



# South West District 7 Meeting

April 4-6, 1960

Houston, Texas

Headquarters  
Shamrock-Hilton Hotel

## SCHEDULE OF EVENTS

### Sunday—April 3, 1960

3:00 PM to  
6:00 PM—Registration

### Monday—April 4, 1960

8:00 AM—Registration  
9:30 AM—Ladies' Hospitality  
Room Open  
10:00 AM—Ladies' "Let's Get  
Acquainted Coffee"  
10:00 AM—General Session  
12:00 PM—Luncheon for Men  
12:30 PM—Ladies' Luncheon and  
Fashion Program  
2:00 PM—Technical Sessions  
2:00 PM—Inspection Trip, Sam Ber-  
tron Power Plant

### Tuesday—April 5, 1960

8:00 AM—Registration  
8:30 AM—Inspection Trip, Sheffield  
Steel Plant  
9:00 AM—Technical Sessions  
9:00 AM—Ladies' Hospitality  
Room Open  
9:45 AM—Ladies Assemble in "Hos-  
pitality Room" for the  
10:30 AM event  
10:30 AM—Ladies Visit Houston En-  
gineering & Scientific  
Society Building  
11:00 AM—Ladies' Social Hour at  
H. E. & S. S. Club Rooms  
11:30 AM—Ladies' Brunch and  
Book Review  
1:30 PM—Inspection Trip, Southern  
Pacific Englewood  
"Radar" Yard  
1:30 PM—Inspection Trip, Boat  
Ride down Ship Channel  
2:00 PM—Technical Sessions  
6:30 PM—Social Hour  
7:30 PM—Banquet

### Wednesday—April 6, 1960

8:00 AM—Registration  
8:30 AM—Inspection Trip, Boat  
Ride down Ship Channel  
9:00 AM—Ladies' Hospitality  
Room Open  
9:00 AM—Technical Sessions  
2:00 PM—Technical Sessions



Aerial View of Houston, Texas

There'll be a real Texas welcome for AIEE members and their wives who attend the South West District 7 Meeting, April 4-6, 1960 at Houston's glamorous Shamrock-Hilton Hotel.

For out-of-towners, Houston will prove to be an interesting and appropriate city for the meeting. Founded in 1836, the city was once the capital of the yearling republic of Texas and is adjacent to the site at which the state won its independence from Mexico. Now the largest city in the South, with a metropolitan area population of almost a million and a quarter people, the name of Houston has become synonymous with dynamic growth. Towering skyscrapers in various stages of completion, bustling commercial enterprises, and a vast industrial complex which pours forth a flood tide of products illustrate well the role of modern-day electrical engineering and add significance to the comprehensive technical program to be featured at the District 7 meeting.

**TECHNICAL SESSIONS:** Carefully chosen technical presentations conducted by leading authors from all sections of the country will cover over 80 timely and important fields of interest—all keyed to the theme "Electricity—Pacemaker of Industrial Growth in the Great Southwest." Inspection trips to local industries and down the Houston Ship Channel will offer a comprehensive look at modern applications of engineering principles.

**SOCIAL ACTIVITIES:** A variety of entertainment and relaxation have been planned to supplement the technical program. For the men, the facilities of several Houston golf courses have been made available. The weather should be sunny and mild for outdoor activities.

**LADIES PROGRAM:** Highlights of the ladies' activities include a fashion program and book review by one of Houston's outstanding artists. The ladies' complete program is:

#### Monday, April 4

"Let's Get Acquainted" Coffee—10 a.m. to 12 noon, Walnut Room, 3rd floor, Shamrock-Hilton, no admission charge.

Luncheon—12:30 p.m., Satsuma Room, 1st floor, admission \$3.50.

Fashion Program—immediately following luncheon, "Neiman Marcus Presents Ann Randall, Fashion Advisor," Satsuma Room, included in luncheon admission.

#### Tuesday, April 5

Visit to new Houston Engineering and Scientific Society Building at 10:30 a.m.

Social Hour at 11:00 a.m.

