, that a conflict often arises between "beauty" and "safety" and he warned that "an informed citizenry must not lose sight of the fact that floods cause blight and ugliness."

LAKE CHARLES

The following Societies worked jointly in the promotion of National Engineers' Week in the Lake Charles Area: American Institute of Chemical Engineers, Robert P. Lynch, Chairman; American Society of Mechanical Engineers, Curtis E. Dyle, Louisiana Rep.; Institute of Electrical and Electronic Engineers, James W. Ryan, Chairman; Instrument Society of America, John Louviere, Louisiana Rep.; Louisiana Engineering Society, L. C. Chapter, Thomas W. Kirby, President; McNeese Engineering Society (a student organization of McNeese State College), Richard L. Bible, President; National Association of Corrosion Engineers, John M. Griffith, Secretary-Treasurer.

The Banquet for Engineers' Week was held at the Lake Charles Country Club on February 23. Arrangements for the banquet were capably handled by Mr. James Ryan, who made arrangements for the banquet including the menu, attendance, seating arrangements, entertainment, decorations and program.

Mr. George M. Chastain, manager of Hercules Incorporated, served as Master of Ceremonies. Entertainment was provided by Mesdames Lois Ferguson and Molly Kenton, wives of local engineers. The invocation was given by Rev. Charles McIlveene, Pastor of Trinity Baptist Church. Decorations were handled by Mrs. R. M. See, chairman of Women's Auxiliary of Louisiana Engineering Society.

One hundred ninety-seven Engineers, wives and guests attended the Banquet. Awards were presented to Mr. Ronald R. Shirley, Junior Engineering Student, and Mr. Edward F. Goshorn, Senior Engineering Student at McNeese State College by the Women's Auxiliary of the Louisiana Engineering Society and by the Louisiana Engineering Society respectively. The Banquet speaker was Mr. Mark Pharr, Acting Director of Engineering and Facilities Management of Gulf South Research Institute. His topic was "Engineering for the Human Environment."

We feel that National Engineers' Week in the Lake Charles area was a success. This was accomplished through the fine cooperation from the press, T.V., radio, industry, and local government, and the hard and diligent work of the sponsoring Society representatives.

SHREVEPORT



Crowd at the East Ridge Country Club, Shreveport, for Engineers Week Banquet.

Engineers Week came to a dramatic climax at the East Ridge Country Club last night as Dr. Wernher von Braun delivered a nontechnical blueprint of the United States space plans and with the award to R. G. LeTourneau of the Engineering and Scientific Council of Shreveport's "Engineering Achievement Award."

Dr. von Braun, likening the efforts of American's space scientists to sailors sailing uncharted seas, described a 10-year master plan which began after rocket development and simple orbits of the earth had been accomplished.

The landing of men on the moon and the orbiting of a gigantic space workshop for scientific study and observations are in the master plan and will lead to more sophisticated ventures after these have been accomplished.



L. to R.—Marion Bubenzer, Chairman Engineers Week activities, Wernher von Braun, Guest Speaker, and Ed Jolly, President, Shreveport Chapter, LES.

Dr. von Braun paid tribute to Rep. Joe D. Waggoner Jr., who was instrumental in securing his presence here, as a strong and knowledgeable champion of space exploration.



Emanuel Stravalemos presents "Engineering Achievements Award" to R. G. LeTourneau, 1967 recipient.

Prior to his speech, LeTourneau was honored as the engineer who had done most to raise the esteem of the engineering profession in this area.

Presentation of the award was made by Emanuel Stravalemos for the Council, a body composed of representatives from each of the 12 major engineering societies of the region.

LeTourneau, famed for the gigantic earth moving and rebuilding machinery he designed and constructed, was honored as an inventor, an engineer and as a businessman of outstanding moral fiber who has raised the esteem in which members of the engineering profession are held.

Starting from a simple beginning as a garage mechanic, he has built a vast manufacturing complex in nearby Longview, Tex., has endowed and built a college, LeTourneau Tech begun in 1946, and has become a businessman-missionary who carries the teachings of God into his everyday business ventures and to his fellow-man.

LAFAYETTE



Shown seated are Orville Watson, President, ASCE; John Huffman, President, LES Chapter; Lafayette Acting Mayor Don Boudreaux. Standing L. to R.: Charles R. Smith, Vice-Chairman, National Gas Processors; Magruder Hays, President, IEEE; Harvey Dupey, President, ASME, and Hank Morgan, President, American Petroleum Institute.

"Six associations of engineers will meet at the Petroleum Club of Lafayette on Monday, February 20 at 6:30 p.m. and the principal speaker will be Louisiana's Attorney General, Jack P. F. Gremillion," Program Chairman U. J. Gajan announced.

"In addition to members of the Lafayette Chapter of the Louisiana Engineering Society, other associations invited are: Institute of Electrical and Electronic Engineers, American Petroleum Institute, American Institute of Mechanical Engineers, National Gas Processors Association and the National Association of Civil Engineers. This rather unusual joint meeting is to celebrate National Engineers' Week which is February 19 through 25," Gajan explained.

"Jack P. F. Gremillion was first elected Attorney General for the State of Louisiana on May 18, 1956 and in 1963 he was elected to serve his third consecutive term," Gajan said. He is a member of the National Association of Attorney Generals and President of the Southern Regional Conference of Attorney Generals. In 1963 he received the Wyman award presented by the National Association of Attorney Generals to the outstanding Attorney General of the United States.

Attention: Membership Committeemen

Newly Registered Engineers Are Good Prospects For LES Membership

Professional engineers granted registration February 14, 1967, by the Louisiana State Board of Registration for Professional Engineers & Land Surveyors:

Bailliet, Robert M., Metairie, La.
Baker, Fred E., Bogalusa, La.
Beghini, Victor G., Shreveport, La.
Bennett, Johnny C., Richardson, Texas
Black, James M. Jr., Baytown, Texas
Blythe, James D., Indianapolis, Indiana
Bordelon, Lloyd G., Arabi, La.
Boyles, James E., Monroe, La.
Branson, Uzzell S. Jr., Dallas, Texas
Bringhurst, Robert W. III, Alexandria, La.
Brossette, Marvin E., Shreveport, La.
Burford, Louis C. Jr., Dallas, Texas
Burkett, Otis R. Sr., Albuquerque, N.M.
Hanks, Eugene H., Franklin, La.
Harris, James L., Houston, Texas
Hashmi, Gulzar N., St. Paul, Minn.
Hawkins, Robert K. Sr., Shreveport, La.
Hecker, Donald W., Metairie, La.
Hoad, John G., Dearborn, Mich.
Holliday, Arthur R. III, Baton Rouge, La.
Howell, Robert C., Houston, Texas.
Jackson, Stuart P., Columbus, Ohio
Kahl, William R., Reisterstown, Md.
Kimball, David B., Shreveport, La.
Landry, Sloyd J., Lake Charles, La.
Langford, James E., New Orleans, La.
Lee, Floyd W., Baker, La.
Loving, Jesse J., Lake Charles, La.
Ludwig, Ernest E., Odessa, Texas
Manson, Eugene R., Abbeville, La.
Marquiss, Ralph E., Baltimore, Md.
McDonald, Charles R., Prospect, Ill.
Mendenhall, John D., Pasadena, Calif.
Mills, Donald A. B., Selma, Ala.
Modesett, Charles C., Houston, Texas
Mora, Raul L., Ft. Lauderdale, Fla.
Nabors, Robert L., Shreveport, La.
Oberweger, Arnold B., Stamford, Conn.
Page, James A., Baton Rouge, La.
Parra, Ernest P., Houma, La.
Peikert, Daniel J., New Orleans, La.
Perkins, Al, Lafayette, La.
Petitfils, Robert J., Lafayette, La.

Pointer, Edward S., Birmingham, Ala.
Pollock, Charles E., Lafayette, La.
Pressler, Jack M., Marshall, Texas
Puckette, Samuel C., Bellaire, Texas
Richardson, Edward K., Metairie, La.
Robinson, John H., Gonzales, La.
Russo, Frank, Albuquerque, N. M.
Schafer, James R., Shreveport, La.
Sickler, Joseph R., Slidell, La.
Staton, Charles M., New Orleans, La.
Walter, John V., Carthage, Texas
Warfel, Edward C., Cincinnati, Ohio
Wheelis, Watkins H., Lafayette, La.
White, William W., Houston, Texas
Williams, Norman T., Birmingham, Ala.
Wilson, Vano T., Houston, Texas
Wright, Hugh E., Pearl River, La.
Vekich, Steve J., Euclid, Ohio
Yoder, Warren G., APO N.Y., N.Y.
Young, Cisero H. Jr., Metairie, La.
Anderton, Edward C., San Francisco, Calif.
Carpenter, Donald D., Shreveport, La.
Chen, Willie Y., Houston, Texas
Christiansen, Harold B., New Orleans, La.
Cottle, William L., Baton Rouge, La.
Davis, Nelson H., Falls Church, Va.
Duff, James C., Waco, Texas
End, James L., New Orleans, La.
Henry C. Eustis, New Orleans, La.
Fitzgerald, John C., Plaquemine, La.
Foster, Donald R., Miami, Fla.
Gore, David E., New Orleans, La.
Gould, Raymond A. Jr., Metairie, La.
Grethe, Edward J. Jr., New Orleans, La.
Guerriero, Richard C., Monroe, La.
Guidry, Earl J., New Orleans, La.

Professional engineers granted registration March 14, 1967, by the Louisiana State Board of Registration for Professional Engineers & Land Surveyors:

Adams, Kenneth H., New Orleans, La.
Aubert, Claude F., Lafayette, La.
Barksdale, William E., Beaumont, Texas
Barrow, Asa O., Maplewood, La.
Brister, Gerald D., Bogalusa, La.
Brown, Frank M., Austin, Minn.
Brown, William A., Carthage, Tex.
Callender, Gordon W. Jr., Metairie, La.
Carey, William A., Houston, Texas
Carville, Charles L., Plaquemine, La.
Chaney, Howard L. Jr., Baker, La.
Cointment, Willard J. Jr., Baton Rouge, La.
Cook, James F., New Orleans, La.
Cross, Thomas M., New Orleans, La.
Davis, William C., Pampa, Texas
Domingue, Daniel D., Lafayette, La.
Dufrene, Wilton J., Harvey, La.
Dunn, Gerald B., Metairie, La.
Earthman, William B. Jr., Bastrop, La.
Evans, Neil W., Hacienda Heights, Calif.
Fontenelle, James F., Chalmette, La.
Frye, James A., Pampa, Texas
Gibson, David L., Lafayette, La.
Gilliam, Dale D., Lake Charles, La.

Giroir, Lynn P., Glen Burnie, Md.
 Goll, Gerald T., Metairie, La.
 Griffin, David G., Lafayette, La.
 Hall, Wayne E., Shreveport, La.
 Hirsch, A. Adler, Shreveport, La.
 Holle, Bradford, Arlington, Va.
 Ingram, Wayne B., Metairie, La.
 Iturralde, Guillermo A., Lakeland, La.
 Kerr, Raymond L., Denham Springs, La.
 Kinard, Quillie E. Jr., Baker, La.
 Maki, Jerry W., Lafayette, La.
 McDonald, Price, Metairie, La.
 Miles, Charles K., Springhill, La.
 Monroe, John C., Baton Rouge, La.
 Newman, Robert C., New Orleans, La.
 Noel, Laurent J. Jr., New Orleans, La.
 North, Douglas F., Bossier City, La.
 Ortego, Warren R., Baton Rouge, La.
 Peek, Sam A., Lafayette, La.
 Pfeuffer, Erwin H., Shreveport, La.
 Phillips, Hubert D., Baton Rouge, La.
 Rembert, Kenneth L., Houma, La.
 Rovinsky, Erven, Dallas, Texas
 Ruckstuhl, Niles L., Houston, Texas
 Sanders, Doyle P., Minden, La.
 Shortess, John R., Baton Rouge, La.
 Swihart, Norman B., Baton Rouge, La.
 Terracina, Harold J., Thibodaux, La.
 Turnipseed, Elton G. Jr., Jackson, Miss.
 Weaver, Eldrige V. III, New Orleans, La.
 Weston, Roy F., Newtown Square, Pa.
 Willborn, Robert G., Lafayette, La.
 Wilson, Harry E., Pearllington, Miss.

State Registration Board Announces New Regulations Effective July 1, 1967

At its March meeting, the Louisiana State Board of Registration for Professional Engineers & Land Surveyors passed new regulations that affect engineers now registered and to be registered in the future.

After July 1, 1967, all applicants for registration on the basis of "Graduation plus Experience" will be required to pass a one-day examination in the Fundamentals of Engineering. In addition, they must have at least four years of satisfactory engineering experience after graduation from an approved engineering curriculum before Professional Engineer registration will be granted in Louisiana. At the present time, graduates of approved curriculum with six years of engineering experience may become registered without written examination. Thus, many who could qualify under the present regulations will not be able to qualify for registration after July 1, 1967, without taking a written examination.

Many States require two days of examinations for registration as a Professional Engineer—one day in the fundamentals of engineering and the other in the branch in which they seek registration. Just about every State recognizes the examinations prepared by the NCSBEE. The Board will use the National Council's examination in "Fundamentals of Engineering" (until recently called the "E.I.T. Examination") as the examination requirement for registration on the basis of Graduation plus Experience. This requirement should assist Louisiana engineers in becoming registered in other States.

To encourage registered Professional Engineers in Louisiana to improve their professional status, the Board will offer the National Council's examination in the branches in which this examination is available—Chemical, Civil, Electrical and Mechanical. Upon payment of a \$15.00 fee, a Professional Engineer may take this examination without affecting his registration status in Louisiana. Passing grades will be duly entered into the records of the Board. At the present time it is anticipated that these examinations will be given at the end of April and the beginning of December of each year. Applicants should apply at least thirty days in advance.

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NSPE News Notes

A proposed new constitution for National Society of Professional Engineers has failed to obtain a two-thirds majority vote from the National Society membership. The proposal did achieve approval from 58.57 percent of the votes cast, but a two-thirds majority was necessary to change the constitution.

Of the 22,866 valid votes on the constitutional change, 13,393 (58.57 percent) were in favor of the new constitution, and 9,473 (41.43 percent) were not in favor. A total of 43.86 percent of the National Society of Professional Engineers members eligible to vote cast a ballot.

The mail ballot was the result of several years of discussion relative to the organization of the National Society to make it as effective as possible in accomplishing its role in the engineering profession. These discussions culminated in a revised constitution developed at a Constitutional Convention in Minneapolis last July.

The proposals involved greater uniformity between the three levels of the Society, extended recognition to servicing the members through sections identified with their employment, expanding membership to include qualified nonregistered engineers, and provision for streamlining administrative procedures for record keeping and dues collection.

The National Society is made up of more than 65,000 professional engineers in private practice, industry, education, and government service. The Society has more than 500 local chapters in the 50 states, Puerto Rico, the District of Columbia and the Canal Zone.

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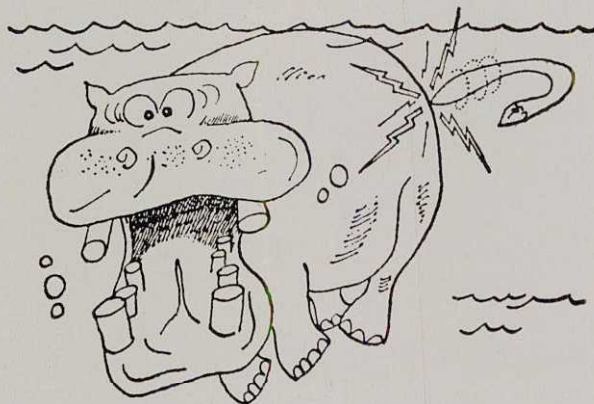
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Reserve, La.
Monroe International, Inc.
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Utility Products Mfg. Co.
John J. Aertker Co., Inc., Representative
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Chemical Cleaning
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Walter Cooke
New Orleans, La.
Industrial Sales Corp.
New Orleans, La.
Martin-Marietta Corp.
Ed Pickett & , Representative
Birmingham, Ala.
IBM Corp.
New Orleans, La.

1967 SPRING CONVENTION

Program

JUNG HOTE

Wednesday, April 26, 1967

- 10:00 — **Set up Exhibits**—Hall of Americas
7:00 — **"Early-Bird" Registration and Social Hour**
Sponsors—New Orleans Chapter, L.E.S.
Pavilion Room

Thursday, April 27, 1967

- 8:30 — **Registration**—North Hall Lobby
8:30 — **Exhibits Open**—Hall of Americas
8:30 — **Meeting Room #10, Second Floor**

CONCURRENT SESSION

ENVIRONMENTAL POLLUTION SYMPOSIUM

(ASCE Sponsored)

Moderators

Robert LeFleur, Exec. Secty., *Stream Pollution Control Commission State of Louisiana*

John E. Trygg, Director, *Division of Public Health, Louisiana State Board of Health*

- 8:30 — **ENVIRONMENTAL POLLUTION — WHAT IS IT?**
W. Byrne and E. Pavia, *Pavia-Byrne Engineering Corporation, New York and New Orleans*
- 9:20 — **GOVERNMENT AND INDUSTRY RELATIONSHIPS IN ENVIRONMENTAL POLLUTION**
Dr. E. J. Martin, Asst. Chief, *Basic and Applied Science Federal Water Pollution Control Admin., Dept. of Interior, Washington, D. C.*
- 10:45 — **Coffee Break in Exhibit Area — Visit the Exhibits**
Hall of Americas
- 10:45 — **AIR POLLUTION — CONTROL OF INDUSTRIAL EMISSIONS**
Dr. J. H. Fernandes, *Combustion Engineering, Inc., Windsor, Connecticut*
- 11:30 — **Luncheon Break — Cocktails in Exhibit Area**
Hall of Americas

Thursday, April 27, 1967

CONCURRENT SESSIONS

- 8:30 — **Meeting Room #5, Second Floor**
IEEE Member Sponsor — H. B. Ashe, *Sou. Bell Tel. & Tel. Co.*
COMPUTERS—USES IN YOUR PLANT
Speaker—R. P. Roberts, *Computer Division, General Electric Corp., Phoenix, Arizona*
- 8:30 — **Meeting Room #2, Second Floor**
ASME Member Sponsor — John Vogt, *New Orleans Public Service*
RECLAIMING WASTE HEAT IN YOUR PLANT
Speaker — R. L. Herrick, *Combustion Engineering, Inc., Saginaw, Michigan*
- 9:45 — **Coffee Break in Exhibit Area — Visit the Exhibits**
Hall of Americas
- 10:30 — **Meeting Room #2, Second Floor**
ASME Member Sponsor—Don Aswell, *Louisiana Power & Light Co.*
DESALINIZATION
Speaker — W. J. Webostad, *Westinghouse Corporation, Orange, Calif.*
- 10:30 — **Meeting Room #5, Second Floor**
Petro-Chem. Member Sponsor — Karl Geoca, *Shell Chemical Co.*
SPRAY IN INSULATION IN PETRO-CHEMICAL PLANTS
Speaker — Curtis Wright, *Johns-Manville Corporation, New York, N. Y.*
Assisted by Claude Foster, *Johns-Manville Corporation, Houston, Tex.*
- 11:45 — **Luncheon Break — Cocktails in Exhibit Area**
Hall of Americas
- 12:30 — **Luncheon—Terrace Suites**
Luncheon Chairman — Clifford Rawls, *Louisiana Power & Light Co.*
Speaker—Gov. John McKeithen
"How to Get New Industry for Louisiana"

SET FOR APRIL 27-28, 1967

NEW ORLEANS

1:45 — Meeting Room #10, Second Floor

ENVIRONMENTAL POLLUTION SYMPOSIUM (Continued)

1:45 — WATER IN INDUSTRY—A SURVEY OF ITS TREATMENT FOR EITHER DISPOSAL OR REUSE

Max Horton, *Regional Sales Specialist, Link Belt Company, Metairie, La.*

2:30 — Coffee Break in Exhibit Area — Visit the Exhibits

Hall of Americas

3:00 — Round Table on Pollution

With all of the speakers in symposium. Questions from the floor only at Round Table.

1:45 — Meeting Room #5, Second Floor

Petro-Chem. Member Sponsor—Ed McNamara, *Freeport Sulphur Co.*

PLANT SITE SELECTION AND PREPARATION IN LOUISIANA

Speaker — J. D. Stubbs, *Bechtel Corporation, San Francisco, Calif.*

1:45 — Meeting Room #2, Second Floor

ISA Member Sponsor—John Coles, *New Orleans Public Service*

CONTROL SYSTEMS IN THE PLANT —SOLID STATE OR RELAY

Speaker — K. R. Dodson, *Bailey Meter Company, Houston, Texas*

3:00 — Coffee Break in Exhibit Area — Visit the Exhibits

Hall of Americas

3:45 — Meeting Room #2, Second Floor

ISA Member Sponsor—Mannie Stutts, *Republic Flowmeter*

ESTHETICS IN ENGINEERING SYSTEMS

Speaker—Dr. Rudolfo J. Aguilar, *Dept. of Civil Engineering, LSU, Baton Rouge, La.*

3:45 — Meeting Room #5, Second Floor

IEEE Member Sponsor—Rodney Mouton, *New Orleans Public Service*

POWER GENERATION—ON SITE OR PURCHASED

Speaker — Michael Larinoff, *Ebasco Services, Inc.*

6:00 — Exhibitors' Cocktail Party in Exhibit Area
Hall of Americas

7:00 — Exhibits Closed

Dinner (on your own)

Friday, April 28, 1967

8:30 — Registration—North Hall Lobby

8:30 — Exhibits Open—Hall of Americas

9:00 — A Round Table Discussion

South Hall of Americas Meeting Room

"SHOULD SALES ENGINEERS BE REGISTERED—IF SO, AS WHAT?"

Moderator—Dr. Jesse Coates, *Chairman of State Board of Registration for Professional Engineers and Land Surveyors*

Panelists Representing:

Consultants—To

Government—Ed Pavia, *Partner, Pavia-Byrne Engineering Corp.*

Industry—Fred Culpepper, *V. P., Ford, Bacon & Davis*

Engineers—In

Industry — John Breeden, *Avondale Shipyards, Inc., Chief Mech. Engr.*

Government — Ray Burgess, *City of Baton Rouge, Louisiana*

Purchasing Agents—For

Government — James Bond, *New Orleans Sewerage & Water Board*

Industry—Stan Mayo, *Director of Purchasing, Freeport Sulphur Co.*

Sales Engineers—

Manufacturer's Agent — Harry Hammett, *Partner, Mid South Sales Company & Mfg. Agent—Jack Knight, V.P., Equitable Equipment*

Company — George Reech, *Dist. Mgr., Riley Stoker Company*

10:00 — Coffee Break in Exhibit Area—Visit the Exhibits

Hall of Americas

10:30 — Round Table Resumes Discussion

Questions from the Floor

11:30 — Luncheon Break — Cocktails in Exhibit Area

12:00 — Luncheon—Terrace Suites

Presentation of Awards

Technological Accomplishments Award

A. B. Paterson Engineer-in-Management Award

Andrew M. Lockett Civic Activities Award

General Business Meeting of Louisiana Engineering Society

Discussion of Constitutional Revisions

2:00 — Afternoon free for pleasure or committee meetings

Golf — Green Fee Basis — Timberlane Country Club — Tee Time 1:00. Can be guaranteed only with reservation made by pre-registration.

2:00 — Exhibits Closed

2:30 — Meeting Room #3, Second Floor

PROFESSIONAL ENGINEERS IN
PRIVATE PRACTICE SECTION

A. J. Szabo, *Chairman*

2:30 — Meeting Room #4, Second Floor

PROFESSIONAL ENGINEERS IN
GOVERNMENT SECTION

H. B. Myers, *Chairman*

2:30 — Meeting Room #5, Second Floor

PROFESSIONAL ENGINEERS IN
INDUSTRY SECTION

M. A. Hurstell, *Chairman*

7:00 — Social Hour—Pavilion Room

8:00—Dinner—Terrace Suites
Dancing

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Chairman—Raymond Maddux

Vice-Chairman—G. J. Grogh

LES Board Liaison—E. J. McNamara

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Harry Hammit

Arrangements—Harvey Kellerman
Pierre Stouse

Program—Hoyt Brown

Banquet & Dance—Warren Bankston
A. H. Douglas
Jerry McCue
Arthur Seaver

Registration—Bob Brown

Publicity—M. A. Steele

Women's Auxiliary—Mrs. John A. Haase

FOR THE LADIES

Thursday, April 27, 1967

9:00-11:00 — Continental Breakfast

10:30 — Meeting—Ladies' Advisory Committee

12:30 — Joint luncheon with the men
Speaker—Gov. John McKeithen

1:45 — Afternoon Free for Shopping or Relaxation

6:00 — Exhibitors' Cocktail Party — Ladies invited

Friday, April 28, 1967

9:00-11:00 — Continental Breakfast

12:00 — Luncheon—Terrace Suites
Presentation of Awards

1:45 — Afternoon Free for Shopping or Relaxation

7:00 — Social Hour—Pavilion Room

8:00 — Dinner, Dancing—Terrace Suite

— — — — S E P A R A T E H E R E — — — —

RESERVATION FORM

		No. of Tickets
Registration Fee (Engineers Only)	\$5.00	_____
Thursday Luncheon (per person)	5.00	_____
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Friday Cocktails, Dinner and Dance (per person)	10.00	_____
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Governor McKeithen Signs Executive Order No. 50

On October 12, 1966, Governor John J. McKeithen signed Executive Order No. 50. This order did what the Private Practice Section of the Louisiana Engineering Society, and others, have been advocating over a long period of time. E. O. 50 establishes guidelines for the selection of engineers and architects for State projects.

It will be seen from the attached reproduction of the Order that it fixes responsibilities for performance of duties upon those who are employed; it established a procedure for consideration of those qualified professionals and it establishes guides to be used by the State agency in making the selection. In addition, it states that, other conditions being equal, those firms or individuals with main offices in the State of Louisiana will be given preference.

These same criteria for selection were included in a proposed procedure for the selection of engineers for public bodies in the State of Louisiana which was drafted several years ago by the Private Practice Section of the Louisiana Engineering Society. An attempt was made, primarily by other groups but with the cooperation of L. E. S., to get such a procedure enacted into a law during the 1966 session of the Legislature. However, it was vetoed by the Governor.

The Society has expressed to the Governor the approval and the gratitude of the organization for this action. A copy of President Duclos' letter was reproduced in the last issue of the LOUISIANA ENGINEER.

Credit should be given to all who assisted in bringing this matter to the attention of the Governor, and particularly to Leo M. Odom and John I. McCain who represented the Private Practice Section of L. E. S. and spearheaded this effort in our behalf.

EXECUTIVE ORDER NO. 50

In order to provide guidelines to the selection of architects and engineers for State building and improvement projects and in order to affirm the responsibility of architects and engineers employed in such projects, I, John J. McKeithen, Governor of the State of Louisiana, do issue this my executive order, effective immediately:

1. Every architect and every engineer employed by the State of Louisiana or by any of its agencies shall be held responsible for the proper professional performance of his duties as set forth in his contract of employment, the laws of Louisiana, and the regulations of the board by which he is licensed.

2. Each architect or engineer retained or employed to design, inspect, or perform work of any kind on any project undertaken by the State of Louisiana or by any of its agencies shall be selected from a list submitted for the project by the Using Agency containing the names of three or more firms or individuals who are not members of the same firm or of any of the firms suggested. Before accepting or rejecting any of the individuals or firms suggested by the Using Agency, the Selecting Agency shall give each individual or firm whose name has been submitted by the Using Agency reasonable notice and an opportunity to appear, explain his qualifications, experience, and ability to perform the project (or the qualifications, experience and ability of his firm), and the opportunity to answer any questions. If the Using Agency and the Selecting Agency are the same, then before retaining or employing any architect or engineer, the agency shall invite at least three firms of architects or engineers or individual architects or engineers who are not members of the same or any of the firms being considered to appear before it, explain his qualifications, experience, and ability to perform the project (or the qualifications, experience and ability of his firm), and the opportunity to answer any questions.

If the Selecting Agency finds that none of the individuals or firms suggested by the Using Agency are qualified, it may reject all suggestions, but it shall not do so unless it has good cause and states the cause for each rejection to the Using Agency in writing. In the event all suggested firms and individuals are rejected, a new list shall be submitted by the Using Agency.

3. The architect or engineer selected for a project

shall be responsible for selecting any consulting engineers, consulting architects or other specialists whom it may be desirable to employ in the project and shall submit the names of the consultants for approval of his qualifications by the Selecting Agency. The Selecting Agency shall not reject any consultant whom the architect or engineer desires to employ except for good cause to the primary architect or engineer in writing.

4. The following guides shall be used by the Using Agency in selecting architects or engineers to be listed by them and by the Selecting Agency in making the final selection of the architects or engineers for any project undertaken by the State of Louisiana or any of its agencies:

(a) The individual or firm shall have had sufficient professional training and experience to accomplish the work to be assigned to it;

(b) Where qualifications are substantially equal, preference shall be given to architects or engineers having their principal office in the State of Louisiana;

(c) Architects or engineers engaged to do relatively large projects should be qualified by experience. Architects or engineers whose experience is limited will be engaged on projects of a size reasonably commensurate with their experience;

(d) Each architect or engineer under consideration will be invited to submit up-to-date data concerning his experience, previous projects undertaken, scope and amount of work on hand, the names of key personnel who will be assigned to the project, and any other information that may be appropriate in selecting an architect or engineer for the particular project under consideration;

(e) The Using Agency and the Selecting Agency should each check carefully with recent clients of each architect or engineer who is under consideration and talk with at least one owner and one contractor who have worked with him recently;

(f) The architects or engineers for each project should be selected as soon as possible after the project is first considered so that their services can be available in planning the program, determining its scope and arriving at its budget.

(Continued on Page 20)

Cont'd. from Page 19

5. As used in this order, the following words or terms have the following meanings.

"Architect" means an architect registered in the State of Louisiana, and "Engineer" means an engineer registered in the State of Louisiana, either of whom may be employed and charged with primary responsibility for the design of a project;

"Project" means any improvement of lands or construction, alteration, or reconstruction of any building or other structure under contract to be paid for with State funds, including any federal lands allotted to the State;

"Selecting Agency" means any officer, official or agency, board, corporation or institution of the state which has the right to contract for any project or to employ persons to design or inspect any project; and

"Using Agency" means the state board, agency, corporation or institution which will actually use the project when it is completed.

6. This order shall not apply to architects or engineers employed on a salaried basis in accordance with the Civil Service laws, nor to the various port authorities of the state, nor to police juries, levee districts and school boards in the various parishes.

(SEAL)

IN WITNESS WHEREOF, I have hereunto set my hand officially and caused to be affixed the Great Seal of the State of Louisiana, at the Capitol, in the City of Baton Rouge, on this the 12th day of October, A.D., 1966.

(SIGNED)

JOHN J. McKEITHEN
Governor of Louisiana

ATTEST

BY THE GOVERNOR

(SIGNED)

WADE O. MARTIN, JR.

Secretary of State

ORLEANS LEVEE BOARD NEEDS ENGINEERS

The State Department of Civil Service is attempting to recruit three Engineers V for employment with the Orleans Levee Board. The positions have a beginning salary of \$880 per month.

In order to qualify, applicants must possess a license to practice engineering in Louisiana and one year of responsible professional engineering experience. Qualified applicants will be rated on the basis of their education and experience and no written test will be required.

Persons who meet the above requirements and are interested in these career employment opportunities in the State Service may obtain an application from any State employment office, Parish Veterans Service Office, or the State Department of Civil Service in Baton Rouge or New Orleans. Completed applications should be submitted to the Department of Civil Service in Baton Rouge as soon as possible.

Nominating Committee Submits Slate of Officers

The Nominating Committee presents the following as nominees for the forthcoming election of Louisiana Engineering Society:

For First Vice President (President-Elect):

Mr. Leo Odom, P.E.

For Second Vice President: Mr. John F. Vogt, Jr., P.E.

For Secretary-Treasurer: Mr. T. J. Hogue, P.E.

For National Director: Mr. Marion Bubenzer, P.E.

For Two Directors: Messrs. Jack Thigpen, P.E.,

James (Fred) Williams, P.E.

All of the above nominees have committed themselves to serve if elected.

Charles W. Stokes, P.E.

Chairman, Nominating Committee

Article III, Section 2, Paragraph 3, of the LES Constitution reads:

"At any time prior to forty-five (45) days before the end of the administrative year, any twenty-five (25) or more Members may send to the Secretary-Treasurer additional nominations for any elective office for the ensuing years, signed by such Members."

Deadline for submission of additional nominations is May 15, 1967.

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April 27-28 Jung Hotel
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PEG Section Recommends Salary Scale To Governor

On March 29, 1967, the Louisiana Engineering Society recommended to the Governor of Louisiana that adequate salaries be paid to Professional Engineers employed by the State. This action is the result of an exhaustive study conducted by the Functional Section for Professional Engineers in Government.

The report revealed these important and outstanding facts:

(1) State agencies at the present time do not have adequate engineering staffs.

(2) Professional Engineers now in State service are rapidly resigning to accept similar positions with higher pay elsewhere.

(3) State salaries of Professional Engineers are 13 to 53% less than corresponding Federal salaries; and Federal salaries lag behind those of industry.

(4) These comparatively low salaries do not retain or attract engineer employees.

Recommendations of the report are now being considered by Governor John J. McKeithen. Any action taken by the State government will be reported in the June issue of the **Louisiana Engineer** along with a review of the report which was presented to the Governor.

Submitted by
HU B. MYERS, Chairman
PEG FUNCTIONAL SECTION

1967 Annual Meeting And Installation Of Officers Set For Lake Charles, June 23, 24, 1967

Officers Indoctrination Conference To Be In Combined Program

The LES Board has accepted an invitation from the Lake Charles Chapter to host a combined Officers' Indoctrination and Annual Meeting in Lake Charles June 23-24.

The Annual Meeting of the Lake Charles Chapter will be a part of the program.

Since the Spring Convention is being held in late April, it was decided that a combined program would accomplish the purpose of the Training Conference with the Annual Installation of LES Officers.

Chapter officers are urged to reserve these dates, since this meeting will be most helpful during the next administrative year.

TENTATIVE PROGRAM

'67 LES Annual Meeting & Chapter Officers Conference (Including Lake Charles Chapter Annual Meeting)

June 23-24, 1967

Chateau Charles Highway Hotel, Highway 90 West,
Lake Charles, La.

PROGRAM

FRIDAY, June 23, 1967:

2:00 P.M.-6:00 P.M.—Registration for Conference and Annual Meeting

2:00 P.M.—Hospitality Hour (By Lake Charles Chapter)

3:00 P.M.—LES State Board of Directors Meeting

6:30 P.M.—Social Hour (Cash Bar)

7:30 P.M.—Installation Dinner, members and wives (Lake Charles Chapter Annual Meeting)
Guest Speaker

Chapter Secretaries-treasurers duties and responsibilities: co-ordination with State office.

SATURDAY, June 24, 1967:

8:00 A.M.-10:00 A.M.—Registration for Conference and Annual Meeting

9:30 A.M.—The Purpose of the Chapter Officers Training Conference

10:00 A.M.—The Chapter Evaluation Program

10:30 A.M.—Chapter Administration

Chapter Presidents & Vice-Presidents duties and responsibilities; directing committee work

12:00 Noon—LES Luncheon (ANNUAL MEETING) members and wives

Review of 1966-1967 Administration—1966-67 President

Report of the Secretary-Treasurer

Installation of LES Officers and State Board of Directors

Recognition of Chapter Officers

Plans for 1967-1968 Administration—1967-68 President

2:30 P.M.—State and Chapter Committee Activities
Membership promotion and retention

Public Relations and Engineers Week

Honors and Awards

Legislative

Vocational Guidance

Education

3:30 P.M.—Functional Section Activities

Professional Engineers in Private Practice

Professional Engineers in Government

Professional Engineers in Industry

4:30 P.M.—Adjourn

5:00 P.M.—Cocktails (Cash Bar)

7:00 P.M.—AWARDS BANQUET, members and wives (Lake Charles Country Club)

Awards to be presented by new LES President

a. Engineer Award of Merit Key

b. Life Membership

c. Membership Contest Award

8:00 P.M. till 12:00 Midnight—DANCE

(Music by the Gene Butler Orchestra)

Chapter Officers Mark Your Calander Now

A Letter To The Editor

On an upcoming ballot there will be a proposition to change our LES Office location from New Orleans to Baton Rouge.

We all are aware of the many attractions that New Orleans has over its neighbor Baton Rouge. These attractions are of more interest to the tourist or visitor than to operating an engineering organization. For those LES working meetings that are held in New Orleans by the Society not much time is left for fun. So, from the standpoint of entertainment New Orleans would be preferable. However, our Society is entering a new era in which if we are to survive as anything better than we are at present, then more work will need to be done.

Baton Rouge, as our capital, is the place for our office to be located if we are to exert any influence on our Legislature. Anyone who thinks that our Society has exerted much influence on proposed laws, affecting the engineering profession, just has not been in touch with the situation.

Since we employed a full time Executive Secretary two years ago, he has had a chance to cover one regular Legislature session and one fiscal session. He has attended the legislative hearings while running the Society Office in New Orleans, which is not the most efficient procedure. If Baton Rouge was our official domicile then he could do a more efficient job of maintaining contact with the Legislature during its sessions as well as between sessions. From the standpoint of exerting influence on our Legislature the period between sessions is the time to lay the groundwork for favorable engineering legislation and keep an ear to the ground for unfavorable bills. If we expect to ever strengthen our PE registration laws to bring them up more nearly to the professional level of the medical or legal professions then we will have to be in close contact with our law makers at all times.

Another point in favor of Baton Rouge is that the Office operating expenses should be less than in the larger city. Rent, office supplies, printing, elimination of most of our Executive Secretary's expenses of working between Baton Rouge and New Orleans, are all items which should prove to be more economical in Baton Rouge.

The argument that our original Charter of 1898 stated that the domicile of the Society would be in New Orleans and therefore should remain there, simply is of no importance. We can appreciate the feelings of our older members who feel that they may be protecting something very old and dear to their hearts. However, as stated earlier we must enter a new era to make progress with the rest of the country. The changing of the domicile location will change only two more words of the original document, and as you know thousands have been changed in the past years by various constitutional amendments.

We hope you will vote in favor of relocating our Society Office to Baton Rouge.

Farrell Adams, P.E.

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ENGINEERS CLUB HOLDS WIVES' LUNCHEON FEBRUARY 22

In celebration of Engineers Week and in honor of George Washington, P.E., the Engineers Club of New Orleans held its Annual Wives Luncheon on February 22. A crowd of some 60 engineers and their wives attended the affair which was held at the Club's quarters at 920 Gravier Street. All who attended reported that the food and beverages were excellent and that they all had a good time. Entrance prizes were won by Mrs. Mario Zervigon and by Tommy Stokes. A birthday cake complete with candles was presented to Mrs. Gene Diboll. Jim Janssen, President of the Club M.C.ed the party and was ably assisted by Bill Horrell and Ed Bachemin.



Shown cashing in "chips" were John Elstrott, H. J. Franklin, Mrs. Franklin and Mrs. Elstrott.



Shown L to R: Howard Reed, Mrs. Kitty Reed, Mrs. Leo Johnson, Roy Johnson and Larry Miller.



Enjoying the festivities were Mrs. W. S. Nelson, Mrs. Tom Stokes, Mrs. Larry Miller, Tom Stokes and Waldemar S. Nelson.



An interesting group includes (seated) Mrs. Francis Favalora and Mrs. Gene Diboll, (standing) L to R: Francis Favalora, Henry Babin, Mrs. Babin and Leon Lassen.



Chatting before lunch were Mesdames Maris C. Zervigon, Earl Martin and John McCormick.



An interesting group includes (standing) Tom Stokes, Mrs. Henry Babin, Gene Diboll and Phil Hathaway. (Seated) Mrs. Hathaway, Mrs. Favalora and Mrs. Diboll.



A jovial group included (standing) Lem Larsen, A. A. Mercier, (seated) Mrs. Mercier.

