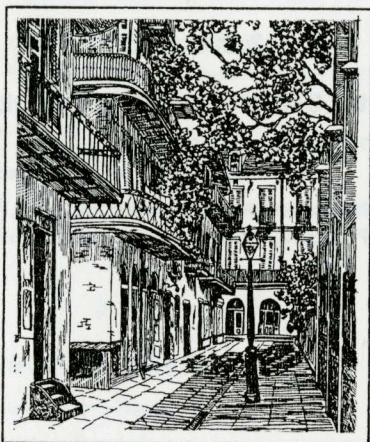




8th Electrical Conference of the Petroleum Industry



JUNG HOTEL
New Orleans, Louisiana

SEPTEMBER 17 - 20, 1961

Sponsored by
Petroleum Industry Committee of
American Institute of Electrical Engineers
and
New Orleans Section of AIEE

MONDAY MORNING

10:00 — 11:30

GENERAL SESSION—TULANE ROOM

PRESIDING—W. D. Stroud
Chairman, New Orleans Conference

OPENING COMMENTS—W. H. Dickinson
Chairman, Petroleum Industry Committee

INVOCATION—Rev. Clyde Frazier, Minister
Lake Vista Methodist Church

WELCOME—Honorable Victor H. Schiro
Mayor of New Orleans, La.

PRESIDENT'S REMARKS—Warren H. Chase
American Institute of Electrical Engineers

KEYNOTE ADDRESS—Kenneth H. Shaffer
President, The California Company

12:00 — 1:30

GENERAL LUNCHEON—CHARCOAL ROOM

PRESIDING—Seymour Cambias
Chairman, New Orleans Section AIEE

ADDRESS—**Partners in Progress** by G. C. Rawls
President, Louisiana Power and Light Company

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Copy of Papers

Members may obtain preprints of numbered papers at the Conference for 50c each (\$1.00 each to nonmembers) or they may purchase them in advance of the conference or after the conference by placing their order and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Mail orders (particularly for out of town members) are advisable inasmuch as an adequate supply of each paper at the conference cannot be assured.

MONDAY AFTERNOON

2:00 — 5:00

GENERAL TECHNICAL SESSION— TULANE ROOM

ELECTRONIC INSTRUMENTATION AND CONTROL IN
THE PETROLEUM AND PETROCHEMICAL INDUSTRY

Presiding — Jules Jacquin
Dow Chemical Company, Houston, Texas

CPA-61-5002

Electronic Instrumentation—New Horizons by P. H. Drinker, The Foxboro Company.

CP-61-991

Considerations in the Selection of DC Control Signals
by D. T. Cusack, Hagan Chemicals and Controls, Inc.

CPA-61-5003

**Factors in the Choice of Process Instrumentation —
A Consultant's Viewpoint** by Ward O'Connor, The
Lummus Company.

CPA-61-5004

Critical Heat Controller for a Chemical Reactor
by A. A. Johnson, Dow Chemical Co.

5:00 — 6:30

SUBCOMMITTEE MEETINGS—

Manufacturing—Room 10

Production—Room 3

Transportation—Room 2

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TUESDAY MORNING

8:30 — 11:30

SUBCOMMITTEE TECHNICAL SESSIONS —

MANUFACTURING—Room No. 1 —

G. H. St. Onge, Presiding

CP-61-990

Refinery Power System Planning for Serving Large Motor Loads by G. W. Cunningham, General Electric Company.

CPA-61-5005

Economics of Selection of Large Motor Drivers and Problems in their Application by R. E. Daze, H. C. Mayo and J. A. Stewart, M. W. Kellogg Company.

CP-61-1001

Static Excitation for Synchronous Motors in Petroleum Refineries by M. N. Halberg, General Electric Company and E. R. Hoyle, Sinclair Refining Company.

PRODUCTION—Room No. 2—

W. E. Withers, Presiding

CPA-61-5006

Progress in Electrification of Land Drilling Rigs by Glenn W. Webb, General Electric Co.

CPA-61-5007

The Ability of Contacts in Low Current Control Systems to Cause Ignition of Hydrocarbon-Air Mixtures by R. S. James, Chief of Electrical and Mechanical Testing, U. S. Department of Interior.

CP-61-995

General Aspects in the Automation of Offshore Oil and Gas Production by Harold Gant, Axelson-Garrett Division of U. S. Industries.