Brunch at 11:30 a.m., followed by a Book Review by Margaretta Bolding. Admission is \$2.50.

Reservations for each day's events must be made before 9 a.m., Monday, April 4, so it is suggested that the men purchase their wives tickets at the time they register.

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# SOUTH WEST DISTRICT MEETING

## ADVANCE COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 50¢ each (\$1.00 each to nonmembers), by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Coupon books in \$10 denominations are available for those who wish to avoid remittance by check or otherwise. The Transactions Papers will also be published in the bimonthly publications.

Note: Unnumbered District Papers (DP.\*) may be available at or after the meeting, if copies are provided by the author. They are not intended for publication in the Transactions and are not presently scheduled for reproduction in any form by the Institute.

Note: The TRANSACTIONS papers will be printed in the bimonthly publications as follows:

- I COMMUNICATIONS AND ELECTRONICS.
- II APPLICATIONS AND INDUSTRY.
- III POWER APPARATUS AND SYSTEMS.

## Monday, April 4

### 8:00 a.m.—Registration

Entrance—Exhibit Hall

### 10:00 a.m.—General Session

Continental Room

Presiding: I. T. MONSETH, Vice President, District 7, AIEE

Welcome: Honorable Lewis W. Cutrer, Mayor, City of Houston.

Institute Progress: J. H. Foote, President, AIEE.

Keynote Address: Dr. J. A. Hutcheson, Vice President, Westinghouse Electric Corporation.

### 12:00 p.m.—Luncheon

Emerald Room

Presiding: PROFESSOR NORMAN F. RODE, Director, AIEE

Address: By Outstanding Speaker.

### 2:00 p.m.—What is Happening in Electrical Engineering Education in the Southwest?

Azalea Room

Presiding: PROFESSOR PAUL E. PFEIFFER, The Rice Institute

A panel of four speakers representing different schools in the Southwest. Each speaker will deal with the theme question in the light of events, problems and plans in his own school.

Professor G. D. Hallmark, Texas A&M College;

Professor F. W. Tatum, Southern Methodist University;

Professor Gerald Tuma, University of Oklahoma;

Dean LeVan Griffis, The Rice Institute.

### 2:00 p.m.—Power System Engineering

Exhibit Hall

Presiding: G. E. SCHMITT, Lower Colorado River Authority

DP60-517. Measurement of Flicker Resulting from Large Arc Furnace Operations. D. E. Simmons, Houston Lighting & Power Company.

DP60-528. Application of Computers in System Engineering. G. W. Oprea, Houston Lighting & Power Company.

DP.\* Power System Equivalents. M. L. Johnson and L. M. Haupt, Texas A&M College.

DP.\* Panel-Determination of Firm and Spinning Reserve. C. M. Custer, Southwest Power Pool; Frank Dillon, Texas Power & Light Company; W. G. Siegelin, Central Power & Light Company; Arnold Rich, Federal Power Commission.

### 2:00 p.m.—Communications

Bluebonnet Room

Presiding: E. G. WESTHEIMER, Southwestern Bell Telephone Company

DP.\* Quality Control of Communication Circuits. H. J. McMains, Southwestern Bell Telephone Company.

DP.\* Communications Related to Pipe Line Operations. Vinton Long, Texas Eastern Transmission Corporation.

DP.\* The Revolution in Communications. K. M. Shouse, Southwestern Bell Telephone Company.

### 2:00 p.m.—Illumination

Camellia Room

Presiding: E. B. KARNS, Westinghouse Electric Corporation

DP.\* Panel-Application. J. M. Harris, Sylvania Lighting Products.

DP.\* A Practical Approach to Roadway Lighting. Dana W. Rowten, Sylvania Lighting Products.

DP.\* High Frequency Lighting. Robert W. Horner, The Wakefield Company.

DP.\* Industrial Lighting. C. L. Osborn, Westinghouse Electric Corporation.