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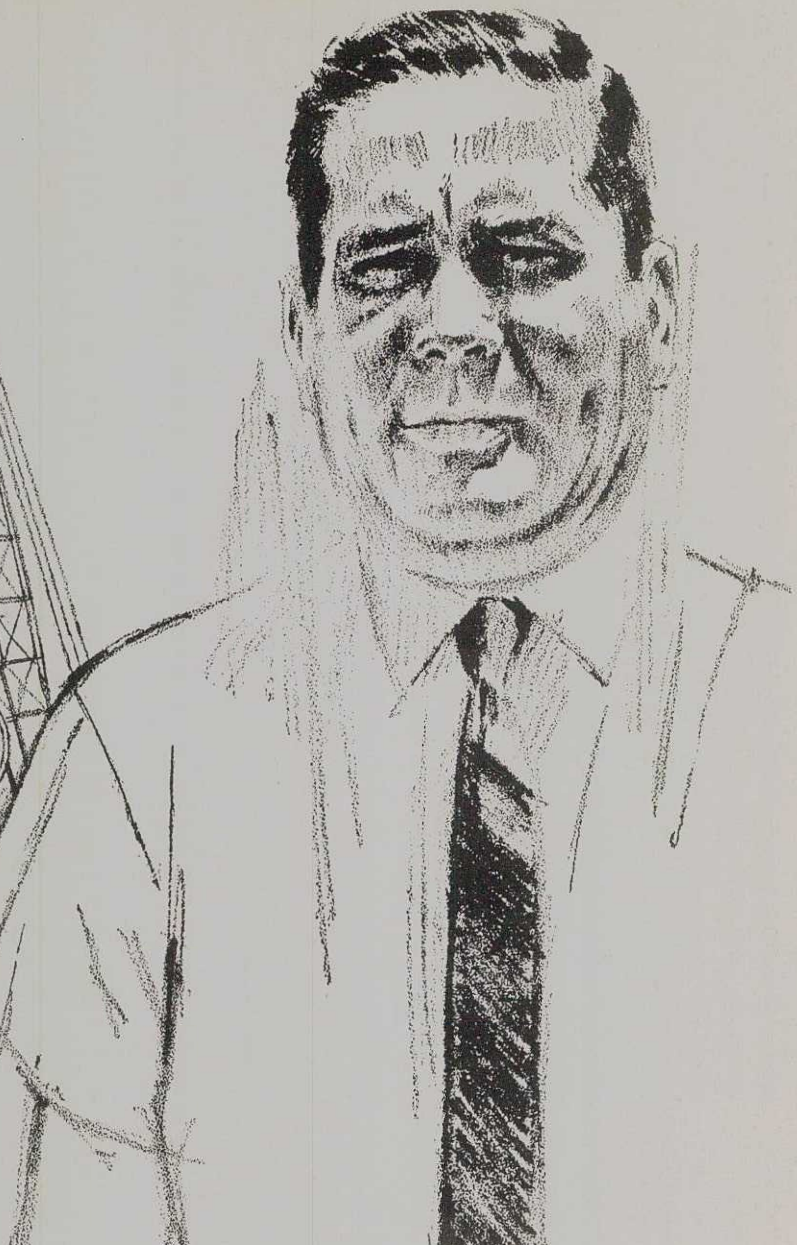
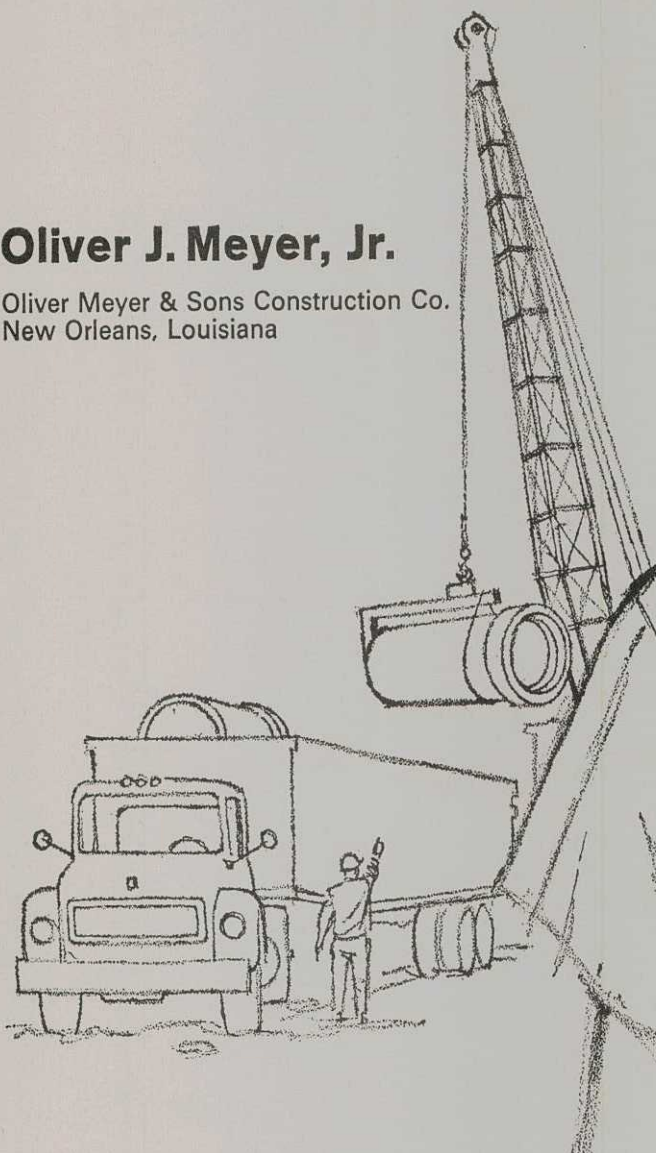
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LES CHAPTER MEETING DATES

Alexander Chapter	— Third Tuesday Monthly (evening)
Baton Rouge Chapter	— Third Thursday Monthly (evening)
Lafayette Chapter	— Third Monday Monthly (evening)
Lake Charles Chapter	— Second Monday Monthly (evening)
Monroe Chapter	— First Tuesday Monthly (evening)
New Orleans Chapter	— No regular monthly schedule
Shreveport Chapter	— First Tuesday Monthly (noon)

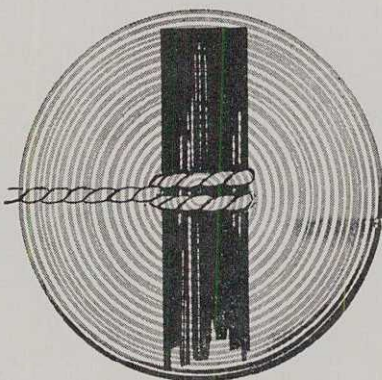
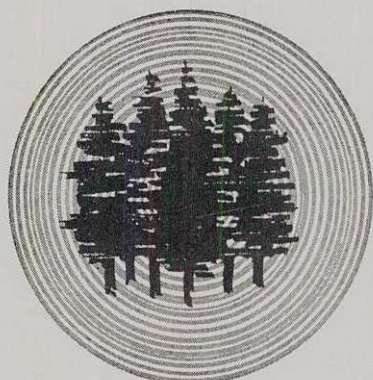
Editor's Note: Chapter meeting dates may vary to accommodate speakers or for special occasions.

LES MEETING DATES

April 27-28, 1967	— Spring Convention — New Orleans — Jung Hotel
June 23-24, 1967	— Annual Meeting and Officers' Indoctrination Conference — Lake Charles

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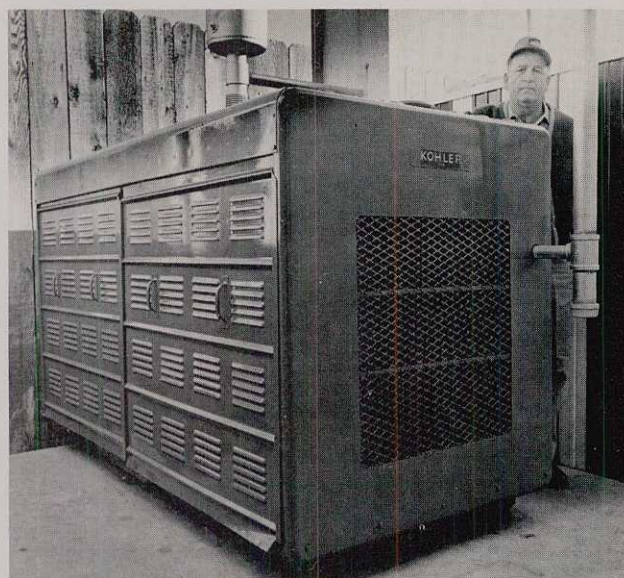
The members of the Woman's Auxiliary to the New Orleans Chapter of the Louisiana Engineering Society and their guests will gather at the Christ Church Cathedral on Tuesday, April 11, 1967 at 1:30 P.M. to honor their Charter Members and Past Presidents at a FOUNDER'S DAY Tea following the meeting.

Honorees include—Mesdames James M. Robert, Daniel S. Elliott, Alvin M. Fromherz, John A. McNiven, Ernest L. Mire, Arthur J. Naquin, John L. Porter, Frederick H. Fox, Sargent F. Jones, George A. Heft, John K. Mayer, Mario G. Zervigon, Frank W. Macdonald, Walter E. Blessey, Charles E. Cassagne, Charles J. Moseley, Albert J. Fransen, Lee H. Johnson, Frank C. Fromherz, Walde-mar S. Nelson, Roy G. Cappel, Otha E. Barron, Jr. and

Thomas A. Fromherz, Wade Barnett, Ben H. Bell, C. N. Bott, Ralph Earl, J. McCormick Gondran, George R. Hammett, Harold A. Levey, John N. O'Neill, A. B. Pater-son, Walter H. Scales, David W. Stewart.

Members celebrating twenty-five years membership in the Society will be given scrolls. They include Mesdames Michael C. Abraham, Walter E. Blessey, Edward A. Gastrock, George A. Heft, Sargent F. Jones, Edward B. Ludwig, George D. Macdonald and Harold W. Woods.

Following the meeting a program will be presented by Dr. George Reinecke—after which member and their guests will enjoy afternoon tea. Decorations for the oc-casion include a variety of spring blossoms in arrange-ments and bouquets. Alternating at the tea tables pour-ing will be Mesdames John A. Haase III, Daniel H. Vliet, Edward J. McNamara, David L. White, Ronald P. Cressy, William Herbst, Jerry L. Dickson, G. J. Groh.



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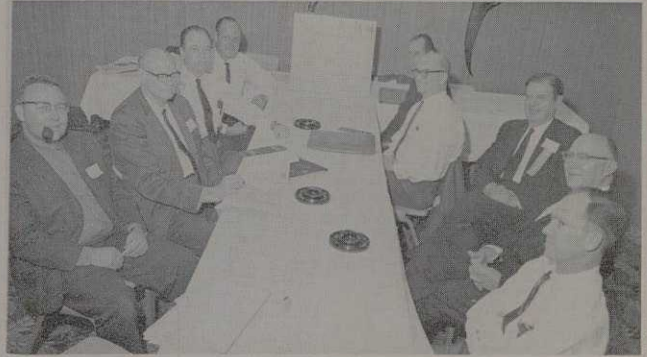


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ETHICS COMMITTEE SESSION

ETHICS COMMITTEE

The Committee met on February 25 with only Shreveport and Baton Rouge represented. Mr. Waldemar S. Nelson discussed the activities and functions of the NSPE Ethics Group with those present and outlined the responsibilities of the LES Committee as stated in the State By-laws.

A discussion then followed which generally questioned the value of continuing to have an LES Ethics and Professional Conduct Committee since guidelines covering its objectives were not clear to those present.

After considerable discussion, the group proposed the following:

"The Committee can be of greatest value to the LES by promoting and encouraging high standards of professional practice and ethics. Its LES Bylaw function of acting as an investigating agency of the Board of Direction should be secondary."

To this end, the Committee will act as a study team between now and the April meeting in New Orleans, reviewing all available Engineering Founding Society "Codes of Ethics", including NSPE, with the objective of recommending and updating the current LES Code where deemed desirable. Following this, the Committee will engage in promoting publication of the Code, in parts, from time to time, in the "Louisiana Engineer," including comments as appropriate to promote a better understanding of an Engineer's Code of Ethics throughout the LES membership.

The above will constitute the Committee's contribution to the Profession for the 1967 year.

EDUCATION COMMITTEE

Members present were: H. L. Henry, Chairman; J. L. Lewis; W. E. Heffington; and George L. Heller.

The minutes of the September 10, 1966 meeting of the Committee were read and approved. The Chairman reported that the only recommendation for a High-Level Advisory Board was a recommendation from Dr. L. R. Daniel, Jr. of LSU. The essence of Dr. Daniel's recommendation was that the Louisiana Engineering Society request that E.C.P.D. provide the State with a Board of Visitors, who would look into the diversities of interests in Engineering Education within the State. These representatives of E.C.P.D. would visit each school for two or three days and then present their recommendations directly to the Governor or State Legislators for their consideration.

After considerable discussion of Dr. Daniel's proposal, the following recommendation is hereby presented to the Board of Direction of the Louisiana Engineering Society. "It is recommended that the Board of

Direction of LES obtain a High-Level Advisory Committee of three to five influential men from industry and government agencies within the State, who would be requested to lend their efforts to improve Engineering Education within the State. It is recommended that the engineering deans within the State meet with this High-Level Advisory Committee from time to time and make known to this committee their opinions concerning specific action that is needed. It is recommended that the High-Level Advisory Committee and the deans request E.C.P.D. to send consultants to the State to contribute plans and guidance for the direction of engineering programs within the State."

A second matter discussed by the Education Committee was the decline in enrollment in Engineering Education. The Committee recommends that the Public Relations Committee of LES and the local Chapters: (1) Encourage qualified students to enroll in engineering; (2) Encourage local sections to send qualified speakers to the high schools, service clubs, and any other group where it is desirable to spread the word about engineering as a profession.



Col. T. J. Bowen, District Engineer, U.S. Corps of Engineers, New Orleans, was keynote speaker at the Saturday Luncheon.



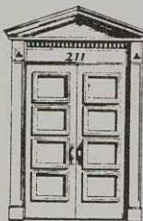
EDUCATION COMMITTEE AT WORK

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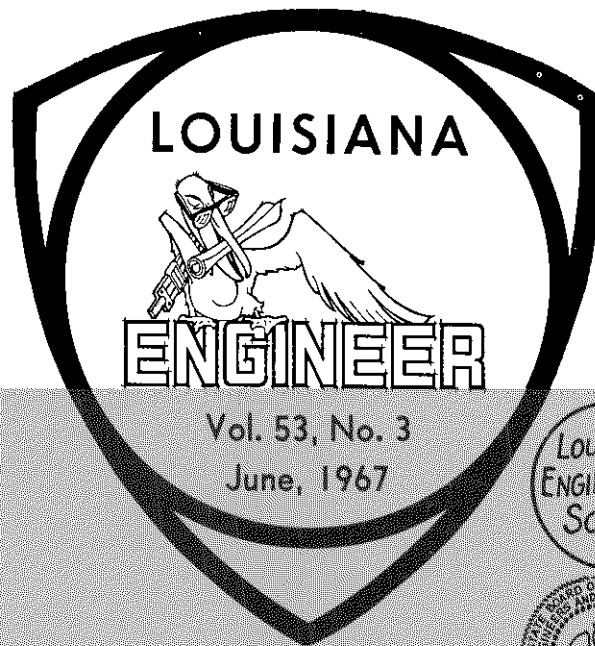
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'67 Spring Convention . . .

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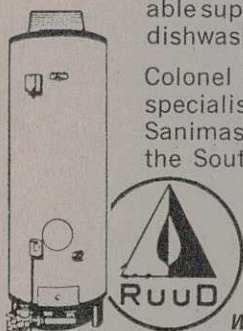


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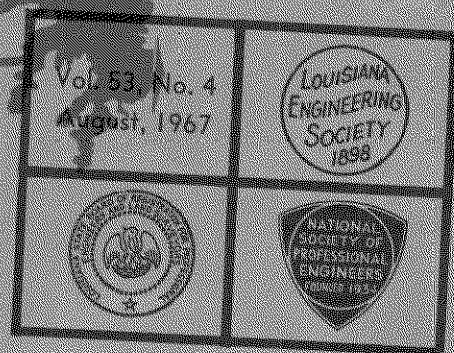
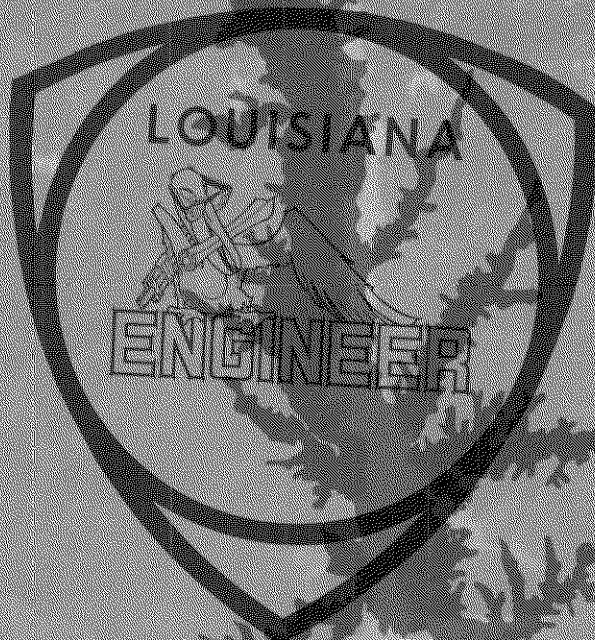
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"In the case of our municipal sewers, we considered all costs applicable to the project, not just the cost of construction but the cost of operation and maintenance. From past experience, the balance favored Dickey pipe.

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Not much to add to what Casey Forbes said... except, use Dickey Coupling Pipe for your sanitary sewers.



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Deep-Strength* Asphalt pavements overcome "spring thaw" damage...

Three ways to improve highway safety...

The facts about pavement maintenance costs...

What pavement gives year-round serviceability?

A familiar headache for many state, county and city engineers is the annual "spring thaw" period when high deflections result in loss of pavement strength. Now, evidence from the multimillion-dollar AASHO Road Test shows how modern Deep-Strength Asphalt-base construction offers a practical solution to this problem.

First, a study of Asphalt-base test sections revealed that they were $6\frac{1}{2}$ times as effective as granular bases for reducing deflection in the spring.

Second, an examination of the performance histories of the AASHO pavement sections disclosed that while the major loss of serviceability for granular-base pavements occurred in the spring, there was no noticeable acceleration whatsoever in the loss of serviceability for Asphalt-base pavement during the same period.

Taken together, these two findings show that Deep-Strength Asphalt construction offers a stronger, more durable roadway the whole year round while eliminating load restrictions in the spring.

What makes a safer road?

In line with increasing emphasis on highway safety through engineering design, modern Asphalt pavement offers a number of advantages worthy of consideration.

First, Asphalt pavement offers higher resistance to skidding. This was documented by Professor R. A. Moyer in 1933 in a report published by the Highway Research Board, and has since been confirmed many times—most recently in the AASHO Road Test, which showed a higher coefficient of friction (skid resistance) for Asphalt surfaces at both the beginning and the end of the test. Moreover, while all pavements inevitably wear and sometimes polish under traffic, high skid resistance can easily be restored to Asphalt pavement with a simple surface treatment. Concrete pavement, on the other hand, requires substantial Asphalt overlay to restore a high level of safety.

Asphalt pavement's smoother, quieter ride—less tire-surface contact noise and no distracting thump-thump-thump—is also of safety value by lessening driver fatigue.

Finally, modern Asphalt pavement surfaces naturally provide better lane, sign and shoulder delineation in any type of weather, day or night, rain or shine. In addition, they provide better visibility by reducing glare and eye-strain.

Why pay more for maintenance?

Maintenance costs for comparable Asphalt concrete and portland cement concrete pavements are about equal! So said a Congressional investigating committee** after exhaustive hearings into overall pavement costs. Expert testimony was taken from qualified authorities with wide paving experience. Both the Asphalt and the cement industries also were extended full opportunity to present documentation and support for building and maintenance-cost claims. Here is the Congressional committee conclusion:

"One factor in this problem which we must not overlook is that the evidence we have from all sources indicates that maintenance costs are, in fact, about equal for asphalt and concrete. That being the case, the real question relates principally to first costs."

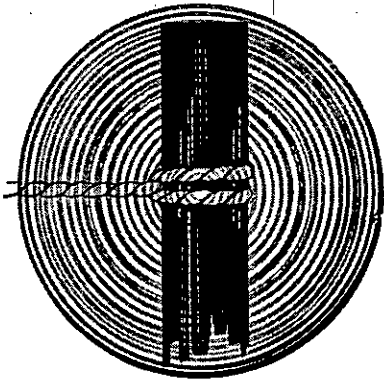
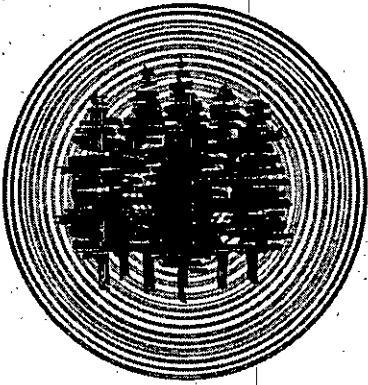
Modern, Deep-Strength Asphalt pavements offer average initial cost savings of \$50,000 per 4-lane mile! These savings can pay maintenance for many years. Maintenance of Asphalt pavements, furthermore, is a simple and speedy operation. When needed, an Asphalt surface can be restored readily to better-than-new condition, thus extending the life of the pavement indefinitely.

*Asphalt-surface on Asphalt-base.

**Congressional Committee on Airstrip Paving Materials.



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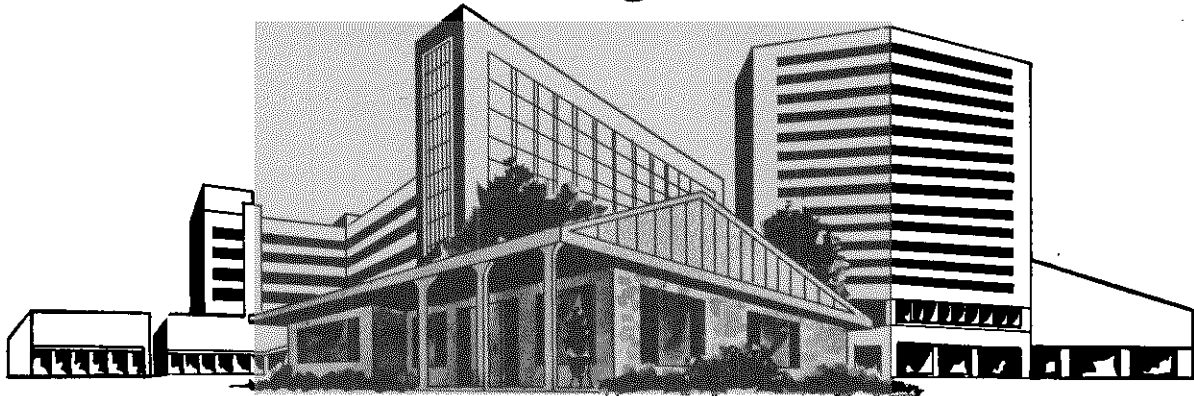
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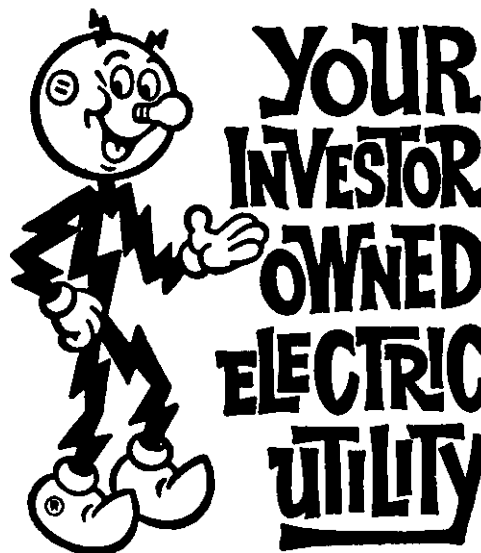
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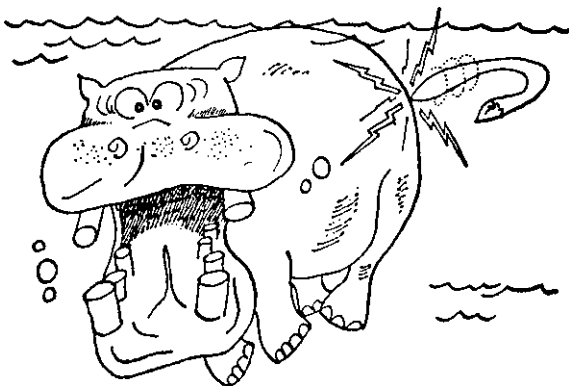
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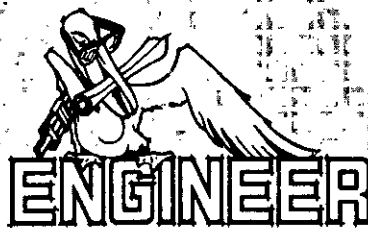


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Important Attorney General Ruling



July 24, 1967

Honorable Jack P. F. Gremillion
Attorney General
State of Louisiana

My Dear Mr. Gremillion:

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors wishes to request from you an opinion regarding two matters.

Your records will reveal that on the date of March 16, 1964, your office rendered to us an opinion relating to the use of the word engineering or engineer in the title of companies, firms or corporations. Your ruling was to the effect that in the absence of modifying words to negative the presumption, the use of such words as engineer or engineering would constitute an offer to practice professional engineering contrary to the statute unless the company in question had in fact executives, officers or full time employees who were professional engineers.

Further, on August 6, 1953, your office rendered to us an opinion with regard to corporate practice in general holding among other things that in the event that a firm or corporation did practice or offer to practice professional engineering it was necessary that the publicity such as letterheads, business cards, etc. should name or designate the professional engineers who were qualified as such and connected with the firm.

In order properly to supervise this situation and to carry out the Board's duty to administer and enforce the regulatory act the Board has under the rule making power granted to it under Section 8 of the statute (RS 37:688) adopted certain regulations relative to corporate practice. A copy of these regulations is attached hereto. The Board believes that these regulations are properly within the jurisdiction of the Board and within its rule making powers, and would appreciate your opinion on this point.

The second situation as to which we desire your opinion arises as follows: the Board has received complaints and conducted investigations in several instances in which a firm or corporation is using the word engineering in its title, but is in fact engaged in some commercial activity completely apart from professional engineering. In other words the firm is using the word engineer or engineering in its name, but is in fact doing no professional engineering. We take it that under these facts without more, this is a plain violation of the statute as determined by your opinion of March 16, 1964. However, in several instances where the Board has undertaken an investigation in these circumstances, the company in question has thereupon contacted a registered professional engineer, elected him as a vice president or a director, issued a share of stock and then taken the position that under the Attorney General's opinion this constitutes compliance with the statute and with the Attorney General's opinion of 1964. Investigation of the facts reveals that the professional engineer in truth has no real connection with the company whatsoever, performs no services, and usually receives either no compensation or receives a nominal compensation (perhaps a director's fee). The Board feels that such a course of action constitutes a sham and a subterfuge and would like your opinion as to whether this course of action would constitute a violation in that it would create a holding out or offer to perform professional engineering services likely to mislead members of the public. If your answer to this question is in the affirmative, the Board will consider that it is its duty to take legal steps by injunction or otherwise to prevent this violation.

Your usual prompt attention will be appreciated.

Very truly yours,
WOOD BROWN

July 26, 1967

Mr. Wood Brown
Attorney for the
Board of Registration for Professional
Engineers and Land Surveyors

Dear Mr. Brown:

We received your letter dated July 24, 1967 with enclosures, relative to the practice of engineering by corporations, or partnerships.

The opinions referred to formerly rendered by this office, copies of which were enclosed, speak for themselves, and there seems to be no need of doing more than refer to them.

We will comment first upon the rules and regulations of the board, a copy of which you furnished us, and which were adopted on October 1, 1962. Of course, the rule making power of the board is clearly set forth in R. S. 37:688, but such power cannot be inconsistent with the laws of the state. We suggest in connection with Rules 3A and B, which provide a time limit of 60 and 30 days respectively should contain a qualifying sentence to the effect that the rule in no way should be construed as an inference that violations of the statute would be permissible during this period of compliance with the rule.

Your second question has to do with certain circumstances that you have related, resulting from complaints filed with the board and investigations following these complaints, and substantially as follows:

A firm or corporation will adopt a name which contains the word "engineer or engineering," but will engage in some form of commercial activity completely unrelated to the field of professional engineering. There is no one related to the firm in origin who is a registered professional engineer. Upon complaint and investigation by the board the firm then contacts a professional registered engineer and elects him either as an officer or a vice-president or a director, perhaps even issues a share of stock to him and nothing more. Usually no financial arrangements are made nor are any fees paid. The firm then takes the position that it has complied with the requirements of the law. The question obviously is whether such a practice is a violation of the statute in that the firm is holding out or offers to practice professional engineering calculated to mislead the public.

It is our opinion that the facts as above related results in a violation of the law, because such practice is simply a subterfuge or sham.

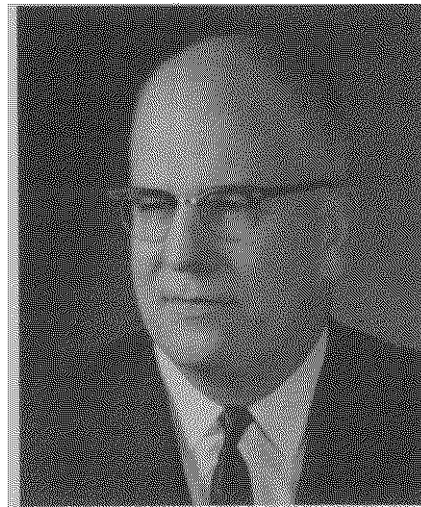
In the former opinions of this office it was specifically held that a corporation as such could not be a registered engineer; that a registered professional engineer has reference only to a person or individual; and also, if a partnership engages in professional engineering work the registrations could be made only for the members individually and not for the partnership as a separate entity. The former opinions adopted the generally accepted practice, or contemporaneous construction, that R. S. 37:695 impliedly authorizes a corporation to hold itself out to perform professional engineering services in this state; however, the opinion further points out that the responsibility of engaging in professional engineering must be vested in a licensed professional engineer, and this must be reflected in letterheads, advertisements and the like. It is for all of these reasons that it is our opinion that the facts revealed in the second phase of the above problem show a clear violation of the law.

I enjoyed meeting with you recently.

With kind personal regards,

CARROLL BUCK
First Assistant Attorney General

August, 1967



PRESIDENTIAL PRIVILEGE

By LES President Edward McNamara

With this issue, the Louisiana Engineering Society is instituting a new policy with respect to the publication of the Society's journal, the LOUISIANA ENGINEER. Studies and recommendations made by a Publications Committee consisting of Waldemar S. Nelson, Chairman, Leo M. Odom, John P. Fernandez, John G. Vogt, Jr., were considered and adopted by the Board in its June meeting and the arrangements confirmed at the July meeting in Lake Charles.

Publication of the LOUISIANA ENGINEER will be supervised by a Publications Committee to be appointed by the President as a sub-committee of the standing Public Relations Committee. The Publications Committee will recommend, for appointment by the President, an editor and associate editor, to be responsible for the detailed editorial control of the publication. The Publications Committee will recommend to the Board whatever contractual services are required in connection with the publication. It will establish publication policy and advise the editor thereon, and it will supervise, through the editorial staff and Executive Secretary's office, the business functions of the publication.

Under the new policy an existing advertising agency contract is being terminated under the appropriate provisions of such agreement.

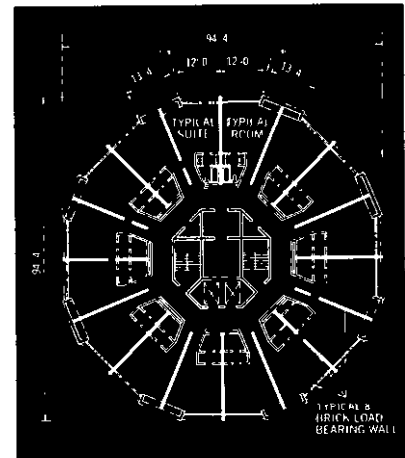
The Publications Committee after considering proposals, recommend the employment of Myron Tassin & Associates of Baton Rouge as Editorial Consultant for the LOUISIANA ENGINEER and the Board resolved to retain Tassin beginning with the August issue of the publication.

The Publications Committee, through its individual members located in each chapter of the Society, will encourage the chapter members to secure advertising, news and articles for the publication and forward them to the Editorial Consultant for editing.

The LOUISIANA ENGINEER needs the interest and support of every member of the Louisiana Engineering Society to succeed. We believe with the new Editorial Consultant the magazine will take on a fresh look and new format which will make it of more value to the members provided the editors can obtain items of news, articles of interest and enough advertising to defray the printing and mailing costs.

We can only do this with your help. Won't you undertake to obtain an ad, an article or a newsworthy item and forward it to: Myron Tassin & Associates, 705 Laurel Street, Baton Rouge, Louisiana.

BRICK BEARING WALL



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Prepared by: The Louisiana Department of Public Works for Louisiana Engineer Magazine.



The largest public hydroelectric and water conservation project ever constructed in the United States without Federal funds is now 90 per cent complete.

That ambitious undertaking is the Toledo Bend Dam and Reservoir, located on the Sabine River between Louisiana and Texas—a multiple-purpose project to provide water, electricity, and recreation for inhabitants of a region once regarded as a kind of “no-man’s-land” between the two states.

When completed (scheduled for June, 1968) the reservoir will change the landscape of West Louisiana. It will be the fifth largest man-made lake in the nation, extending from a point about 18 miles west of Leesville to Logansport and slightly beyond, a distance of well over 60 miles. It will range in width from 1½ miles to as much as 15 miles where it will back into the beds of tributaries of the Sabine. Depth of the reservoir will reach about 62 feet upstream from the dam, and the entire body of water ultimately will amount to 195 billion cubic feet (4,476,951 acre feet) impounded behind the dam over an area of 205,000 acres.

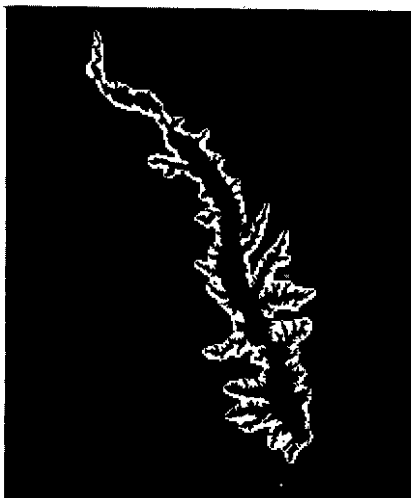
LOUISIANA-TEXAS COMPACT

The project was made possible by the Sabine River Compact between Louisiana and Texas—a cooperative agreement between the two states, from which authority is derived to negotiate subsequent agreements to share in the planning, construction, costs, and benefits on a 50-50 basis. Already it has become a landmark in interstate cooperative responsibility without Federal participation, one which may well serve as a future guide to other states with comparable opportunities for development.

Toledo Bend is estimated to cost approximately \$68 million, with Louisiana and Texas each advancing \$19 million in cash toward construction costs and purchase of land. The balance will be derived from sales of

electricity, water, and use of the reservoir for recreational purposes. Louisiana voters approved a \$15 million Constitutional Amendment in 1960 for their share of construction and land costs. Agreements have been reached with three power companies—Gulf States Utilities Co., Central Louisiana Electric Co., and Louisiana Power and Light Co.—to purchase the entire power output of the dam’s generators on a long-term basis at a price of \$1,975,000 annually. This is expected to be sufficient to pay for \$30 million worth of bonds at an interest rate of 4%.

Sale of water from the reservoir is expected to be another source of revenue. DeRidder alone expects to buy 60 million gallons of water per day to serve



the needs of a large paper manufacturing plant planning to locate in the area, and another major prospective customer is the industrial complex near the City of Lake Charles, where booming industry and steady population growth indicate possibly acute water shortages in the not-too-distant future.

RECREATION REVENUE

Still another source of revenue—and a significant one—is recreation. Basing their figures on data from comparable sites elsewhere in the country that have proved accurate in the past, the Louisiana and Texas Sabine River Authorities have estimated the recreation benefit at \$3 million yearly. Louisiana authori-

ties have made plans for a total of 19 recreation sites on the Louisiana side of the reservoir, and Texas is reported to be planning a comparable number on their side . . . sites for launching boats, fishing, skin-diving, picnicking, hiking, camping, water skiing, hunting, and other activities centered around woods and water.

Full utilization of the facility is just around the corner. Already, construction progress has advanced to the point where 52,000 acres of the reservoir are under water—a sizeable lake by anyone’s standards—and the total grows daily, according to plans laid out well in advance by the Louisiana Department of Public Works, in cooperation with engineering firms under contract with the Department.

DAM RISES 110 FEET

The dam itself, with appurtenant structures, is an imposing structure. It rises 110 feet above the bed of the river, requiring 12,650,000 cubic yards of excavation and 9,280,000 cubic yards of fill. Use of soil cement, as compared with conventional riprap, for wave-wash protection, effected a saving of \$595,760 in the cost of the dam.

Electric power generating facilities are no less imposing. The power plant will feature two 58,500 horsepower Kaplan-type turbines imported from England, coupled to two 42,500 KVA Allis-Chalmers generators, making for an 80,750 kilowatt generating capability. The English Electric Co. bid for the turbines was \$383,000 (23%) lower than the next bidder.

The spillway is a gated concrete ogee type structure. It is to be controlled by eleven 40’ x 28’ radial gates with the crest of the spillway or gate sill at an elevation of 145.0 mean sea level and the top of the gates at 173.0. Since the maximum normal power pool is to be at elevation 172.0, there will be one foot of freeboard at the gates. The spillway design discharge of 290,100 cfs will flow through the gates with a maximum reservoir ele-

vation of 175.3 feet MSL—a 3.3 surcharge above the power pool elevation. About 90,000 cubic yards of concrete is involved in the spillway structure. A concrete bridge spans the spillway at its crest.

CHANNELS IN HEAVY CUT

Approach channels to the spillway and power plant are in heavy cut. The spillway approach channel has a floor elevation of 125.0 MSL and is 530 feet wide at this elevation. In the center there is a low flow channel with a 20 foot bottom at elevation 100.0 which will discharge through an 8'4" x 12' low flow conduit. The conduit is constructed under the fifth pier in the spillway from the north abutment. Normal water in the approach channel to the spillway will be 47 feet deep. The project flood will flow through the approach channel at a depth of about 50 feet.

TIME CONSUMING DETAILS

A mass of construction-related details have been involved as the work progressed, all of them time-consuming, and in some instances highly costly. Roads in the reservoir area have had to be relocated; merchantable timber removed; a number of oil wells in the area altered to permit underwater production; gas pipelines relocated; 33 water wells drilled to relieve natural artesian water flow from sand strata in the vicinity of the dam, powerhouse, and spillway structures; numerous cemeteries had to be painstakingly removed and relocated outside the inundated area . . . to name just a few.

Toledo Bend will be Louisiana's first and only hydroelectric installation and a major potential source of municipal and industrial water. In addition, within a few years it will add an estimated \$70 million annually to the West Louisiana-East Texas economy through tourism and recreation. Thus it will be a valuable, self-liquidating investment of great benefit far beyond its scenic, 1250-mile shoreline for generations to come.

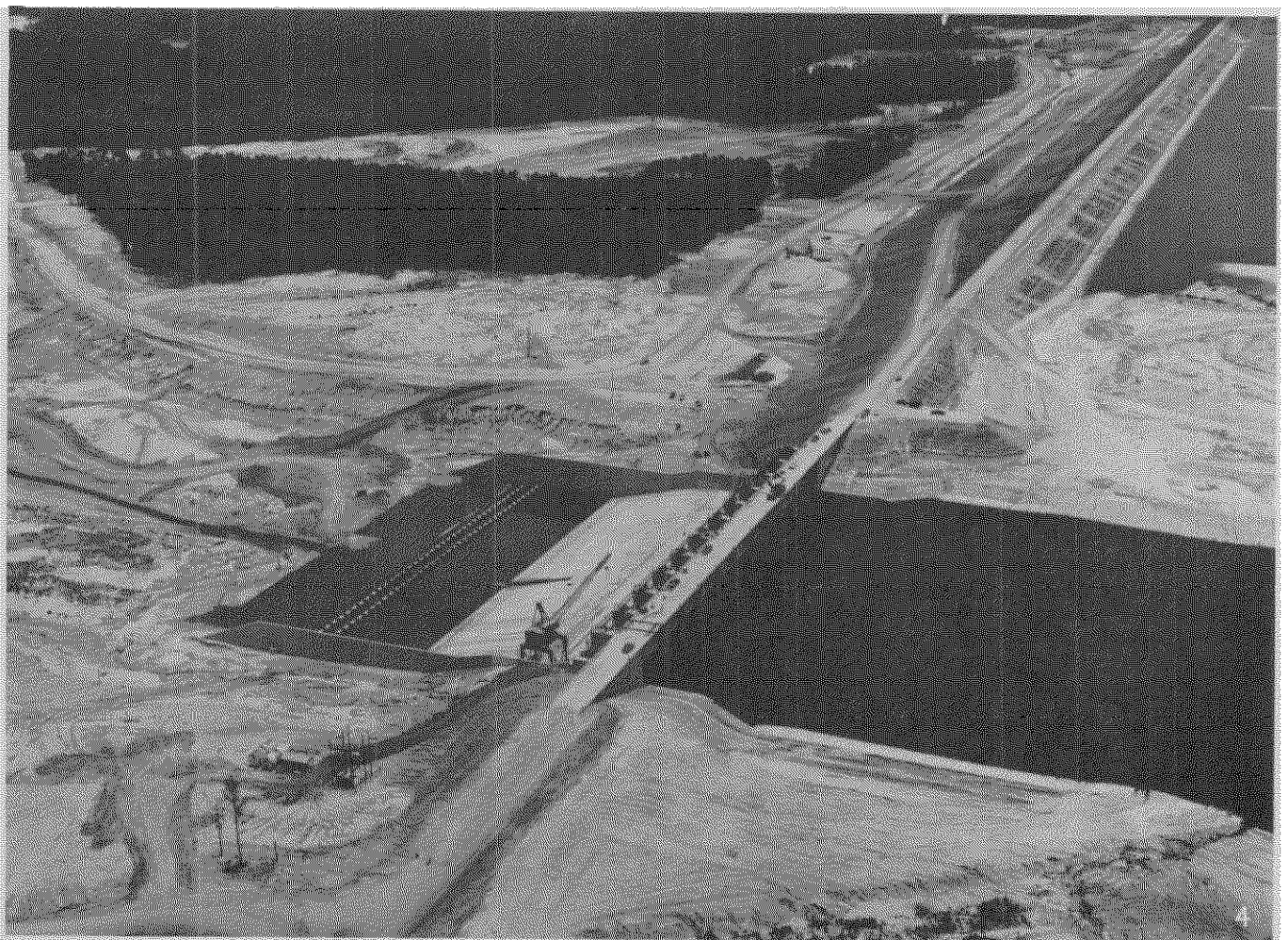
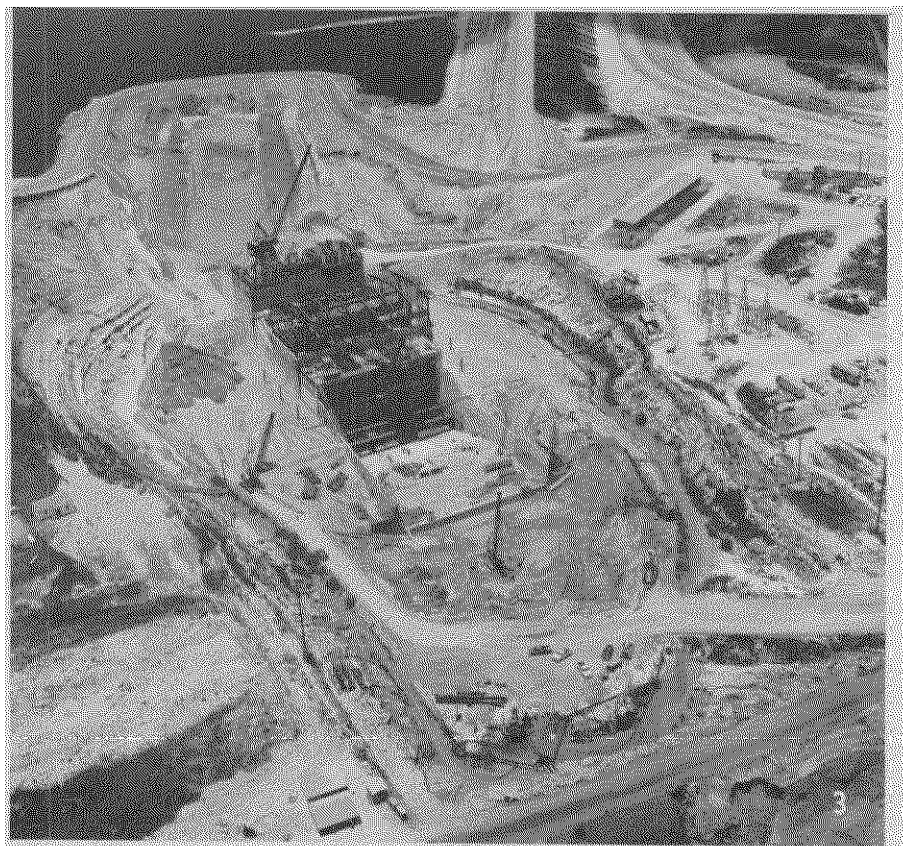


1—Power Plant looking at intake.