TRANSPORTATION—Room No. 10 —

J. J. Sonnier, Presiding

CPA-61-5011

Automation of Gas Transmission through Digital Control by D. C. Washburn, Westinghouse Electric Corporation.

CPA-61-5012

Design and Operation of Automatic Control for Long-view Compressor Station of Texas Eastern Transmission Corporation by F. P. Gertson, Texas Eastern Transmission Corporation.

CP-61-992

Electrical Design Features of Mid-America Pipe Line by G. E. Mace, Mid-America Pipe Line Company.

CPA-61-5014

Protective Relay Setting and Coordination for Pipe Line Pumping Stations by O. F. Zedler, Jr. and L. U. Eidson, Humble Pipeline Company and Westinghouse Electric Corporation.

TUESDAY AFTERNOON

1:00 — 5:00

INSPECTION TRIPS— (See Over)

All Buses Will Be Boarded at Canal St. Entrance.

MANUFACTURING —

Shell Oil Refinery, Norco, Louisiana

PRODUCTION —

Marshland Oil Field

TRANSPORTATION —

New Orleans Sewerage and Water Board

GENERAL INTEREST — Room No. 1 (2:00 P. M.)

Movies covering Offshore Oil Development
Operations.

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TUESDAY EVENING

6:30 — 7:30

COCKTAIL HOUR—Lounge No. 2

7:30 — 11:00

DINNER—Tulane Room

The 9th Electrical Conference

of the Petroleum Industry

will be in

Cleveland, Ohio

Hotel Carter

September 9 - 12, 1962

WEDNESDAY MORNING

9:00 — 12:00

SUBCOMMITTEE TECHNICAL SESSIONS —

MANUFACTURING—Room No. 1 —

T. R. Shaw, Presiding

CP-61-994

Application of Electric Tracing in Petroleum and Chemical Plants by R. G. Medley and W. A. Shafer, Union Carbide Chemicals Company.

CPA-61-5001

New Static Devices Applied with Switchgear by E. R. Brucklacher, Allis Chalmers Manufacturing Company.

CP-61-999

Train and Develop Your Electronic Instrument People by N. A. Anderson, The Foxboro Company.

CPA-61-5055

A Mobile Logger Using Magnetic Tape for Digital Data Storage by M. O. Bird and J. F. Draffen, Monsanto Chemical Company.

PRODUCTION—Room No. 2 —

R. K. Owen, Presiding

CP-61-1002

User's Experience with Inherently Protected Motors by Frank Beach and Frank Best, Cities Service Petroleum Company.

CPA-61-5008

A 440/762 Volt Oilfield Combination Starter by T. L. Scott, Phillips Petroleum Company.

CPA-61-5009

Lightning Protection and Grounding for Safety, Fault Clearing and Insulation Coordination by J. K. Howell, Westinghouse Electric Corporation.

CPA-61-5010

Maintenance of Lease Electric Equipment by M. H. Halderson, Phillips Petroleum Company.

TRANSPORTATION—Room No. 10 —

J. J. Sonnier, Presiding

CP-61-996

Computer Application to Dispatching by T. C. Heard, General Electric Company.

CPA-61-5015

Methods of Economic Valuation by S. R. Evans, Shell Pipe Line Corporation.

CPA-61-5013

Digital Telemetry for Pipeline Systems by P. D. Woodruff, General Electric Company.

CP-61-997

Technicians for a Remotely Operated Pipeline by A. R. Heidebrecht and Fred S. Jones, Platte Pipeline Company.

12:00 — 1:45

**JOINT PLANNING GROUP LUNCHEON —
Room No. 3**

WEDNESDAY AFTERNOON

2:00 — 5:00

GENERAL TECHNICAL SESSION — TULANE ROOM

COMPUTER CONTROL IN THE
PETROLEUM AND PETROCHEMICAL INDUSTRY

Presiding—E. B. Turner

Secretary, Petroleum Industry Conference.

CP-61-998

**On-Line and Off-Line Computer Applications in the
Petroleum Industry** by J. F. Moore and F. R. Currie,
Bonner & Moore Engineering Associates.

CPA-61-5056

On-Line Computer Control by W. C. Johnston,
Universal Oil Products Company.

CP-61-1000

**Tying the Digital Control Computer to an Industrial
Process** by W. M. Gaines and W. N. Patterson,
General Electric Company.

CP-61-993

**Electrical Features of an "On-Line" Computer Con-
trol System for a Petrochemical Process** by C. H.
Thurman, Monsanto Chemical Co.