## Tuesday, April 5

### 8:00 a.m.—Registration

Entrance—Exhibit Hall

### 9:00 a.m.—Petroleum and Natural Gas

Azalea Room

Presiding: CLAUDE E. CUNNINGHAM, Humble Oil & Refining Company

DP.\* Laurel Applies Automation Techniques on Product Pipeline. K. E. Willson, Laurel Pipeline Company; H. N. Hickok and P. D. Woodruff, General Electric Company.

DP.\* Gas—A Coming Source of Electrical Energy. H. H. Fitzgerald and D. E. O'Connor, Commonwealth Services, Inc.

DP.\* Utility Features of the Amoco Yorktown Refinery. Joseph T. Cain, American Oil Company.

DP.\* Relaying a Growing Refinery Power System. H. L. Post, Humble Oil & Refining Company.

### 9:00 a.m.—Power Transmission

Exhibit Hall

Presiding: J. E. SHEEHAN, City Public Service Board, San Antonio

DP.\* Design, Construction and Operation of Modern Dispatching Facilities. J. B. Poston, City Public Service Board, San Antonio.

DP.\* Ground Line Treatment of Standing Transmission Line Poles. J. M. Mabe, Central Power & Light Company.

DP60-529. Design Features of Modern Transmission Structures. R. M. McCuiston, Houston Lighting & Power Company.

DP.\* Evaluation of Extra High Voltage Transmission Systems. D. J. Hubert and J. W. Yetter, General Electric Company.

### 9:00 a.m.—Communications in Space

Bluebonnet Room

Presiding: CARL R. WISCHMEYER, The Rice Institute

60-518. Moon Reflection Studies with Bistatic Radar at 3000 KMCS. I. A. W. Straiton and C. W. Tolbert, The University of Texas.

DP.\* Establishing a Space Communication Facility. Roy E. Anderson, General Electric Company.

DP.\* A Photoelectric Observatory for Satellite Tracking. J. F. Spaulding, General Electric Company.

DP.\* Space Communications. P. Swerling and S. Reiger, The Rand Corporation.

### 9:00 a.m.—Maintenance Symposium

Camellia Room

Presiding: J. M. BRYAN, Humble Oil & Refining Company

DP.\* Maintenance as Seen By The Repair Shop People. Stark H. Segrest, Westinghouse Electric Corporation.

DP.\* Maintenance in a Petro-Chemical Plant. E. R. Felton, Esso Standard Oil Company.

DP.\* Maintenance in an Oil Refinery. John Petkovsek, Magnolia Petroleum Company.

DP.\* Use of DC Overpotential Testing as a Maintenance Tool in the Industrial Plant. W. A. Weddendorf, Mutual Boiler & Machinery Insurance Company.

### 2:00 p.m.—Chemical and Petro-Chemical Instrumentation

Azalea Room

Presiding: P. D. WOODRUFF, General Electric Company

DP.\* Direct Volume Calculation of Storage Tank Capacities Corrected for Temperature and Specific Gravity. J. P. Anthony, Jr., Texas Instruments, Incorporated.

DP.\* Development of Low Maintenance pH System. R. G. Sproston, Jr., Shell Chemical Company.

DP.\* A Pneumatic Force Balance System for Measuring Large Cell Line Currents. H. C. Behrens, The Dow Chemical Company.

### 2:00 p.m.—Power Generation

Bluebonnet Room

Presiding: W. G. SIEGELIN, Central Power & Light Company

DP60-519. Operating Experience With Large Turbo-Electric Generators. C. W. Anthony, Oklahoma Gas & Electric Company.

DP.\* Data Logging and Automatic Control of Power Plants. J. L. Warmack, Gulf States Utilities Company.

DP.\* Automatic Control With A Digital Computer Of A Large Steam Generating Station. D. L. Aswell, Louisiana Power & Light Company.

DP.\* Design of an Excitation System for Large A.C. Generators. J. A. Zimmerman, Allis-Chalmers Manufacturing Company.

DP.\* Application of Hydro Pumped-Storage to an Interconnected Utility System. G. J. Vencill, Union Electric Company.