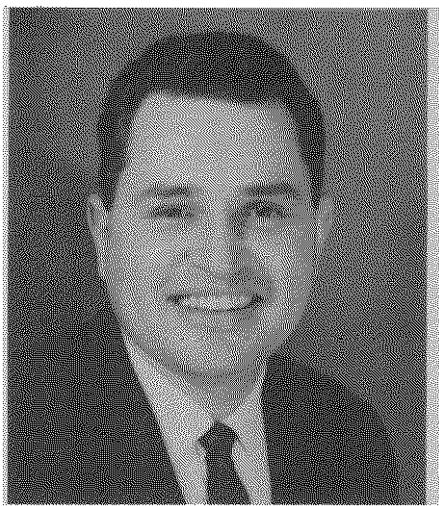
2—Pendleton Bridge Project.

3—Spillway and dam looking South.

4—Powerhouse looking North.



August, 1967



Engineering is undergoing accelerated change, for it is no longer engaged solely in the application of isolated laws of physics, chemistry and mathematics to the problems of the real world, but is a broad discipline concerned with the investigation and evaluation of fundamental laws of nature and with the creative function of matching physical possibilities with the needs of man.

The demands of modern society upon science and technology are so complex and interdependent, that the engineer of today is forced to approach his work with a universalist's point of view. He can no longer afford to be only a specialist in a narrow field, but must possess expert knowledge in several areas and considerable insight into a score of others, in order to contribute significantly to his profession. In summary, the modern engineer must be a true environmentalist to adequately perform the function of problem solver in our complex, modern world.

ELECTRONIC COMPUTER AGE

The development and general availability of the electronic computer, both in its digital and in its analog configurations, have provided technology with a vast range of new possibilities for understanding the fundamental problems present in a multitude of areas, such as those of control of air and water pollution; air, land and sea transportation; city and regional planning; space exploration and the exploration of

the sea; weather forecasting and modification; industrial development and planning, etc.

New fields of knowledge have come into existence due to the demands these problems make upon technology and because of the speed and logical capabilities of the electronic computer; fields such as systems engineering; operations research; cybernetics; mathematical programming and optimization; computer graphics; problem oriented and string manipulation languages; information systems; and many others which are constantly being advanced at research laboratories in industry and at universities, not only in this country, but throughout the world.

EDUCATION MUST LEAD

Faced with this phenomenal explosion in knowledge, engineering education cannot afford to just keep pace; it must lead and anticipate new developments, for otherwise, we will find ourselves training engineers who are already obsolete on the day they graduate.

The very important question that must be answered is: How do we attain and maintain a position of leadership? Two ingredients are obviously indispensable:

1. Outstanding faculties

2. Up-to-date curricula

When I was an undergraduate student, not too many years ago, we used to joke about our professors and were more or less sincere when we repeated the

slogan: "If you can, do; If you can't, teach." I am sure this statement could not have been further from the truth then, but certainly, today it is an outright lie. Our faculties of engineering are constituted by men with outstanding professional and academic qualifications. It is practically impossible for a young man to obtain a permanent teaching position in an engineering college without a Ph.D. degree. However, even these well-qualified professionals would become obsolete in a very short time, were it not for their keeping active in research, study, and as consultants.

PUBLIC RELATIONS NEEDS

The general public must be made aware of the fact that one of the most critical problems facing the engineering educator of today is the need for keeping abreast of the latest developments in his own and allied fields. How can we be expected to teach others the new technology if we are unaware of the advances which are constantly taking place?

The modern educator must have the stamina, persistence, dedication and the time available to further his own knowledge. Through an active participation in research, by rendering professional services as consultant in complex scientific and technological problems, auditing courses in subjects related to his research interests, and through constant study of the technical literature, the contemporary en-

CAN WE KEEP PACE IN ENGINEERING EDUCATION?

by

Rodolfo J. Aguilar, Ph.D.

Associate Professor of Civil
Engineering
Louisiana State University
Baton Rouge

gineering professor manages to keep up to date and well informed.

SHARPENING OUTLOOK

The practice of sabbatical leaves, which allows a University teacher to be absent from his institution every seventh year, should be up-dated to not only permit, but to encourage the faculty member to take a year off every three to four years to engage in post-doctoral study and research at outstanding national and foreign engineering-scientific centers. This is one of the most effective methods for sharpening one's general outlook and understanding of new areas.

All of these suggestions are, of course, directed to the ultimate goal of a university's *raison d'être*; that of educating our youth. Most of us in Engineering Education are convinced and firmly believe that all our efforts in research, consulting and publication must be intimately linked with the teaching function.

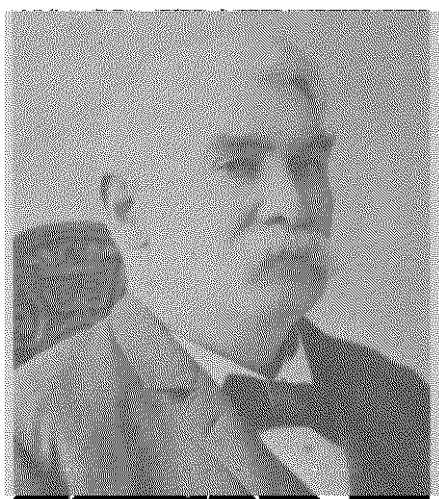
Some people contend the "publish or perish" policy that many universities have adopted in varying degrees and that has been so widely publicized is detrimental to the educational process, especially that at the undergraduate level. It is true that the trend now seems to be toward research and development of graduate programs. It must be kept in mind, however, that in order to attract competent faculty, a school must offer

facilities and opportunities for scholarly investigation; for our institutions of higher learning are also places where knowledge is generated and scientific reputations are made. The young faculty member is frequently searching for a place from which he can make a positive and substantial contribution to the scientific society through his research findings. Furthermore, sponsored research brings in money which helps support graduate students and which, by releasing a portion of the researcher's salary, permits the hiring of additional faculty. One must recognize that this dynamically evolving situation generates a scholarly atmosphere of high intellectual activity the products of which are transferred to the undergraduate through his association with professors and advanced students.

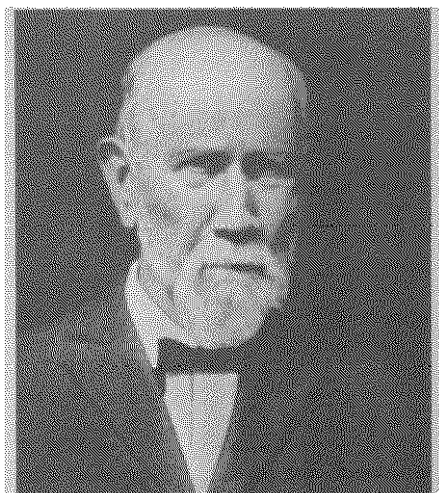
INDEPENDENT THINKING ENCOURAGED

The young undergraduate student who is fortunate enough to find himself immersed in a creative environment such as this, cannot help but to have his imagination challenged almost constantly and is encouraged to do a great deal of independent thinking. In this connection, it is perhaps worthwhile to mention an example from the field of computer science. One of the farthest reaching advances in the utilization of electronic digital computers is that of "Time

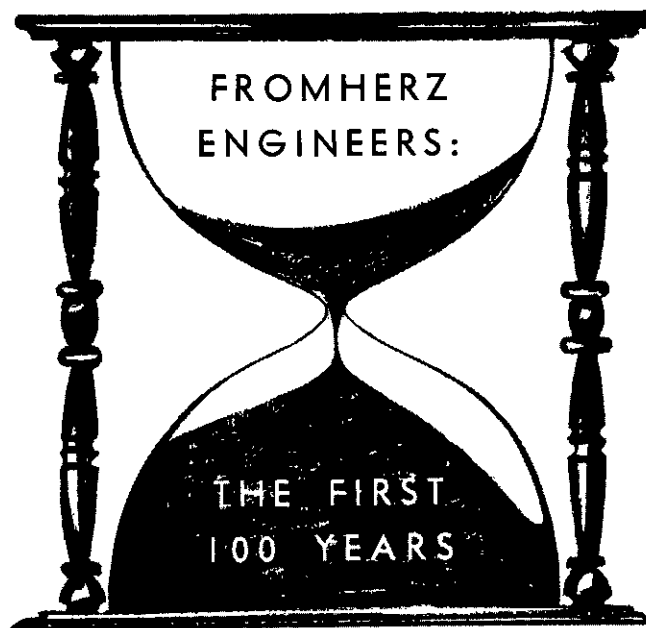
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FERDINAND REUSCH, SR.



JOS. FROMHERZ

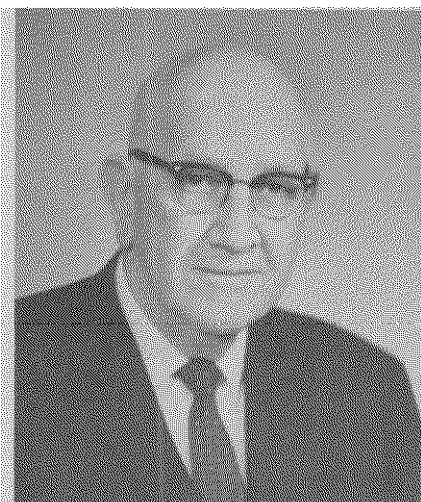


It all began on the 6th day of June, 1867. On this day Ferdinand Reusch, Sr. signed a contract to erect for attorney Joseph Max Dirrhammer a two-story frame residence on Fourth Street between Prytania Street and St. Charles Avenue in New Orleans. This is the earliest of his contracts that has been discovered.

Among the artisans and apprentices that the German immigrant builder had assembled was Jos. Fromherz. He was 20 years old in 1867, just back from St. Landry Parish where he had taught mathematics in a small Catholic school. The experience proved valuable in the building trade, and in six years he was Reusch's partner.

The Reusch shop and office in New Orleans was on the upper bank of the Gormley Canal near the newly filled-in Gormley Basin. In present day terms this is on the upper side of St. Andrew Street, between Danneel and S. Saratoga Streets. Less than half a mile away a well-known competitor in the building field had long-established headquarters. He was Frederick Wing, a former

The Louisiana Engineer



ALVIN FROMHERZ

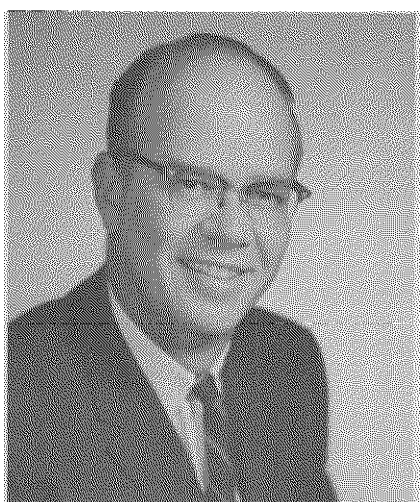
Philadelphian, and in charge of his office was Captain John A. Muir, a New Orleans veteran of the Confederate Army, and himself the son of a builder.

DISTINGUISHING QUALITIES

From these three, Reusch, Muir, and Fromherz, there grew, by way of varied combinations, the present firm of Fromherz Engineers. The three men shared the distinguishing qualities of the master builders of their time: the ruggedness to survive turmoil; the capacity not only to build, but to design; the courage to overcome difficulties, technical, economic, or competitive; and as important as any, the leadership to direct and coordinate the joint efforts of specialists skilled in every detail of construction.

Captain Muir became general manager and a partner in the Wing Enterprises. In 1880, Jos. Fromherz married his partner's daughter, Ellen B. Reusch, and struck out on his own as a builder. Shortly after Wing's retirement, Captain Muir and Jos. Fromherz united in 1885 as Muir & Fromherz, Builders.

This fruitful partnership expanded from residential and commercial, into industrial, institutional and public works design and construction. Pile-driving was initiated and in this connection the need for information concerning subsoil conditions grew. There were experiments with new kinds of equipment



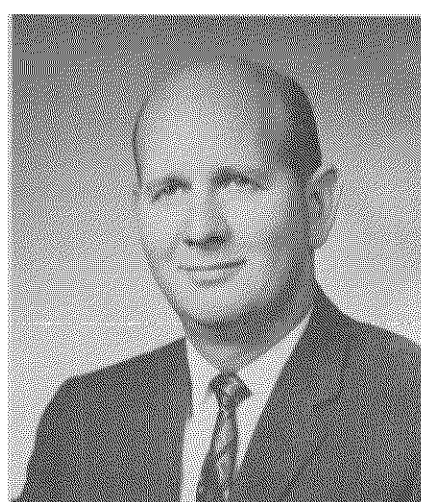
FRANK FROMHERZ

and construction methods, and many innovations were prompted by necessity.

Ferdinand Reusch, Sr. died in 1901 after eleven years in retirement. The death of Captain Muir in 1910, the same year Jos. Fromherz was licensed as an architect in Louisiana, ended the partnership of Muir & Fromherz. Jos. Fromherz, shortly after Muir's death, took into partnership with him Architect Albert W. Drennan who had served his apprenticeship with Muir & Fromherz. The firm of Fromherz & Drennan continued through World War I and was dissolved in 1919. Alvin M. Fromherz, a graduate civil engineer, and his brother, Fabian R. Fromherz, both sons of Jos. Fromherz, took over active management of the designing and contracting firm under the name, Jos. Fromherz. The firm continued until the death of Jos. Fromherz in 1924.

ALVIN FROMHERZ CARRIED ON

For three years after their father's death, Alvin and Fabian Fromherz continued as Jos. Fromherz, Inc. When illness forced Fabian Fromherz to retire, Jos. Fromherz, Inc. was dissolved and Alvin Fromherz carried on as an engineer and general contractor under his own name. Struck by the depression of the 1930's, he was engaged from 1935 to 1941 in the vast field of public housing, holding top United States government positions, and finally serv-



THOMAS FROMHERZ

ing as consulting engineer and executive director of the newly formed Housing Authority of New Orleans. During World War II, he re-entered private practice as a consulting engineer, organized Fromherz Associates, and carried out in cooperation with specialist firms the design of a formidable sequence of military installations.

After World War II, Alvin Fromherz began to build the present day consulting engineering organization. In 1948, he took in as associates, his two sons, Frank and Thomas. The sons had come up as had their father—with summer vacation jobs, widespread, diversified field and office experience, the pursuit of professional education, and military service. In 1952, a father-and-sons partnership was formed under the present title, Fromherz Engineers.

PIONEERING POLICY

Alvin M. Fromherz was among the first to use soil borings in New Orleans and was the first to pull wooden test piles to check the condition of their tips for possible damage or breakage. Such pioneering is policy in this organization which has an unbroken 100-year record of meeting every payroll and all other commitments.

In recent years, one of the firm's major specializations has been in municipal engineering, and in the preparation of broad-based

(Continued on Page 34)



CLOSING the GAP

BATON ROUGE—The Interstate 10 bridge across the Mississippi River at Baton Rouge will solve two major problems when completed. First its design meets rigid interstate standards to carry sufficient traffic over the river at this point, and provides high enough clearance for Baton Rouge's busy port facilities.

The bridge is the only six-lane span across the Mississippi River in Louisiana, and is reported to be one of the three longest cantilever spans in the world, exceeded only by the Greater New Orleans Bridge and the Oakland Bay Bridge in California.

\$46 MILLION BUDGET

Construction of the sub-structure began in April, 1963 for the \$46-million bridge, a figure including necessary right of way purchases, both sub- and super-structure, plus east and west approaches to the bridge. The bridge is scheduled to be open to traffic some time near the first of 1968.

Economic impact of the bridge on the Baton Rouge area is a matter of optimistic speculation. It will connect large segments of the area on both sides of the Mississippi.

Ten piers support a total of six deck-truss spans and a pair of three-span, through cantilever trusses. These cantilevers make up a main span 1,235 feet long, including a 500-foot suspended span. Two 594-foot side spans anchor the main span.

The bridge's two 41-foot-wide roadways will carry vehicles at a height of 135 feet above mean high water in the river. About 85 million pounds of steel make up the superstructure and over 221,000 cubic yards of concrete



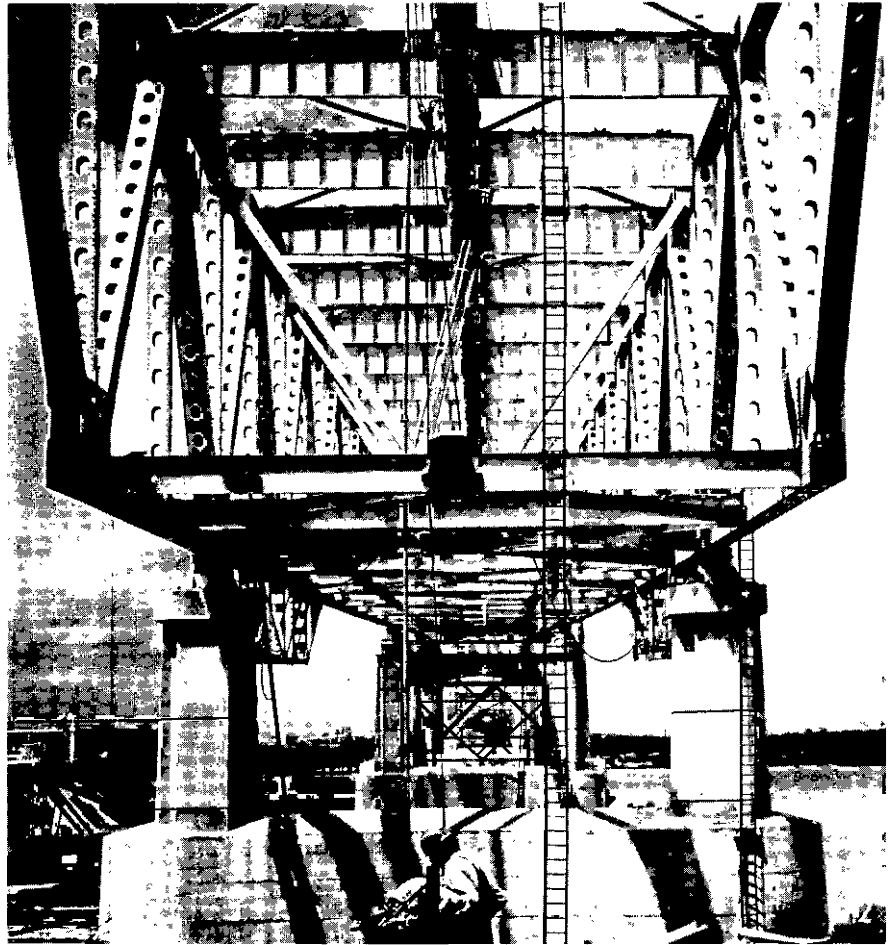
have gone into the bridge, its piers, and its approaches.

An example of the weights being supported by the piers, the main pier in approximately the middle of the river will support well over 120-million pounds, estimated weight of the bridge at that point.

INTERSTATE 10 LINK

The bridge is a link in south Louisiana's Interstate-10 system stretching from the Texas line near Toomey through Lake Charles, Lafayette, Baton Rouge, New Orleans and exiting Louisiana on the east at a point near Pearl River. The route is part of an east-west system connecting to Houston, San Antonio, El Paso, Tucson, Phoenix, and Los Angeles to the west; and to Mobile, Pensacola, Tallahassee and Jacksonville to the east.

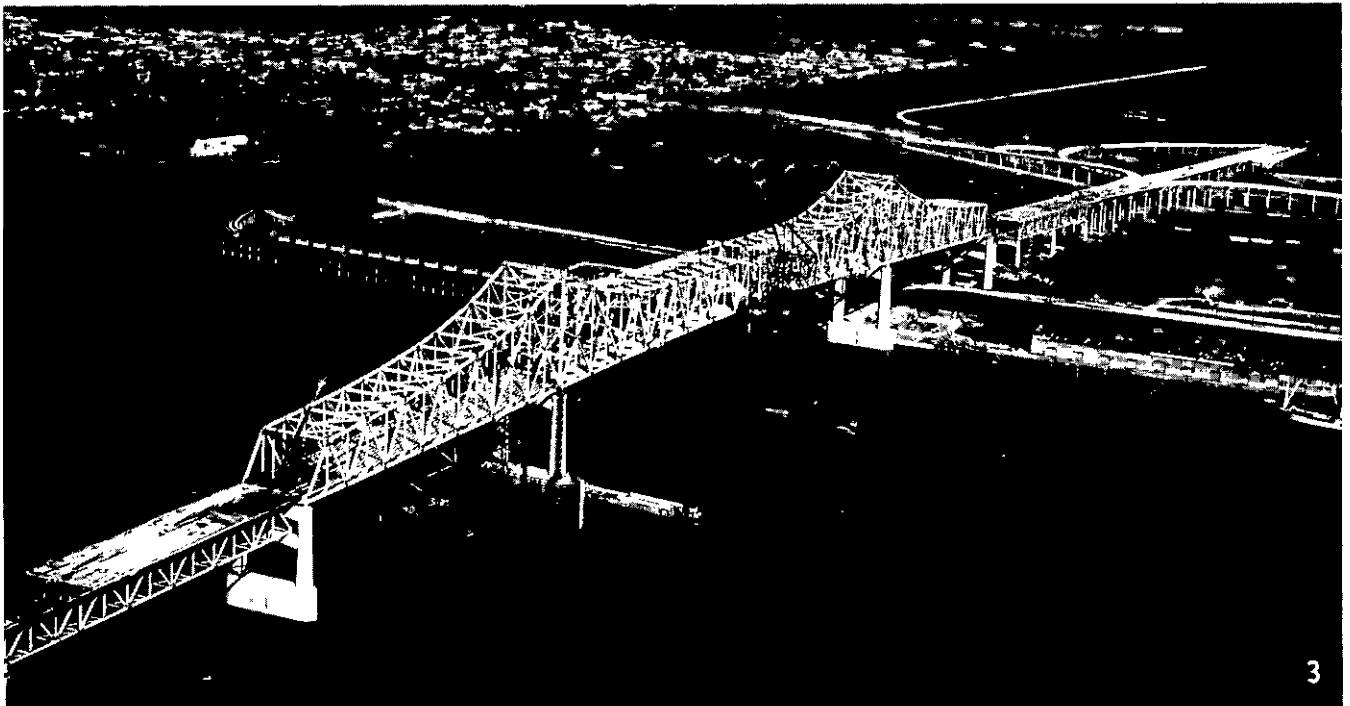
The I-10 roadway connects with many other routes of the nation's 41,000 mile interstate system along its entire length. This means the bridge will give many tourists their first look at the Mighty Mississippi as they cross over the Port of Baton Rouge on their way across country. And an imposing sight it will be on this, a unique feature in Louisiana's 686-mile system of interstate highways.



- 1—Westbank pier showing details of pier design and method of superstructure support.
- 2—Details of east side box truss during early stages of superstructure erection.

- 3—This picture shows the contractor's crane about to erect steel girders to complete the center span at mid-river.

(Photos by La. Dept. of Highways)



NOW, MORE THAN EVER BEFORE,

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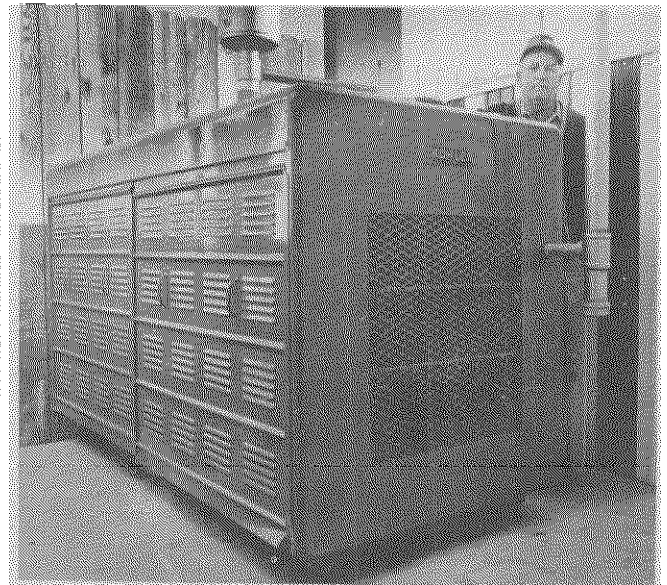


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(Delivered before a meeting of newly elected chapter presidents and vice presidents in Lake Charles on June 23. Hogue is immediate past president of the Baton Rouge chapter.)

In 1964, our Louisiana Engineering Society changed. Now the State Society must accomplish everything through its seven chapters, which are all equal and represented on the State LES Board. The success or failure of the Louisiana Engineering Society will be decided in each chapter and it is up to you to see that your chapter succeeds.

The average chapter president is a very busy man. He spends between 50 and 70 hours a week

A PLAN FOR LEADERSHIP

By T. J. Hogue, Jr.
Secretary-Treasurer
Louisiana Engineering Society

in his business or profession (on the job). He is active in church affairs. The average chapter president is active in civic affairs . . . in Rotary, Lions, Kiwanis, United Fund campaigns, etc. He is active in his technical society. The chapter leader is likewise a good family leader.

NEEDS ASSISTANCE

Yes, he's a real busy man. He can't run his chapter alone, nor can he spend all of his time on chapter affairs. Consequently, how does he get the necessary help to move the profession forward? He gets it from his officers and board, his committee chairmen and from committee members.

The first thing I would advise

you to do right after your election is to write each chapter member and tell him of your plans. You may want to consider instituting the following committees: Programs, Public Relations, Vocational Guidance, Legislative, Membership, Education, and Ethics of Professional Conduct. Explain in your letter what each committee's duties are. And then, ask the member if he will invest two hours a month . . . that's right, just two hours a month . . . for his profession. Let him have a choice of committees.

As soon as responses are received from the membership, convene your officers, name committee chairmen and committee members. Then publish an issue of the chapter newsletter listing committee assignments. Give committee chairmen freedom to recruit additional members.

RUNNING THE CHAPTER

Have an early board meeting, at which time you will want to invite committee chairmen. Ask each committee to present its targets and objectives. Set a budget, commensurate with the scope of the work of the committee. Set a date for monthly general meetings. Generate interesting programs through your program committee and follow up programs with announcements and publicity. Call monthly board meetings (be specific as to time and place when you issue the call). Invite committee chairmen.

Ask each committee to meet at least once a month. Let them select their projects and execute them after obtaining board approval. Follow-up is then the

key. To ask them to meet once a month may not be enough. Maintain constant liaison with the chairmen to assure compliance. Of one thing you can be sure, nothing will be accomplished if committees do not meet. Meeting will still not assure success, but it is the first step.

COMMUNICATIONS IMPORTANT

Publish a monthly newsletter. In it, tell members what the chapter is doing. Give proper recognition. Talk about people. By so doing, you will let the workers know that their efforts are appreciated and are an important contribution.

You will get reams of paper from NSPE, a lot of which is excellent. Route it out to committee chairmen for their consideration and recommendations. Forward all correspondence to the proper committee for consideration and action. Acknowledge receipt and tell the writer what you have done.

Consideration might be given to utilization of meeting attendance stimulants. Last year the Baton Rouge Chapter instituted a jackpot drawing. In addition to cash, gift certificates (redeemable at a well known sporting goods store) were given as prizes. Names were drawn, not from attendants, but from the general membership. When the person whose name was drawn was absent, the jackpot was added to the next meeting's pot. As the jackpot grew in size, attendance likewise swelled.

Welcome each new member to the chapter with a personal letter. Assign him to a committee immediately upon acceptance, and be sure to recognize him at

The Louisiana Engineer

the next meeting. This procedure will assure him that he "belongs," and that this is a working Society.

Seek aid and counsel from past-presidents, present officers, and people you respect. This will be more necessary than you might expect, because unexpected problems will have a habit of popping up at the most unexpected times.

Don't be dismayed at your problems. Don't even be afraid of defeat, because sometimes, a severe defeat can result in a long-term victory. A recent controversy in Baton Rouge between architects and engineers was won, for the moment at least, by architects. However, the setback made us realize that engineers had been derelict in their civic duties and might not have deserved recognition from municipal leaders.

Consequently, we called on the Mayor-President and offered our assistance. We promised to submit the names of three engineers for any vacancy on a board, committee or commission on which membership of an engineer would be appropriate. The Mayor would choose from the names submitted. I am pleased to report that the Mayor has accepted our proposition, and we are busy furnishing the candidates. Thus, our defeat has been a forerunner of progress.

EXCELLENCE IS AIM

And remember, what's best for engineers in government is good for engineers in other fields. You can turn this around just about any way you want, and it still comes out true. At the same time, bear in mind that the philosophy of our Society must be: To Aim for Excellence!

To those of you who are new chapter leaders, I hope this will give you an outline of one approach to chapter administration and direction. To you who must assist the people who lead your chapter, I urge you to support them, as much as possible. Some day, this responsibility may be yours.

August, 1967

LES TABLE OF ORGANIZATION

STATE OFFICERS

PRESIDENT

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New Orleans, La. 70160

PRESIDENT-ELECT

Leo M. Odom, P.E.
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Ruston, La. 71271

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860 Finchley Avenue
Baton Rouge, La. 70806

PEG—Roger Guissinger, P.E.
5677 S. Pollard Parkway
Baton Rouge, La. 70808

PEI—Malcolm Hurstall, P.E.
P. O. Box 60340
New Orleans, La. 70150

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5311 Airview Dr. 71303

BATON ROUGE

PRESIDENT

Leo V. Bankston
Box 4807, Audubon Station 70806

LAFAYETTE

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1332 W. University Avenue 70502

LAKE CHARLES

PRESIDENT

R. M. Singleton, P.E.
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MONROE

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Fred C. Culpepper, P.E.
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SHREVEPORT

PRESIDENT

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HONORS AND AWARDS COMMITTEE

CHAIRMAN

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Lake Charles, La. 70601

VOCATIONAL GUIDANCE COMMITTEE

CHAIRMAN

M. A. Steele, P.E.
2716 Galinghouse
New Orleans, La. 70114

LEGISLATIVE COMMITTEE

CHAIRMAN

Frank M. Heroy, Jr., P.E.
La. Dept. of Highways
P. O. Box 4245, Capitol Station
Baton Rouge, La. 70804

PUBLIC RELATIONS COMMITTEE

CHAIRMAN

ETHICS & PROFESSIONAL CONDUCT COMMITTEE

CHAIRMAN

Earl S. Dobbs, P.E.
1200 St. Charles Avenue
New Orleans, La. 70130

EDUCATION COMMITTEE

CHAIRMAN



E. J. McNamara is a native of Thibodaux, Louisiana. He is a graduate of the School of Civil Engineering, Tulane University. He has been employed by Freeport Sulphur Company since 1937 in many varied positions and presently is Assistant Vice President. Since March 1967 he has had overall responsibility for sulphur producing operations in addition to engineering and research and development activities. During the years 1962-64 he served as Resident Consultant to the Sulphur Export Corp. in the development of their molten sulphur transport to Western Europe and the United Kingdom.

McNamara served as a commissioned officer with the U. S. Naval Civil Engineering Corps, both during World War II and the Korean War.

In addition to his newly elected office of President of the Louisiana Engineering Society, he is also a member of the American Society of Civil Engineers, the National Society of Professional Engineers, and is registered as a professional engineer in the states of Louisiana, Massachusetts and West Virginia. He is a member of the Rotary Club of New Orleans, the Engineers Club and the International House.

A CHALLENGE TO CHAPTER LEADERS

By
EDWARD McNAMARA
President
La. Engineering Society

I want to congratulate each of you newly elected officers.

How does it feel?

I think you will find a more important question will be—"How have I done" after your term of office expires into history.

Right now you are one of our

prime gears in our L.E.S. machinery. On your shoulders rests the responsibility of keeping the idea of a professional society a living reality in your chapter area.

The duties of president may be shirked—but the responsibility that your fellow members elected you to cannot be avoided. How each of the chapters progresses next year—forward or backward—or just stands still—depends on how much or how little you give to the membership.

The local chapter starts a three-level organization. The

chart shown at the right outlines your particular place in the chapter organization. You will see its similarity to the next chart on our state society organization. Each of your presidents forms one of the seven chapter presidents who serve with 14 others on the state board of direction.

CHAPTER IS FOUNDATION

Your local chapter is the local professional society which is that group that is in year-round contact with the general public. The Alexandria or Lafayette local leaders are not that interest-

The Louisiana Engineer

ed in what we at the state level are doing, but they are interested in what **you** are doing because they **know of you** and **respect you**. The state society is only that bind that keeps the chapters together and operates to give the individual members a voice in state and national affairs that affect the engineering profession.

The chapter president's job summed up in one word is "leadership." No organization can be a one-man affair. Your first big problem is that of appointing committees. You can't begin too soon. Since so much of the chapter's work in the coming year is largely carried on by the committees, I cannot but urge you to select and appoint those committees as early as possible. We in the state society ask you for nominations for the state standing committees to serve two years. By this means, the new president at least starts off with half of his committee membership functioning. The new nominees by your chapter presidents for our state committees make up the second half. These, we at the state level consider that they are the President-Elect nominees and are his half of the committee. In this we have the continuity desired.

SELECT CHAIRMEN CAREFULLY

I needn't impress on you the importance of picking your committee chairmen—they need to be workers—the **doers**.

Each committee you select should be urged to hold its first meeting shortly after it is appointed—if possible you, as chapter president, should plan to attend as many of these organizational meetings as possible.

Encourage your committee chairmen to meet with you and the chapter's board of directors. Through this means you all get to know the committee's problems and/or successes. Insist that the committee reports come to you in writing. By this means your committee members know that their ideas as an active

group are reaching you and your chapter board of directors.

I cannot emphasize too strongly the four areas you as Chapter Presidents must concentrate on:

Membership
Vocational Guidance
Public Relations
Civic Affairs (Legislative)

On Membership: No chapter should get into the habit of thinking of its members as a small exclusive group limited to old friends. An active membership committee is the basis for the growth and progress in the chapter. Nor should any chap-

(Continued on Page 34)

LOCAL CHAPTER ORGANIZATION

L. E. S.

STATE BOARD OF DIRECTION

PRESIDENT
 VICE PRES.
 SECT.-TREAS.
 DIRECTORS

CHAPTER STANDING COMMITTEES

Membership Ethics Pub. Rel. Leg. Educ. Voc. Guid. Honors & Awards Ladies' Aux.

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N. S. P. E.

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President Elect	4 State Directors
Vice-President	7 Chapter Presidents
Sect.-Treas.	3 Func. Sect. Chrm.
Immediate Past Pres.	

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Publications					
Ladies' Auxiliary Advisory Committee			Honors & Awards		

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EDUCATION . . .

Sharing." This is a process by which several users can be in communication with a large central facility, simultaneously, and in conversational mode. The problems encountered in this type of application are exceedingly complex, for the machine must be able to receive a multitude of concurrent signals (up to 150 remote consoles can be in operation simultaneously), rank them for processing in accordance with some hierarchical rule, dynamically allocate central core memory, move back and forth from one program to another, and keep the users from getting in each other's way. All of this is done at such fantastic speeds that each user is not aware there are other people time-sharing the central computer with him—he feels he has complete control of the machine. The first fully operational time-sharing system was designed at Dartmouth College, and the amazing thing about it is that it was conceived and implemented by a group of **junior** engineering students. It is true they had faculty guidance, but the bulk of the work and most of the original thinking must be attributed to them. There are countless other examples of this type of excitingly creative projects done by undergraduates, and the point is clear that in each case the teaching faculty has been extremely creative and deeply involved in research activities.

CURRICULUM DEVELOPMENT

These considerations lead naturally to one of the most important aspects of engineering education; that of curriculum development and implementation. The only hope we have of coping with the multitude of possibilities generated by man's activity in our rapidly changing world and with the demands made by the information explosion, is to give our undergraduates a basic education, heavily science oriented, where subjects of **lasting** value are emphasized, and where state of the art and current practice courses may have to give way. Our greatest obligation to these young men and women is to make of them first, well-educated individuals; second, **competent technologists**.

The course of study, regardless of the branch of engineering the student decides to follow, must be heavy in subjects stressing the understanding of principles, i.e., the why of things, for these develop in the student the ability to think in a rational manner and provide him with the tools for further study and for adaptation, as new conditions arise.

The humanities, liberal arts and social sciences must be made an integral part of each engineering curriculum. They should be approached by the student within a unified continuum of knowledge; he must not be permitted to fill in the voids, labeled electives, in a random and thoughtless fashion. At the end

of his years of undergraduate education, a person must be able to synthesize the thoughts he has hopefully generated in the light of his liberal and humanistic studies, into a meaningful whole that sets him on his way to further refinement of his character as a social human being.

PROVIDE INTELLECTUAL TOOLS

I have, on occasions, heard the complaint from certain potential users of our products, i.e., certain employers, that our students are, in general, not ready to tackle practical engineering jobs immediately after graduation. The small engineering firm, they claim, cannot afford to train these young people for any extended period of time. It is true that this can be a serious problem for some employers, however, one must not fail to see the forest for the trees. Our educational goal is not to prepare our students to undertake specific jobs, but to provide them with the intellectual tools which will enable them to lead useful and fulfilling lives, preferably in engineering, but not necessarily so. In fact, many of the top management personnel in business and industry have engineering backgrounds, for an engineering education is excellent preparation to careers in many fields.

In the long run, a young person with this type of **liberal** engineering academic background will prove to be more flexible and better equipped to become a successful professional.

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PEG SALARY REPORT

The Louisiana Engineering Society Functional Section for Professional Engineers in Government (PEG) earlier this year completed a comprehensive report and recommendations for adequate salaries for Professional Engineers employed by the State government. This report was presented to the Governor and the Louisiana Civil Service Department. A delegation including last year's LES President Duclos; Hu B. Myers, Chairman of PEG; and Leon Gary presented the report to the Governor. Subsequently, several conferences were conducted between representatives of the Governor's staff, Civil Service Department, and the PEG.

Partial approval of the report's recommended salaries has been granted. Special entrance salaries approved are as follows:

	Old Rate	New Rate
Engineer-in-Training	\$600	\$690
Engineer III	690	780
Engineer IV	750	840
Engineer V	840	920
Engineer VI	920	960

No change was included for the upper grades, and the scope of engineering career salaries is seriously compressed.

Comparable maximum and median salaries of State engineers still remain far below those of industry, consultants, and the Federal government. No action has been taken by Louisiana authorities on an overall salary recommendation, pending the outcome of a study presently being conducted by the Civil Service Department. Those who are interested can be assured that the PEG Functional Section will continue its interest and participation in this matter and keep you advised.

Submitted by

HU B. MYERS,
Immediate Past
Chairman

EARN FUNDS FOR YOUR CHAPTER

To assist in increasing advertising revenue for Louisiana Engineers, the LES Board of Direction has approved Chapter advertising solicitation. Any Chapter, whose member, or members, is responsible for securing an ad for the *Louisiana Engineer* will receive the 25% agency fee. If the advertiser already has a contract with an advertising agency, then the fee of the ad agency would come out of the 25%. Any art or special make-up costs will be billed to the advertiser.

The magazine is published bi-monthly, beginning in February, and is printed by the offset method. The deadline for receipt

of copy is the first of the month of publication. The per issue rates are as shown below, and there is no frequency discount.

Full Page	\$295
¾ Page	\$235
½ Page	\$165
¼ Page	\$ 85
⅛ Page	\$ 45
Inside Covers	\$375
Back Cover	\$445
Professional Listing	\$ 15

For more details and help in talking with a prospective advertiser, contact your chapter president.

Please advise your members at future meetings and through your chapter newsletters.

CONSTITUTION CHANGES

In accordance with "Article XIV—Amendments" of the LES Constitution, proposed amendments were submitted to the Secretary by written petition, signed by at least fifteen voting members, and mailed to members.

The amendments were discussed at a general business meeting of the Society on April 28, 1967. There were no changes to the proposed amendments at this meeting, and therefore, the proposed changes were subsequently voted upon by members via mail ballot. The results are as follows:

For	Against	
389	21	Article VII "Admission to Membership or Transfer to Another Grade."
390	20	Articles II, VI, VIII, and XI related to Membership, Dues, Resignation of Membership, and Forfeiture of Membership.
296	119	Article V — Meetings—relative to the legal domicile of the Society.

Since the above amendment was of particular interest, the

amendment, as adopted, is being reproduced:

Article V—Meetings

Section 1. The Board of Direction shall be domiciled and maintain its office in the City of Baton Rouge and shall maintain its records at said office and shall hold its regular meetings there, unless in the discretion of the President, it is necessary or convenient to meet elsewhere. The Board shall meet not less than four (4) times a year.

Section 2. (No Change)

PROPOSED AMENDMENT TO THE BYLAWS

(If Amendment to Article V is approved by the Membership)

Bylaw 2. Meetings of the Board of Direction

(a) The Board of Direction shall be domiciled and maintain its office in the City of Baton Rouge and shall maintain its records at said office and shall hold its regular meetings there, unless in the discretion of the President, it is necessary or convenient to meet elsewhere. The Board shall meet not less than four (4) times a year.

(b) (No Change)

(c) (No Change)

NEW MEMBERS

The name of the new member, his residence location and Chapter shall be published in the next possible issue of the LOUISIANA ENGINEER, and if more than two members write a valid reason to the Board of Direction not later than the month following the publication month, then the new member's membership shall be declared revoked. No record of such action shall be entered in the minutes but the new member shall be so notified after Board action, and any dues he may have paid shall be refunded in full. A new member whose membership has been revoked by the Board may have at least eight members request in writing, along with their reason, that the Board consider republishing his name. If such reasons are deemed good and sufficient, the Board shall order the republishing of his name and it shall be governed by the same rules as the first. Should the new member again receive more than two negative votes the Board shall again declare his membership revoked and no further action may be taken on republishing his name. If two or less negative votes are received then the Board shall acknowledge that the new member's date of membership shall be from the date as originally fixed by the Admissions Committee.

ALEXANDRIA

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August, 1967

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(Taylors, South Carolina)

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Robert Kenneth Hawkins
Samuel Fuller Horton
George A. Khoury, Jr.
David Byron Kimball
William F. Levert
Harold Thomas Long
Robert Davin Martin
Roy E. Mitchell, Jr. (Bossier City)
Nicholas J. Schaefer
James Richard Schafer
Edward Holden Sullivan

MEMBERSHIP CONTEST RESULTS

For those who were not at the Lake Charles Chapter Officers Conference and Annual Meeting on June 23-24, the following is a tabulation of the Membership Contest results.

Congratulations to Shreveport Chapter Membership Chairman, Ed Tooley, V.C. Earl Fisher and President Ed Jolly. Baton Rouge's Jim Odom got a late start and made a good showing.