CPA-61-5000

**Control of a Petroleum Process Unit with a Large
Scale Digital Computer** by E. N. Ply and A. D.
Pendleton, American Oil Co. and IBM.

CLOSING REMARKS—W. H. Dickinson,

Chairman, Petroleum Industry Committee

5:00 — 6:00

PETROLEUM INDUSTRY COMMITTEE MEETING — Room No. 3

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THURSDAY MORNING

8:00 — 9:00

EXECUTIVE COMMITTEE MEETING — Room No. 3

ATTENDANCE

Fees as follows —

REGISTRATION

AIEE Members	\$ 8.00
Non-members	\$10.00
Ladies & Students	No Charge

MONDAY GENERAL LUNCHEON \$ 4.00

TUESDAY COCKTAIL HOUR
AND DINNER \$ 8.00

INSPECTION TRIPS \$ 3.00



1960 - 1961 AIEE COMMITTEES

PETROLEUM INDUSTRY COMMITTEE

CHAIRMAN—W. H. Dickinson, Esso Research & Engineering Company, Madison, New Jersey.

VICE-CHAIRMAN—L. B. Eddy, Mt. Prospect, Ill.

SECRETARY—E. B. Turner, Industrial Engineering, General Electric Company, Pasadena, Texas.

SUBCOMMITTEE CHAIRMEN—

Manufacturing—G. H. St. Onge, Esso Research & Engineering Company, Madison, New Jersey

Production—W. E. Withers, Sun Oil Company, Beaumont, Texas

Transportation—J. J. Sonnier, Shell Pipe Line Corporation, Houston, Texas

NEW ORLEANS CONFERENCE COMMITTEE:

Chairman—W. D. Stroud, The Okonite Company

Vice-Chairman—Earl S. Dobbs, Bedell & Nelson Engineers

Secretary—Malcolm L. Hurstell, New Orleans Public Service Inc.

Printing and Program—J. W. Barnes, Mid-South Sales Co., Inc.

Technical—Todd Sutton, General Electric Company, Baton Rouge

Publicity—L. B. Davis, Westinghouse Electric Co.

Banquet—Jim Warren, I.T.E. Circuit Breaker Co.

Registration and Hotel—J. P. Hynds, Westinghouse Electric Co.

Finance and Budget—Leonard Ramon, New Orleans Public Service Inc.

Student Activities—Jim Cronvich, Tulane University

Arrangements—C. P. Knost, Moloney Electric Co.

Reception—Harold Deloney, Louisiana Power and Light Co.

Inspection Trips—Stanley Bird, The California Company

Ladies Activities—O. E. Barron

NEW ORLEANS SECTION-HOST

Chairman—Seymour Cambias, Jr.

A.I.E.E. HEADQUARTERS REPRESENTATIVE

R. S. Gardner, Technical Activities, New York, N. Y.

Chairman's Message



The Petroleum Industry Committee of the American Institute of Electrical Engineers is sponsoring the 8th Annual Electrical Conference of the Petroleum Industry this year in New Orleans.

Over the years, this special technical conference has become increasingly popular and worthwhile. Information is exchanged concerning new technology and methods of handling difficult problems. Practices that others are following and methods of reducing costs and improving performance are discussed.

The activities of this conference and the Petroleum Industry Committee are as follows:

Treatment of all matters pertaining to the use of electricity and electrical devices or equipment in the petroleum industry.

The petroleum industry includes all activities concerned with crude oil, natural gas, and petroleum or petrochemicals products manufactured from crude oil or natural gas. It includes exploration, production, manufacturing, transportation, and marketing activities.

Electrical use in the petroleum industry involves selection, application, operation, and maintenance of devices and equipment for the following types of systems: control, instrumentation, communication, power generation, and power distribution. The development of standards and safety requirements for these systems is included.

Those of us who have attended most of these conferences look forward to the renewal of associations with old friends who have problems similar to our own. These associations have proved most valuable. We invite you, whether or not you are a member of the AIEE, to attend this conference.

W. H. Dickinson, Chairman
Petroleum Industry Committee

INSPECTION TRIPS

MARSHLAND OIL FIELD

(Limited to 35 persons)

South Louisiana has a petroleum productivity per square mile higher than any similar region in the U. S. The producing sands are at depths of approximately 10,000 feet. The fields are characterized by isolation from land transportation and conventional utilities. This trip will include visits by boat to typical well heads, production facilities, field compressor stations and drilling rigs.