### 2:00 p.m.—Thermoelectric Energy Conversion

Exhibit Hall

Presiding: R. W. OLSON, Texas Instruments, Incorporated

DP.\* New Trends in Thermoelectricity. Bernard B. Rosenbaum, U. S. Bureau of Ships.

DP.\* Theoretical and Experimental Performance of a Highly Developed Thermoelectric Generator. K. C. Jordan, Mound Laboratory, Monsanto Chemical Company.

DP.\* Engineering Considerations in the Design of Thermoelectric Coolers. E. R. Boyko and W. J. Barr, American Radiator & Standard Sanitary Corporation.

DP.\* Thermoelectric Cooling and Power Generation. S. J. Angello, New Products Laboratories, Westinghouse Electric Corporation.

### 2:00 p.m.—General Industrial Applications

Camellia Room

Presiding: L. U. EIDSON, Westinghouse Electric Corporation

DP.\* Portable Apparatus for Service Reliability in Industrial Systems. J. Moriarty, Gulf Oil Corporation.

DP.\* Power Application in Driving a 24 Mile Tunnel. George O. Hughes and Oscar E. Lundelius, Brown & Root, Incorporated.

DP.\* The Expansion of the Power Distribution System of a Paper Mill. J. W. McAnally, Champion Paper & Fibre Company.

DP.\* Education and Maintenance in the Operation of Industrial Power Systems. W. A. Weddendorf, Mutual Boiler & Machinery Insurance Company.

### 6:30 p.m.—Social Hour

Grecian Room

### 7:30 p.m.—Banquet

Emerald Room

Presiding: P. H. ROBINSON, General Chairman, District 7 Meeting

Entertainment: Lamar Mixed Chorus.

Address: By Prominent Speaker.

## Wednesday, April 6

### 8:00 a.m.—Registration

Entrance—Exhibit Hall

### 9:00 a.m.—Chemical and Petro-Chemical

Exhibit Hall

Presiding: W. C. WOODS, Westinghouse Electric Corporation

DP.\* A Recent Look at European Industrial Electrical Power Practices. R. L. Sandstedt, Monsanto Chemical Company.

DP60-527. Evaluation of High Capacity Semiconductor Rectifier Devices. J. L. Boyer and W. S. Albert, Westinghouse Electric Corporation.

DP60-520. Economic Analysis of Chemical Plant Wiring Methods for Low Voltage Power and Control Systems. A. A. Johnson, The Dow Chemical Company.

DP.\* Automatic Current Control of Ignitron Rectifiers in Electro-Chemical Service. B. J. Nankervis, The Dow Chemical Company, and L. U. Eidson, Westinghouse Electric Corporation.

DP.\* Remote Operation of a Rectifier Substation. R. P. Triche and R. P. Love, Ethyl Corporation.

### 9:00 a.m.—Power Distribution

Bluebonnet Room

Presiding: R. W. SHERWOOD, Gulf States Utilities Company

DP.\* Service to Large Commercial Loads from 265/460 Volt Spot Networks. J. P. Barron, Dallas Power & Light Company.

DP.\* New Approach to Comparative Economics of Secondary Shunt Capacitors. F. J. Meyer, Jr., Public Service Company of Oklahoma.

DP.\* Effect of Loading and Loss Ratio On Cost of Losses of Distribution Transformers. A. M. Lockie, Westinghouse Electric Corporation.

DP60-521. Practical Applications of Digital Computers to Distribution Systems. Ted L. Hatcher and Edward L. Busby, Texas Power & Light Company.

### 9:00 a.m.—Future Power Sources

Azalea Room

Presiding: PROFESSOR W. H. HARTWIG, Electrical Engineering Department, University of Texas

DP.\* Fuel Cell Batteries—A Review. J. J. Murphy, C. H. Clark, and A. F. Daniels, U. S. Army Signal Research and Development Laboratory.

DP.\* The Plasma Cell and Nuclear Electric Conversion. W. A. Ranken, University of California, Los Alamos Scientific Laboratory.