Standing	Chapter	Quota	Application	% Quota	Membership	67-68 Quota
1	Shreveport	15	40	267	170	17
2	Baton Rouge	35	46	131	389	39
3	Lake Charles	9	11	122	99	10
4	Lafayette	14	16	114	157	16
5	Alexandria	9	10	111	101	10
6	Monroe	9	9	100	96	10
7	New Orleans	76	45	60	702	70
TOTALS		167	177	106		
Non-resident members					197	0
TOTALS					1,911	172

OCD DEVELOPMENT COURSES

City	Course	Planned Starting Date
Baton Rouge	Protective Construction	September 12
Lake Charles	Fallout Shelter Analysis	September 11
New Orleans	" " "	September 20
Shreveport	" " "	September 21

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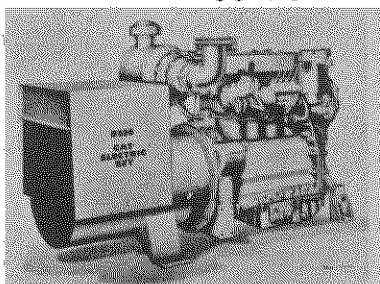
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MINUTES – LES BOARD OF DIRECTION

FRIDAY, APRIL 28, 1967
JUNG HOTEL, NEW ORLEANS, LA.

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Ewing, Walk, Szabo, Hogue, Huffman and Kellerman present. Also present were Earl Martin, Farrell Adams, Membership Committee, and Jim Odom, Baton Rouge Membership Committee.

The minutes of the March Board were accepted as mailed on a motion by Mr. Nelson, seconded by Mr. Hogue and passed.

The Secretary reported that a comparison of expenditures to budget indicates operations are about as expected.

President Duclos asked the Board for an expression as to time and place for the 1968 Convention. After some discussion, Mr. McNamara moved that the Executive Secretary proceed to make necessary arrangements with an available hotel in New Orleans for April 1968, seconded by Mr. Vogt and passed by a unanimous vote.

The report of a special committee of LES Board Members, appointed for the purpose of endeavoring to secure closer liaison and cooperation between LES and CEC-L, was read by Mr. Walk, Chairman. The letter of Mr. Warren Moses, President of CEC-L was read, in which he reported the action taken by the CEC-L Board. Mr. Moses came into the meeting at this time, and participated in the discussions.

Mr. Walk moved that the LES Board authorize the Special Committee to continue its action relative to further study of the proposed joint office and Executive Secretary plan. Mr. Hogue gave the second, and the motion passed. In addition, a committee composed of Messrs. Odom, McNamara and Vogt was appointed to investigate a suitable replacement in the event the office of Executive Secretary was vacated.

The Executive Secretary reported on the members who had not paid their 1966 dues, a list of which is attached and becomes a permanent part of these minutes. Mr. Fernandez moved that these members be dropped from the rolls and their names published in the Louisiana Engineer, seconded by Mr. Nelson and passed.

Copies of correspondence received from Mr. Nelson and Mr. Odom were mailed to Board Members, and after some discussion, Mr. Nelson moved appointment of a Publications Committee to study all aspects of the magazine and made recommendations to the Board for improving the content, advertising and layout. The motion was seconded and passed. President Duclos asked Messrs. Nelson, Fernandez and Odom to serve on this committee, with Mr. Nelson as chairman. President Duclos pointed out that the letter from Senator Harris relative to national science policies was circulated in order to obtain the comments of Board Members which would be used in drafting a reply. Chapter Presidents were also requested to write comments to Mr. Duclos.

Copies of correspondence to chapter officers relative to the PEI Section nomination of delegates was discussed. Mr. Fernandez moved that the Board approve formation of a Professional Engineers in Industry Section for LES, seconded by Mr. Hogue and passed.

The tentative program for the Lake Charles Annual Meeting and Officers Induction Conference was discussed. The selection of speakers to talk to the Chapter Officers and Committeemen at this meeting would be made by the President and President-Elect. Mr. Nelson asked that some time be devoted to discussion of Publications Articles and Advertising.

The report of the Legislative Committee was discussed. The matter of the Land Surveyors Bill was deferred until a meeting of the Joint Legislative Committee in early May. Mr. Hogue moved acceptance and Board endorsement of the recommendations of the Legislative Committee including Industrial Engineering in the Registration Act. This was seconded by Mr. Walk and passed.

The next Board Meeting was set for 4:00 P.M., Friday, May 26 in Baton Rouge. The meeting then adjourned.

FRIDAY, MAY 26, 1967
SHERWOOD FOREST COUNTRY CLUB

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Walk, Stokes, Hu Myers, Hogue, and Huffman present. Also present was Earl Martin, Executive Secretary.

The minutes of the April Board Meeting were accepted as corrected on a motion by Mr. Nelson seconded by Mr. Fernandez and passed.

The Secretary-Treasurer gave the financial report, and distributed copies of a "Comparison of Income and Expenses with Budget Estimates for the Year to Date." After some discussion, the Secretary explained that operations were about as anticipated for the year with the exception of a decrease in advertising income. Mr. McNamara moved that the report be accepted, seconded by Mr. Odom and passed.

Correspondence received from Board Members Nelson and Huffman relative to the request from U. S. Senator Harris was discussed. A letter prepared by Dean Richardson from the Baton Rouge Chapter was read. Mr. McNamara moved that the president compile these answers and draft a reply from the Society to Senator Harris. Seconded by Mr. Nelson and passed.

The action taken by the Wisconsin Society relative to recent NSPE activities was presented for Board information.

Functional Section Reports:

The PEI Section has mailed copies of the proposed PEI Bylaws to all Board Members, and requests LES Board approval of these Bylaws.

Mr. McNamara moved that the Bylaws for the PEI Section, as amended, be approved, seconded by Mr. Fernandez and passed.

The PEG Section Chairman, Hu Myers, reported on the action taken by the Section to present Suggested Salary Scales to the Governor and to the Civil Service Director.

Copies of the report of the Ladies State Advisory Committee were mailed to Board Members. A letter from the Committee was read requesting LES to pay for the Ladies Yearbook. Mr. McNamara moved that the cost of printing the Ladies Yearbook be paid by the Louisiana Engineering Society. Seconded by Mr. Nelson and passed.

The Report of the Geodetic Survey Committee, mailed to Board Members, was discussed. Mr. Odom moved that the report be accepted as a progress report, and that Mr. Hatley Harrison be added to the Committee, and further that the Committee be asked to continue with some specific goals outlined for further action. Seconded and passed.

The Status Report of the Benchmark Elevation Committee was read by Mr. Nelson. The recommendations of the Committee (to defer the study until the U. S. Coast & Geodetic Survey adjustments could be reviewed; that the Committee remain active and maintain contact with the U.S.C.&G. to achieve a final report) were accepted by the Board.

Other Committee Reports:

The Joint LES-CEC-L Committee status report was given by Frank Walk.

The Publications Committee presented the following recommendations for Board approval:

1. That the present contract with Allen Johnson for advertising commissions be terminated in accordance with the Cancellation clause of the Contract.
2. That a permanent Publications Sub-Committee be formed within the present Public Relations Committee. This sub-committee would have these specific duties:
 - A. Recommend an Editor and Assistant Editor for the LOUISIANA ENGINEER.
 - B. Recommend any contractual service or assistance and supervise the performance of those employed.
 - C. Establish a Publication Policy, covering layout, format, printing, advertising rates, etc.
3. That the proposal of Myron Tassin to assist in the preparation of the magazine on a trial basis be approved for the August issue.

Mr. Hogue moved that the Board accept and approve the recommendations of the Publications Committee. Seconded by Mr. Bubenzer and passed.

The Executive Secretary reported on the April Ballot, with all members elected to the grades requested.

The Membership Committee reported that the Quota of new members assigned for this administrative year had been achieved. Mr. McNamara moved that a certificate of commendation and appreciation be prepared and presented to the Membership Committee Chairman, Farrell Adams, during the Awards presentation at the Lake Charles Annual Meeting. Seconded by Mr. Hogue and passed.

The Board was advised of the status of the 1967 Spring Convention available dates and locations. The dates of May 1-4, 1968 at the Jung Hotel were selected on motion by Mr. Bubenzer, seconded by Mr. Odom and passed.

The Board was advised of the preparations and program arrangements for the Annual Meeting by the Lake Charles Chapter. There was some discussion about parts of the program as well as the charges for various social functions.

FRIDAY, JUNE 23, 1967
CHATEAU CHARLES MOTOR HOTEL
LAKE CHARLES, LOUISIANA

President Duclos called the meeting to order with Messrs. McNamara, Odom, Vogt, Fernandez, Nelson, Bubenzer, Cade, Ewing, Walk, Stokes, Hu Myers, Szabo, A. E. Meyer, Huffman, Kirby, Poulan, Kellerman and Jolly present. Also present were M. Hurst, PEI Chairman, Farrell Adams, Membership Chairman, James Watts, Alexandria; Leo Bankston, Baton Rouge; U. J. Gajan and Frank Wright, Lafayette; James F. Williams, Lake Charles; David Fried and Regis Trumps, New Orleans; James Mohr, Shreveport, and Earl Martin, Executive Secretary.

President Duclos expressed his appreciation and thanks to the Board for its cooperation, attendance and attention to important matters during his term as President.

The minutes of the May Board Meeting were accepted as mailed on a motion by Mr. Nelson, seconded by Mr. Bubenzer and passed.

The Financial Report through June 1, 1967 was given by the Secretary-Treasurer, who outlined the reasons for an expected deficit for the year, including loss of advertising, increased printing costs, and apparent decrease in revenue from the Spring Convention.

A motion to change the tax reporting or fiscal year to coincide with the administrative year as recommended by LES auditor, was made by Mr. Nelson, seconded by Mr. Ewing and passed. Since the Bylaws state that the fiscal year shall be January 1 through December 31, the President asked that appropriate Board action be taken to amend the Bylaws as outlined in Article XIV, Section 2 of the Constitution.

Copies of the Society's reply to Senator Harris' request were mailed to Board Members.

A report from the Publications Committee was given by Mr. Nelson, Committee Chairman. He reported that:

(a) The letter cancelling Allen Johnson's Contract had been mailed. Mr. Johnson wrote the Secretary indicating the continuance of advertising contracts until the completion of current contract. Mr. Nelson moved that these contracts be honored, seconded by Mr. Ewing and passed. The Secretary was to reply to Mr. Johnson listing contracts and their termination date for his approval.

(b) Mr. Tassin has been notified of acceptance of his proposal to handle the Louisiana Engineer. Mr. Tassin submitted a modified proposal which Mr. Nelson moved the Board accept. Seconded by Mr. Hogue and passed.

(c) Letters have been written to various sources relative to editorial content, and chapters are encouraged to make every effort to secure advertising and to submit news items and articles.

A recommendation from NSPE to secure LES endorsement of a move to resubmit the NSPE ballot to its membership was referred to the National Directors for their recommendations.

A report from the LES-CEC Liaison Committee was read by the President.

The CEC membership had voted 52-15 NOT to enter into a joint office operation with LES, but that cooperation between the CEC and LES-PEPP would continue and improve.

Mr. Odom noted that every effort should be made by Board Members and Chapter Officers to increase LES participation in areas where recognition of Society efforts would reach the public. Recent appointments by the Baton Rouge Mayor-President was cited as an example.

Mr. Stokes requested that some monies be budgeted by the new administration to cover printing costs of pamphlets to honor recipients.

The PEG Section reported that their activities regarding suggested salary scales had received recognition and hopefully had enhanced liaison in working with the Civil Service Commission.

The PEPP Section reported that they were working with CEC to create a new "Manual of Practice," and would be requesting assistance from the Board to print and distribute the manual.

The PEI Section is now official and after election of officers, will begin work to form a strong active section in LES.

The Tellers Committee Report was read by Mr. Cade, a member of the Committee, indicating that the following were elected to office:

For First Vice-President and President-elect for 1968-69	Leo M. Odom
Second Vice-President	John F. Vogt, Jr.
Secretary-Treasurer	T. J. Hogue
National Director (2 years)	Marion Bubenzer
Director (2 years)	J. J. Thigpen
Director (2 years)	James (Fred) Williams

There were 14 spoiled Ballots. The Board accepted the report of the Tellers Committee.

The Secretary-Treasurer gave the results of the Constitutional Amendments Ballot. The vote on the changes were as follows:

	For	Against
Article VII Admission to Membership or Transfer to Another Grade	389	21
Articles II, VI, VIII and XI relative to Membership, Dues, Resignation of Membership and Forfeiture of Membership	390	20
Article V—Meetings—relative to the legal domicile of the Society	296	119

Mr. Adams, Chairman of the Membership Committee, requested that the Board approve the vote on Articles VII, II, VI, VIII, and XI, and further that the applications on hand at the state office that have been approved by the Qualifications Committee be declared members as of July 1, 1967. Mr. Ewing so moved, seconded by Mr. Szabo and passed.

The Membership Committee was authorized to work up a set of "procedures" for state and chapters for Board's approval.

Changes to be made in the Bylaws because of the change in Constitution by this vote would be acted upon by the Board at its next meeting, after compliance with the procedures outlined in Article XIV Section 2 of the Constitution.

A committee made up of Messrs. Odom, Hogue, and Duclos was formed to recruit a new Executive Secretary and to secure office space in Baton Rouge.

Mr. Nelson moved that the incoming President be authorized to make expenditures necessary to keep office in operation and to effect the move of the office, with the approval of the Finance Committee. Seconded by Mr. Bubenzer and passed.

The Board authorized the changing of signatures required on checks to include new officers.

Mr. Stokes moved that the office staff use mimeo form letters in lieu of individual letters during the office changeover. Seconded by Mr. Szabo and passed.

Mr. Ewing moved that the student members transferring to Junior members be counted in the 1967-68 membership contest. Seconded by Mr. Szabo and passed.

The Building Committee was requested to continue their studies, with Mr. Duclos as Chairman.

The next Board Meeting was set for Friday, August 4, 1967 at 4:00 P.M. at the Hilton Inn in New Orleans. The agenda method of conducting meetings will be continued.

Mr. Bubenzer moved the meeting adjourn, seconded by Mr. Vogt and passed unanimously.

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A CHALLENGE ...

ter “coast” on the exceptional gains made by the preceding administration.

For the past two years we have held a statewide competition for membership gains. This is very good and I hope we continue it again next year. I believe the quota system for chapters is a good measure of the progress in membership gains for a small or large chapter.

MEMBERSHIP SALES FORCE

The Membership Committee should be recognized for what it is — namely a **sales force** charged with **selling a product**. Membership is an intangible thing. The prospective member has to be tagged and has to be sold on the merits of joining our society.

Vocational Guidance: This is one area I believe the society has fallen down in. The continued reduction of registrations in the engineering schools as compared to the increasing demand per year for engineers certainly warrants the society's participation in an active program to encourage young people early in their educational life to become interested in engineering and then once they have registered in the engineering school, to keep them interested in the profession.

Public Relations: The idea of the engineer as a professional

person cannot be promoted in a vacuum. Your P.R. Committee should be aware of the special techniques to get the story of your group before the public.

Good public relations is good performance publicly appreciated. This job as P.R. Committeeman is a big one and many techniques to get this information before the public must be learned. It takes a lot of time to devote to this office.

DON'T RELY ON OTHERS

Legislative or Civic Affairs: This is the chapter's watchdog concerning local, state and national legislation that affects the engineering profession. Too often we are complacent, figuring that certain people of the society are watching out for this problem. I can assure you it must be watched at every level. Get to know your mayors, councilmen, parish and other local officials. Let them know who and what engineers represent. Get to know your legislators now—not when a bill presents itself in the legislature and you want it killed.

Your legislative or civic affairs committee should be alert to the political factors that shape the civic life of the community.

In conclusion—the sooner you and your chapter get organized for the next administrative year, the sooner your chapter will get going.

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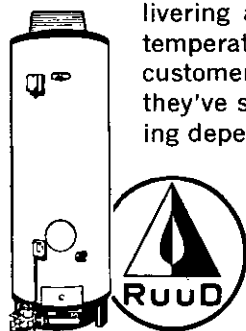
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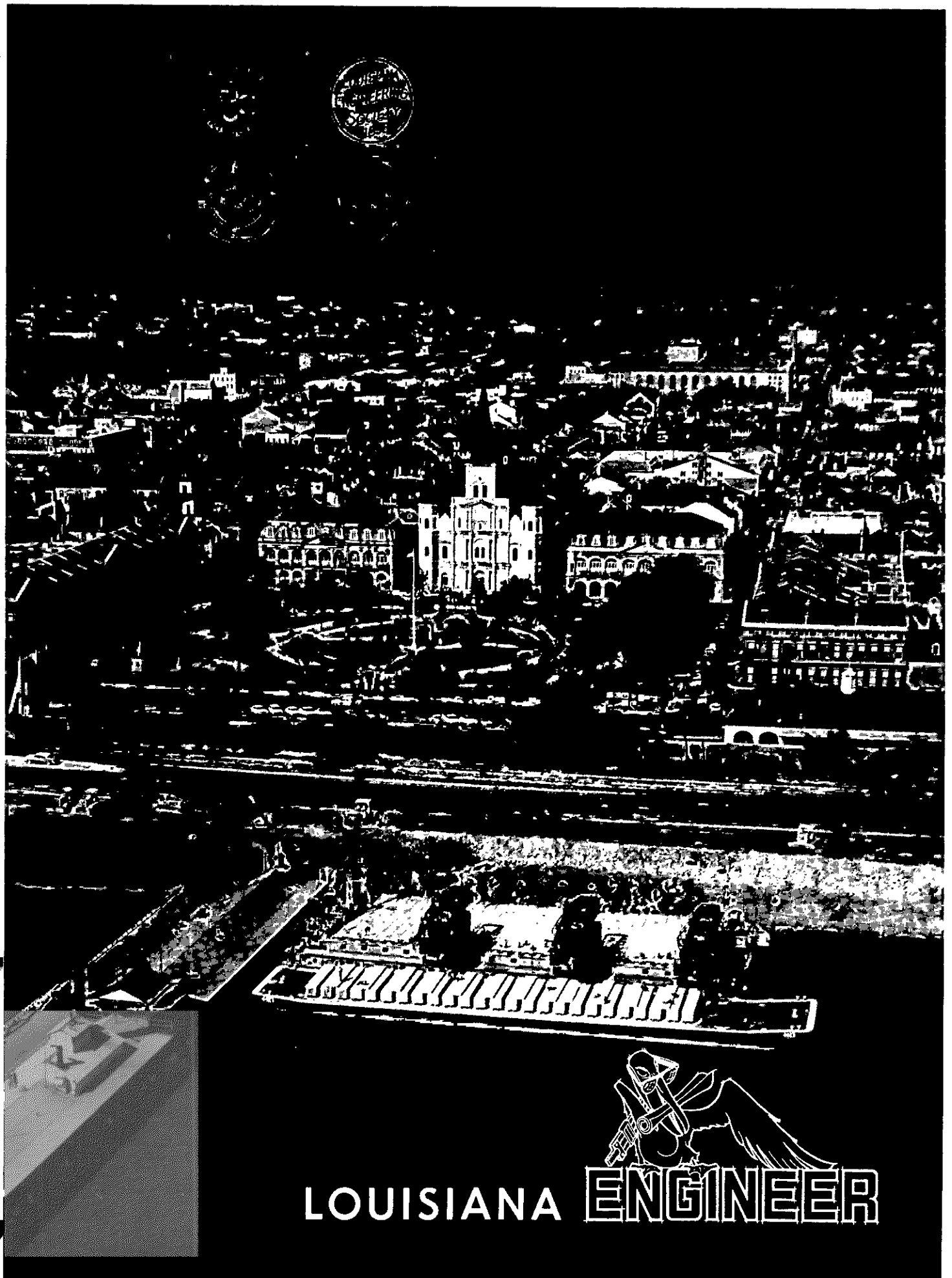
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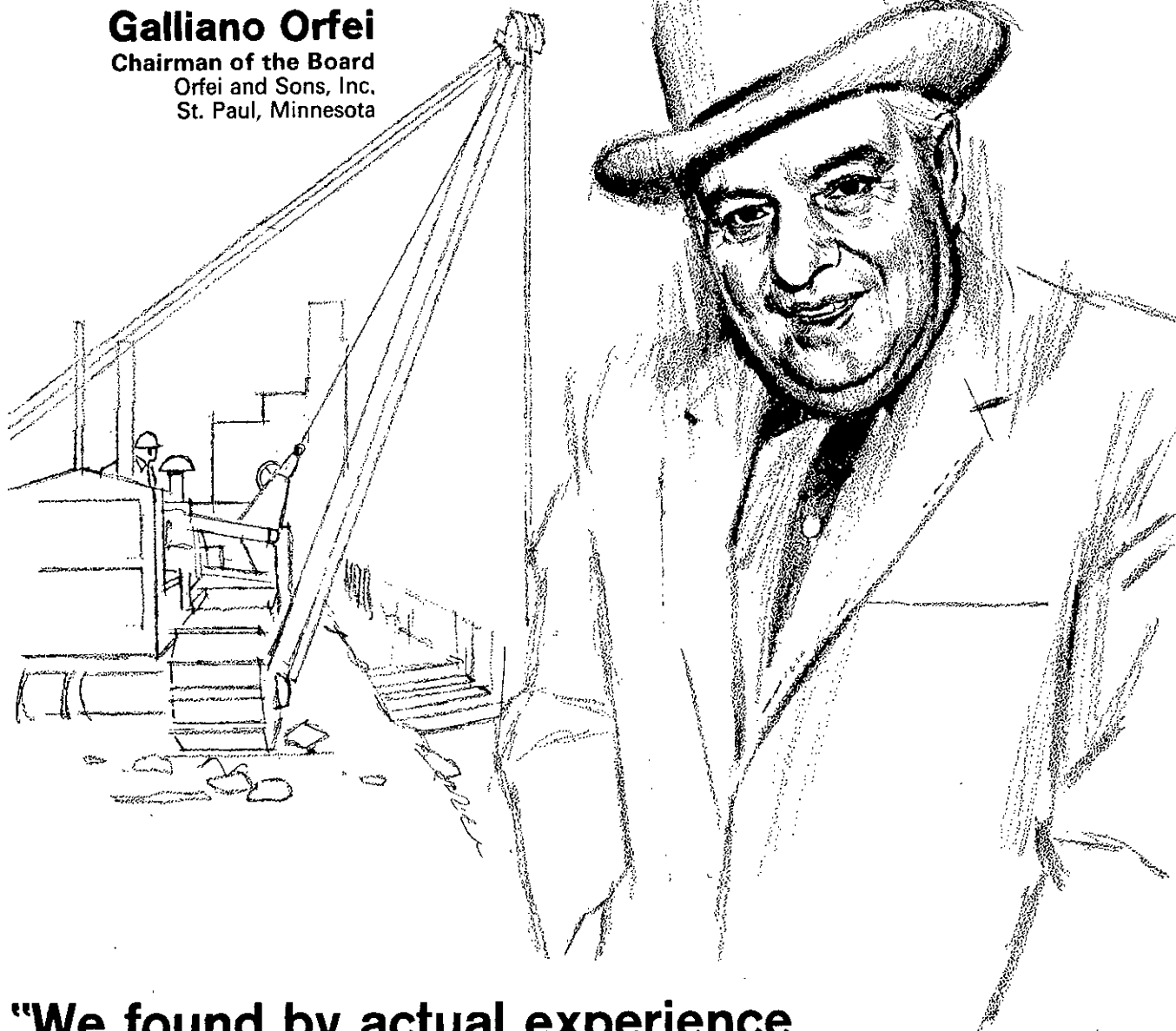
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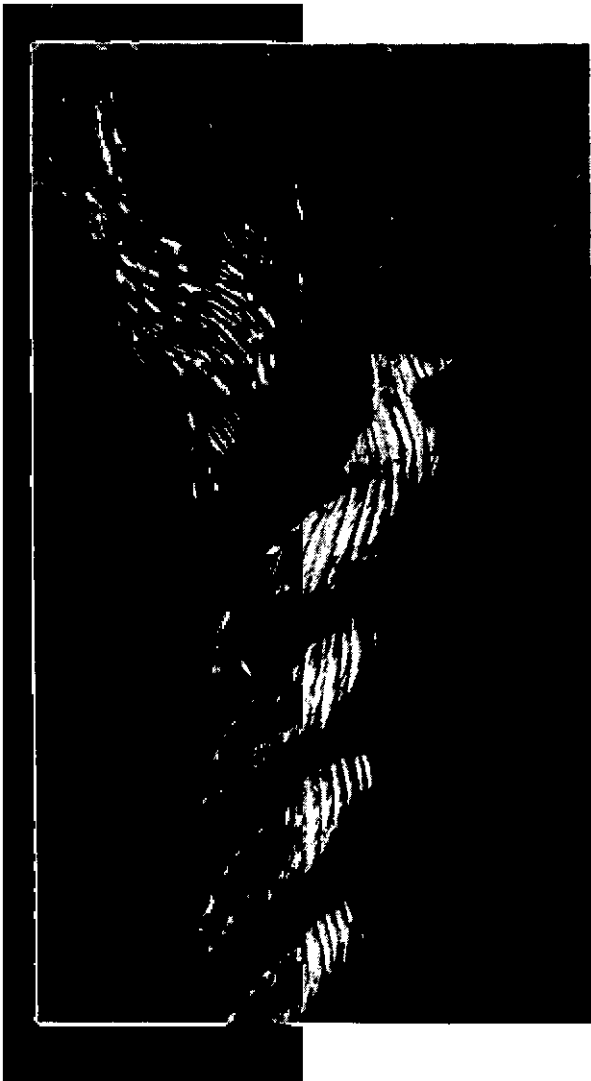
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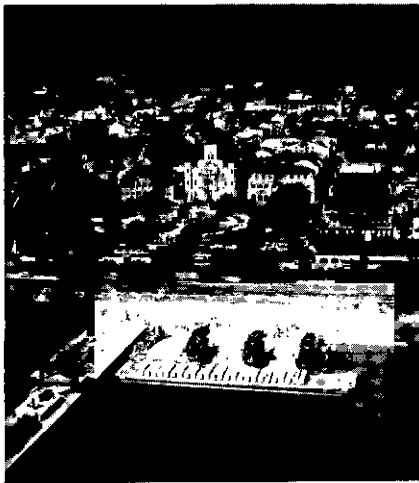
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ABOUT THE COVER: New Orleans' historical old French Quarter is the background for this Corps revetment plant which is stabilizing the Mississippi River bank by placing articulated concrete revetment on the bottom from the bank to the deepest part of the river. See "A Century of Service . . . The Corps of Engineers" on Page 20.

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LOUISIANA ENGINEER

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FLINT, MICHIGAN

SPECIFIES FULL-DEPTH ASPHALT PAVEMENT FOR STREET MODERNIZATION PROGRAM

In 1966, Flint, Michigan, had 536 miles of streets—only 42 miles remained unpaved. During the year, 11.14 miles were paved with modern, **Full-Depth** Asphalt pavement placed directly on the compacted subgrade. This work was part of a continuing program to upgrade all of the streets in the "Vehicle City."

TYPE: Full-Depth Asphalt residential streets—two 11.6-foot traveling lanes; asphalt concrete surface on hot-mix asphalt base over compacted clay subgrade, portland cement concrete curbs and gutters.

TERRAIN: Generally flat.

CLIMATE: Normal temperature range: 71.2°F.—24.5°F. Average annual precipitation: 30.14".

TRAFFIC: Streets were designed to handle a minimum 500 vehicles daily.

PAVEMENT SECTION: Subgrade: Clay loam to silty clay. Plastic when wet but stiff and dense when compacted at proper moisture content. Variations in moisture are apt to produce detrimental moisture content. **Base:** 6" (placed in two 3-inch layers) hot-mix asphalt using Michigan Department of State Highways aggregate No. 24-A. (Uncrushed sandy gravel.) **Surface:** 1.5" asphalt concrete using Michigan Department of State Highways coarse aggregate No. 31-A (crushed limestone), fine aggregate

No. 3NA, and mineral filler No. 3MF. (Fly ash.) **Total Pavement Thickness—7.5" FULL-DEPTH** Asphalt.

DRAINAGE: Subsurface: No underdrains used. **Surface:** Gutters, drop-inlets and storm drains.

COMPACTION: Subgrade: Minimum 95% of maximum unit weight. **Base:** No compaction criteria. Compaction controlled by specifying rolling pattern. **Surface:** Same as base.

TIMETABLE: Paving under way July 21, 1966. Completed October 12, 1966—45 days ahead of schedule.

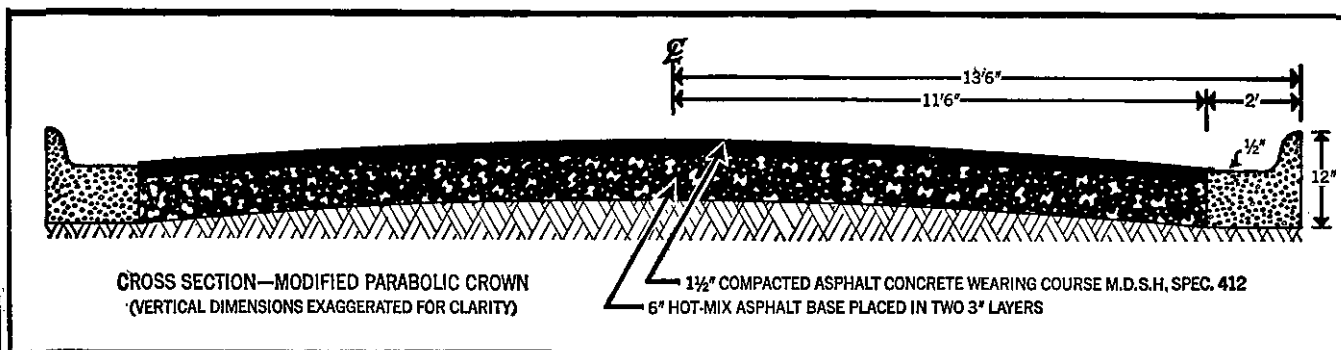
CONTRACTORS: Prime: C. J. Rogers Construction Co., Flint, Michigan; **Asphalt Paving:** Flint Asphalt & Paving Co. and Spartan Asphalt Paving Co., Flint, both members of the National Asphalt Pavement Association.

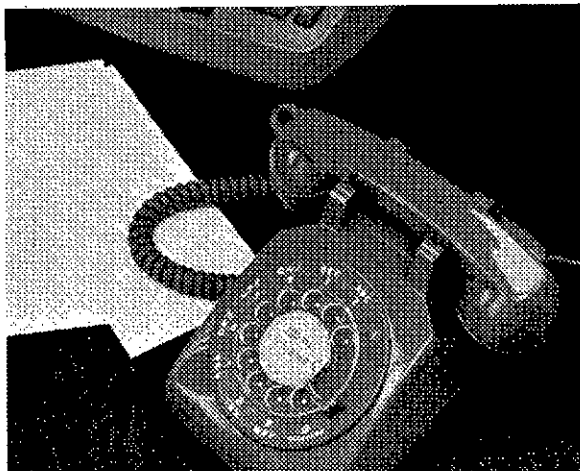
Flint will continue to use Full-Depth Asphalt pavement—already in the 1967 program approximately 7.5 miles of this type pavement have been let to contract. The officials of this progressive city are providing its citizens with the most economical and yet the most durable and safest pavement modern engineering can develop.



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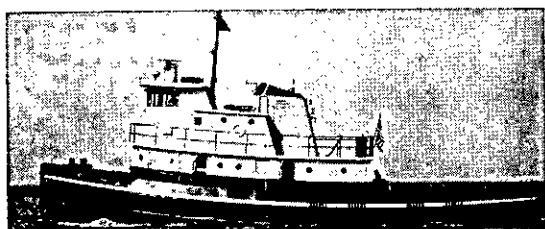
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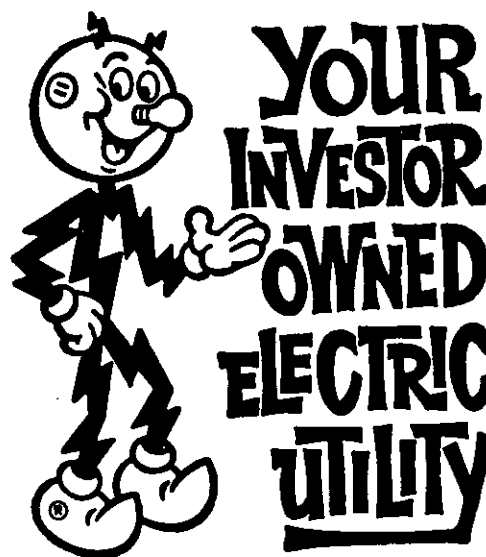
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NORMAN C. FERACHI

PRESIDENTIAL PRIVILEGE

By LES President Edward McNamara

Norman C. Ferachi has been selected by the LES Board of Direction to serve as our new LES Executive Secretary. The Board was most impressed with Norman's broad and challenging experience as well as his educational background and civic achievements.

We hope you will support him by letting him know that you stand ready to assist him in his new duties. If you do, LES will profit and you will profit, too.

Now let me tell you about him:

Norman, 26, is a native of Baton Rouge and is a graduate of the LSU School of Journalism. He is the former Public Relations Manager of the Baton Rouge Chamber of Commerce. He is married to the former Beth Pallud of New Orleans and they have two children, Michelle, 3, and Robert, 1.

He has served as Public Relations Manager with the Baton Rouge Chamber for the past two years. Prior to that time, he was Public Relations Director of the United Givers Fund in Baton Rouge.

Presently, Norman serves on the board of Directors of Camp Fire Girls, is secretary of the Baton Rouge Association of Business and Industrial Editors, is Tour Committee chairman of United Givers and is a member of the Baton Rouge Advertising Club.

He has served on the Public Relations Council and is a team captain for the United Givers Fund.

September 21, 1967

Halliburton Education Foundation, Inc.
Duncan, Oklahoma

Gentlemen:

Your generous contribution of Five Thousand Dollars per year to the University of Southwestern Louisiana, Lafayette, Louisiana for the purpose of supplementing the salary of one or more teachers in the U.S.L. Department of Engineering has been brought to the attention of the Board of Direction of this society.

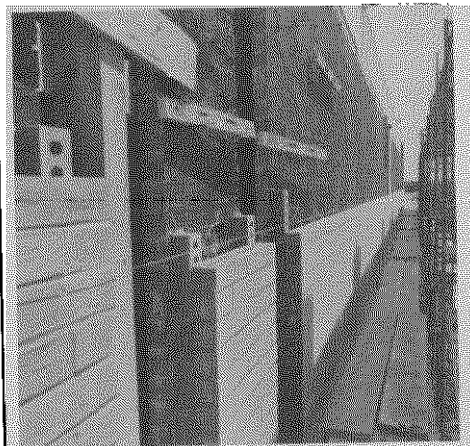
The Board of Direction of the Louisiana Engineering Society, representing 2,000 professional engineers in the State of Louisiana, passed a resolution at its last meeting commending your Education Foundation for its action. We in the society are vitally interested in the engineering education of our young men in Louisiana and in the faculties of our engineering colleges here in Louisiana.

Action such as yours reassures us of the common interest to maintain this high standard of education and your annual contribution will certainly go towards assisting in this.

Again, the Board of Direction thanks you.

E. J. McNamara

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The seven one-story buildings, totaling 120,000 sq. ft. of floor space, have 10" brick double walls: library-administration, fine arts-auditorium, science, physical education, vocational, shop, central mechanical plant.

The photograph above shows the simplicity of Double Wall construction: the finished outer wythe, the cavity (which may be insulated), and the inner wythe which gives the beauty of exposed brick.

For complete information on design, engineering and construction of brick double walls and brick bearing walls, mail the coupon.



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The Louisiana Engineer

There's nothing new or exciting about brick...except...



like in this new college complex:

The use of an Acme Brick Double Wall System in curtain walls simplifies growth plans for the new Bee County College buildings at Beeville, Texas.

First of all, construction time was saved. Walls were finished as they were topped out. The use of Acme King Size Brick meant the laying of 1/3 fewer brick. And brick can be removed for future expansions without jeopardizing the structures.

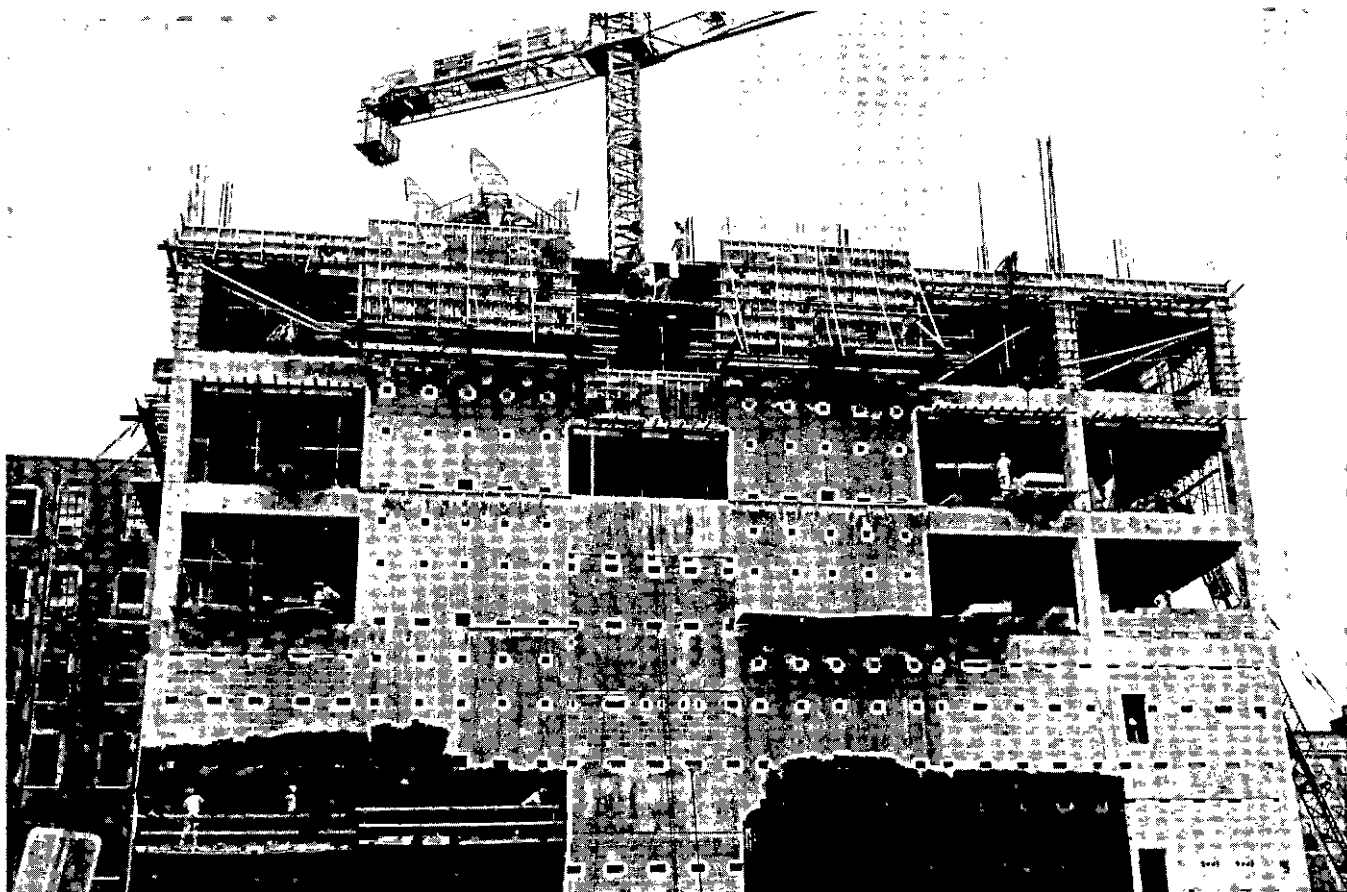
Two more plusses: Insurance rates will be lower because of Double Wall Brick construction, and utility costs will be held to a minimum because of the superior insulative qualities.

And the beauty, warmth and informality desired by the architect is there right from the start.

Nothing new or exciting? Look again!

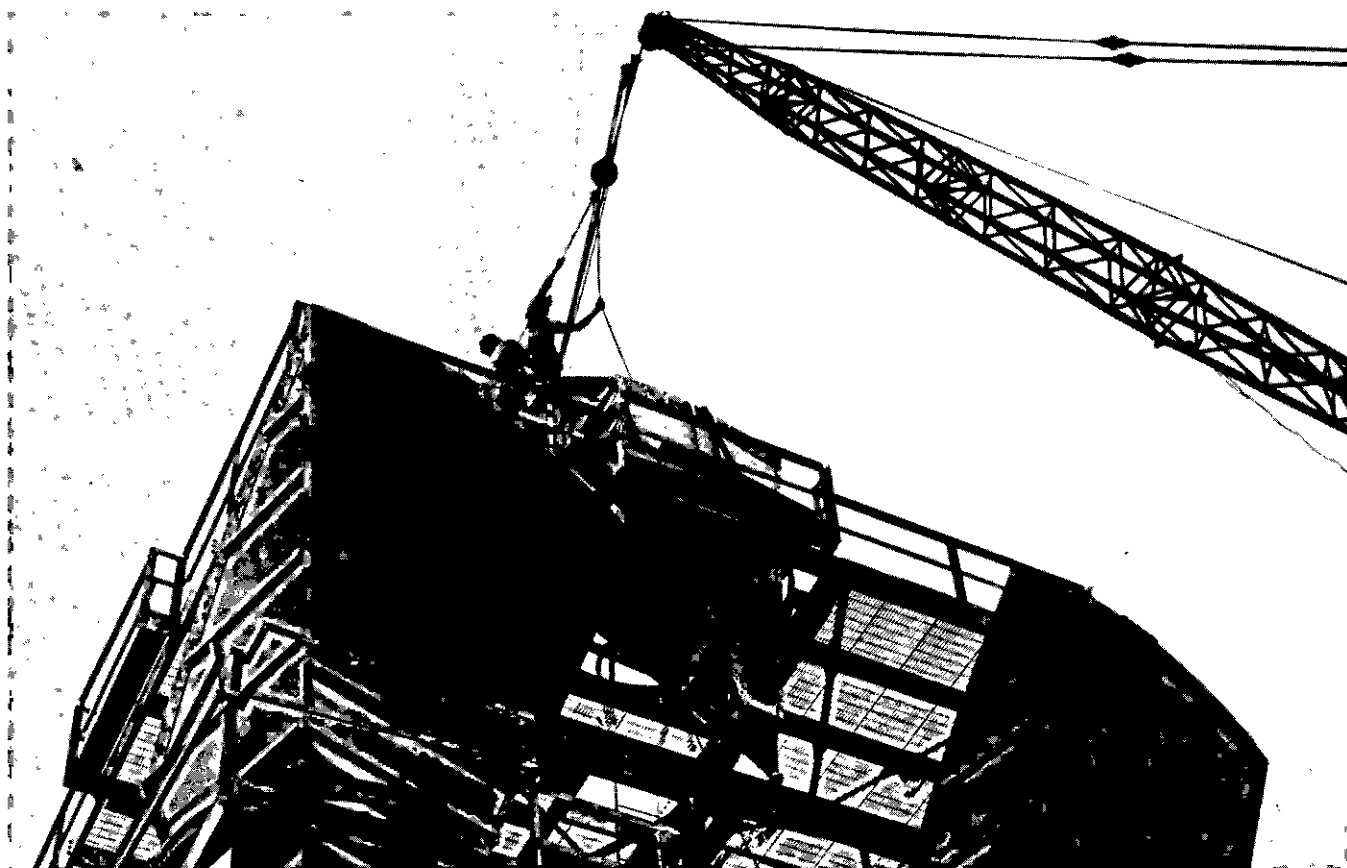


new dimensions in building



HOME OF LOUISIANA'S FIRST ELECTRONIC OFFICE: Shown under construction is the first 8 stories of this building which will house an electronic switching office, operator consoles to replace switchboards, an enlargement of the long-distance switching machine and other modern equipment.