NEW ORLEANS SEWERAGE & WATER BOARD

The City of New Orleans is in the unique position of being required to lift all of its rainfall by pumps to an elevation above Gulf level to effect drainage. This is performed by a complex of generating plants, an independent power distribution system and twelve electric motor driven pumping plants involving some 60,000 hp of capacity and designed for the utmost in reliability. The technique and designs are unconventional and interesting.



SHELL OIL REFINERY

This refinery 20 miles above New Orleans has been progressively modernized to keep abreast of processing technology. The trip will include stops at tanker loading facilities and a lease automatic custody transfer facility in a producing field near the refinery.



OFFSHORE OIL DEVELOPMENT OPERATIONS (FILMS)

Available time, erratic weather and transportation complexities have prevented scheduling of inspection trips into the Louisiana Offshore Area. However, a program of films has been arranged covering offshore construction, the development and use of an offshore drilling unit capable of operating in 100 foot water depths and the combating of an offshore well fire. It is believed that these will give the viewer a vivid and interesting impression of the challenge presented to the industry by offshore oil development.

GENERAL INFORMATION

NEW ORLEANS is justifiably considered the most popular convention city in the United States. The Vieux Carre provides old world charm that will long be remembered. The Port of New Orleans, second busiest in the United States, is typical of modern progress. Bourbon Street provides the "joie de vivre" sought by many. Within a radius of 100 miles are vast reserves of natural resources, including oil, gas, salt, sulphur and fishing. Truly there is much to interest those who come to New Orleans.

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THE JUNG HOTEL, Headquarters for the 8th Annual Petroleum Industry Conference, has allotted a full complement of rooms. Rates are as follows: Single, \$8 - \$10; Doubles, \$12 - \$14; Twins, \$13 - \$16; Suites, \$23 - up. Use reservation card enclosed.

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REGISTRATION will take place in Lounge No. 1 during the following hours: SUNDAY, 4:00 P. M.—7:00 P. M.; MONDAY, TUESDAY AND WEDNESDAY, 8:00 A. M.—4:00 P. M.

INFORMATION will be available during Registration Hours at the Registration Desk.

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HOSPITALITY ROOMS will be closed during all scheduled functions of the Conference.

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AUTHORS' BREAKFASTS will be held at 7:30 A. M. on Tuesday and Wednesday mornings in Room No. 3. Authors of papers presented on Monday are invited to breakfast on Tuesday morning. Authors of papers presented Tuesday and Wednesday mornings are invited to breakfast on these respective mornings.

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COCKTAIL HOUR AND DINNER will be held Tuesday evening, Sept. 19. This high point of the social portion of the Conference will be in keeping with New Orleans tradition and fame. Music will be provided during and after dinner by Russ Papalia and his orchestra.

LADIES ACTIVITIES

Room No. 4 will be reserved as a Hospitality Room for Ladies Activities. Coffee will be served morning and afternoon. Bridge tables and cards will be available. Tickets for all Ladies Activities will be obtained at the Registration Desk.

MONDAY

- 10:00 A.M. Hospitality Room Opens
- 12:00 General Luncheon—Charcoal Room
- 2:00 P.M. Grey Lines Bus Tour of New Orleans

TUESDAY

- 9:30 A.M. Breakfast at Brennan's
- 11:30 A.M. Walking Tour of Vieux Carre
- 6:30 P.M. Cocktail Hour
- 7:30 P.M. Dinner

WEDNESDAY

- 10:00 A.M. Sightseeing River Trip on the "Good Neighbor"
(Limited to 65 persons)

All buses will be boarded at Canal St. entrance.

BUS TRIP OF NEW ORLEANS will provide an opportunity to see famous historical land marks in "America's most interesting City".

BREAKFAST AT BRENNAN'S, nationally famous through *Holiday* and *Saturday Evening Post*, is a never-to-be-forgotten epicurean delight.

TOUR OF VIEUX CARRE is a walking tour through the most historical part of our City. French and Spanish architecture will be seen along with patios, antique shoppes, St. Louis Cathedral, Jackson Square, etc.

THE GOOD NEIGHBOR is a sight-seeing vessel operated by the Port of New Orleans from which you can see many of the thousands of ocean going vessels which use our port annually. Miles of wharves, banana loading facilities, grain elevators, etc., will be of considerable interest.