DP.\* Magneto-hydrodynamics Power Generation. Stewart Way, Westinghouse Research Laboratories.

DP.\* Comparison of Two Particle Distributions. W. J. Graft, Mechanical Engineering Department, Southern Methodist University.

### 9:00 a.m.—Industrial Computer Control

Camellia Room

Presiding: H. N. HICKOK, General Electric Company

DP.\* Fundamentals of Digital Control and Measurements Systems. A. H. McMorris, University of Houston.

DP.\* Recent Advances in Pipeline Pump Station Automation. R. D. Pfluger, Shell Pipe Line Corporation.

DP.\* New Digital Computer Techniques Solve Industrial Problems. C. J. Baldwin, Westinghouse Electric Corporation.

DP.\* Computer Control for Power Generation. R. G. Livingston, General Electric Company.

### 2:00 p.m.—Chemical and Petro-Chemical

Camellia Room

Presiding: D. J. HUBERT, General Electric Company

DP.\* Converting an Air Compressor Steam Generator Station for Unattended Operation. K. Blythe, Reynolds Metals Company.

DP60-522. Electrical Maintenance in a Chemical Plant. A. D. Colburn, Union Carbide Chemicals Company.

DP60-523. Operating Record of Sealed Tank Mercury Arc Rectifiers. B. D. Cockrell and E. S. Manning, Aluminum Company of America.

DP60-524. Lighting and Instrument Service Branch Circuit Design for Chemical Plants. James H. Wieting, Union Carbide Chemicals Company.

### 2:00 p.m.—Power Substations and Relaying

Bluebonnet Room

Presiding: J. K. HOWELL, Westinghouse Electric Corporation

DP60-525. Design of Transformer Vault Buses. Robert O. Randle, Houston Lighting & Power Company.

DP60-526. A Reclosing Relay for Ring Bus Substations. L. A. Davidson and V. M. Hines, Oklahoma Gas & Electric Company.

DP60-530. Control of Flicker on Distribution Systems. L. R. Gardner, Houston Lighting & Power Company, and W. T. Kittinger, Jr., University of Houston.

DP.\* The New Static Overcurrent Relay. Frank T. Free and Nicholas Kreekon, Allis-Chalmers Manufacturing Company.

### 2:00 p.m.—Materials Technology; New Uses For Electrical Energy

Azalea Room

Presiding: PROFESSOR J. D. HORGAN, Electrical Engineering Department, Marquette University

DP.\* Semiconductor Materials Chemistry. Rowland E. Johnson, Texas Instruments Incorporated.

DP.\* New Electronic Devices from New Semiconductor Materials. R. L. Petritz, Texas Instruments Incorporated.

DP.\* Implications of Whiskers Research in Materials Technology. W. W. Webb, Union Carbide Metals Company.

DP.\* Electron Beam Welding, Drilling, and Milling Using High Voltages and Sophisticated Optical Systems. K. H. Steigerwald, Electrona, Incorporated, and Carl Zeiss (of Germany).



# SOUTH WEST DISTRICT MEETING

## 2:00 p.m.—General Industrial Applications

Exhibit Hall

Presiding: H. C. MORTON, Westinghouse Electric Corporation

- DP.\* The Electrical Modernization of a Growing Port. Dwain Orr, Corpus Christi Navigation District.
- DP.\* Application of New Electronic Developments to a High Performance Aircraft. D. C. Thomas, Chance-Vought Aircraft Corporation.
- DP.\* Nuclear Magnetic Resonance Instrumentation for Industrial Growth. William Rollwitz, Southeast Research Institute.
- DP.\* Recent Developments in Non-Destructive Testing Using Magnetic Techniques. Lyle Donaldson, Southwest Research Institute.
- DP.\* Two-Way Radio Communications for the Texas Highway Department. M. J. Green, H. E. Bovay Consulting Engineers.

### CONTINUED FROM PAGE 1

Transportation for the Tuesday affair will be provided by local members and ladies planning to attend should meet at 9:45 a.m. in the Hospitality Room (Walnut Room).