(Below) Louisiana's Microwave Network Gets an Addition.



Long range planning is talked about almost as much as Mark Twain's weather. In Southern Bell's Louisiana operations the similarity stops here.

When Hilda and Betsy destroyed long stretches of every open-wire long-distance line in Southern Louisiana, specific long-range plans for placing intercity cables had already been prepared and partly executed in connection with other, more localized, construction. Restoration of service was consequently effected by bridging the gap between these end sections with rapidly placed buried cables. The result was an all-cable and microwave intercity network in Southern Louisiana. Ninety-five percent of this cable is underground.

When the State Department of Hospitals desired better training facilities for physicians, technicians and nurses in state hospitals throughout Louisiana, expansion of existing facilities and advance of some construction already planned for future message circuit growth provided much of the network required to link these hospitals with Educational Television Channels.

For planning and construction, telephone facilities are divided into four major categories. Outside plant (principally cable, underground conduit and replacement poles) accounts for about one quarter of the total. Central Office equipment makes up another quarter. Station equipment, including telephone sets and associated wiring and customer switchboards, accounts for about a third. The remainder of the sixty-odd million per year is spent for land, buildings (new and additions), vehicles and tools.

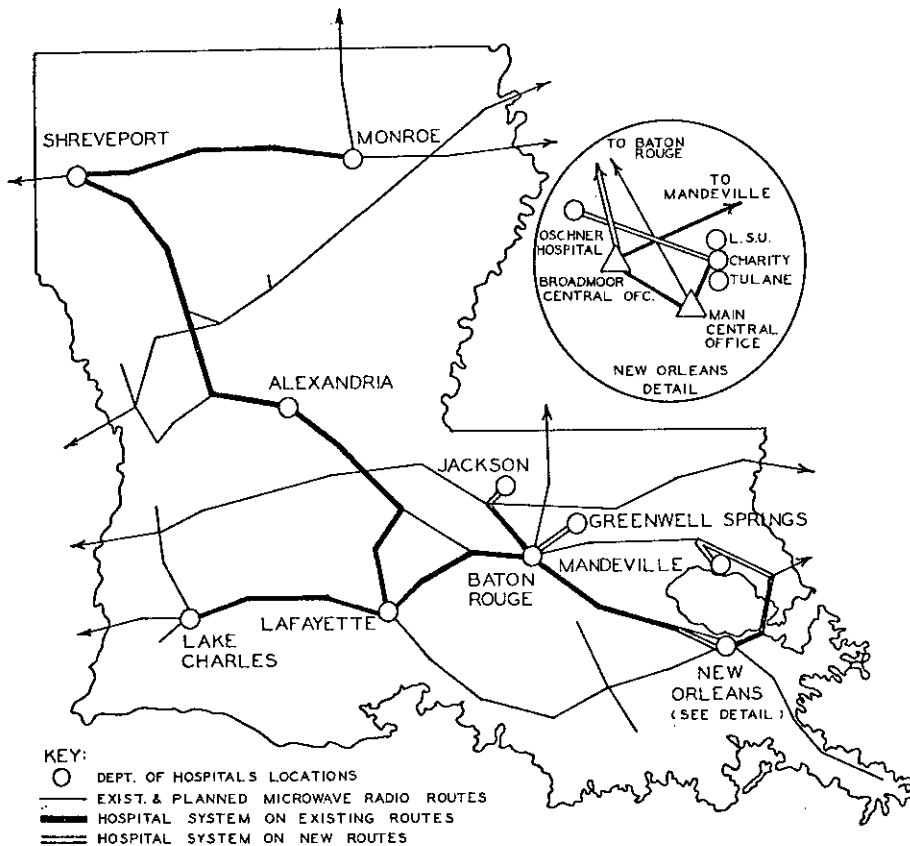
The long range program becomes the current program three years before construction is to begin. The accompanying pictures and charts illustrate some of the recently completed and scheduled projects in the current program of the Telephone Company in Louisiana.

This is another example of the contribution of the engineering profession to the standard of living. Imaginative long range planning, followed by sound engineering, contributes significantly to constantly improved service while helping to maintain stable rates in the face of greatly increased labor and material costs.

A new company in a state, expecting to spend over \$180,000,000 within a three year period is front page news. Presented here is a summary of how one of Louisiana's older companies (over three-quarters of a century) plans to spend this total during 1967-1969.



COMMUNICATIONS: The Faces of Planning



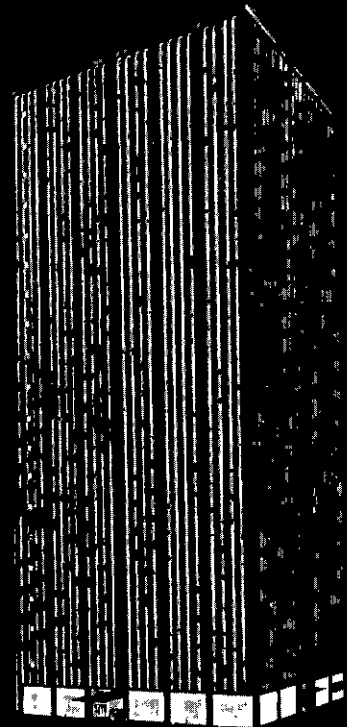
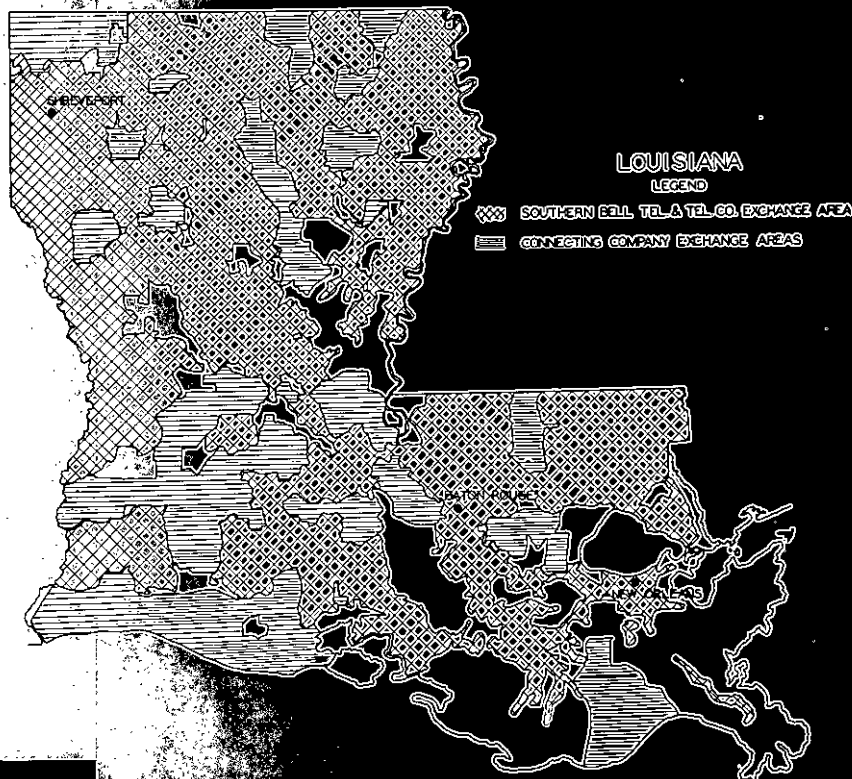
LOUISIANA TELEPHONE COMPANIES: Upper Left: The 26 telephone companies in Louisiana provide an integrated nationwide service to their subscribers. Long range and current planning must be coordinated to provide compatible equipment. Transmission standards and operating procedures are adopted on an industrywide basis.

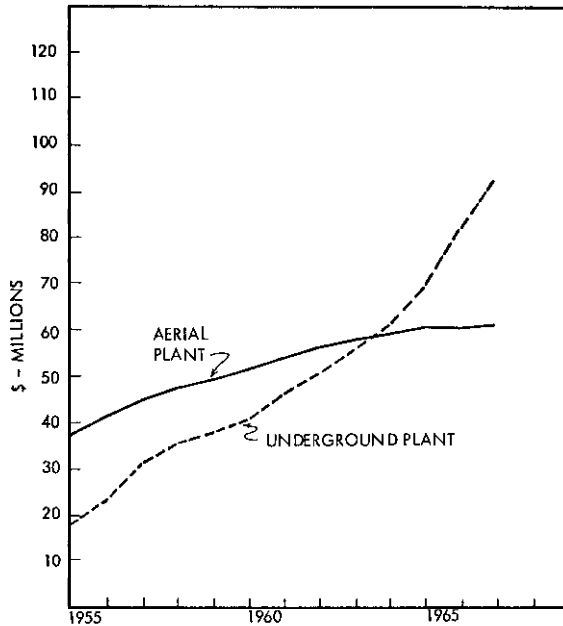
EDUCATIONAL TELEVISION NETWORK, LOUISIANA DEPARTMENT OF HOSPITALS: (Lower Left) Telephone message facilities and special services are combined to obtain optimum efficiency of facilities and of the frequency spectrum.

This coordination reduced expenditures by approximately \$3,000,000.

The system is designed to transmit quality pictures from any of the studios, including retransmission from the Baton Rouge studio. Circuit lengths of 600 route miles are possible.

NEW OFFICE: (Below) Architectural rendering of new electronic office as it will look upon completion.

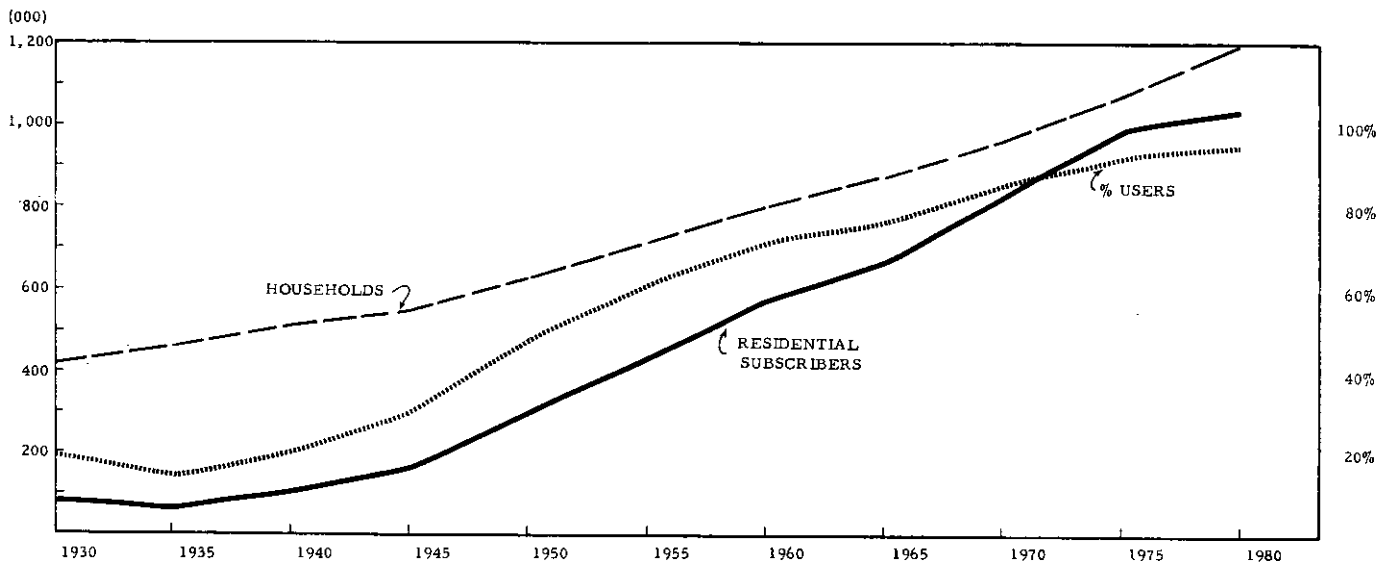
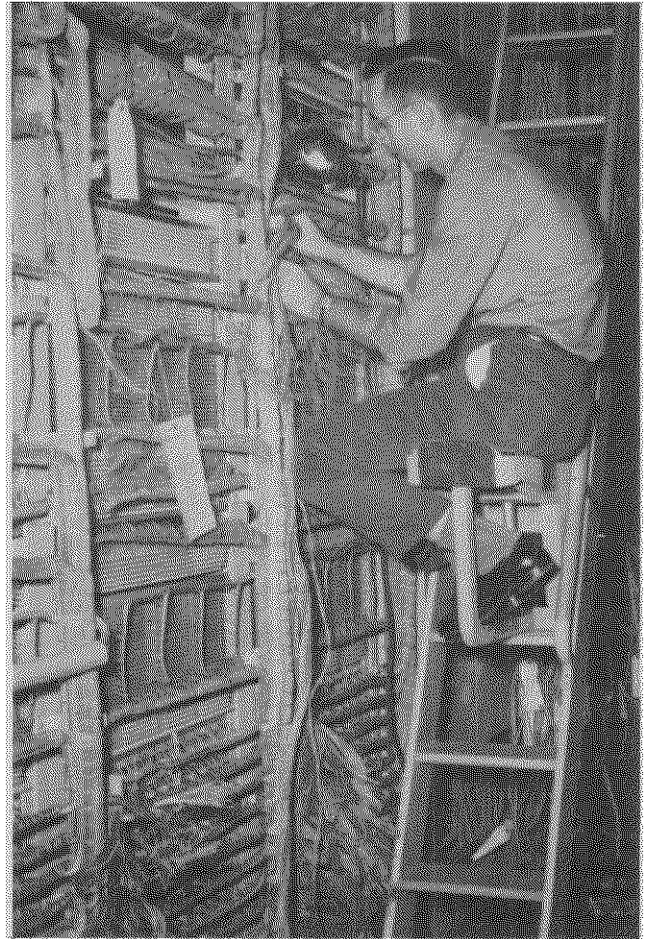




Buried Plant Comes of Age

Planning in the laboratories and manufacturing units, as well as by the operating engineer, has resulted in the trend to buried plant shown in this chart. Most of the aerial cable still being placed is additional cable on existing poles. In 1966, 90.2% of new cable conductors was placed underground.

Advantages of buried plant are hurricane protection and improved appearance.



Forecast of Telephone Demand in Louisiana

Telephone equipment, buildings and cable are scheduled on the basis of long-and-short-term forecasts of customer demand. The economic engineering period (elapsed time between additions) for equipment averages about 2 years, for buildings about 8 years and for cable from 8 to 20 years, depending on rate of growth and gauge of conductors.

Planning includes questioning. The Engi-

neer asks "Will the demand for residence service really slow down after 1975? If it does not, what effect will this have on my plans?" If the demand should continue at the 1965-75 rate (due to second lines in residences) the additional plant needed during the 1975-80 period would require an additional \$30,000,000. A more immediate question pertains to the upturn in demand which has occurred during the past four years. "Will it continue at the forecasted rate?"

Note that for sizing cable the 1980 forecast is pertinent now.

By: L. C. GRUNDMANN, JR., P.E.
Assistant Mechanical Engineer
New Orleans Public Service Inc.

N O P S I ' s M I C H O U D . . .

On August 2, 1967, when New Orleans Public Service Inc. declared its 560,000 kilowatt Michoud Unit No. 3 available for commercial operation, one of the largest single power generating sources in the south was placed in service on the Middle South System.

This single unit increased the Public Service system capability by approximately 70%. The present and predicted rate of increase of power demand, about 8% per year, inter-connections and power interchange agreements with the three other Middle South Companies (Arkansas Power & Light, Louisiana Power & Light and Mississippi Power & Light) permitted Public Service to take advantage of the more favorable economics of building a single large unit of this size with its higher efficiency and lower cost per installed kilowatt.

However, size is not the only feature of Michoud No. 3 unique to the Public Service system. The steam generator is a Foster Wheeler, once-through, supercritical pressure design—the first such unit on the Public Service system and the first supercritical for this particular manufacturer. Its nominal design capacity is 3,980,000 lbs. of steam per hour when operating at 3600 psig and 1005°F at the superheater outlet. Reheat temperature is also 1005°F.

The unit is based on the Benson once-thru design and does not have a steam drum. Feedwater enters the economizer and is continuously heated to the final outlet steam temperature in the boiler and superheater tube circuits. Basically, the circuitry consists of heated upflow tubes and unheated downcomers.

Total furnace volume is 200,000 cu. ft. Over 18,000 tube welds and about 40,000 linear feet of casing welding were required in the field erection of the unit.

In order to maintain feedwater purities within the stringent requirements of the once-thru cycle, a full flow (7,000 gpm) polishing demineralizer in the condensate system using mixed beds, is employed—this, also, is a unique feature of Unit No. 3 to the system. In addition, hydrazine and ammonia are injected for oxygen and ph control of the feedwater. Typical feedwater limits are: Total dissolved solids, less than 50 parts per billion (PPB); iron as Fe, 5 to 10 PPB, copper as Cu, 2 to 5 PPB; and Silica 10 to 20 PPB.

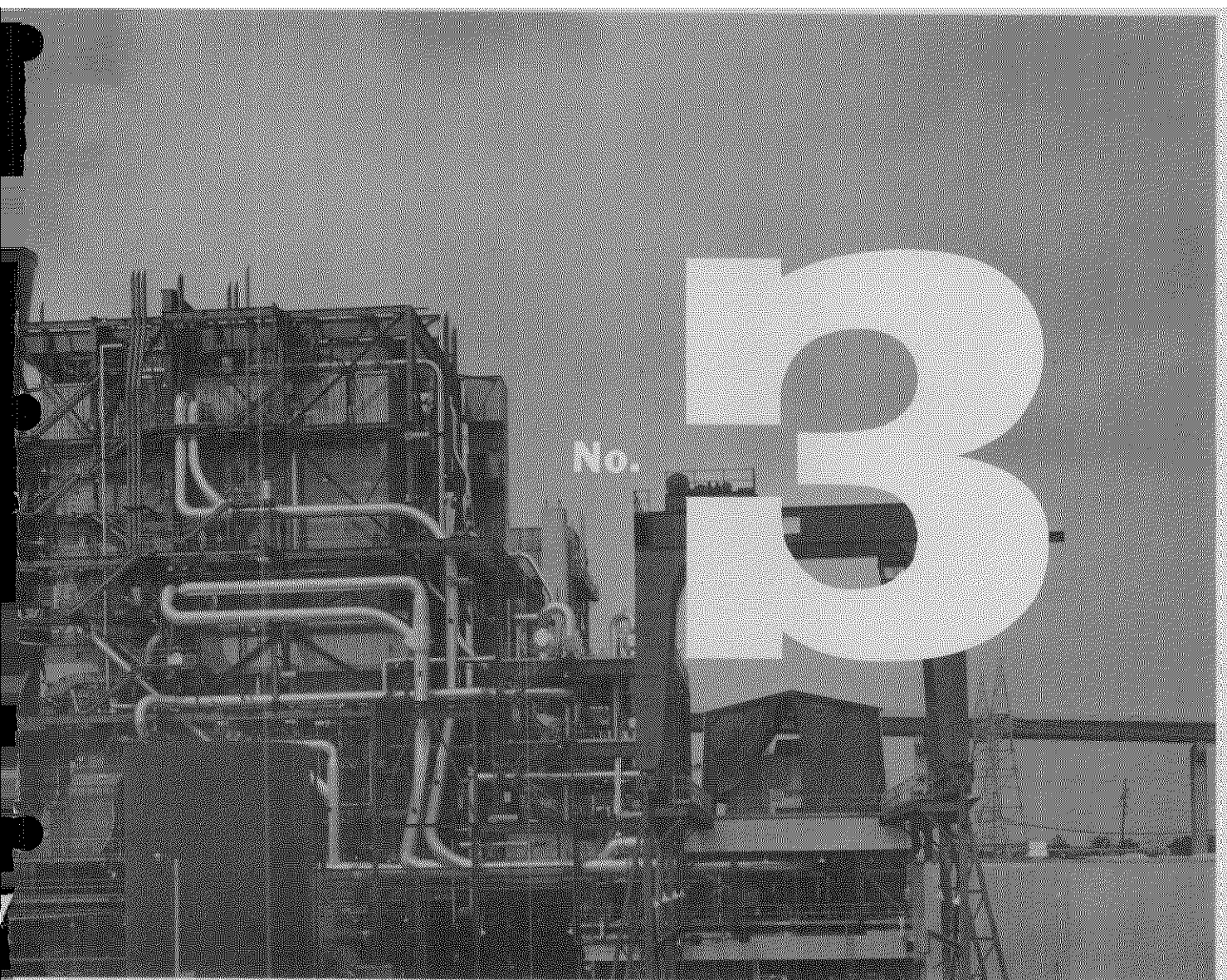
To minimize copper pickup in the preboiler cycle, steel tubes are used in the feedwater heaters. These heaters and the boiler must be nitrogen blanketed whenever the unit comes off the line.

Steam flow from the superheat outlet to the turbine is in a single 23" OD Chrome Molybde-

num pipe having a wall thickness of almost 5 inches. A typical field welded joint in this pipe required two welders and a helper working continuously for 125 hours, after which the weld had to be stress relieved, requiring about 24 hours, and then gamma-rayed for integrity.

The General Electric Turbine-Generator is a 3600 rpm tandem-compound, quadruple exhaust flow machine capable of producing over 560 mw and is one of the largest single shaft machines in operation to date. The generator is rated at 685 mva; its output voltage of 24,000 volts is stepped up to transmission voltage (230,000 volts) in the main

In this general view, from left movable maintenance house),



ht, the fan enclosure, stack boiler proper and main piping systems jacketed in aluminum, feedwater heater decks, turbine generator (covered by the gantry crane, and the water treatment house can be seen. The tank in the foreground is for condensate storage.

power transformer. The generator stator, weighing over 340 tons, is the first on the system to use water cooling in the conductors. The machine employs General Electric's Alterex excitation system. Instead of a conventional D.C. rotating exciter, an alternator is directly coupled to the generator shaft and static converters are employed. The advantages of this excitation system are the smaller physical size of the alternator-exciter and the elimination of the commutator rings and their brushes which would be difficult to change in operation on an exciter of the required size.

Steam from the two double flow low pressure sections of the turbine exhausts into a 214,000 sq. ft. condenser which has two cross connected shells—one under each turbine exhaust casing. The condenser has 20,600 forty foot long, 1" O.D., 19 BWg, 70-30 Cu-Ni tubes. The condensing duty at full load is 2.6 billion btu/hr; cooling water is obtained from the Mississippi River-Gulf Outlet and is circulated by two vertical mixed flow pumps of 156,000 gpm each.

Also flowing into the condenser is the exhaust from the steam turbine drives for the boiler feed pumps. Each half

capacity pump is driven by a direct coupled 5470 rpm steam turbine capable of 13,970 hp. (It is interesting to note that the total power required only to pump the feedwater for this unit is about equivalent to the full capacity of the old generating unit on the Public Service system, which is scheduled for retirement this year.) Steam is supplied to these turbine drives from any one, or a combination, of three different sources, depending on specific operating conditions: 3500 psig main steam through a special high pressure stop valve during periods of low load operation; 174 psig extrac-

No. 3

tion steam which becomes available above approximately 25% load; and an auxiliary 225 psig, 160,000 lb/hr boiler during start-up. The auxiliary boiler also provides steam to the turbine seals during start-up.

A unit of this size and complexity requires even more complex controls than smaller units of conventional design. All operating functions and pertinent information are brought to the central control room so that operations can be performed "remote-manually" or "automatically" from this location. Solid-state analog combustion and start-up controls are provided for the boiler and turbine-generator. Also, a monitoring and results computer, the first "process" computer for a Public Service plant, is provided. The computer will:

- a) Compute actual and optimum plant efficiency under operating conditions and compare these for the operator.
- b) Prepare normal and summary logs for record purposes and special informational logs on demand.
- c) Monitor bearing temperatures, flows, pressures, etc. and automatically alarm when these values deviate from normal.
- d) Provide sequential cause of trip annunciation.
- e) Provide normal digital control of generator H_2 tem-

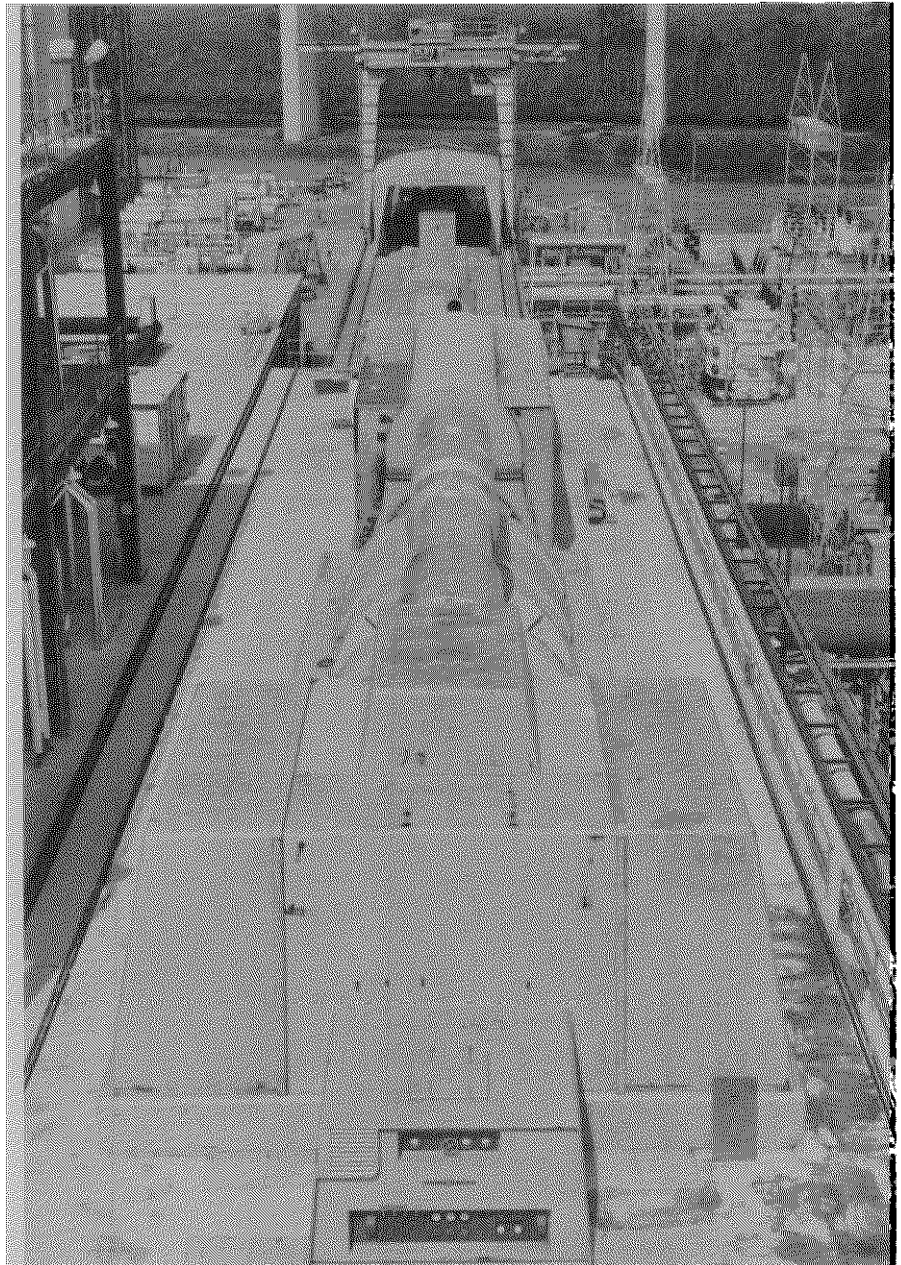
perature, turbine lube oil temperature and stator cooling water temperature.

- f) Ultimately be arranged to automatically back up the major analog control loops normally utilized for control of the unit.

Despite the shortage of skilled labor, manufacturing strikes, one of the worst hurricanes in the area's history, and more than ordinary equipment prob-

lems at start-up, this very large, approximately 40-million dollar project, was rolling in shortly more than two years after breaking ground.

The engineers of New Orleans Public Service, Inc. maintained a close liaison during the design of the unit with those of Louisiana Power & Light Co., who are installing a duplicate unit which is scheduled to be in service for the peak load in 1969.



Overall length of the turbine generator is 125' (exclusive of the alternator, hidden by the generator in the picture). The feedwater heaters are stacked on the three decks at the left. The generator leads and main power transformer are to the right.

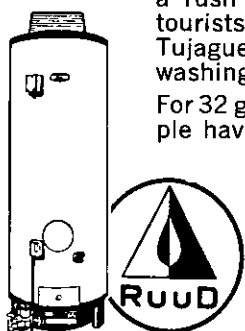


Colonel LaMatt heats up history at Tujague's

Just across the street from New Orleans' historic French Market, Tujague's Restaurant has been a French Quarter landmark for more than a hundred years. Its memorable boeuf bouilli and other fabled delicacies remain as they were in 1856, but there's some modern equipment in the kitchen. Colonel LaMatt's staff of water heater specialists have been around, and there's a Ruud Copper Sani-master water heater back there now! With a rush of marketmen, natives and hungry tourists coming in from all over the world, Tujague's needs lots of hot water for dish-washing and other sanitary requirements.

For 32 good years Colonel LaMatt and his people have been recommending Ruud Copper

Sanimasters to fine restaurants, institutions, industry and business throughout the South. Ruud works better. Ruud lasts longer. And the way Ruud reduces operating costs is making history. Long experience and specialized training gives the Colonel's crew the answers to most water heater problems, and they'll find the solution to any new one you can think up. If you have a water heater problem, whether you've had it since grandfather's time or it doesn't happen until tomorrow, let Colonel LaMatt help you. Call 522-9991, area code 504, collect TODAY.



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These comments were prepared by R. G. Watts and S. C. Cowin, both of Tulane's Department of Mechanical Engineering.

The Mechanical Engineering Department at Tulane offers three degrees, the B.S., M.S., and Ph.D. We have very strong, technically oriented graduate and undergraduate programs, and we are well pleased with the quality of our graduates. It is of some concern to us that our graduates at all levels rarely find suitable employment locally, even though a large percentage of our students are natives. Those of our graduates who do not immediately enroll in graduate school are generally employed by out-of-state research oriented companies, usually companies with a University affiliation. *We would like to see our graduates employed locally in jobs consistent with their education. We would also like to see many of our local industries take a more progressive view with respect to technical research.* It seems to us that these two objectives go hand in hand.

Our definition of technical research is fairly far ranging. It might take on different meanings for different industries. Some of our local industries could undoubtedly profit by organizing small groups of research specialists who would work closely with University people on problems of common, purely technical, interest. For other of our local industries, research programs might include studies such as process or product development and corporate planning. Far more important than the object of research is the manner in which an engineering employee is allowed to approach his task. He should be given a chance to use his creative abilities and be allowed to study his task from both a basic and a general point of view.

The incompatibility of our Mechanical Engineering graduates and many local industries is an indication of the existence of a larger problem, namely the lack of diffusion of technical people and technical information from University to industry and vice-versa. It is our belief that this very serious failure in technical communication between these important segments of our society is largely a local phenomenon and is not characteristic of other urban areas with proportional amounts of industry and institutions of higher learning. If more of the local industries took a more progressive view with respect to technical research, then we feel that many channels for technical communication would open and that this problem would be partially rectified in a manner that would prove mutually profitable to universities and industries.

How does one evaluate the technical progressiveness of a company? We suggest the following measures:

1. The number of major technical advances developed by the company's staff, as measured



RESEARCH OF LOUISIANA



STEPCHILD A INDUSTRY

by patents and publications in technical journals.

2. The percentage of the tuition that it will pay for the further education of an employee.
3. The percentage of the technical staff with advanced degrees or training.
4. The number of volumes in the company's technical library.
5. The amount of the top salary paid to a purely technical employee, i.e. an employee with no administrative duties.
6. The percentage of the company's profits that are earmarked for strictly speculative research.

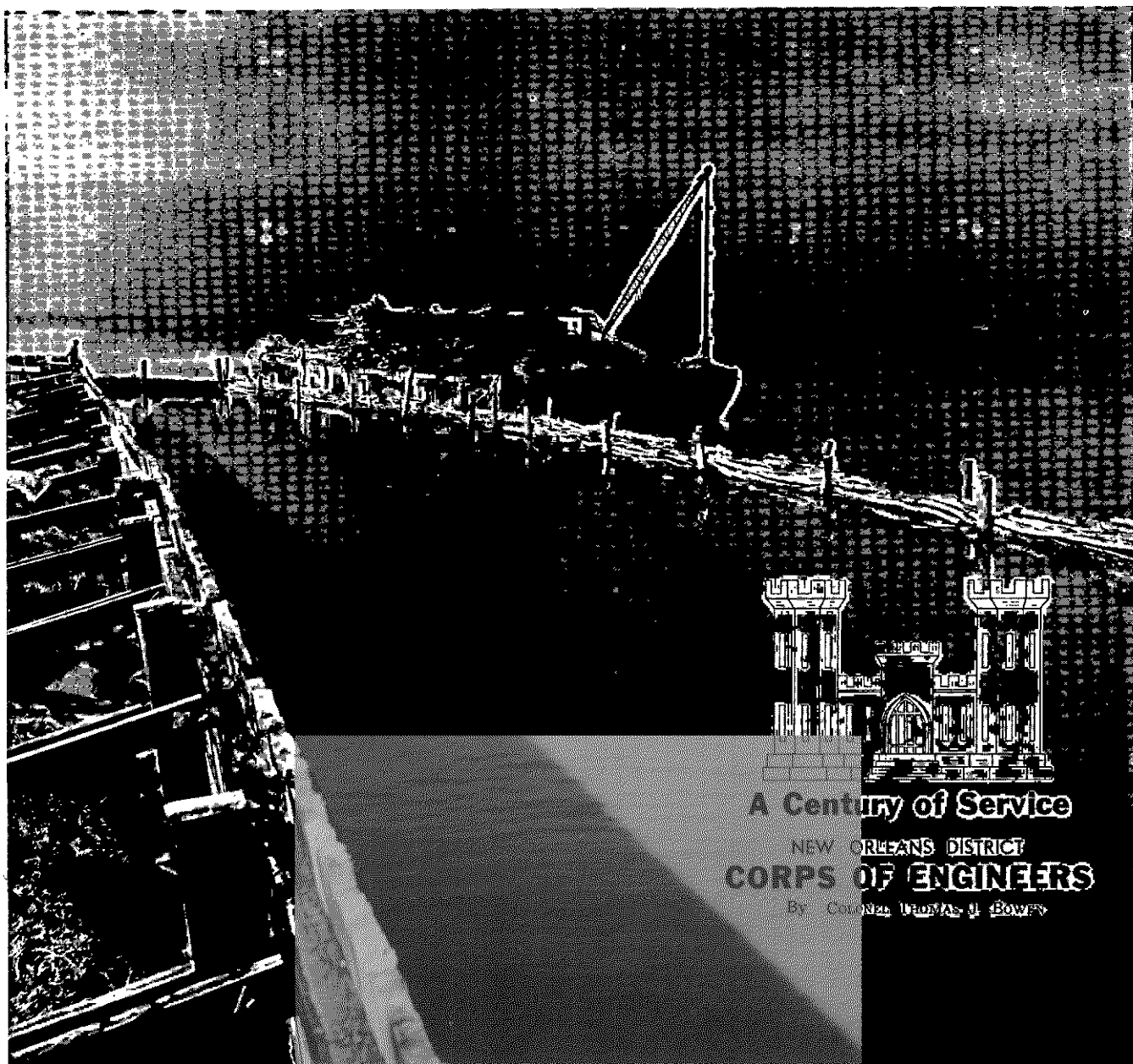
The value of research to large and small companies has been demonstrated time and time again in the recent history of our economy. The question is now not "should a company do research?" but "what kind of research should the company be engaged in?"

Research programs in local industry would be most attractive to all of our Mechanical Engineering graduates. Tulane's Engineering School is highly selective regarding both mathematical and verbal aptitudes of its entering freshman students. Scores on the College Entrance Examinations place Tulane's average engineering student in the top 10% of all students taking the examination. The members of the faculty of the Department of Mechanical Engineering are generally young, vigorous Ph.D.'s who are actively engaged in research in their respective fields. As a result, our graduates are best suited for work in creative research both by inclination and by training.

Like everyone else, our students want jobs where they feel their education and abilities are effectively employed, jobs where their creative abilities are challenged. They must be presented with challenges equal to their abilities or they will become unhappy and disinterested.

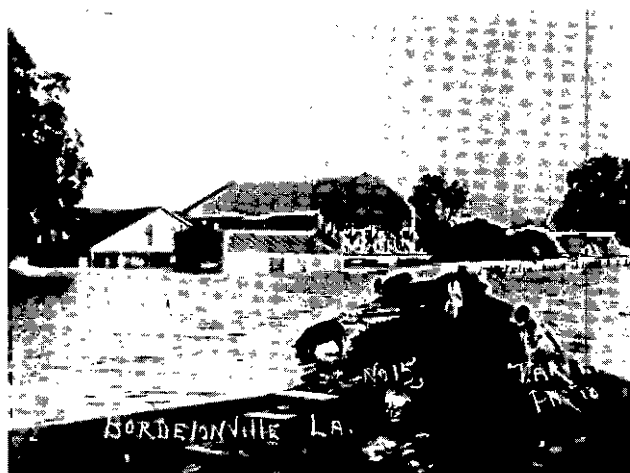
Industry sponsored faculty summer jobs, graduate and undergraduate scholarship and research programs in the Mechanical Engineering Department would provide a direct line of communication with our faculty and students. Industry sponsored graduate research would be helpful to both the company and the University and would provide an excellent vehicle for the exchange of research ideas and discussion of possible employment. These same objectives could be achieved on the undergraduate level through the Engineering School's Co-op program.

In summary, we feel that the industrial and academic communities would profit by a greater exchange of technical personnel and ideas. One way that this can come about is for more of our local industries to take a more progressive view toward technical research.



A Century of Service
 NEW ORLEANS DISTRICT
CORPS OF ENGINEERS
 By COLONEL THOMAS H. BOWEN

(Above) Nearly extinct are the willow foreshore dike and board wave wash levee protection shown here. Replacing them are stone dikes and levee paving. (Below left) 1927 flood scenes, Bordelonville, La. (Below right) This diagram depicts the Corps of Engineers' plan for distribution of a major flood about 3 million cubic feet per second arriving at the latitude of Old River in Louisiana. About 2.7 million c.f.s. would be in the Mississippi River while 350,000 c.f.s. would be flowing in Red River.



A century ago an Army Officer, Brevet Brigadier General M. D. McAlester took pen in hand and proceeded to write a report to the Chief of Engineers on improvement of the mouth of the Mississippi River.

In this report, the young Army Engineer outlined plans and specifications for construction of a dredge boat that he felt would accomplish the best results in opening channels across the bars at the Mississippi River mouths.

His was not the first report by an Army Engineer on the Mississippi River—the Corps has had men studying and working on the improvement of the River since 1820, when Congress enacted the first legislation in the interest of navigation.

The significance of this particular Corps officer's report is that is marked the establishment of an Engineer District Office at New Orleans. A district office and staff have been maintained

there throughout the ensuing 100 years.

However, the importance of such an office lies, not in its mere existence, but in its accomplishments. The list here is a lengthy one.

At the time of the establishment of the New Orleans District, the battle had already been joined to keep the passes of the Mississippi River open for year-round deep draft navigation.

While the removal of snags and other obstructions from the River above New Orleans had been under way since the early 1820's, a now nonexistent bayou called Balize afforded the main entry into the Mississippi from the Gulf. Army Engineers made extensive surveys of the passes and successfully dredged a channel over the Southwest Pass bar with an experimental bucket-type dredge. Unfortunately, a subsequent storm obliterated the improvement.

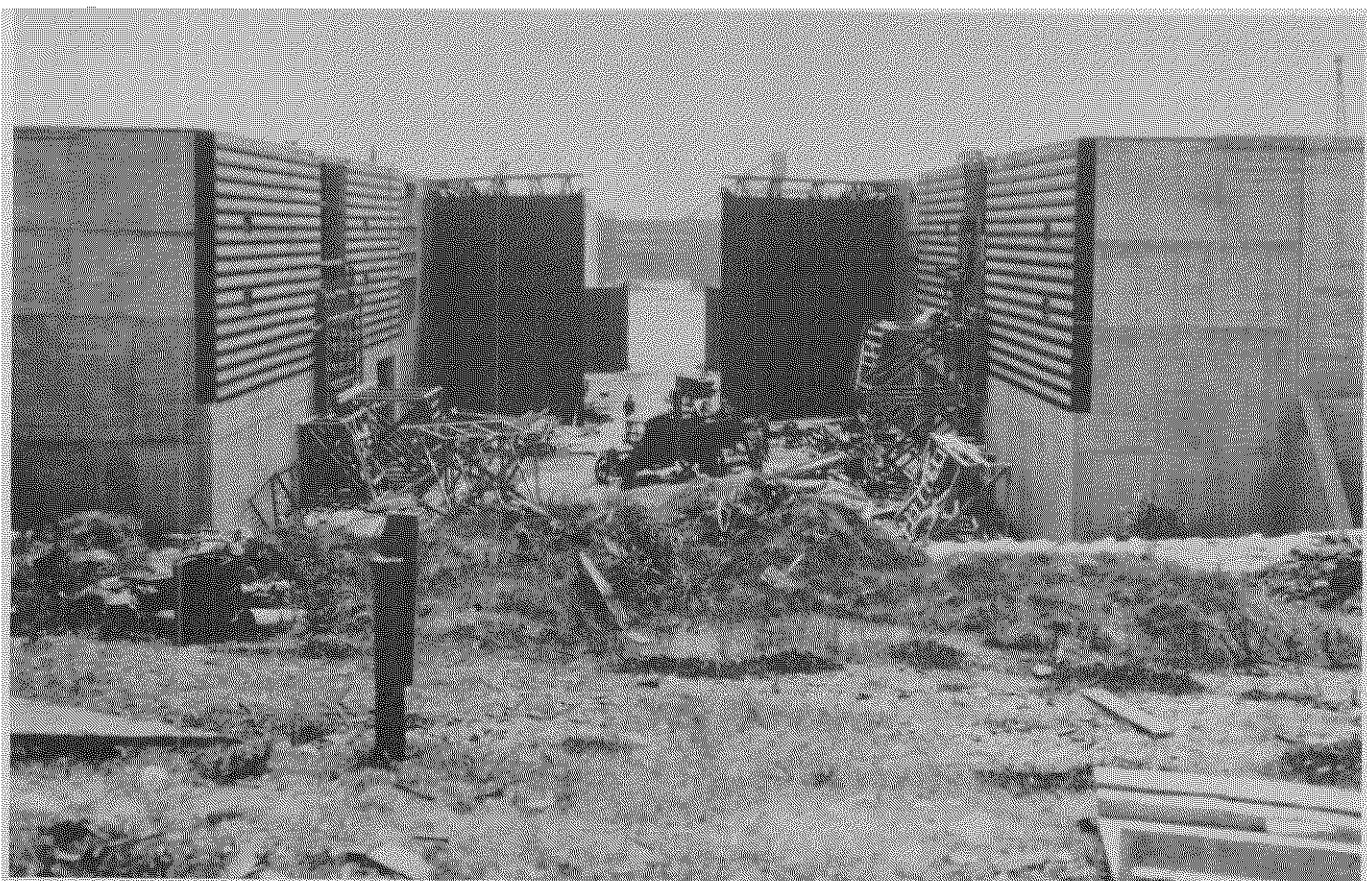
Periodically other attempts were made to open channels

over the bars at the mouths of the River, but, lacking continuing funds, they offered only temporary solutions.