Out of town guests may visit special places of interest in the city by making arrangements with Mrs. T. M. Keiller, who will be present at the get-acquainted coffee Monday morning.

Ladies may also accompany their husbands on either of the boat trips down the Houston Ship Channel.

**REGISTRATION:** The Meeting Registration Booth and Information Center will be located in the North Lobby of the Shamrock Hilton on Sunday. On Monday and thereafter they will be located at the entrance of the Hall of Exhibits. Registration will begin on Sunday, April 3, from three until six p.m., then continue through each day of the convention. Registration Fees are \$4.00 for members, \$7.00 for non-members and \$2.00 for ladies. All persons planning to attend are strongly urged to return their Advance Registration Forms promptly to: Mr. H. W. Magruder, General Electric Company, P. O. Box 22045, Houston 27, Texas.

Activities officially begin with the General Meeting at 10 a.m. Monday. Featured at this session will be Houston Mayor Lewis W. Cutrer, AIEE President J. H. Foote, AIEE Vice-President I. T. Monseth and Westinghouse Electric Corporation Vice-President Dr. J. A. Hutcheson, who will make the keynote address. The General Meeting, for which there is no charge, will be held in the Continental Room.

A luncheon will follow in the Emerald Room at 12:00 noon with Professor Norman F. Rode, Director, AIEE, presiding. An entertaining and informative talk by a well-known speaker will highlight the luncheon. Admission will be \$3.50 per person.

On Tuesday evening, the Social Hour in the Grecian Room will be followed by a Banquet in the adjacent Emerald Room. At the banquet, Mr. P. H. Robinson, General Chairman, presiding, members and their wives will have the pleasure of hearing the Lamar High School Mixed Chorus, a 100-voice singing group which has sung for governors' functions and is in constant demand for performances in and around Houston. A nationally-known speaker will climax this outstanding event, for which admission will be \$7.50 per person, including the Social Hour.

**HOTEL ACCOMMODATIONS:** Members are requested to return their reservation cards directly to the hotel promptly, **since the Shamrock Hilton will not guarantee to fill reservations** received after March 26.

Special room rates obtained are as follows:

Single .....	\$ 8.00-\$18.00
Double .....	12.00- 20.00
Parlor and one bedroom .....	25.00- 40.00
Parlor and two bedrooms .....	55.00- 70.00

(In the event the room requested is not available, quarters having the next rate will be assigned.)

Further information regarding hotel rooms may be obtained from Mr. W. M. Oliver, 507 Dallas Avenue, Houston 2, Texas, who is chairman of the Hotel & Equipment Committee. If the reservation card should be misplaced, room arrangements can be made by contacting the Reservation Department, Shamrock Hilton Hotel, P. O. Box 1287, Houston, Texas.

**INSPECTION TRIPS:** Three inspection trips to leading industries, and unusual sightseeing excursions down the Houston Ship Channel have been scheduled. To cover transportation costs, there will be a \$2.00 per person charge for each trip. Capacity for each tour is 40 persons, with the exception of the boat trips which is 80 persons. If insufficient interest is evidenced in any Inspection Trip, such Trip or Trips will be cancelled.

**Houston Lighting & Power Company Steam Electric Generating Station.—Monday—April 4, 2-6 p.m.** Located on a 664 acre tract near the San Jacinto Monument, the Sam Bertron Station is the largest plant on the Houston Lighting & Power Company's system. The plant's first generator of 165,000 KW capability was put into service in March of 1956. In 1958 another 165,000 KW machine was added, then a 220,000 KW unit in February of 1959. The fourth generator went on the line in February of this year to raise the total generating capability of the Bertron plant to 770,000 KW. Primary fuel for the plant is natural gas, delivered at 500 psig and reduced to 75 and 50 psig for use. It has a heating value of 1030 Btu per cubic foot at standard conditions, and is introduced to the plant at an average specific gravity of 0.580. Boiler capacities are 1200 mlb/hr for Number 1 and 2 Units, and 1550 mlb/hr for Units 3 and 4. Superheat and reheat temperatures for all four boilers is 1005 degrees Fahrenheit. The 165,000 KW turbo-generators have a throttle pressure of 1800 psig, the larger units, 2000 psig.

**Sheffield Division, Armco Steel Corporation—Tuesday—April 5, 8:30 a.m.-12:30 p.m.** Construction of Sheffield's Houston mill began in 1941. It was completed in the following year, and the first heat of steel tapped on March 20, 1942. Steady expansion of facilities has made the plant the largest mill in the central United States, with a fully integrated operation and a capacity of 1,260,000 tons of ingot steel per year. For those who have never seen steel made and processed, a visit to Sheffield should be an exciting trip. Open hearths belching 3000 degree temperatures and electric furnaces which noisily reduce scrap metal to liquid in an amazingly short time are spectacular highlights in the making of ingot steel which, ultimately, is processed into wire, plates, structural shapes, rods and tank heads.

**Englewood Radar Yard, Southern Pacific—Tuesday—April 5, 1:30 p.m.-5:30 p.m.** Recently expanded, Southern Pacific's Radar Yard facilitates the switching and classifying of freight cars five times faster. The yard has a capacity of 7,179 cars and occupies 359 acres containing 113 miles of tracks. The radar and electronic computing equipment, which makes possible damage-free operations in any weather, utilizes 49 miles of multiple conductor cable and 280,000 feet of single conductor wire. Some 348 track switches, of which 96 are electrically controlled, are also installed. Sixteen flood-light towers containing 180 lighting units provide illumination rated at 40,000,000 candlepower. To construct the yard, 845,000 cubic yard of earth and selected materials were moved, and 29 pre-fabricated steel buildings and towers constructed.

**Houston Ship Channel Excursion, MV Sam Houston—Tuesday—April 5, 1:30-5:30 p.m. and Wednesday, April 6, 8:30 a.m.-12:30 p.m.** Because of the expected popularity of a boat trip down the ship channel, two tours have been scheduled. Members will be delighted with the recently-launched Motor Vessel Sam Houston, which is the official Port of Houston inspection boat. Leaving from the turning basin, the boat will pass many of the largest industries of the area, including Sheffield Steel and Houston Lighting & Power Company's Deepwater Plant. The channel, which serves the second largest port in the nation, was once Buffalo Bayou, having been deepened to accommodate seagoing vessels in 1915. It is appropriate that the boat trips down the channel should be scheduled, since the opening of the port played such an important role in the growth of Houston and modern electrical engineering in the Gulf Coast area.

**COMMITTEE:** Members of the AIEE District 7 Meeting Committee are P. H. Robinson, General Chairman; V. O. Clements, Vice Chairman; J. B. Burr, Vice Chairman; W. E. Silvus, Budget and Finance Chairman; M. T. Robin, Coordinating Secretary; C. L. McNeese, Publicity Chairman; Amos F. Williams, Section Liaison Chairman; L. K. Del'Homme, Technical Program Chairman; H. P. Heafer, Communications Sub-Chairman; Dana Price, General Applications Sub-Chairman; W. D. Cox, Chemical and Petro-Chemical Sub-Chairman; H. M. Stewart, Petroleum and Natural Gas Sub-Chairman; H. N. Hickok and L. V. Eidson, General Industrial Applications Sub-Chairman; M. H. Lovelady, Power Sub-Chairman; J. M. Bryan, Maintenance Sub-Chairman; W. S. Miller, Instrumentation Sub-Chairman; R. W. Olson, Science and Electronics Sub-Chairman; P. E. Pfeiffer, Engineering Education Sub-Chairman; W. M. Oliver, Hotel and Equipment Chairman; Chester M. Davis, Registration and Information Chairman; W. F. Strong and J. R. Ridgway, Jr., Inspection Trips and Transportation Chairmen; George B. Jamison, Entertainment Chairman.

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