Shortly after the formation of the New Orleans District, the Federal Government contracted with the now famous James B. Eads to attain and maintain a 28-foot deep navigation channel in South Pass and over the bar of that Pass. Eads' contracting jetties and dikes, which he built to narrow the channel and so increase the discharge velocity to scour the channel, were successful, and he was able to maintain the channel for the 20 years stipulated in his agreement.

It is interesting to note that his work was so well designed that since that time very little maintenance has been required to hold a 30-foot navigation channel.

As a result of the successful improvement of South Pass, the commerce of the Port of New Orleans rapidly increased and a



Construction of the Harvey Lock on the Gulf Intracoastal Waterway on the west bank of the Mississippi at New Orleans was a New Orleans District task of the early 1930's.

deeper channel was desired to meet the growing demands of navigation.

Congress approved the necessary authorizations and provided funds for developing successively larger channels in Southwest Pass and in the River between the head of Passes and Baton Rouge. The Corps, using Eads' work in South Pass as a model, constructed jetties, permeable pile dikes and dredged out Southwest Pass, ultimately achieving a channel 40 feet below mean low Gulf in 1963.

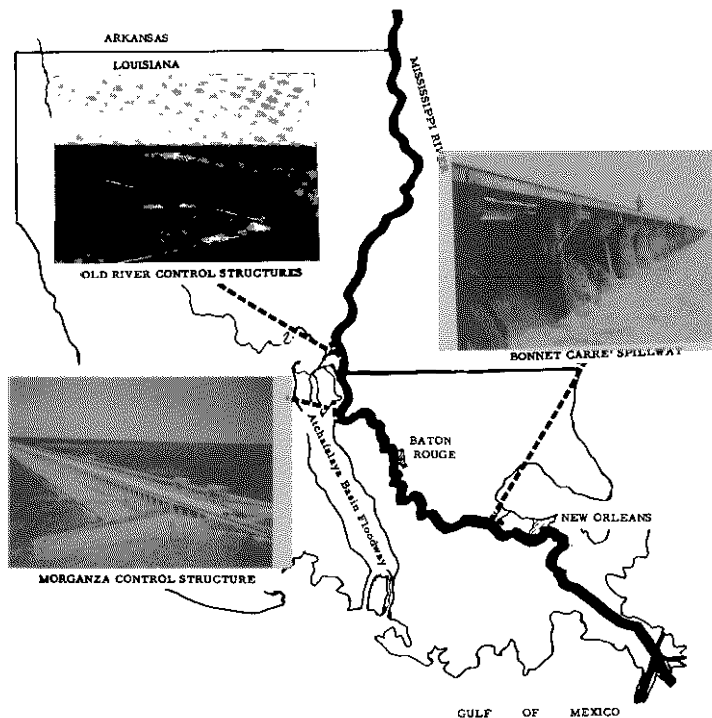
The District's improvement of the River for navigation was a major factor in the New Orleans Port's expansion to second largest in the Nation. As traffic grew, so did the Port's facilities, until, in recent years, the need for an "inner port" and alternate route to the Gulf became obvious.

At the direction of the Congress, the District constructed the Mississippi River-Gulf Outlet, a 36-foot deep by 500-foot wide waterway, connecting New Orleans with the Gulf of Mexico, some 30 miles east of the mouth of South Pass. This 76-mile channel was opened to ocean-going vessels in mid-1963.

Meanwhile, in the southwestern part of the District, the Corps was working to deepen the Calcasieu River and Pass to facilitate super tankers calling on the vast petro-chemical industries located there. While some construction dredging remains to widen the off-shore approach, a 40-foot deep channel is now available over the entire length of the project.

The Corps-constructed Gulf Intracoastal Waterway (GIWW) links Louisiana's three deep-draft channels and the other major ports in the Gulf region from Mexico to Florida. It is a shallow-draft barge canal that annually carries 80 million tons of commerce, more than 15 times the amount of cargo originally projected when it was justified before Congress.

Numerous shallow draft navigation arteries have been con-



Key flood control features to be utilized to pass any major flood through Louisiana are the levees, Old River and Morganza Control Structures, Atchafalaya Basin Floodway, and the Bonnet Carré Spillway.

structed or improved by the District to aid in the exploration, harvesting and transporting of the wealth of natural resources such as oil, gas, and sulphur, found in coastal Louisiana. These channels extend south from the GIWW to the Gulf. Moving from the Calcasieu River east, they are: Freshwater Bayou (now under construction), the Atchafalaya River, the Houma Navigation Canal (built by Terrebonne Parish but now maintained by the Corps), Bayou Lafourche (under construction) and the Barataria Bay Waterway.

This extensive waterborne transportation system enables Louisiana and the Nation to reap the maximum benefit from the natural wealth of the region.

The Corps' development of this navigation system is, of course, but one side of the coin. On the other, are the District's vital flood control functions.

The disastrous flood of 1927 and the subsequent Flood Control Act of 1928 actually brought

the New Orleans District into flood control prominence.

That portion of Louisiana within the New Orleans District can, with the Mississippi River in flood, be faced with over 3-million cubic feet of water per second (c.f.s.). The leveed river at New Orleans can only contain about 1¼ million c.f.s.; hence, 1½ million c.f.s. must be removed above the Crescent City.

In order to accomplish this, the Corps developed a plan known as the Mississippi River and Tributaries Project, composed of floodways, levees and river training works. Basically the plan calls for the removal of 630,000 c.f.s. and 600,000 c.f.s. from the River through the Old River and Morganza Control structures, respectively. The flood flows thus removed would be contained and passed on to the Gulf by the 15-mile wide and 100-mile long Atchafalaya Basin Floodway.

The Old River Control Structure and attendant channels are also components of the Old River Control Project—a project the Corps built to keep the Atcha-

Atchafalaya River from capturing the main flow of the Mississippi via a 7-mile stream known as Old River.

The Morganza Control Structure and Floodway were completed about 10 years ago.

Extremely poor foundation conditions in the Atchafalaya Basin Floodway have delayed completion of the lower eastern side guide levees. A program to complete the deficient levees through the construction of wide stability berms is now under way.

Excessive sedimentation and a poorly defined channel in the lower half of the Basin have also necessitated the dredging of a central channel to increase the flow capacity of the Floodway. A 40,000-square-foot pilot channel has been essentially completed throughout the lower half of the Floodway. Additionally, the enlargement of that channel to 60,000 square feet is nearing the halfway mark.

The Corps of Engineers has a keen appreciation of the natural values within the Floodway and is endeavoring to do everything consistent with its primary mission to preserve and, where possible and practicable, to enhance these values.

The other key facility in the removal of flood flows from the Mississippi is the Bonnet Carre Spillway, located on the east bank of the River, some 20 miles above New Orleans. The Corps' plan calls for the removal of a quarter of a million c.f.s. from

the River through Bonnet Carre. Flood water pouring through the Spillway would enter Lake Pontchartrain and ultimately flow into Lake Borgne and the Gulf. Bonnet Carre has been used on three occasions and can be used again whenever needed.

The remaining flow in the River of 1¼ million c.f.s. can then be safely contained within the leveed Mississippi through and below New Orleans.

The Mississippi River levees are considered to be in excellent condition, although much work remains in the area of bank and channel stabilization. Congress has authorized the fabrication and placement of approximately 100 miles of revetment and about the same amount of other river training works, such as fore-shore dikes and levee protection. Construction is being initiated under the new authorization this year.

Completion of the Mississippi River and Tributaries Project is still some years off; however, a very high degree of flood protection for the people of Louisiana is now a fact of life. The tremendous influx of major industries to the River's banks bears mute but potent testimony to the protection now in being.

Although the Mississippi River has been Louisiana's main flood threat, the Corps has responded to flood problems on many of Louisiana's smaller streams. Extensive flood control works have been designed and constructed in the Red, Black,

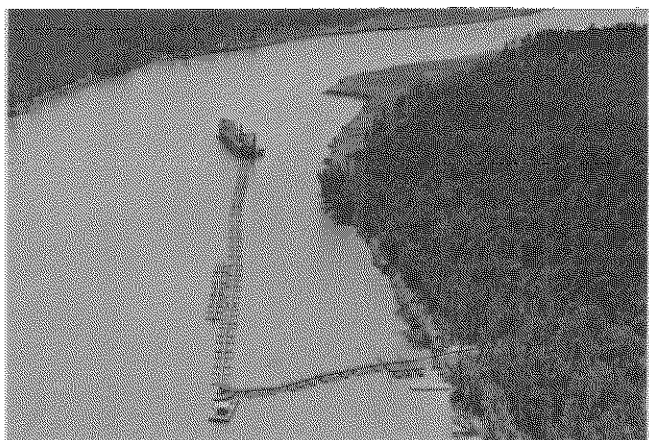
Ouachita, Boeuf, Tensas, Amite and Mermentau river basins, to mention but a few.

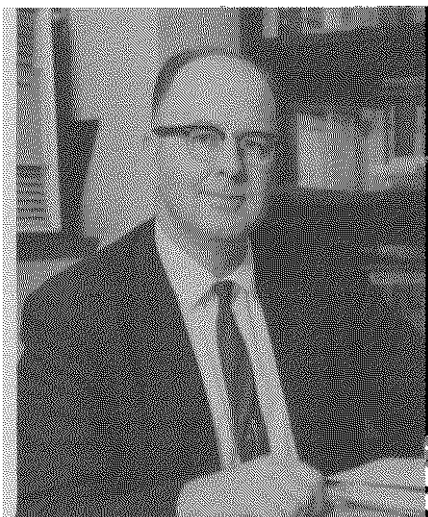
Another flood protection challenge confronting the New Orleans District stems from Gulf hurricanes which strike the Louisiana coastline at a frequency of about two every three years. The District has developed four hurricane protection projects, all of which have been authorized by Congress.

The largest of these will, when completed some 7 years hence, protect the metropolitan New Orleans area from hurricane flooding. It entails construction of a "barrier" to preclude the entrance of hurricane induced tides into Lake Pontchartrain, the improvement of existing protective works and construction of new levees in previously unprotected areas. Components of the \$120 million project include: two control structures, two dams, two shallow draft navigation locks and a navigation flood gate.

The achievements of the New Orleans District during the 100 years of its existence, do form an impressive list. However, the benefits that have accrued to the Nation as a result of the vast waterway network that it has created, and the suffering, death, and loss of property, that has been avoided due to its construction of a multitude of flood control works in Louisiana, are the true measures of the New Orleans District's achievements during its first 100 years.

(Left) The two main passes of the Mississippi River can be seen in this view taken from high above the Head of Passes. On the right is Southwest Pass which the Corps has developed into a 40-foot deep navigation artery; and on the left is South Pass in which Eads successfully created a 28-foot channel. (Right) A hydraulic cutterhead dredge works under contract to the Corps in enlarging a main channel through the lower Atchafalaya Basin Floodway.





Dean Ben T. Bogard
Fellow Grade ASME

Dean Ben T. Bogard, a former president of the Louisiana Engineering Society, was recently honored by being elected to the Fellow Grade in the American Society of Mechanical Engineers. This grade is reserved for those engineers who "have acknowledged engineering attainments and 25 years of active service in the profession." It was natural that Ben would be an engineer, for his father was a Mechanical Engineering graduate from the University of Kentucky and served as Professor and Dean of Engineering at Louisiana Tech for 22 years. Ben earned the B.S. in Mechanical Engineering from Louisiana Tech in 1935 and the M.S. in Mechanical Engineering from LSU in 1936.

After completing the Master's Degree Ben chose to follow in his father's footsteps and joined

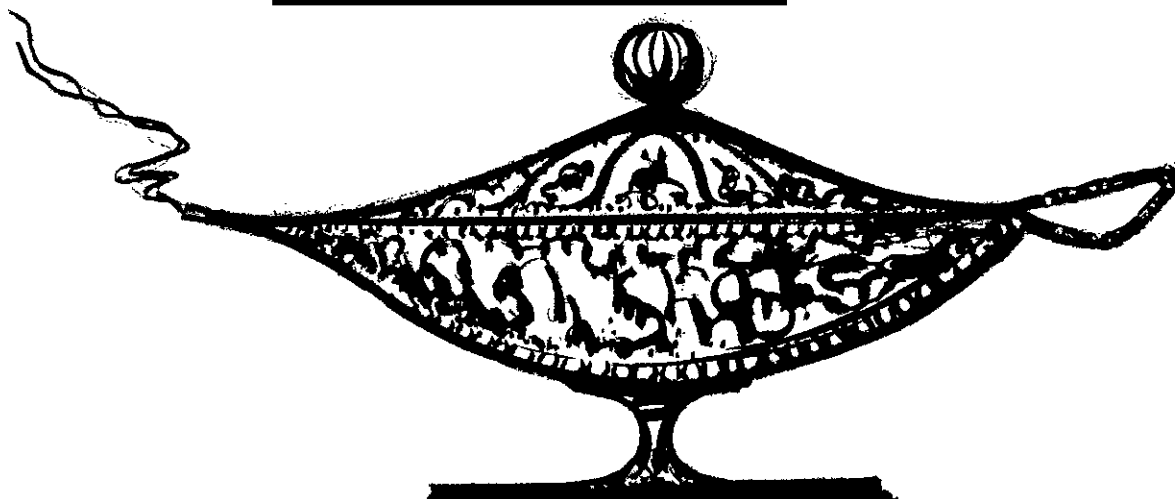
the faculty of the School of Engineering at Louisiana Tech. While in college and during his first years as a teacher Ben was an active radio "Ham." Later, as his family and teaching responsibilities increased, he had to give up this most enjoyable hobby.

In 1952 he was made Dean of the School of Engineering and he has served in that position since that time. Under his strong leadership, the engineering program at Louisiana Tech has continued to grow, both in size and in quality. His guidance is especially evident in the recruiting of a highly qualified faculty, the emphasis on research, and the updating of the curricula. Dean Bogard has been an active member of the Louisiana Engineering Society, serving on the Board of Directors from 1956 to 1962, as vice president in 1959 and 1960, and as president in 1961. On two occasions he was awarded Certificates of Appreciation for his outstanding work by the Monroe Section of the L.E.S.

Dean Bogard has been a member of the Louisiana Engineering Registration Board since 1950 when it was first established and served as chairman of the Board for two years. Because of his outstanding contributions in the field of registration and professionalism, he was awarded a Certificate of Outstanding Service by the Southern Zone of the National Council of State Boards of Engineering Examiners and the Distin-

guished Service Award by the national organization. In addition to his professional activities, Dean Bogard has served his church, his country, and his community as well. For a number of years he has served as an elder of the Ruston Presbyterian Church. During World War II he was an officer in the Ordnance Corps with most of his duty spent in rocket development and design in the Office of the Chief of Ordnance. He is presently a member of the Ruston Kiwanis Club and the Ruston Chamber of Commerce, having served as president of both of these organizations.

During his term as president of the Ruston Chamber of Commerce the first land for the Ruston Industrial Park was purchased. This was the beginning of a project that has grown and contributed much to the industrial growth of the Ruston area. Dean Bogard is also a member of the Board of Trustees of the Lincoln General Hospital, Incorporated. He is a great lover of the outdoors, and whenever he can get away from his office for a few hours he loves to go hunting and fishing. Ben is fortunate as his wife, the former Irma Louise Oxley of Ferriday, Louisiana, and his five children, four daughters and one son, also enjoy the outdoor living. The Bogards take full advantage of the fishing and water sports on the newly developed Lake D'Arbonne. Our congratulations to Dean Bogard on this richly deserved honor.



MINUTES – LES BOARD OF DIRECTION

BOARD MEETING MINUTES

FRIDAY AUGUST 4, 1967

HILTON INN HOTEL
NEW ORLEANS, LOUISIANA

President McNamara called the meeting to order at 4:00 P.M. with Messrs. Vogt, Hogue, Duclos, Bankston, Singleton, Williams, Nelson, Ewing, Thigpen, Stouse, Guissinger, Hurstall and Barnard present. Also present were Farrell Adams, State Membership Chairman, and Mrs. Sandra Solleau, Secretary.

The minutes of the last board meeting were read and discussed. It was agreed to modify page 4, paragraph 2 to change Qualifications Committee to Admission Committee. Acceptance moved by Mr. Duclos seconded by Mr. Williams. Motion passed.

Mr. Vogt distributed official audit report for 1966-1967 Society operations. A net loss of \$8,772 was indicated. This serious matter was discussed at length. Mr. Nelson moved that the report be accepted. Seconded by Mr. Ewing. Motion passed.

Mr. Hogue presented the proposed budget for 1967-1968 operations. A loss of \$5,115 is anticipated. Expenses generally are expected to be up in printing. To overcome this deficit one of several courses of action must be taken. Advertising income must be increased or dues must be raised in several categories. An alternative would be the reduction of the rebate now given to all of our chapters. After much discussion it was moved that the budget be accepted by Mr. Duclos provided that a committee would be named to make detail study and recommendations. This was seconded by Mr. Bankston and passed. Mr. Nelson dissented. The following members were appointed to this special committee, Mr. Odom, Chairman, Mr. Vogt, Mr. Bankston, and Mr. Singleton.

A petition was received by 15 members of the Society that proposes a change in the Constitution whereby dues in every category will be increased by the sum of \$3 per year. The student members classification was excepted. Mr. Ewing moved that this matter be presented to the state meeting in Alexandria in September and that the report of the special committee appointed by Mr. McNamara be discussed at this meeting. Second by Mr. Nelson and passed.

The bylaw change that affected the fiscal year of the Society was discussed. The new fiscal year of the Society would start on July 1 and end on June 30. Although strongly recommended by the Auditor and many past officers of the Society, a question was raised by NSPE. Mr. Duclos moved that the Bylaw change be accepted seconded by Mr. Ewing. The motion was passed with Mr. Nelson dissenting.

The Membership Committee recommended changes to the bylaws concerning operation procedure for the Admissions Committee. Several objections were voiced and a committee to resolve all differences was appointed by the President. Members are Mr. Adams, Chairman, Mr. Vogt and Mr. Hogue.

Mr. Ewing reported on plans for the next statewide meeting in Alexandria on 9-15-67. This will be our Planning Conference. Mr. Ewing will print up a complete program and furnish to the state office for general mailing. Also a letter will be prepared to all members of the Society outlining the proposed Constitutional Changes.

The President reminded all chapter Presidents of the necessity for naming committee chairmen at the earliest possible date so that statewide committees could be named. The Secretary-Treasurer briefed the board on plans for moving the State Headquarters office to Baton Rouge. At this time no specific date for the move can be announced.

The President announced that the Spring Convention report would again have to be deferred. It is hoped that the complete report can be given to the Board at its next meeting.

The President asked for nominations to the Louisiana Air Control Commission. Mr. Nelson moved that Mr. Cecil Shillstone be recommended with two other nominees to be selected by the President. Seconded by Mr. Hogue and passed.

Statewide Committee Reports

Nelson advised the Board that Mr. Tassin has taken over the August issue of the *Louisiana Engineer* and that excellent progress is being made. Printing prices are up sharply. The Society will urgently need chapter help in obtaining additional advertising. Technical articles are also needed.

Mr. Adams reported on the new membership campaign. Some chapters have done little in the new year.

Mr. Guissinger reported on the PEG Section. There are many urgent matters that will require concentrated effort in the months to come.

Mr. Charles Barnard reported on the recent Hartford meeting on PEPP.

Mr. McNamara asked for a discussion by the Board whereby chapter Presidents who plan to be absent for a state Board meeting can delegate proxy to one of the chapter Vice Presidents. It was agreed after discussion that either chapter Vice President could act in the President's behalf at all state Board meetings where the Chapter President notifies the Secretary-Treasurer of his planned absence.

The President reported on the Department of Defense training conferences that will be held in several Louisiana cities. An announcement will be published in the *Louisiana Engineer*.

Mr. Nelson gave the Board a complete report of proceedings at the recent meeting of NSPE in Hartford, Connecticut.

Mr. Vogt reported that all applicants on the June 1, 1967 ballot were elected with 252 ballots returned.

Mr. Hurstall moved that the meeting adjourn and Mr. Hogue seconded.

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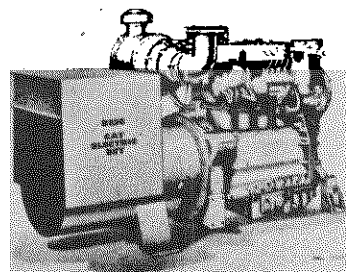
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NEW MEMBERS

The name of the new member, his residence location and Chapter shall be published in the next possible issue of the LOUISIANA ENGINEER, and if more than two members write a valid reason to the Board of Direction not later than the month following the publication month, then the new member's membership shall be declared revoked. No record of such action shall be entered in the minutes but the new member shall be so notified after Board action, and any dues he may have paid shall be refunded in full. A new member whose membership has been revoked by the Board may have at least eight members request in writing, along with their reason, that the Board consider republishing his name. If such reasons are deemed good and sufficient, the Board shall order the republishing of his name and it shall be governed by the same rules as the first. Should the new member again receive more than two negative votes the Board shall again declare his membership revoked and no further action may be taken on republishing his name. If two or less negative votes are received then the Board shall acknowledge that the new member's date of membership shall be from the date as originally fixed by the Admissions Committee.

ALEXANDRIA

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Franklin Huey Jenkins
Robert Owen Phillips
Joe Frank Roberts
Irvin Louis Sonnier

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Montrust Q. Burrell, Jr.
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Charles W. Hogg, Jr.
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Quillie Emanuel Kinard, Jr.
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William Joseph LeBlanc
James Doyle Martin
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Fred Montgomery, Jr.
Ronald Adam Muller
Paul Whitfield Murrill
James F. Naylor, Jr.
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Vincent George Russo
John R. Shortess

LAFAYETTE

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John Donald Lyle
Frank C. Miller, Jr.

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Leo E. Howat
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John Alden Leo
Douglas R. Long
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Robert E. Rood
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Jimmy T. White, Jr.

SHREVEPORT

Joe Abramson
Keith Lawrence Andrepont
William Thomas Arnold
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Robert Parker Blanche

NEW ENGINEERS

PROFESSIONAL ENGINEERS GRANTED REGISTRATION

September 19, 1967

By the Louisiana State Board of
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and Land Surveyors

Adams, Aaron F.—Mech/Indus
Adams, Kenneth H.—Metallurgical
Aswad, Kay B.—Electrical
Bankston, Frank L., Jr.—Mech/Indus
Ballard, Julian L.—Mech/Indus
Barron, Edward L.—Mechanical
Beasley, Jerald R.—Civil
Binder, Thomas P.—Chemical
Brantley, Gerard J.—Civil
Bronson, George M.—Petroleum
Brusher, William F.—Mechanical
Buell, David N.—Mechanical
Calhoun, Sam L.—Electrical
Calongne, Robert J.—Mechanical
Carver, John G.—Civil
Cunningham, J. R.—Civil
Daley, Joseph R.—Civil
Drake, Robert L.—Electrical
Davis, Max A.—Electrical
Denson, Curtis L.—Mechanical
Domingos, Edward K., Jr.—Mechanical
Edmondson, Fred E.—Mechanical

Elfers, Jim P.—Mechanical
Evans, Thomas C., Jr.—Civil
Fosholt, Sanford K.—Elec & Mech.
Foster, Edward P.—Civil
Franzetti, Eduardo—Mechanical
Giesen, Bernard—Electrical
Gober, Hans J.—Electrical
Green, Robert H.—Petroleum
Guerra, Homer—Electrical
Hansen, Donald R.—Mechanical
Hansen, Everett D.—Electrical
Hendrich, John H.—Civil
Hudson, Thomas J.—Mechanical
Ivey, Ray D.—Land Surveyor
Kennedy, Thomas E.—Mechanical
Kirwin, Lawrence P.—Electrical
Knezek, Raymond B.—Chemical
Kranz, Donald E.—Civil
Kreps, William L.—Electrical
Lasseter, Thomas E.—Chemical
Lee, Charles W.—Civil
Leung, Vincent T. H.—Mechanical
Littlefield, Jerold K.—Civil
Marsiglia, Vincent J.—Petroleum
Martin, Cleo F.—Chemical
Mathis, Kenneth D.—Mechanical
Misuraca, Vincent J.—Land Surveyor
Nilsson, Darwin K.—Electrical
Nowicki, Joseph F.—Civil
Osborne, George H.—Civil
Otilio, Hilary W.—Electrical
Penrose, Orville D.—Civil
Poorman, Frank, Jr.—Mechanical
Post, Jerry V., Jr.—Electrical
Presley, Kenneth B., Sr.—Civil
Primeaux, Andrew D.—Civil
Reusswig, Frederick W.—Civil
Rohloff, Larry G.—Civil
Rutherford, James D.—Civil
Seals, Mason J.—Electrical
Schambach, Edgar L., Sr.—Civil
Sidwell, James Vincent—Petroleum
Smith, Robert B.—Mechanical
Stahl, James D.—Petroleum
Stearns, Charles P.—Mechanical
Strickland, Raymond C.—Civil
Thomas, Joe B.—Mechanical
Thurston, Egbert—Land Surveyor
Tobin, Francis J.—Civil
Tribuch, Isidor—Mech/Indus
Triche, J. Alvin, Jr.—Electrical
Tsai, Sunny—Electrical
Turk, David M.—Civil
Tvrdik, Charles F.—Mechanical
Tymkiw, Harry J.—Electrical
Ufer, Claus D.—Civil
Villarrubia, Richard D.—Petroleum
Wickizer, Carl L.—Civil
Wilson, Abner W.—Petroleum
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LETTERS

Mr. Waldemar S. Nelson
1200 St. Charles Avenue
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Dear Waldemar:

The August issue of "Louisiana Engineer" is such a great improvement over any previous publication that we've ever put out that I am hesitant about making suggestions about future issues but here goes anyway.

I think it would be a good idea to have an article every issue about a well established engineering firm and suggest that the next one be Elmer Shutts. These articles need not be as comprehensive as the 100-year salute to Fromherz. There may be some competition as we get down to newer firms but I think it can be worked out.

Another idea I had was the inclusion of a short biographical sketch on engineers of the past who have done a great deal for Louisiana. Two old timers would be Eads and Shreve and of more recent vintage we could memorialize Baldwin Wood and John F. Coleman.

I'd also like to see each chapter have a short resume' of activities and a "personals" column.

With kindest regards,

Yours sincerely,
LEO M. ODOM

Editor:

This is to notify you that the New Orleans Chapter will meet regularly the second Monday evening of each month, commencing October 9, 1967.

This information is for publication in the LOUISIANA ENGINEER.

PIERRE J. STOUSE, JR.
President

FLUID POWER SHORT COURSE

On November 15, 16 and 17, 1967, a short course on the design of basic fluid power and control systems will be held by the Agricultural Engineering Department of Louisiana Polytechnic Institute. The short course will begin with a brief review of fluid mechanics. This review will be followed by a discussion of pumps, motors, and valves. Basic fluid circuitry, the design of fluid power systems, fluid reservoirs, and heat transfer in fluid power systems will be covered.

Dr. E. C. Fitch, Jr. of Oklahoma State University will teach the fluid power systems design. Louisiana Tech Staff Members will present the review material.

Interested persons should contact Dr. F. E. Beckett, Head, Department of Agricultural Engineering, Louisiana Tech, Ruston, Louisiana, for more complete details.

MEMBERSHIP CONTEST RESULTS

Here are the standings in the Chapter Membership Contest as of October 2, 1967.

Standing	Chapter	Quota	Applications	% Quota
TIE { 1	Lake Charles	10	9	90
1	Monroe	10	9	90
2	Baton Rouge	39	27	70
3	Alexandria	10	4	40
4	Shreveport	17	6	35
5	New Orleans	70	17	25
6	Lafayette	16	3	19
Totals		172	75	44%

INDIANA AMENDMENTS

In 1967, the Indiana General Assembly amended three sections of the Registration Act. Briefly, the effect of these are as follows:

Section 3. After January 1, 1968 the Governor, in making appointments to the Board, shall have the Board constituted with one member from industry, one member from government, one member from education and two members from private practice. (Two members who are also land surveyors are still required.)

Section 18. No partnership, firm or corporation may engage in the practice of engineering unless the practice is carried on under the responsible direction and supervision of a registered engineer who is a principal of the firm or partnership or officer of the corporation and the name of such principal shall appear whenever the firm name is used in the practice of the firm, partnership or corporation. (Only natural persons may be registered but corporate practice is permitted subject to the above amendment.)

Section 30. Completely rewritten to provide any person licensed to practice engineering is exempt from any acts regulating the practice of architecture and provides, further, that no provision of the act shall apply to or affect an individual, firm or corporation registered as an architect under the Architect's Registration Act. An architect who is exempted from this (Engineer's) Act shall not use the designation "Engineer" in any form or manner unless registered as an engineer under this act.

NEW ORLEANS AUXILIARY

At the Annual Meeting of the National Society of Professional Engineers held in Hartford, Connecticut, it was reported that the Woman's Auxiliary of the Louisiana Engineering Society in New Orleans had the largest chapter group in the nation with a total of 304 members. The New Orleans group is one of the oldest and most active women's auxiliary groups in the country and its various activities have set an example which have been followed throughout the State and Nation.



W. S. Dickey Clay Manufacturing Company has appointed Charles E. Locke as District Engineer for the territory served by the company's plant in Meridian, Miss.

STATISTICS SEMINAR

A seminar on Applied Statistics for Engineers will be held at LSU in Baton Rouge on January 10, 11, and 12, 1968.

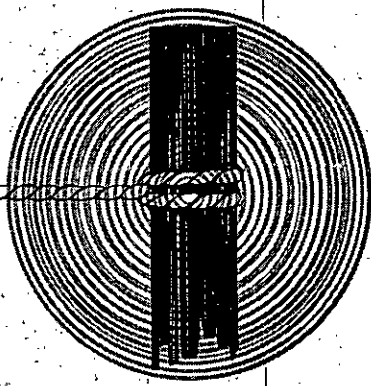
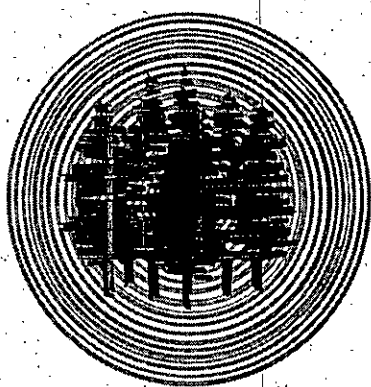
The three-day course in industrial application of statistics will be conducted through the Academic direction of the College of Engineering.

The field of statistics has become a powerful tool in production, maintenance, and engineering activities. It is expected that this program will give the participants an introduction into the subject sufficient to begin to solve practical problems.

No previous statistics experience is required. The background required for an appreciation of the subject matter is that equivalent to a Bachelor's degree in engineering or science. This will be the third time that this popular course has been offered.

The topics to be covered include Probability, Permutations and Combinations, Distributions, Measures of Variability, Chi-Squared Goodness of Fit Test, Analysis of Variance, Correlation, and Regression.

For further information, write the LSU General Extension Division.



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IN MEMORIAM

NORMAN E. LANT

(Reprinted from the Baton Rouge State-Times of Wednesday, September 6, 1967)

His Monuments

Norman E. Lant, a transplanted Hoosier who served Louisiana so well so many years in its Highway Department as chief engineer, has died, full of years and honors in and out of his profession as an engineer.

Monuments to his great capability and his great service to the state stand everywhere, from the Arkansas line to the Gulf shore, from the Sabine to the Pearl Rivers. They are many of the bridges, great and small, that link the segments of the vast network of roads and highways which were hardly in dream form when Mr. Lant came to Louisiana in 1922.

The old (north) bridge across the Mississippi River here was designed by him. So were the Red River bridge at Coushatta, the Sabine River bridge at DeRidder, the Rigolets bridge east of New Orleans. So were the Atchafalaya River bridges at Krotz Springs and at Morgan City. He retired in 1955, but briefly only. He was back with the Highway Department two years later.

Mr. Lant used to say Louisiana gave him his career. Louisiana can say he spent it well, in her service.

MILES B. HUTSON

Miles B. Hutson of New Orleans, La., died on September 7, 1967 at the age of 77. Mr. Hutson was an Electrical Engineer graduate of Texas A&M University, Class of 1909. He began work as an apprentice with Westinghouse Electric and Manufacturing Company in Pittsburg in 1909, and subsequently became associated with Electric Appliance Company in New Orleans until World War I, in which he served as a Lieutenant in the Engineering Corps in France. Following the war, Mr. Hutson was associated with the National Board of Fire Underwriters. He returned to New Orleans and was very active in the electricity industry and served as head of the Motor Division of Industrial Electric Company until 1957. He then served as a principal engineer with the firm of Waldemar S. Nelson Company, Inc. until his death.

Mr. Hutson was quite active in the affairs of the electrical industry and The Institute of Electrical and Electronics Engineers in the Louisiana area. He was a charter member of the New Orleans Section of the American Institute of Electrical Engineers and served for a number of years as its historian. Mr. Hutson was a registered professional engineer and was a member of the Louisiana Engineering Society since 1948.

Mr. Hutson was responsible for many improvements in electrical power equipment

and held patents on several inventions. The Electrical Association of New Orleans honored Mr. Hutson in 1960 when they recognized his contributions and awarded him their Pioneer Certificate.

Miles Hutson was well known in Louisiana engineering circles and was well liked and respected by all of his associates. He achieved and reflected a sense of happiness and enjoyment of life which we all hope to attain.

DAVID WALKER GODAT

On August 13, 1967 death took David W. Godat, a member of the Society for over 40 years and a past President.

David Walker Godat, the son of Mr. and Mrs. Allen Fulton Godat, was born in New Orleans, Louisiana on January 17, 1897. He attended the public schools of New Orleans and entered the College of Engineering of Tulane University of Louisiana in 1915 from which he was graduated in 1919 with the degree of Bachelor of Engineering in Civil Engineering. He subsequently did graduate work in structural engineering at Tulane and in 1933 received the degree of Civil Engineer.

He was married on April 6, 1920, to Esther Augustin of New Orleans, Louisiana, who died June 25, 1949. Their only son, David Walker Godat II, died February 6, 1930, and in his memory Mr. Godat established the David Walker Godat II Memorial Scholarship Fund in the School of Engineering of Tulane University of Louisiana. On October 29, 1952, Mr. Godat was married to Mrs. Bee Sutton Blocker of New Orleans, who died January 26, 1963. He is survived by a brother, a sister and numerous nieces and nephews.

After graduation from Tulane, Mr. Godat worked for T. Baker Smith, consulting engineer of Houma, Louisiana, in 1919. From 1920 until 1923 he was with the Bureau of Bridges of the Illinois Division of Highways on bridge design and supervision of construction. From 1923 until 1940, he was in the employ of the City of New Orleans in various capacities. As Bridge Engineer in the office of the City Engineer he was responsible for the design and supervision of construction of several movable bridges over navigation canals and of numerous bridges over drainage canals. Subsequently, as Maintenance Engineer for the Division of Public Works of the City of New Orleans, he was in charge of maintenance and operation of shops, mechanical equipment, incinerators and similar facilities for the City and also designed various such facilities.

In 1940, Mr. Godat became engaged in private practice as a partner of C. C. Barnard and G. A. Heft in the founding of the firm of Barnard, Godat and Heft of New Orleans, which in 1944 became the firm of Godat and Heft. In 1948, Mr. Godat opened his own office as David W. Godat & Associates. In 1965, Jerome Pep-

per became Mr. Godat's partner and the firm of Godat and Pepper continued in practice until the time of Mr. Godat's death. Mr. Godat's experience in the field of incineration was well known and he was responsible for the design of numerous incinerator facilities in New Orleans and surrounding communities. In 1942-44, the firm of Barnard, Godat and Heft was associated with Albert Kahn Associated Architects and Engineers of Detroit, Michigan on the design for the Defense Plant Corporation of industrial facilities at Michoud, Louisiana then known as the Higgins Aircraft Plant, now used by NASA for manufacture and assembly of its Saturn program components. Mr. Godat participated actively in studies for and portions of the engineering service on an extensive program of railroad grade crossing elimination and terminal improvements at New Orleans from 1940 until 1954, the firm of Godat and Heft representing the City of New Orleans in the negotiation of the agreements for this program which were executed in 1947. Jointly with Hardesty and Hanover and Knappen-Tippetts-Abbott-McCarthy of New York, Mr. Godat's firm designed for the Louisiana Department of Highways the New Orleans approaches to the Mississippi River Bridge at New Orleans which was opened in November, 1958, involving extensive elevated expressway roadways, interchanges and ramps to and from the bridge. In addition to extensive highway and grade separation work, Mr. Godat's private practice included work for both the Corps of Engineers and the Bureau of Yards and Docks on various military installations during World War II, numerous industrial facilities, docks and sewage treatment facilities.

Mr. Godat was a member of Tau Beta Pi. He was a registered Civil Engineer in the States of Alabama, Louisiana, Mississippi and Texas and a registered Mechanical Engineer in Louisiana. As a member of the Chamber of Commerce of the New Orleans Area for many years, he was active in the work of a number of its committees, particularly those dealing with highways and industrial development. He was a charter member of International House of New Orleans and served as a member of its Board of Directors from 1948 to 1951. He was a member of the City Planning and Zoning Commission of the City of New Orleans from 1951 to 1959. He was a member of the Rayne Memorial Methodist Church of New Orleans.

Mr. Godat was a member of the American Public Work Association and of the Louisiana Institute of Civil Engineers. He was elected a Member of the American Society of Civil Engineers in 1937 and was elected a Fellow in 1959. He was an active member of the Louisiana Section, serving as chairman of numerous committees and as its President in 1944. He was a Charter Member of the Gulf Institute of Consulting Engineers—now the Consulting Engineers Council of Louisiana, Inc.—upon its founding in 1950 and remained active in its work until the time of his death. He was elected a Member of the Louisiana Engineering Society August 15, 1924 and was elected a Life Member in 1954. He served as its President in 1939.

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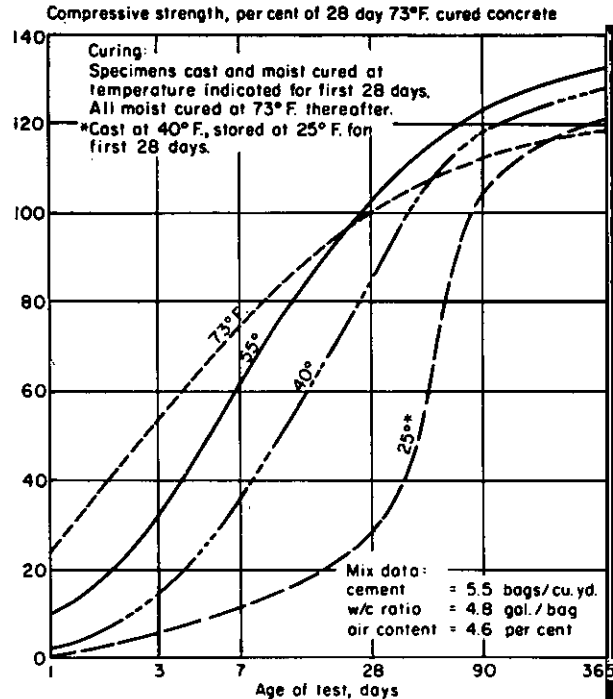
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Table 1. RECOMMENDED CONCRETE TEMPERATURES FOR WINTER CONSTRUCTION* (air-entrained concrete)

Line 1	Type of structure		Thin sections	Moderate sections	Mass sections
2	Min. temp. fresh concrete as mixed	Above 30° F.	60	55	50
3	for weather as indicated, deg. F.	0 to 30° F.	65	60	55
4		Below 0° F.	70	65	60
5	Min. temp. fresh concrete after placing and for first 4 days, deg. F.**		55	50	45
6	Max. allowable gradual drop in temp. throughout first 24 hours after end of protection, deg. F.		50	40	30

*Adapted from Recommended Practice for Winter Concreting (ACI 604-56), American Concrete Institute.

**When high-early-strength concrete is used, minimum temp. in line 5 should be maintained for the first 3 days after placing. In all cases, an additional 3 days of protection from freezing is recommended.

Basic Guides for Winter Concreting

1. Plan in advance. Have equipment and materials ready before cold weather arrives. Provide heaters, insulating materials, and enclosures.
2. Use air-entrained concrete.
3. Don't place concrete on frozen subbase. Be sure that all ice, snow and frost are removed from surfaces the concrete will touch. Live steam is recommended.
4. Maintain proper concrete temperatures. (See Table 1.)
5. Reduce the protection period—consider using high-early-strength concrete.
6. Cure concrete to prevent loss of moisture. When heated enclosures are used, provide extra moisture by sprinkling or use exhaust steam for heating. Vent salamanders and other fuel-burning heaters.
7. Do not allow use of so-called anti-freeze compounds in an attempt to lower the freezing point of concrete.
8. Remove forms at proper time. Be sure to

allow concrete to reach required strength.

9. Keep job condition records. Record, at least twice daily: weather conditions, temperatures of the air surrounding the concrete, and the concrete surface.

10. Don't use water reducers or retarders if concrete is to cure below 60 deg. F.—they may prolong the set.

11. Calcium chloride or admixtures containing soluble chlorides should never be used under the following conditions:

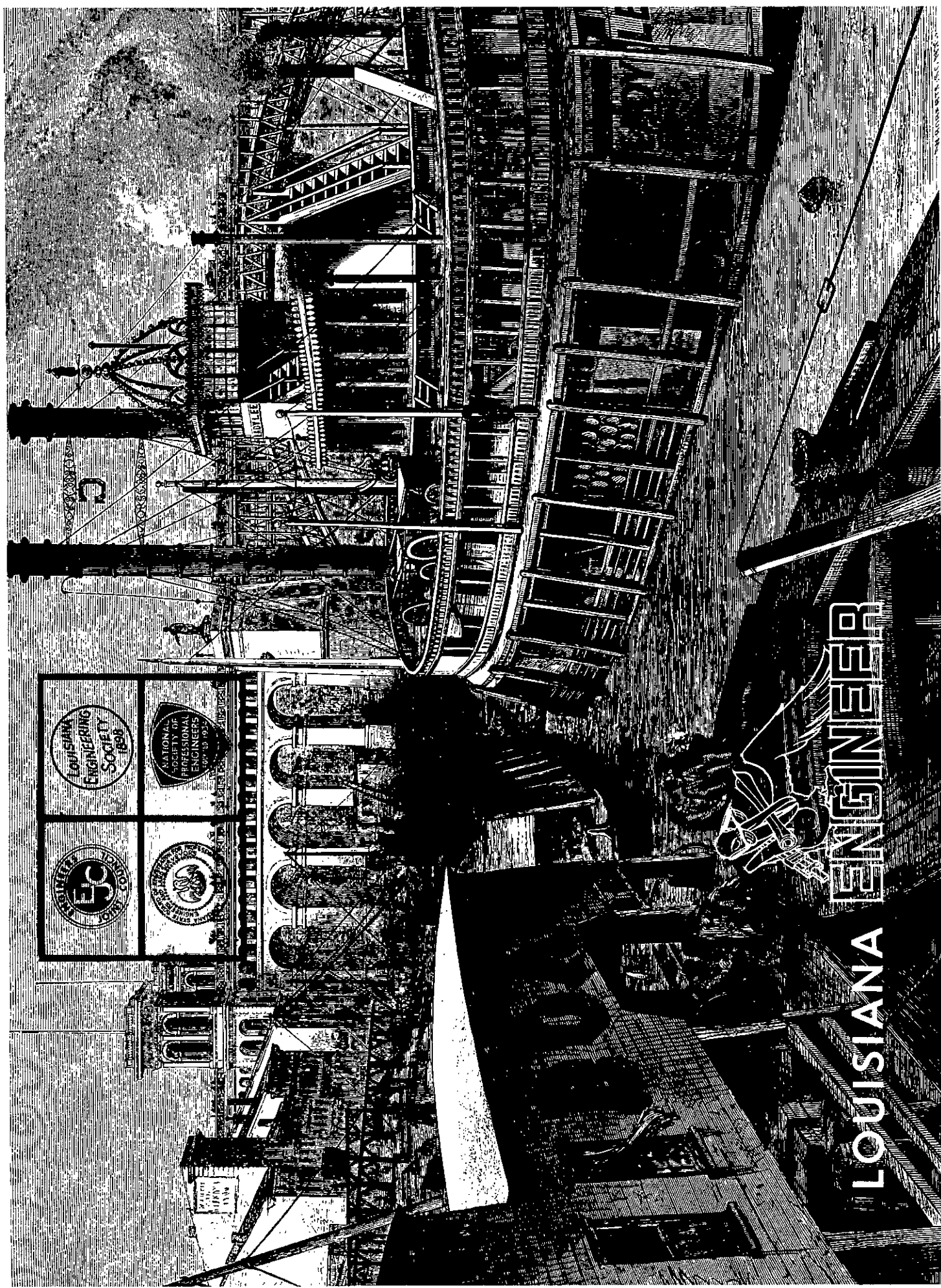
- a. In concrete for prestressed concrete construction. Corrosion of the prestressing strands may result.
- b. In concrete containing embedded aluminum such as conduit. Serious corrosion can result.
- c. In insulating lightweight concrete placed over metal decks. Metal may corrode.
- d. In concrete that will contact soils or water containing sulfates. Resistance to sulfate attack may decrease.
- e. In concrete where control of drying shrinkage is important. Shrinkage may be increased.

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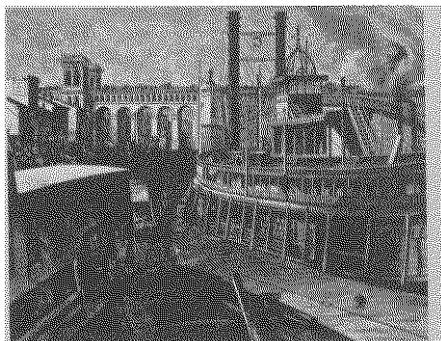
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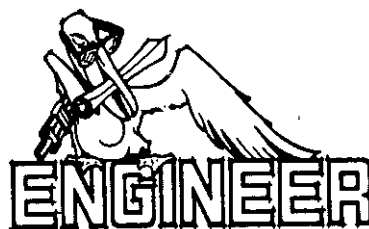
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COVER: A print of the levee at St. Louis where Eads constructed his "magnificent" bridge.

LOUISIANA



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TRAFFIC: Streets were designed to handle a minimum 500 vehicles daily.

PAVEMENT SECTION: Subgrade: Clay loam to silty clay. Plastic when wet but stiff and dense when compacted at proper moisture content. Variations in moisture are apt to produce detrimental moisture content. **Base:** 6" (placed in two 3-inch layers) hot-mix asphalt using Michigan Department of State Highways aggregate No. 24-A. (Uncrushed sandy gravel.) **Surface:** 1.5" asphalt concrete using Michigan Department of State Highways coarse aggregate No. 31-A (crushed limestone), fine aggregate

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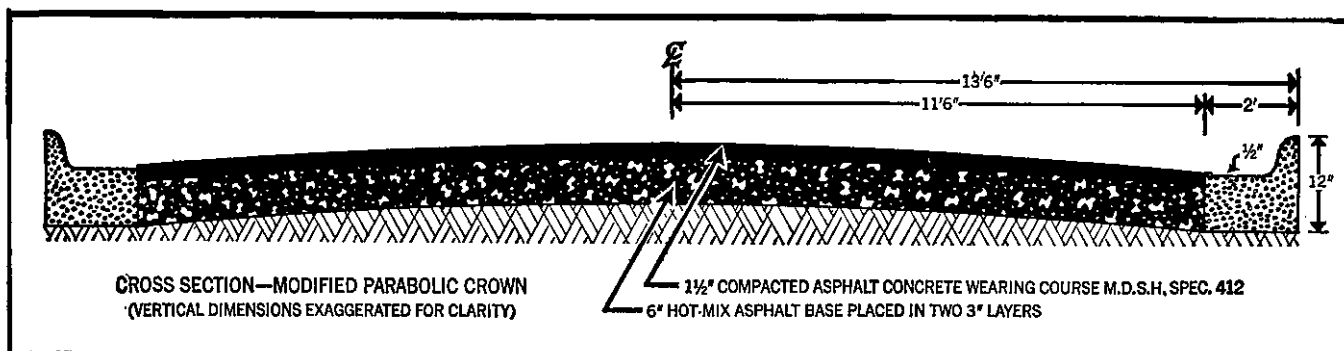
CONTRACTORS: Prime: C. J. Rogers Construction Co., Flint, Michigan; **Asphalt Paving:** Flint Asphalt & Paving Co. and Spartan Asphalt Paving Co., Flint, both members of the National Asphalt Pavement Association.

Flint will continue to use Full-Depth Asphalt pavement—already in the 1967 program approximately 7.5 miles of this type pavement have been let to contract. The officials of this progressive city are providing its citizens with the most economical and yet the most durable and safest pavement modern engineering can develop.



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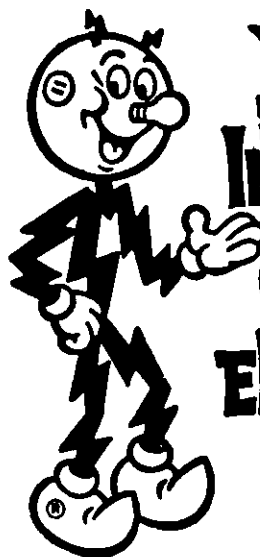
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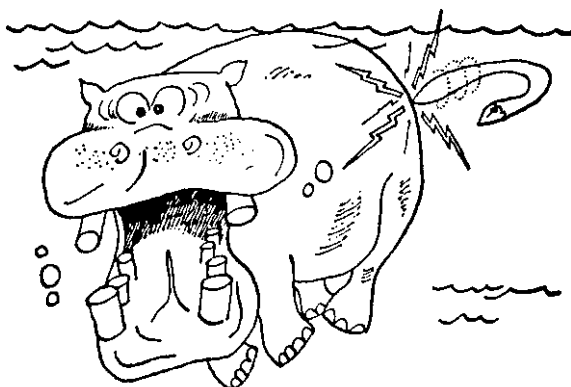
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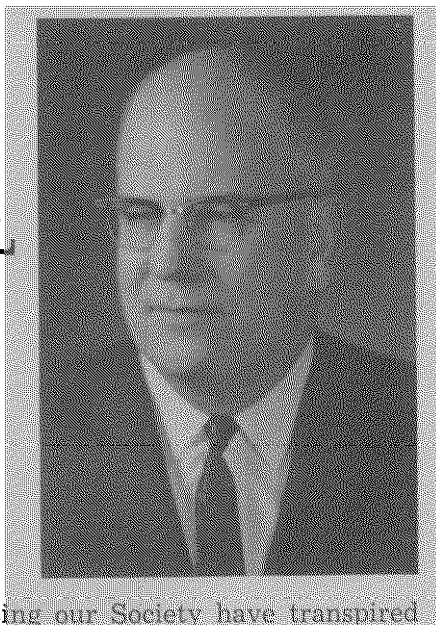
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PRESIDENTIAL PRIVILEGE

By LES President Edward McNamara



Several important events affecting our Society have transpired since my last column and each should have lasting effects on the future of the Louisiana Engineering Society.

First was an increase in membership dues. In September, at the general membership meeting in Alexandria, our special committee studying finances recommended two courses of action. We could either cut the rebates paid to each chapter according to the number of members, or increase membership dues. The majority of those attending voted to ask for a dues increase.

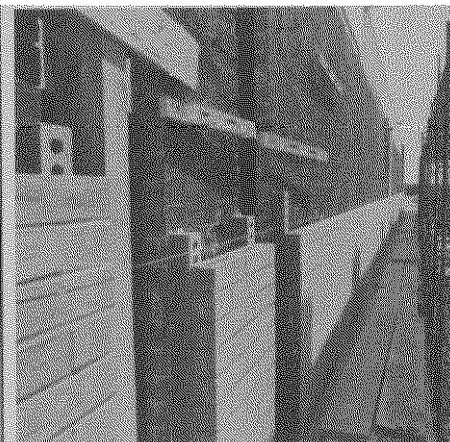
In November, after the overwhelming approval by the membership, increased dues went into effect for 1968.

Second, the location of the State Office was changed from New Orleans to Baton Rouge. It was determined months ago, by the democratic action of a general membership vote, that our office should be relocated to Louisiana's Capital City.

The reasons for changing our domicile were numerous. One purpose was so we could keep closer watch on the Legislature without cutting office operation efficiency. Another was the advantage of closer liaison with other associations.

Both of these changes should have profound effects immediately and on the future growth of the Louisiana Engineering Society. We know that we have taken steps in the right direction to insure that the Louisiana Engineering Society will truly be the major voice of engineers in our state.

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JAMES B. EADS and the Challenge of Change

EDITOR'S NOTE: The following article on James B. Eads was garnered from three separate pieces written about this famous engineer by Hu Myers, III, Henry Howard, and "Orleans Materials Observer."

James Buchanan Eads was a 19th century engineer who made substantial contributions both to the nation's growth and progress and to his profession. Eads, by inclination, was a pioneer, and he had the qualities to be a notable one. He had abundant self confidence, a high degree of professional competence, a lively talent for innovation and also something of the gambler's cool audacity in the face of great odds.

Eads was born in 1820 and early became acquainted with

the river that would dominate his career—the Mississippi. As a boy he "boated" down the Ohio to Louisville and later to St. Louis, which would be the locale of one of his most significant projects. It was at this early age that he began to acquire his consummate knowledge of the Mississippi and all its devious ways, knowledge that would later prove to be of decisive importance.

He returned to the river in 1842 as a steamboat clerk and later joined a firm raising sunken river craft, a task which remains difficult to this day. His knowledge of the river was steadily growing as well as respect for the hazards and difficulties to be encountered when working on the river.

During this time Eads improvised a diving bell using a whiskey hogshead and was said to have explored the bottom of the Mississippi from Galena to its mouth.

Eads' wide range of talent was later demonstrated when he engaged in the manufacture of glass and made a fortune. Then, during the Civil War, Eads designed and built 7 ironclad river boats for the Union Army. It should be stressed that this man did not confine himself to design; always he organized and directed whatever work was current. Yet he was not merely a "Practical" man, a doer, for his restless talent for innovation led to some conceptions for projects that showed marked originality and soundness. This last quality

Left, The two main passes of the Mississippi River can be seen in this view taken from high above the Head of Passes. On the left is South Pass where Eads successfully created a 28-foot channel.

he would later demonstrate most graphically.

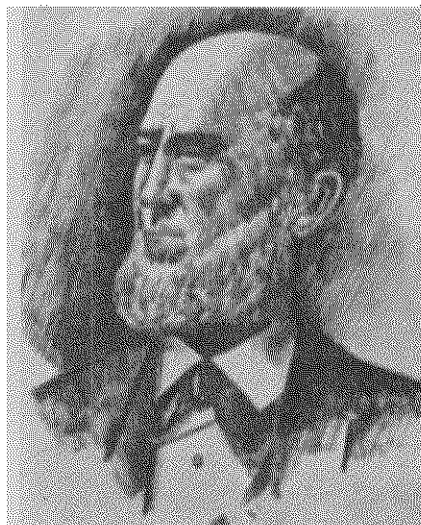
During the 19th century and particularly in the years following the Civil War Eads and his engineering colleagues were faced with one dominant task: that of providing efficient transportation for a nation growing at an unprecedented rate. Now that the nation stretched from coast to coast, the problem was to create a truly national system of transportation. The distances were vast, the difficulties formidable. The two most effective means of transport were the railroads and the steamboat, and on these the engineers had to rely. Yet in order to employ them most effectively, many problems had to be solved.

Two of the central transportation problems of that time involved the Mississippi River. The river had become a valuable artery of trade and transport when the first steamboat navigated it in 1812. Great asset though it had been, the river had never even reached its full potential in some respects. New Orleans, for example, suffered as a port because there was no dependable channel of sufficient depth between the Mississippi and the Gulf of Mexico. Consequently the port could not be an efficient outlet for export goods from its vast hinterland and was equally inadequate as an import center.

The Mississippi also constituted, by virtue of its size, a substantial barrier to east-west travel, particularly by railroad. If railroads were to realize their potential, this great barrier had to be bridged by structures with the capacity to carry sustained, heavy traffic. Construction and design procedures followed with this first bridge would, if proven successful, lay a sound foundation which would be invaluable to engineers building later bridges. The pioneering would be over.

James Buchanan Eads cast his restless eye on both problems. The first one he chose to solve involved the bridge over the Mississippi to be located at St. Louis. This unprecedented structure required unprecedented and dangerous measures to complete it, but it remains one of the great long-span railroad bridges in the United States.

Eads' plans for the St. Louis bridge were bold. To support both heavy rail and road traffic across the 1500 foot width of the waterway, he proposed the largest arch bridge of its day. Even more startling, he decided to build its three arches, each



over 500 feet long, of steel, a material never before used extensively in bridge building.

He also determined that the bridge's legs should be sunk to the firm rock far beneath the treacherous sandy bed of the river. This was to be accomplished by driving pneumatic caissons deeper than they had ever been driven before—a record 103 feet below the surface of the river.

The pier-building period was filled with painful and disruptive experiences. In laying the foundation on the west side of the river, workmen were slowed by

having to drive down through the hulks of three sunken steamers. Workmen building one of the piers out in the river were icebound for several days.

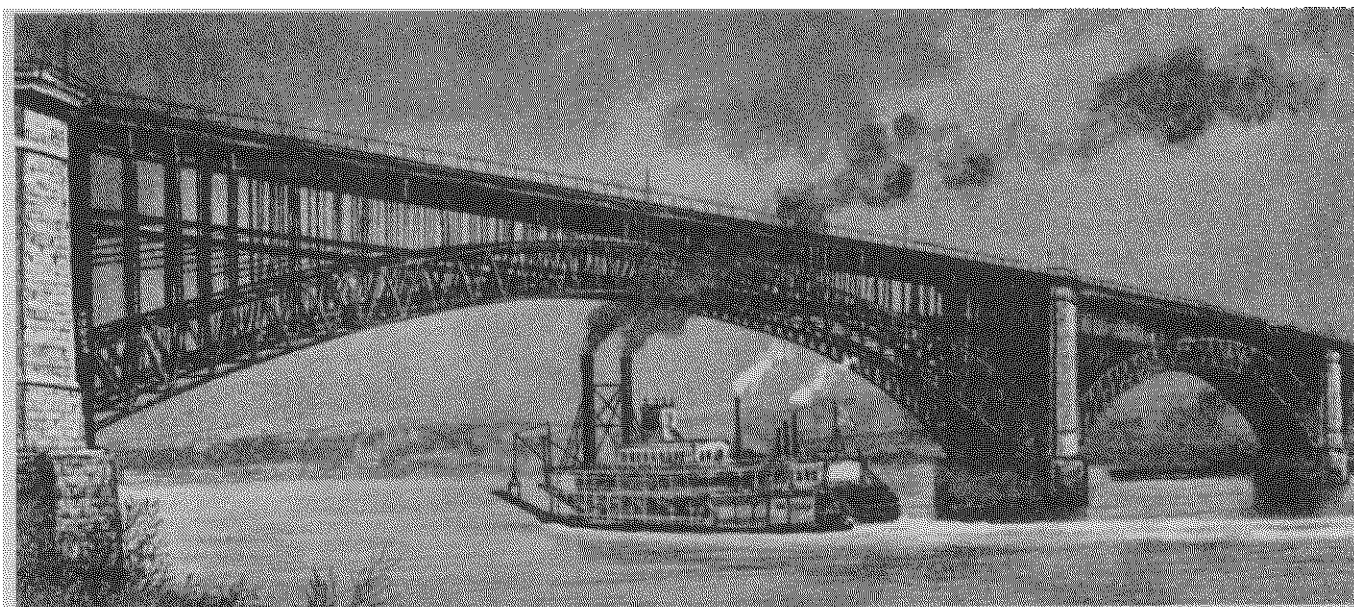
At another time a tornado struck. Cranes were blown down, scaffolding smashed and workboats sunk. But rather than being disheartened, Eads took a lesson from the storm and strengthened his design, incorporating iron wind-bracing beneath the deck of the bridge from end to end.

To expedite the digging of foundations, Eads invented a sand pump which utilized a high pressure flow of water to lift and eject gravel, sand and silt from a caisson chamber.

In building the steel arches Eads had to solve new problems of stress and erection, and by rigid testing initiate requirements for structural steel for which no standards yet existed. Acceptable steel staves took months to make; a year passed before the material for the anchor bolts was satisfactory, and more than six months went into developing the brace bars.

Construction for an arch started at a pair of piers and gradually extended out, with the structure self supporting as the work progressed, until the steel work met in the middle and closed the arch. This building method, called cantilevering, was new in America and new in bridge building.

A construction loan of a half million dollars hinged upon closing the first arch by September 19, 1873. But when this operation was attempted on September 15, the gap for the last tubular chord of steel was found to be slightly too small due to metal expansion caused by unseasonably warm weather. Even dramatic application of a 60-ton ice pack failed to widen the gap sufficiently. Finally on September 17 a



Eads' bridge in St. Louis.

quickly designed adjustable tube was substituted, the arch was closed and the loan granted.

On July 2, 1874, the bridge was completed and thousands were on hand to see it tested. Excitement ran high as 14 locomotives weighing 700 tons steamed slowly across the three spans. When they reached the other side without incident, a great common shout of approval rose and swept from one bank of the river to the other and back again. The Eads project was a success and the modern era of bridge building had begun.

Eads' battle with the Mississippi was not over, however, for the river was presenting still another obstacle to the efficient movement of people and goods. Ships still could not navigate safely between New Orleans and the Gulf of Mexico because of the lack of dependable channels at the mouth of the Mississippi. As early as 1838 attempts had been made to dredge such a channel but dredging proved only temporarily successful. A new solution was needed, for none of the three existing channels exceeded 18 feet in depth.

Eads studied the problem and characteristically arrived at a highly original solution. He sug-

gested confining the river to a relatively narrow channel so that the increased velocity of the current would scour the bottom to the desired depth. He proposed, essentially, that the river dredge and maintain its own channel. The proposal was greeted with doubt and disbelief and described as "difficult to build, excessively costly, and impossible to maintain."

In February of 1874 he made the government an offer to amount to ten million dollars to provide and maintain for ten years a channel 28 feet deep and 350 feet wide at the surface through the bar at Southwest Pass, no money to be paid him until he had created a channel 20 feet deep when he was to be paid one million and then one million more for each two feet of additional depth obtained up to 28 feet. The remaining half of the ten million to be paid in annual installments on condition that the 28 foot depth was maintained. This offer was refused as being too costly and that it would not work but only extend the mud bumps to sea, sink the jetty or undermine it or that sea worms would destroy it. He made a new offer in 1875 that he would make a channel 30 feet deep for eight million dollars

and maintain it for twenty years at \$150,000 per year. The new bill passed Congress on March 12, 1875, but stipulated that the jetties be built at the smaller South Pass which was choked by a bar twice as formidable as that at Southwest Pass. He decided to accept and try to do the impossible.

He went about assembling the equipment and material needed and built the village of Port Eads where the construction workers were to live. Work on the jetties commenced at once with the driving of the two rows of piles to border each jetty. The jetties were to be 1,000 feet apart and their top width varied from 10 feet at the upstream end to 50 feet at the Gulf end. They were designed as willow mattress or fascine type walls. The willow brush to be used was cut up the river above the head of passes and barged down to Port Eads where the mattresses were made up and held together by yellow pine strips. They were made in 100 foot lengths. The mattresses were towed from Port Eads to the jetty location, put in place and sunk by loading with stone. They were placed layer upon layer until the jetty was brought to the required elevation and then left for the river

to do its work. It deposited its silt through the willow walls and made it a solid wall which formed the completed jetty. Eads constructed in the period 1875-1879 3.6 miles of primary jetties 1000 feet apart and a set of inner secondary jetties about 200 feet apart together with an extensive system of groins extending about 200 feet into the channel from the secondary jetties and spaced from 400 to 1300 feet apart. In order to obtain sufficient flow in South Pass he had to place submerged sills at the head of Southwest Pass and Pass a Loutre to divert some of their flow to South Pass and also to close off Gran Bayou.

By April 1876 the river had scoured a channel to a depth of 16 feet. In October of the same year the 20 foot depth was reached and Eads put in a request for his first payment, which was held up in Washing-

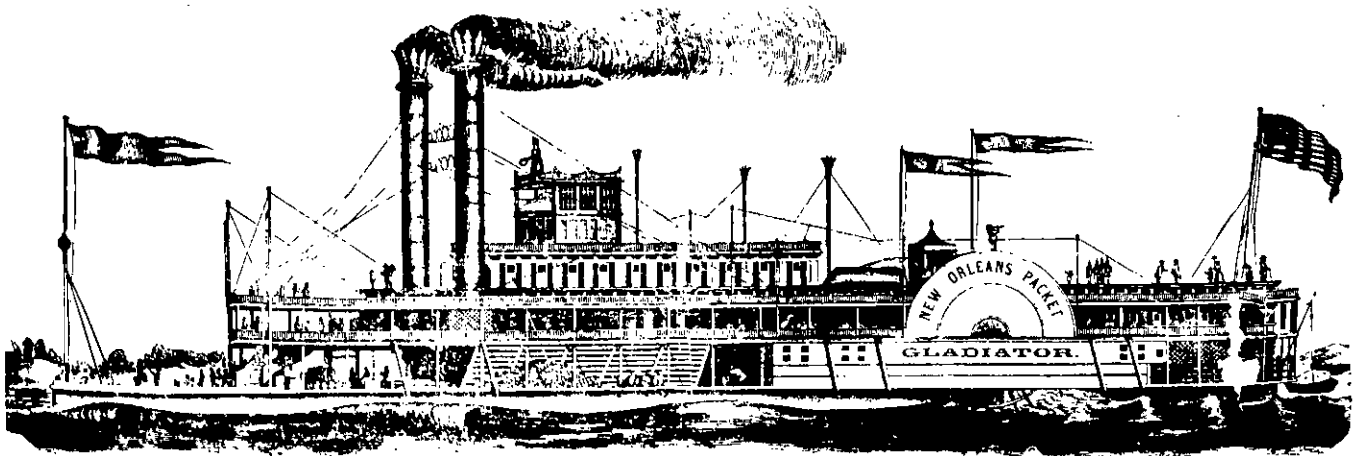
ton until February 1877. In the meantime, due to lack of funds to obtain stone rip rap needed around the jetty, spring floods had caused severe damage which he had to repair. After completion of the jetties a concrete topping was poured in blocks of from 4 to 12 feet wide and 5 to 7 feet high, some of which weighed as much as 260 tons.

On July 10, 1879, the channel was found to be 30 feet deep. Ocean-going vessels of all sizes could now move up and down the Mississippi to New Orleans unobstructed and the city was truly an ocean port. In the year 1879 that the jetties were completed, 840 ships, including the largest in the world, went in and out of South Pass to and from New Orleans and twenty-six times as much export went from the port as did the year the jetties were started four years before. New Orleans climbed from

eleventh to second place as the nation's export point.

Eads was successful again. Soon the river did its work and in 1879 a channel was declared to exist with a maximum depth of 31 feet and never less than 28 feet. Twenty-five years later the channel still was at the required depth, and final payment was made. This work was considered to be Eads' crowning achievement.

The restless, creative mind of James Buchanan Eads was not idle during the balance of his career. At an advanced age, shortly before his death, he was busy planning a railroad to transport ships across the Isthmus of Tehuantepec. Considering the past accomplishments of this remarkable engineer, one hesitates to say that he wouldn't have been successful in completing this audacious project. His death, however, ended the venture and a notable career.



This drawing of the steamboat, "Gladiator," was taken from a reproduction of a Gladiator ticket (dated 1852) for a trip between Memphis and New Orleans.

The Problem

Louisiana pollution problems are not of the type and extent experienced in some parts of this nation, largely because of the high volumes of dilution water both from instate heavy rain-falls (60 inches per year), and run-off — including sewage and industrial wastes—from approximately one-third of the United States. The Mississippi River provides the source of drinking water for approximately a third of Louisiana's population. At lowest flow at New Orleans, it carries approximately 65,800,000,000 gallons of water by the city each day. This water is of relatively high quality by normal standards, although there are problems from taste and odor in the production of palatable water, and there has been reason for concern from toxic material, such as pesticides, from time to time. Monitoring conducted by the Stream Control Commission, the State Department of Health, and the New Orleans Sewerage and Water Board shows that a typical analysis of the river is:

Mississippi River at New Orleans

Oct. 1, 1964 to Sept. 30, 1965

(mean values for period)

Turbidity	189
Color	21
Hardness	133
Dissolved Solids	235 mg/l
Sodium	26.7 mg/l
Chlorides	28 mg/l
Sulphates	59 mg/l
Fluoride	0.20 mg/l
Radioactivity Gross	32 uuc/l

Other Louisiana streams have comparable quality.

Although we do not have the acute problems of some sections of the country, for many years stream pollution has been serious in isolated geographical areas of the state: oil field brine pollution in the central and northwest; paper mill pollution on the eastern border; sugar factory pollution in the cane growing area.

Many of the oil field brine pollution problems have been corrected in the last three years. Installation of primary treatment of paper mill waste has resulted in improved stream conditions on the eastern border of the state. Sugar factory pollution, although it has shown improvement, still remains a serious source of contamination. This situation is seriously affected by the significant lack of flow in such streams as Bayou Teche and the Vermilion River.

The tremendous industrial expansion which began in Louisiana about 1956, accelerated during 1963, and which continues at a rapid rate poses a threat to the quality of state water resources. Included in this industrial influx are: six new paper mills, along with expansion of some existing mills; four large fertilizer installations; numerous miscellaneous inorganic chemical complexes of varying size; two new oil refineries, and the petrochemical industry which has increased in size and number to a greater extent than all other types of industry combined. This vast expansion has brought with it

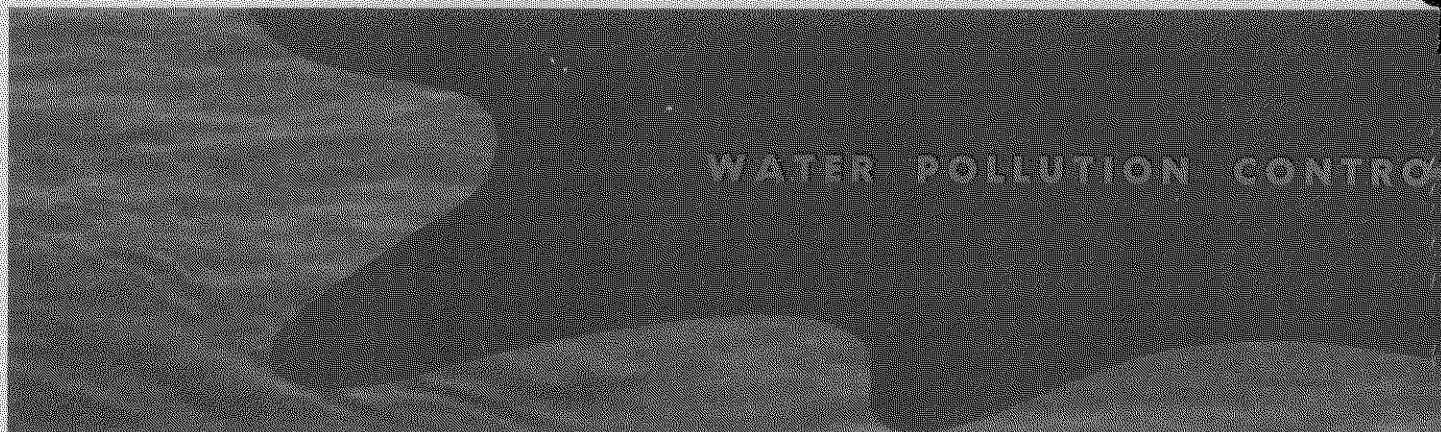
many complex problems relative to waste treatment and a need for developing new waste treatment. The Louisiana Stream Control Commission has reviewed more than 100 industrial waste discharge proposals in the last three years.

Approximately 75 per cent of these new industries have located on the Mississippi River, 20 per cent are located in the industrial complex of the Calcasieu River, and the remaining 5 per cent are scattered throughout the state. Data from the Department of Commerce and Industry reveal that this industrial expansion is approaching the \$2 billion level for capital outlay within the past 3½ years, and has reached the \$750 million level for 1967, alone.

State Pollution Control Agencies

Four Louisiana agencies are actively engaged in water pollution control: the Department of Conservation; the Wild Life and Fisheries Department; the Department of Health; and the Stream Control Commission. The latter is the official water pollution control agency formed in 1940 by Act 367 of the 1940 Legislature, and has a membership of the heads, or the representatives of the following state agencies: Commissioner of Wild Life and Fisheries; President, State Board of Health; Commissioner of Agriculture; Executive Director, Department of Commerce and Industry; Attorney General; and Commissioner of Conservation. The Department of Wild Life and Fisheries is the operating

By Robert Lafleur, Executive Secretary Louisiana Stream Control Commission, and



arm of the Commission and its Chief of the Division of Water Pollution Control has traditionally been executive secretary.

The three Departments are complementary in their fields of interest. The Department of Conservation has its primary interest in pollution control in oil production and has been particularly effective in the control of brines. This agency recently (November 1, 1967) put into effect a statewide regulation prohibiting the discharge of brine above ground from any well.

The Department of Health is directly concerned with the control of domestic sewage and any wastes which might affect waters used as a drinking source, or which present a health hazard in recreation, or in the use of shellfish or other marine foods.

The Wild Life and Fisheries Department is actively engaged in the prevention and abatement of pollution which will adversely affect wild life.

Federal Legislation

The Federal Water Quality Act of 1965, the most significant legislation in pollution control, embodies the philosophy that all wastes amenable to treatment be treated, and it is insistent that the individual states take appropriate action in the establishment of standards that will enhance the quality of the waters of the nation, and that adequate enforcement programs be initiated or carried on.

There have been differences of opinion in the matter of waste treatment requirements ranging

from the belief that a minimum of treatment, if any, should be given to wastes with the downstream user providing the necessary treatment after nature has done its best, to the theory that maximum treatment should be provided. Engineers in general have favored a middle-of-the-road course, which would provide treatment facilities but also would utilize the assimilative or treatment potential of the receiving stream.

If engineers are to espouse the philosophy of Public Law 89-234 of 1965, to which a large segment of this nation's population subscribes, we must endeavor to provide designs which will give the best practicable treatment within present known technology, leaving a minimum to be accomplished by stream assimilation. This is particularly true of those pollution constituents such as chlorides, calcium sulphate, and other inorganic compounds as well as some of the long-lived organics which are not readily removed by nature's processes or in the normal water treatment processes.

Acceptance of the philosophy of treatment of all wastes amenable to treatment and to a practicable maximum within known technology appears to be the sure way to preserve and enhance the present quality of our streams in the Golden Age of industrial growth and population explosion.

The Water Quality Act of 1965, although providing strong support financially in interstate controversies, and in the threat

that if the individual state does not act the federal agency will, has also had undesirable effects.

The preparation of stream criteria with accompanying implementation plans, and the required current "State" plan have involved so much paperwork that the staffs of the state agencies have had little time for surveillance and enforcement. In addition, the instructions (which sometimes seem to assume the form of directives) have been often vague and inconsistent, varying from one state to another.

Louisiana's Water Quality Criteria

The Louisiana Water Quality Criteria with accompanying implementation plans were adopted June 27, 1967, and submitted to the Federal Water Pollution Control Administration on June 29. The package was found to be inadequate and was rejected by letter on August 17. Subsequently, at a meeting of the Stream Control Commission, and members and representatives of the FWPCA on September 8, substantial agreement was reached on questionable items of the criteria and implementation plan. Amendments to the criteria were adopted by the Commission on October 4 and resubmitted on October 12. To date no positive information has been received on whether or not the revised documents were satisfactory.

Essentially, the criteria are adjectival and qualitative. (Details on these criteria might well be the subject of another article

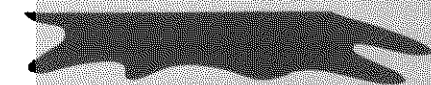
John E. Trygg, Director Bureau of Environmental Health, Louisiana State Department of Health

after they receive official approval.)

The implementation plan provides that all domestic wastes will receive a minimum of primary and secondary treatment not later than 1972, and that industrial wastes must also receive the equivalent of secondary treatment by the same date.

It should be noted that the Commission prescribes that all industrial wastes will receive the best practicable treatment or control, unless it can be demonstrated that a lesser degree of treatment or control will provide for water quality enhancement commensurate with proposed present and future water uses.

The plan includes a listing of cities and towns with inadequate sewage treatment together with a schedule for providing treatment. The time schedule was based on available information from communities but when such information was not avail-

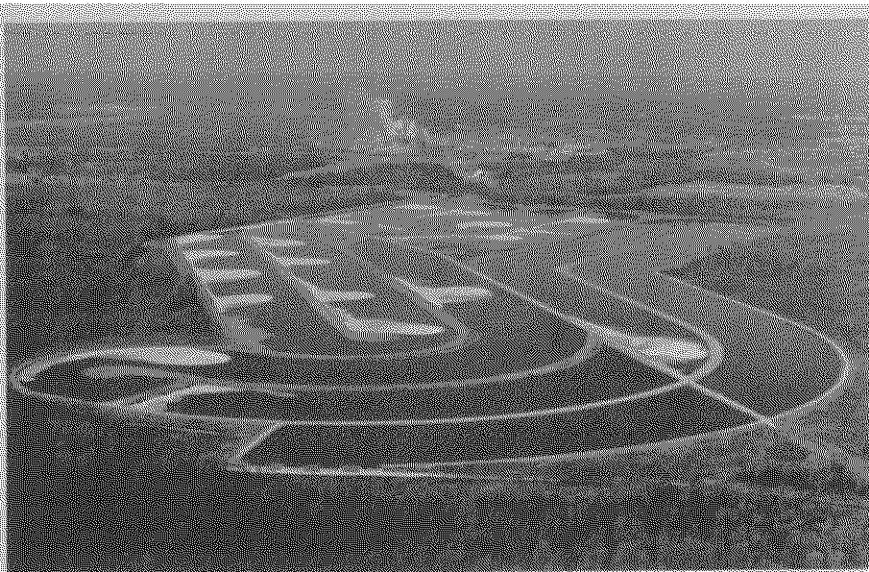


able, dates were selected to allow adequate time for compliance.

The plan also includes a listing of significant industrial discharges with pertinent data, when available, on the status of treatment provided. The Louisiana Stream Control Commission is committed to review all industrial waste discharge permits not later than January, 1969 to determine the adequacy of treatment. Construction of needed treatment facilities should begin by July, 1970 in order to be completed by 1972.

As one looks to the future in the matter of stream pollution control and abatement one cardinal fact appears to dominate the scene — treatment of all waste with the best practicable means is becoming a reality, as well as a necessity. Louisiana's plan for implementation and enforcement of the water quality standards prescribes that not later than 1972.

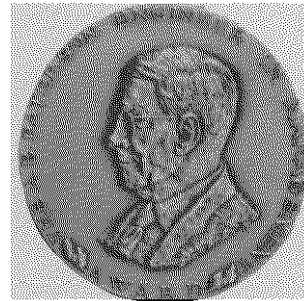
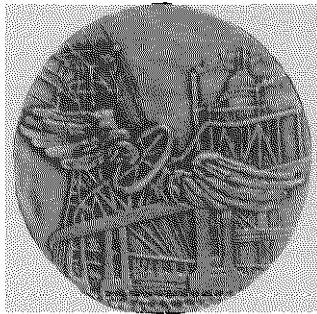
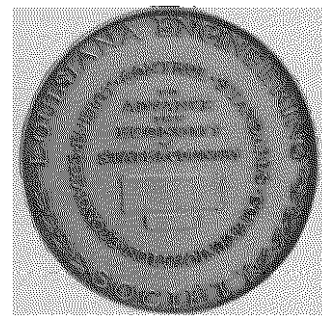
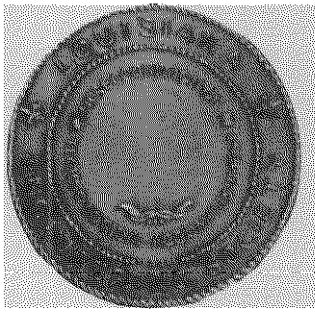
Sewage treatment facility to serve city of Natchitoches, Louisiana. Capacity: 35,000 population. Type of Plant: Primary and Secondary Treatment, Bio-filtration plant. Facility to Tie-in Sewage Collection System: \$1,340,000. Federal Grant under Public Law 660: \$402,000. Remarks: This facility will serve the entire City of Natchitoches and will replace the outfall line discharging raw sewage into the Red River.



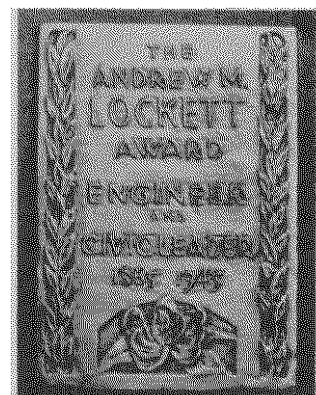
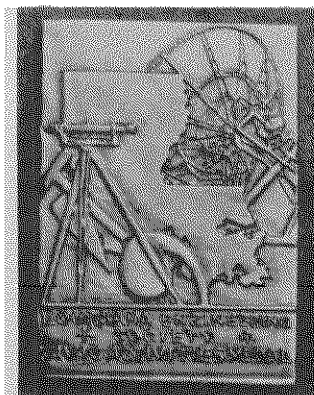
Small drainage basin damaged by long term discharge of oil field, salt water and waste oil.

Massive fish kill caused by discharge of raw domestic wastes into a small water body.





Awards

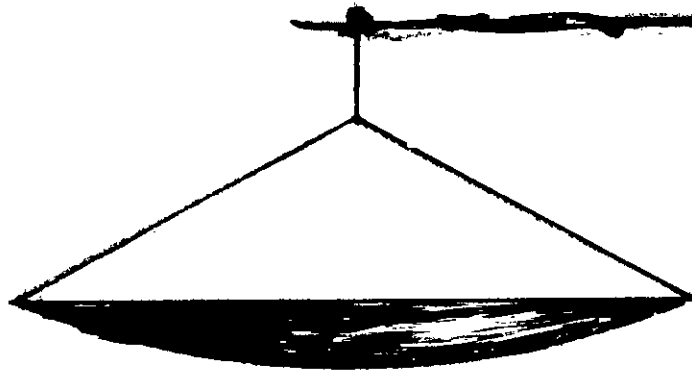


By CHARLES W. STOKES, P.E.

Recognition of fellow engineers has always been an important program of the Louisiana Engineering Society. It has been the Society's feeling that honors and awards should be given deserving members so that they will receive public recognition of their attainments, and also to inspire others to greater heights.

The Society has five basic awards. These are the Andrew M. Lockett Medal, Technological Accomplishment Medal, A. B. Paterson Medal, Charles M. Kerr Public Relations Award and the Louisiana Engineer Award of Merit.

(Continued on Page 28)



Engineer Membership in Labor Union

Case No. 62-5

Subject:

Engineer Membership in Labor Union—Canon 8—Canons of Ethics; Canon 19 — Canons of Ethics; Rule 1—Rules of Professional Conduct; Rule 9—Rules of Professional Conduct.

Facts:

A labor organization (union) represents engineers and scientists of a large corporation for purposes of collective bargaining under a certification issued by the National Labor Relations Board pursuant to the Labor Management Relations Act, 1947, as amended. Membership in the union is voluntary. Some engineers, who are also members of the state society of professional engineers, are members. The union has engaged in strikes against the company on several occasions and has, during such periods, used picket lines and banners to air their grievances. Union spokesmen have often issued public statements concerning disputes with the employer which are of a hostile and derogatory nature. On some occasions engineers who are members of the union have verbally assailed nonmember engineers for their refusal to join the union or for crossing the picket lines in order to perform their duties.

Question:

Is it ethical for an engineer to be a member of a union, or par-

ticipate in union activity of a coercive nature?

References:

Canons of Ethics—Canon 8—“The engineer will act in professional matters for each client or employer as a faithful agent or trustee.”

Canon 19—“The engineer will endeavor to protect the engineering profession collectively and individually from misrepresentation and misunderstanding.”

Rules of Professional Conduct—Rule 1—“He will be guided in all his relations by the highest standards.”

Rule 9—“He will regard his duty to the public welfare as paramount.”

Discussion:

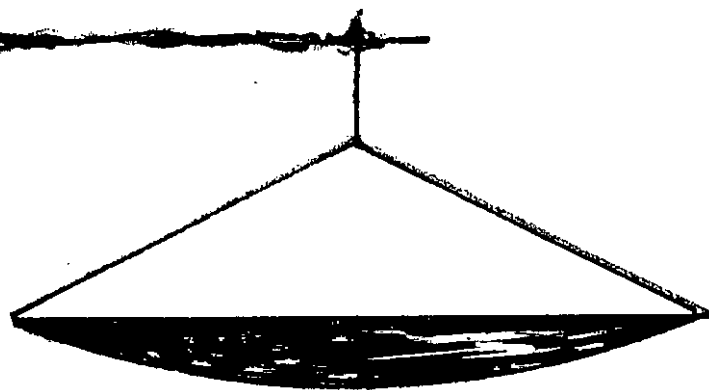
The national labor law gives an engineer, as well as any other employee, the right to be represented by a union and to be a member of it. Although not present in this case, some collective bargaining arrangements, involving engineers, contain a union shop clause under which the engineer-employee may be required to be a member of the union to hold his job. The National Society of Professional Engineers, as well as other national engineering organizations, has long held that professionalism and unionism are incompatible and has discouraged the union approach as a proper method for engineers to seek the elevation of their economic or

professional status. In view of the extensive NSPE literature on this subject, it is not necessary to repeat the many reasons for this opposition to unions for engineers.

Standing alone, it is clear that the Canons and Rules are opposed to the basic concept and approach of unions for engineers who have a professional responsibility. Experience has demonstrated, beyond any reasonable doubt, that an engineer with a union-minded attitude cannot and does not regard his relations with his employer as that of a faithful agent or trustee. And it is likewise clear that such an attitude entails misunderstanding of the engineering profession by the public and is in conflict with the engineer's duty to maintain the highest standards of the profession and regard the public welfare as paramount to his own.

There are special circumstances, however, in which it is difficult for an engineer to avoid membership in a labor union. Where a union is strongly entrenched and most of his fellow engineers in the company, or a particular section or work unit, belong to the union the engineer is under extreme practical pressure to conform to the group, or risk an unpleasant and disruptive work relationship. There have been some instances in which an engineer under these circumstances was unable to perform his work properly and

Professional Ethics



was isolated from the normal intercourse which is vital in professional team operations. There have also been recorded cases in which the engineer was coerced to join the union to secure a benefit not available to nonmembers, e.g., health insurance at reduced group rates under a collective bargaining contract with the company. While it is hoped that employers would not enter into arrangements which favor union members over nonmembers, we must recognize that this is sometimes done.

There can be no question about the application of the Canons and Rules to the *conduct* of engineers, whether members of a union or not. No matter what pressure the engineer might be subjected to he cannot engage in strikes, picketing or other coercive union tactics without a direct violation of the Canons and Rules cited above. Such conduct holds the engineering profession up to contempt by the general public in placing self above service. This is particularly true in situations involving defense operations or other critical areas. The engineer who engages in coercive union tactics divides the engineering profession into hostile camps — those who seek to continue their duties together with those in supervisory capacities, versus those who engage in coercive tactics. Coercive conduct of this nature identifies the engineer (and the engineering profession) as “labor.” The entire effort and purpose of the en-

gineering profession has been to achieve recognition and status as a profession, which can be earned only by devotion to public service and the placing of the public welfare above the interests of the individual.

What we have said in this opinion does not preclude engineers from seeking *through professional means* the advancement of their economic and professional status. This can be and is being accomplished through various programs in collaboration with the professional engineering societies on the basis of cooperative relations with employers. But, it must be re-emphasized that the goal of professional advancement cannot be achieved except on the basis of full adherence to the spirit of the Canons of Ethics as well as its explicit provisions. We believe it will be helpful to call attention to the Foreword of the Canons which sets the tone for all the Canons and which is particularly appropriate to the questions raised in this case:

“Honesty, justice and courtesy form a moral philosophy which, associated with mutual interest among men, constitutes the foundation of ethics. The engineer should recognize such a standard, not in passive observance, but as a set of dynamic principles guiding his conduct and way of life. It is his duty to practice his profession according to these Canons of Ethics.

“As the keystone of professional

conduct is integrity, the engineer will discharge his duties with fidelity to the public, his employers and clients, and with fairness and impartiality to all. It is his duty to interest himself in public welfare and to be ready to apply his special knowledge for the benefit of mankind. He should uphold the honor and dignity of his profession and avoid association with any enterprise of questionable character. In his dealings with fellow engineers he should be fair and tolerant.”

Conclusion:

Although the Canons and Rules do not refer specifically to membership in organizations, participation by an engineer in a union involves him in a nonprofessional atmosphere and prejudices his professional status. Engineers may not ethically engage in strikes, picketing, or other coercive tactics, as such conduct is a direct violation of the Canons and Rules.

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By the Board of Ethical Review

ENGINEER - IN - TRAINING PROGRAM IN LOUISIANA

by

JESSE COATES, Member

Louisiana State Board of Registration for
Professional Engineers and Land Surveyors

Twice each year the Louisiana State Board For Registration of Professional Engineers and Land Surveyors offers an examination in fundamental subjects, commonly referred to as the Engineer-In-Training Examination, to those who wish to become professional engineers in the state. These examinations are offered in December and April of each year. The present rules of the Board require that all those who become registered must pass an Engineer-In-Training Examination. The only exceptions are those registered on the basis of long established practice.

What is the Engineer-In-Training examination? What purpose

does it accomplish and how did it come into being in the State of Louisiana? An attempt will be made to answer some of these questions and to explain some of the advantages which accrue to the general public and to the engineering profession in particular from the requirement of satisfactory passage of such an examination, along with the requisite number of years of experience of a character satisfactory to the Board, prior to full registration as a professional engineer.

The Engineer - In - Training examinations given in Louisiana are prepared and graded by the National Council of Engineering Examiners to which boards of

all fifty states and U. S. territories belong. They are administered or offered at Tulane University, Louisiana State University, Louisiana Polytechnic Institute, and University of Southwestern Louisiana twice each year; usually the first Saturday in December and a date near the end of April. The fee for the examination is \$10. Questions are offered in mathematics, chemistry, physics, electrical theory, thermodynamics, statics, fluid mechanics, economic evaluation, strength of materials and dynamics. These are considered to be fundamental subjects common to most engineering curricula. The examination covers an eight hour period for one

day. Three questions are offered in each subject. During the morning half of the examination, questions are offered in five subjects. The applicant must answer eight questions of the fifteen offered. At least one question from four of the five subjects must be answered. The remaining four questions are selected by the applicant at random. This plan allows the applicant to omit one subject, in which he may not be proficient, if he so desires. The same procedure is followed in the afternoon half of the examination. Textbooks and standard reference books may be used but no published solutions of problems or classroom notes are allowed. Each student is assigned a code number and nothing on his examination paper will show his name or the school which he attended. The examinations are sent to the state board executive secretary who in turn forwards them to the National Council office for grading or scoring. These scores are returned to the State Board and, after consideration of the difficulty of the examination, which might vary somewhat from year to year, and after having considered comments made by proctors concerning clarity of questions and whether the questions contain sufficient data, the Board then assigns a passing grade, based on the raw scores. Those who pass are notified by letter.

After the required number of years of experience, of a character satisfactory to the Board, have been completed the applicant may then submit his application for full registration to the Louisiana State Board. The fee for full registration is \$25, however the \$10 examination fee required for the E.I.T. examination is credited against this \$25 fee provided the applicant passes the E.I.T. examination. Credit for the examination is valid for ten years.

The present Louisiana State Board for Professional Engineers and Land Surveyors was established by Act 73 of 1950 to administer the provisions of the Act. For several years after its establishment, the Board did not require that an applicant pass a written examination before being registered if he had graduated from an approved curricu-

lum. (At the same time, many other State Boards were requiring successful completion of written exams as a condition for registration.)

The Louisiana Board was required by the Act to issue certificates of registration to all Civil Engineers and Land Surveyors who were registered under the previous statute which had provided only for registration in these particular categories.

The Act also provided that, during the first year after it became effective, the Board would issue certificates of registration WITHOUT EXAMINATION to all applicants who were bona fide residents of the State and who filed affidavits that they were practicing in the branches of agricultural, chemical, mechanical, electrical, mining, metallurgical and petroleum engineering.

Large numbers of new graduates were produced in the 1950's, primarily due to the tremendous influx to colleges after World War II when the GI Bill afforded veterans a college education at minimum cost.

At the same time there were a number of states in which registrants from Louisiana were not accorded reciprocal registration on an equivalent basis because our registrants had not been required to pass an examination in engineering fundamentals. The Board, of course, recognized that registrants from Louisiana and graduates of Louisiana universities do not necessarily remain in Louisiana; that a large number of our graduates emigrate to nearby states and practice there. In addition, large numbers of Louisiana graduates move to the East, Middlewest, and Far West where passing a written examination in fundamentals is required prior to registration. By offering such an examination in Louisiana, the Board affords graduates of Louisiana colleges an opportunity to take it while they are still students. If they pass, they will most likely receive credit for it in other states whenever such an exam constitutes one of their requirements.

In the early days of its existence, the Louisiana law was even being criticized by people within the state of Louisiana. College

professors, for example, often said that they saw no special reasons for becoming registered because, in their opinion the law was so weak that registration carried with it no special professional status. We were also subjected to criticism from engineers within Louisiana who had come here from other states and who had to meet higher requirements for registration than those of Louisiana. Strangely enough many of those who were already registered in Louisiana without an examination thought that an examination was desirable and would strengthen the position of the entire profession. Whether they were justified or not, these criticisms placed the Board in a position in which it felt it to be necessary to adopt some form of examination.

Another reason for offering a written examination is that often employees of governmental agencies such as those under Civil Service or federal employees who are exempt from registration by the Louisiana law nevertheless felt that the passage of such an examination would aid them in their quest for higher ratings. In fact, some state and federal agencies recognize this and provide a different classification and salary scale for engineers who pass an examination over those who have not done so. It should be pointed out that the Civil Service group in the State of Louisiana installed and formulated new classifications which distinguished those who are on their way to becoming professional engineers by becoming Engineers-In-Training from those who showed no such desire or ability. This in itself is a distinct advantage resulting from the E.I.T. examination, when one considers the large number of engineers in this state who are employees of governmental agencies.

It may be asked at this point that since the Louisiana law does not specifically mention an Engineer-In-Training Examination, how can the State Board require such an examination? Section 12A(1)a of Act 73 of 1950 which is headed "Graduation Plus Experience" reads that, after having examined the applicant's experience record "the

applicant may be required to take an oral or written examination or both as the Board may determine." Section 12A(1)b also provides for an examination. The Act also provides that the Board may adopt such rules and regulations as are consistent with the purpose of the Act, "to protect the public, life, health and property" by assuring itself that those who wish to practice engineering in this State meet certain requirements. It was on those bases and on the advice of legal counsel that the Board derived its authority to require successful completion of an examination in fundamental engineering subjects prior to registration.

Having reached this decision the Board was therefore faced with the decision as to whether to prepare its own examinations or secure them from other sources.

The adoption of an E.I.T. examination on a national basis has not yet been accomplished. However, the record shows that most of the State Boards have adopted or have expressed the intention of adopting this examination as their E.I.T. examination. Some Boards are required by law to prepare their own examinations. The adoption of the E.I.T. examination on a national basis will go a long way to solve the perennial problem of reciprocity registration between boards. It will assist Lou-

isiana registrants to meet the requirements in other states which require an E.I.T. examination and allow them to take this examination prior to graduation from the university if desired.

An incidental but very important aspect of the uniform E.I.T. examination is that, thus far, the results show that Louisiana applicants do as well as or better than those from other sections of the country. Perhaps these results might change the biased opinions which are held by some people in other sections of the country concerning the ability of southern education. If the results mean anything, they show that there is little difference in quality of education received in accredited engineering curricula in any section of the country.

Now that we have had a number of years experience with the administration of this examination in Louisiana, the question might be asked as to what beneficial effects have been achieved by the offering of this examination. First, the offering of this examination goes a long way to meet the criticisms of educators, professional society people, industrial people, and others concerning the strength of our registration law and the quality of our engineering graduates from Louisiana. The results show that the quality of graduates from Louisiana is quite good compared to those from other sec-

tions of the country and when students discover this their confidence is increased. The advantages accruing to federal and state employees and Civil Service have also been mentioned.

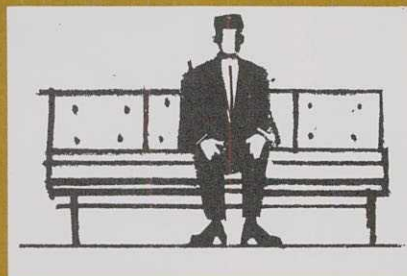
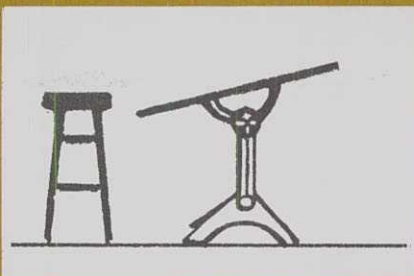
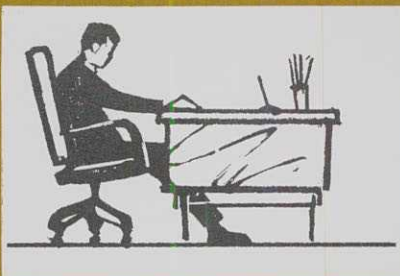
There is one other advantage, however, which is intangible but nonetheless real. College professors for many years have been attempting to teach "professionalism" and all implied by that term to students. We have been trying to show students that the engineering profession is a learned profession and should be considered, by them as well as the public, as being on a par with medicine and law in importance with respect to its effect on the public life, welfare, health, and property. It would perhaps be going too far to say that our profession is on the same level of importance as is the ministry since we do not have the extra-terrestrial help received by ministers in the practice of their profession.

The registration law strengthened the hand of those of us who were trying to preach the gospel of professionalism to students, and the legal recognition of our profession by Act 73 of 1950 assisted in this task. However, as is often the case, the preaching of the gospel and the practice of it are not the same. It was not until Louisiana Board began to require the E.I.T. examination prior to achieving full professional recognition that the students began to appreciate, to a limited extent, the validity of the advice that they have been receiving from their professors. The requirement of successful passage of an examination in fundamental subjects placed the burden on the student to show his worth. It may be argued that these students had already been examined in the subjects with which the E.I.T. questions were concerned. But those who are familiar with students and their educational habits realize that often students take a course and, having passed it, immediately forget most of the course contents because the importance of the course had never been impressed upon them. The offering of this examination in the universities has now impressed upon the students the impor-

(Continued on Page 28)

Dr. Jesse Coates





The Employment Problems of Consulting Engineers

By C. Carter Brown, Vice President, Consulting Engineers Council

"I need a good design engineer I need two survey crews We are critically short on capable draftsmen I must find an experienced resident engineer within the next month. . . ." These are all commonplace statements these days. The consulting profession is faced with a situation which is not improving. Louisiana is not alone. This is a condition prevalent all over the country. With increasing work loads, not enough professional and sub-professional people available to meet the needs, and strongly competitive conditions existing in other fields of engineering, the consulting engineer is hard put to staff his firm adequately these days, and finds it even harder to keep what staff he has.

Of course, the reason for this overall situation in the engineering world, as a whole, is well-known. The development of new engineers, technical, and sub-professional personnel has not kept pace with the rapidly increasing demands for these people. As one consultant stated it recently: "We are trying to do too many things all at once." Well, on this score we have no choice. We still have to get the job done, even if it is "too many things all at once."

Since the consulting engineer must compete with the fields of engineering in government, pri-

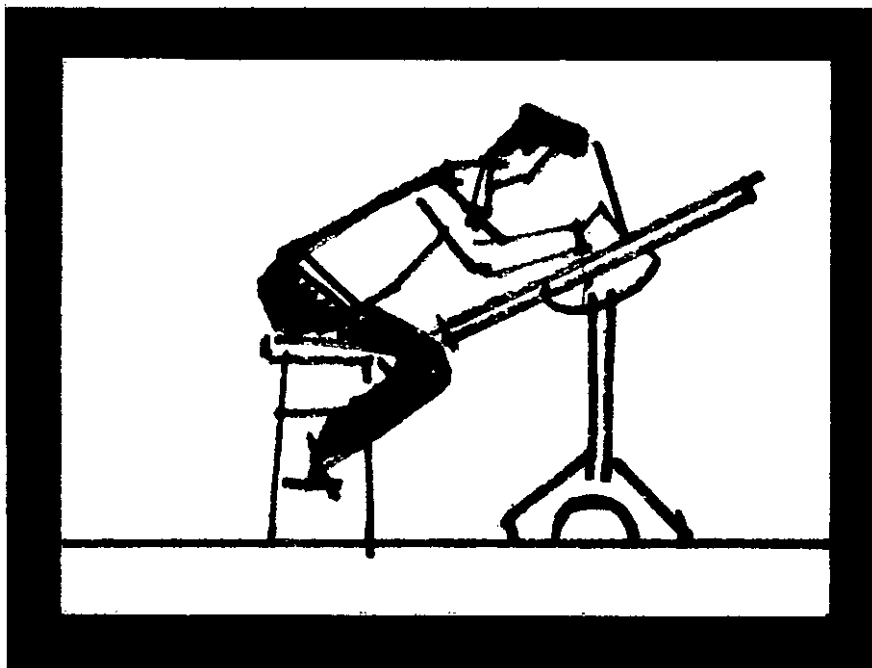
vate industry, and education (and particularly with respect to industry), what are our problems in getting our proportionate share of qualified available personnel? For many years, government agencies were not really competitive regarding starting salaries, chances for advancement, and fringe benefits for their employees. This is no longer the case. Today, many of the state highway departments, for example, have raised their starting salaries, particularly for the brand-new graduate engineer, so that their position is extremely competitive.

Industry has put on a tremendous push in recent years toward recruiting engineers and technical personnel. Their recruiting methods are expensive, attractive to the prospective employee, and bring results. The fringe benefits alone can often mean the difference in securing the man or men they need. The effect of industrial employment is particularly hard on the consultant in those areas where new plants are being designed and constructed, usually by large turn-key engineer-contractors. Salaries go up over-night, it seems. And even though this may be a transient condition, it has an unstabilizing effect on the consulting firm which must maintain an experienced work force, compete against artificial

salaries, and still earn a reasonable margin of profit, or fall by the wayside. Furthermore, many consulting firms depend upon fees which are a percentage of construction cost; and in recent years the cost of construction has risen much more slowly than the cost of engineering manpower. This puts the consulting engineer in a position of increasingly diminished returns, unless some effort is made to achieve more realistic fees.

For many a young engineering graduate, there seems to be an aura of glamour and mystery around what are termed the "exotic" engineering fields: space engineering, electronics, nuclear power, and many of the new interests in the engineering world which have appeared in the past ten or fifteen years. Most employment opportunities in these fields lie with governmental agencies, one more competitor for the already lean supply of available manpower.

The consulting profession, as a whole, has been remiss in not acquainting engineering students with our profession. How can we expect to recruit men, if we do not make a concerted effort to inform the engineering student as to the challenges and rewards he can expect in our field? Many a man is lost to industry or government by sheer default on our



part, and we have just as much, if not more, to offer.

There is one unfortunate commentary on the reluctance of the young graduate to join the consulting professional team. Too many young people are looking for security. A guaranteed employment, with fixed salary raises, and some modest retirement program seems, for many, to be an acceptable substitute for the sound American free enterprise in its truest and best form.

Yes, we have employment problems. Just a few have been covered in the past paragraphs. But there are also some solutions available. Regarding sub-professional and technical manpower, the answer lies with "in-house" training programs. Many firms have maintained such programs for the past several years. The training of drafting and field personnel is tedious, but it is workable and has been proven so.

Insofar as salaries are concerned, we must depend on completely adequate salary scales, which compete with the more transient salaries in some other fields on the basis of permanence of employment, periodic review for earned increases, and such fringe benefits as group hospitalization and medical plans, insurance plans, group pension

plans, and standardized arrangements for sick and annual leave. The opportunities for advancement should be stressed. Furthermore, we should anticipate the possibility of the capable engineer hanging out his own shingle one day, and not necessarily remaining permanently in our employ.

The so-called exotic and glamorous fields of engineering are not nearly as exotic and glamorous as they may appear on the surface. They all involve detailed, tedious, repetitive work. Many of us are familiar with cases in the aircraft industry, for example, where a structural engineer works on one small part of a plane ad infinitum. The truth of the matter is that the young engineer can find more diversity, more challenge, and more interesting work in the average consulting engineering firm than in almost any other field or discipline he may elect to follow. This point should be made at the college level by informed faculty and by visiting lecturers from the consulting field. The responsibility for this approach lies with those of us in the consulting profession.

Admittedly, we have employment problems; but we have none that we cannot solve, if we work at them actively.

C. Carter Brown was born in 1912 and received his college education at Louisiana State University in Baton Rouge. He received his Bachelors Degree in Civil Engineering in 1934.

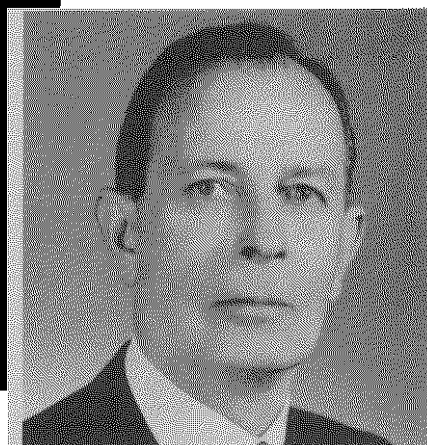
From 1934 to 1941, Mr. Brown was with the Soil Conservation Service, serving as Erosion Control Engineer and later as District Hydraulics Engineer. In 1941, he left the Soil Conservation Service to join the Louisiana Department of Public Works where he served variously as Design Engineer, State Planning Engineer, and Director of the Department. Mr. Brown remained with the Department until late 1943, except for a two-year period of service with the United States Navy, having served as a military government officer in the Pacific Theater. His naval service extended from mid 1944 to mid 1946.

In late 1948 Mr. Brown entered a partnership with Charles M. Butler, forming the present firm of Brown & Butler, Consulting Engineers in the field of Civil Engineering. The firm's office is located at 1225 Nicholson Drive, Baton Rouge, Louisiana. The firm provides engineering services to the Federal Government, industrial clients, and municipalities. Its main fields of endeavor include marine terminal facilities, airfields, highways, streets, drainage, water and sewage systems, studies and reports.

Mr. Brown is active in several professional organizations and in the furtherance of engineering education. He is a fellow of the American Society of Civil Engineers and past president of the Baton Rouge Branch of ASCE, a member of the National Society of Professional Engineers, Louisiana Engineering Society, past president of Consulting Engineers Council of Louisiana (formerly Gulf Institute of Consulting Engineers), past member of board of directors of Consulting Engineers Council USA, member of American Water Works Association. He is immediate past president of the Engineering Alumni Association of Louisiana State University.

Mr. Brown carries engineering registration in Louisiana, Mississippi, and Alabama.

He lives at 1682 Carl Avenue, Baton Rouge, Louisiana, with his wife, Sylvia, and their youngest daughter, Ellen, who is attending Louisiana State University. Their oldest daughter, Barbara, is a medical technologist; their son, Carter, is a landscape architect.



C. Carter Brown

CHRISTMAS TEA

A Christmas tea was given Tuesday, December 19, by the members of the Woman's Auxiliary to the New Orleans Chapter of the Louisiana Engineering Society, in the Kendall Cram Room of Tulane University. Glowing red candles and Christmas greens adorned the tables. The College of Music, of Loyola University, favored the group

with a program of classical guitar selections.

Receiving were Mmes. Daniel H. Vliet, Auxiliary president, Edward McNamara, John K. Mayer, Claude J. Kelly Sr., C. J. Sperry Jr., G. J. Groh, Ronald P. Cressy, and Seymour Cambias Jr.

Pouring were Mmes. John A. Haase III, Thomas Fromherz, Otha Barron Jr., Waldemar Nelson and Lee Johnson.

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The name of the new member, his residence location and Chapter shall be published in the next possible issue of the LOUISIANA ENGINEER, and if more than two members write a valid reason to the Board of Direction not later than the month following the publication month, then the new member's membership shall be declared revoked. No record of such action shall be entered in the minutes but the new member shall be so notified after Board action, and any dues he may have paid shall be refunded in full. A new member whose membership has been revoked by the Board may have at least eight members request in writing, along with their reason, that the Board consider republishing his name. If such reasons are deemed good and sufficient, the Board shall order the republishing of his name and it shall be governed by the same rules as the first. Should the new member again receive more than two negative votes the Board shall again declare his membership revoked and no further action may be taken on republishing his name. If two or less negative votes are received then the Board shall acknowledge that the new member's date of membership shall be from the date as originally fixed by the Admissions Committee.

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Erwin H. Pfeuffer
Merlin A. Pistorius
Clinton L. Smith
Charles Jordan Smollen

NEW ENGINEERS

PROFESSIONAL ENGINEERS GRANTED REGISTRATION

November 14, 1967

Agranoff, Leo G.—Civil
Anderson, Thor L.—Civil
Ball, Millard F.—Mechanical
Barmack, Hiam—Electrical
Colglazier, Robert W., III—Civil
Conner, Albert L.—Mechanical
Cook, Keith L.—Civil
Coots, Lee M.—Mechanical
Cornelius, Frank H., Jr.—Chemical
Dahlstrom, Darrell D.—Electrical
Evans, Arlie N.—Civil
Fair, Cleveland M., Jr.—Mechanical
Friberg, Emil E.—Mechanical
Galeano, Sergio F.—Civil
Hiserodt, Terry J.—Mechanical
Horowitz, Harold—Civil
Killingstad, Rolf T.—Civil
Lane, Edwin D.—Civil
Long, John J.—Electrical

McLaren, John M.—Civil
Reese, Thomas L.—Civil
Reichard, James N.—Mech. & Petr.
Roach, Russell R., Jr.—Mechanical
Rochelle, William R.—Mechanical
Saint, Chapin O.—Civil
Scotto, John E., Jr.—Civil
Sollie, Gerald L.—Civil
Spalluto, Leonard A.—Civil
Spolter, Gerald J.—Civil
Stiranka, John A.—Mechanical
Tresten, William R.—Civil
Volosin, C. Andrew—Mechanical
Ward, C. B., Jr.—Mech/Indus
Warfel, Richard B.—Mechanical
Wright, John W. W.—Civil

PROFESSIONAL ENGINEERS GRANTED REGISTRATION

October 17, 1967

Aycock, Cecil E.—Civil
Bergman, Jake H.—Electrical
Berseeth, Albert M.—Chemical
Boze, Ronald A.—Petroleum
Brown, Richard P.—Mechanical
Casso, Jerry J.—Mechanical
Clark, Thomas F.—Mechanical
Casper, Roy L.—Mechanical
DelHiero, Angel R.—Mechanical
Drazen, Michael—Electrical
Frame, Russell E.—Civil
Garris, Raymond W.—Chemical
Gibbons, Eugene F.—Civil
Huffman, Henry S., Jr.—Mechanical
Hyland, Sumner G.—Civil
Jennings, Daniel F.—Mech/Indus
Johnson, Albert W.—Civil
Keasler, James E.—Mechanical
Lemoine, Roy J.—Electrical
Kelly, J. Donald—Mechanical
Mann, George E.—Mechanical
Meyer, Merlyn I.—Electrical
Miller, C. O.—Petroleum
Morton, Donald S.—Mechanical
Muldowney, John J.—Mechanical
Price, Bobby E.—Civil
Stinnett, Landy A.—Mining
Torres, Mario S.—Electrical
Urton, Ronald R., Sr.—Mechanical
Weaver, Ernest J.—Petroleum
Zimmerman, David G.—Electrical
Zink, Albert C.—Mechanical

MEMBERSHIP CONTEST RESULTS

In 1965 the Chapter Membership Contest was started. The prize is a portable rostrum with the winning Chapter's name and the date engraved on plaques on its front. A Chapter winning the rostrum three years in a row will retain permanent possession.

RULES OF THE CONTEST

1. A Chapter must reach its 10% quota to qualify as the Contest winner.
2. The Chapter with the greatest percentage increase, based on applications and reinstatement requests received by the state LES Office through the week prior to the June annual meeting will be the winner. Transfers into a Chapter or grade changes will not be counted as a part of the quota. Students upon graduating will be counted for a Chapter only if the Chapter gets them to fill out an Application Form with up-dated information and, also, if they reside in the Chapter's Area.

Here are the standings in the Chapter Membership Contest as of December 1, 1967.

Standing	Chapter	Quota	Applications	% Quota
1	MONROE	10	17	170
2	Baton Rouge	39	64	164
3	Lake Charles	10	13	130
4	Shreveport	17	12	71
5	Alexandria	10	5	50
6	New Orleans	70	23	33
7	Lafayette	16	3	19
TOTALS		172	137	80%

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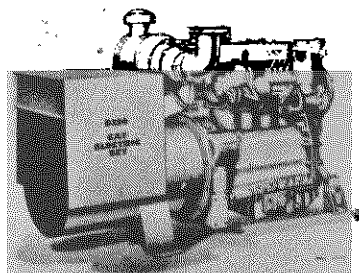
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MINUTES – LES BOARD OF DIRECTION

SEPTEMBER 15, 1967

HOTEL BENTLEY, ALEXANDRIA, LA.

President McNamara called the meeting to order at 4:00 P.M. with the following in attendance: Board Members, Messrs. Plaisance, Gajan, Cade, Vogt, Mohr, Nelson, Thigpen, Singleton, Bubenzer, Culpepper, Bankston, Odom, Williams, Stouse, Hurstell, Ewing, Guissinger, Hogue. Guests, Messrs. Richard, Laurent, Kellerman, Adams, Szabo, and Norman Ferachi, Executive Secretary, LES.

The minutes of the last board meeting in New Orleans were read and discussed. The following changes were approved. Messrs. Guissinger, Hurstell and Charles Barnard are to be included in the first sentence with other board members. Paragraph 6 concerning the fiscal year of the Society is to be modified deleting that portion that shows Mr. Nelson in dissent. It was moved by Mr. Hurstell that the minutes of the August meeting be approved with corrections as stated above. Seconded by Mr. Bubenzer, motion passed.

Mr. Hogue presented the financial report to the Society for the first two months of operation. Mr. Vogt moved that the report be accepted and Mr. Guissinger seconded, motion passed.

President McNamara asked Mr. Hogue to report on the Society's pending move to Baton Rouge. The Board was informed of the Society's plans that include the securing of office space in the Baton Rouge Water Works Building on Lafayette Street adjoining the Capitol House Hotel. The terms were discussed and it was moved that the Society accept the general terms of a three year lease at this location with a target date to accomplish the move on December 1, 1967. Moved by Mr. Odom and seconded by Mr. Hurstell. Motion passed.

President McNamara asked Mr. Odom to report on the Finance Committee recommendation which concerns the \$5,000 deficit for 1967-68 current year. Mr. Odom reported that the committee feels that a dues increase of approximately \$3.00 a year must be made and that it is most important that the Society not spend more than its current income. Mr. Odom reported that the only alternative to a dues increase would be a reduction in chapter rebates. President McNamara called on the chapter presidents in attendance to express their views concerning rebates. It was a joint decision that a dues increase is the only sound decision.

The Board was briefed on the pending vacancy in the Louisiana State Board of Registration for Professional Engineers and Land Surveyors. It was decided after discussion that because of Mr. Odom's outstanding work on this board for many years that his name would head the list of recommendations to the Governor. Moved by Mr. Bubenzer, seconded by Mr. Nelson.

After discussion the names of Mr. Louis Duclos and Mr. Calvin Watts, distinguished Past Presidents of the Society, were included as the second and third names on the list of recommendations for the Board of Registration. It was also decided that in the event either of the above gentlemen declined, the President could name appropriate replacements.

Mr. Duclos was recommended by Mr. Guissinger and seconded by Mr. Singleton. Motion passed.

Mr. Watts was recommended by Mr. Nelson and seconded by Mr. Thigpen. Motion passed.

COMMITTEE REPORTS

PUBLICATION COMMITTEE—Mr. Nelson reported that the new issue of the LOUISIANA ENGINEER is well accepted throughout the state. It was brought out that additional advertising is needed

to support the additional cost involved. Mr. Hogue asked for and received the Board's special recognition of Mr. Nelson's outstanding services to the Society.

PROFESSIONAL ENGINEERS IN GOVERNMENT—Mr. Guissinger reported to the Board on the activities of the PEG section.

MEMBERSHIP COMMITTEE—Mr. Adams presented a comprehensive chart indicating that 29% of the state membership quota had been reached. Mr. Adams asked for a special check to determine how many new registrants the Society is receiving as members. This will be accomplished. Mr. Adams pointed out that the Society certificates should be mailed to the Chapter Secretary-Treasurer.

Mr. Adams presented the Admissions Committee report which was delegated to a special committee at the previous Board Meeting. The revised procedure was approved. Moved by Mr. Hogue and seconded by Mr. Ewing. Motion passed.

Mr. Odom informed the Board that there are several vacancies on the Board of Supervisors at Louisiana State University and that no Professional Engineer is now represented on this Board. It was moved by Mr. Odom that the Governor be requested to include a Professional Engineer to fill one of the existing vacancies. Motion seconded by Mr. Nelson and passed.

It was moved by Mr. Odom that the Louisiana Board of Highways be thanked by the Society for the appointment of a Professional Engineer as acting director of the Department of Highways. Motion seconded by Mr. Cade and passed.

It was moved that the Louisiana Engineering Society second the nomination of Dean Harry Simrall as President Elect of the National Society of Professional Engineers. Moved by Mr. Thigpen and seconded by Mr. Nelson. Passed.

The Qualifications Committee was changed to the Admissions Committee on the latest ballot of the entire membership. It was moved that we formally change the Bylaws accordingly. Moved by Mr. Ewing and seconded by Mr. Hurstall and passed.

Mr. James Mohr invited the Society to come to Shreveport for the Winter Meeting on February 23 and 24, 1968. The Board accepted Mr. Mohr's invitation.

It was moved by Mr. Odom that the Society commend two distinguished legislators who are Professional Engineers for their services to our state, seconded by Mr. Mohr and passed.

The next meeting of the Board of Direction was set at the Sherwood Forest Country Club in Baton Rouge, Friday, October 20, at 4:00 P.M.

It was moved by Mr. Hogue and duly seconded that the meeting adjourn.

MINUTES – LES GENERAL MEETING

SATURDAY, SEPTEMBER 16, 1967
ALEXANDRIA, LA.

The General Meeting was opened at 9:15 A.M. by Mr. McNamara, who welcomed the fine attendance to this important assembly.

It was announced that the next general meeting of the Society would be held in Shreveport on February 23 and 24, 1968.

The financial status of the Society was discussed at length. All members were brought up to date on the deficit that was incurred last year and on the budget for the current year, which provides for another estimated deficit. It was moved by Mr. Ewing and seconded by Mr. Kellerman that the Society put before the membership a \$3.00 dues increase. This will include \$3 per year increase in all categories of membership with the exception of Student Members.

After discussion the motion was amended by Mr. Nelson and seconded by Mr. Dobbs that Junior Members be increased to \$10 instead of \$11 and that Non-resident Junior Members would pay \$5 rather than the proposed \$6. This motion was passed by a 2/3 majority vote.

It was moved by Mr. Ewing and seconded by Mr. Nelson that the motion before the general meeting be worded as follows: Members to pay \$15 per year; Affiliate Members, \$17 per year; Junior Members, \$10 per year; Student Members, \$1 per year; Non-resident Members, \$8 per year; Non-resident Affiliate Members, \$8 per year; Non-resident Junior Members, \$5 per year. Motion was unanimously approved.

There being no further business before the assembly, the meeting was adjourned.

MINUTES – LES BOARD OF DIRECTION

FRIDAY, OCTOBER 20, 1967
SHERWOOD FOREST COUNTRY CLUB
BATON ROUGE, LOUISIANA

President McNamara called the meeting to order with the Messrs. Odom, Hogue, Bubenzer, Thigpen, Duclos, Guissinger, Hurstall, Gajan, Stouse, Nelson, Mohr, and Williams present. Also present were Messrs. Adams, Heroy, Richard, Laurent, R. W. Richardson and Ferachi.

The minutes of the September Board meeting were accepted on motions by Mr. Nelson, seconded by Mr. Bubenzer, and passed.

Financial report was given by Mr. Hogue. He stated that the actual expenses of the State Office are under the budgeted amount, but cautioned that several outstanding bills remain to be paid. Mr. Nelson moved that the report be accepted, seconded by Mr. Bubenzer, and approved.

A report on the ballot for a dues increase was given. The official count was 487 in favor of the increase and 104 opposed, with 3 ballots being spoiled. Mr. Duclos questioned the signature of the voter on the same page as the ballot. After discussion, Mr. Hurstall moved that all future ballots be made on a two-envelope system, the outside envelope being signed and the inner envelope to be plain and include only ballot information. This is to be done to insure secrecy. Mr. Odom seconded the motion and it passed. Mr. Bubenzer moved to amend the motion to state that 21 days be the maximum that ballots can be outstanding, seconded by Mr. Nelson, and passed.

A clarification of the advertising commission to be paid to chapters for securing new advertising in the LOUISIANA ENGINEER was given by Mr. Nelson. He stated that 15% is the standard agency commission and moved that chapters securing new advertising be given this commission under the new rates. Mr. Odom seconded the motion and it passed.

Mr. Duclos praised the August issue of the magazine, saying that it was among the finest things that has happened in the Society, and that it is a real credit to the Society.

Mr. Hogue then reported on office space in Baton Rouge for the State Office. He stated that the Baton Rouge Water Works, from whom the Board had agreed to lease office space, had recently asked to be released of this obligation. After conferring with members of the committee seeking office space, the company was released of the obligation. Mr. Hogue said that it was the recommendation of this committee that office space be secured in the Attorneys Building in Baton Rouge, and that he be authorized to sign a three years lease with the owners. Society space will be 700 square feet at a monthly rent of about \$265.00. Mr. Hurstall moved that this be done, seconded by Mr. Bubenzer, and passed.

10-20-67

BOARD MINUTES

The group discussed representation to the Engineers Joint Council General Assembly. Mr. Ferachi noted that the EJC request for LES representation at the General Assembly was a new policy and that he had written to EJC's Executive Director requesting clarification. It was decided that no action would be taken until clarification was received.

The 1971-72 meeting of the National Society of Professional Engineers was discussed by Mr. Nelson. The New Orleans Chapter was asked if it would accept responsibility for this national meeting. Mr. Stouse said the Chapter would be delighted to extend an invitation to NSPE and he moved that Mr. Nelson invite NSPE to hold their meeting in New Orleans at that time. It was seconded by Mr. Hurstell, and passed.

Mr. Heroy briefed the Board on the Common-Situs Picketing Bill now in Congress and other bills. The Legislative Committee asked for a clarification of procedure. After much discussion it was decided that no action be taken by the Board unless the bill again became a threat in Congress. The Legislative Committee would act in each individual case and contact the State President or State Secretary and request a poll of the Board when immediate action is necessary.

Mr. Ferachi gave a report on the 1967 Spring Convention held in New Orleans and passed out a written report showing that the convention cost the Society less than \$50.00.

Location of the 1968 Spring Convention was discussed by Mr. Stouse. He stated that the New Orleans Chapter agrees to host the convention at the Jung Hotel on May 1-3. General discussion of procedure to be followed was outlined.

Mr. McNamara informed the Board of correspondence received from members of the Highway Board. He said that he has received three replies from members of that Board and that they have passed on his letter to Governor McKeithen.

STATEWIDE COMMITTEE REPORTS

Membership Committee—Mr. Adams expressed pleasure with the effort exerted by the chapter membership chairmen throughout the state and said that the quota is rapidly being approached. Mr. Adams requested that each chapter set up a functioning Admissions Committee as soon as possible.

Professional Engineers in Private Practice—Mr. Nelson briefed the Board concerning criticism by a large consulting engineer firm from out of state on the Society action which resulted in the Governor's Executive Order #50, requiring preference be given to engineering firms domiciled in Louisiana. It was brought out that the Executive Order was a result of CEC, PEPP, and LAA cooperation. It was noted that the Board was pleased with the Executive Order and applauded Governor McKeithen.

Mr. Nelson moved that the PEPP Section be authorized to answer FHA officials concerning a proposed fee schedule. It was seconded by Mr. Mohr and passed by the Board.

Mr. Odom reported on the special Society committee that is working on establishment of gride systems in the coastal areas of Louisiana. Mr. Harrison had recently reported on proposed action by the Wild Life & Fisheries Commission. The Commission has obtained funds to extend the gride system in coastal areas. The Board authorized the Society committee to contact and work with the Wild Life & Fisheries Commission to coordinate work done by all parties.

Professional Engineers in Government—The State PEG Section was authorized to name a delegate to a national PEG meeting and that the membership of the state PEG section be asked to contribute to help defray expenses.

Mr. McNamara read a letter from the Alexandria Chapter stating that they had voted to defray expenses incurred for the State Planning Conference held there in September.

Mr. Nelson requested that the Secretary-Treasurer revise the 1967-68 budget with the increased dues schedule in mind.

The next meeting of the Board of Direction will be held December 8, 1967, in Baton Rouge.

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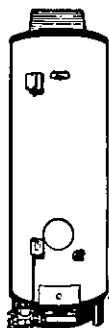


"Vous avez raison, Colonel LaMatt," said M. Masson

"You're right, Colonel," he translated. Masson's Beach House is a New Orleans restaurant with a formidable reputation among gourmets, and like many wise and profit-minded Southern restaurateurs Albert Masson has learned that about water heaters Colonel LaMatt is always right. Masson's needs hot water at a reliable, sanitizing 180° for dishwashing and 140° for other restaurant purposes. For this Colonel LaMatt recommends Ruud Copper Sanimasters, the water heaters that work better, last a lot longer, and cut operating costs substantially.

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