SOUTHWEST DISTRICT MEETING
March 31 - April 2, 1958
Tulsa, Oklahoma

Headquarters:
Mayo Hotel

"THE ELECTRICAL INDUSTRY AND THE SOUTHWEST"

Tulsa, oil capital of the world and center of the "Magic Empire" region of Northeastern Oklahoma, will be host to the Seventh District Annual Meeting, March 31, April 1, 2, 1958.

Tulsa, one of the Southwest's fastest growing cities is the heart of the "Magic Empire," Oklahoma's finest playground and largest industrial area. It is the home of over 800 oil companies and firms closely allied with the petroleum industry. Tulsa is also proud of the fact that despite its mushroom growth from a population of 1,390 in 1900 to 264,300 in 1958, it is nationally acclaimed as one of America's cleanest and most beautiful cities.

The program has been designed to be of interest to all members in the Southwest and will include sessions on aircraft, engineering education, petroleum products, petroleum manufacturing, power generation, transmission, distribution, secondary distribution and substation design as well as industrial applications and communications. An excellent program of tours of local sites of interest has also been arranged.

OPENING GENERAL SESSION

After a welcoming address by the Honorable George E. Norvell, Mayor, City of Tulsa, the keynote address, "The Electrical Industry and the Southwest," will be given by Mr. R. K. Lane, Chairman of the Board of Directors, Public Service Company of Oklahoma. Mr. N. F. Rode, Vice President, Seventh District, will preside at this session which will be held at 10:00 A.M. Monday, March 31 in the Crystal Ballroom of the Mayo Hotel. We will also have a word from the Institute President, Mr. Walter J. Barrett, at this opening session.

The luncheon meeting at noon Monday will be held jointly with the Engineers Club of Tulsa at which the Honorable Mr. Hugh M. Milton II, Assistant Secretary of the Army, will be the speaker.

ENTERTAINMENT

Monday evening an informal reception and fellowship hour compliments of Public Service Company of Oklahoma, will be held in the Crystal Ballroom of the Mayo Hotel at 6:00 P.M. Background music will be provided by a combo orchestra and refreshments will be served. Registrants and their ladies are invited. There will be no admission charge, however, admission will be by badge only.

Tuesday evening is planned to be the entertainment highlight of the convention. An informal banquet will be held in the Crystal Ballroom with all convention registrants and their ladies invited to attend. Dinner music will be provided by an orchestra with the main entertainment program presented by the University of Tulsa Choral Group and Theatrical Departments. A very interesting and entertaining program is anticipated. Tickets will be sold on Monday and Tuesday at the registration desk at $7.50 per person.

SPORTS

Golf will be arranged for those so desiring to participate. These arrangements can be made through the inspection trip committee.

LADIES ACTIVITIES

Monday, March 31
9:00 A.M. — Registration, Mayo Hotel. All ladies should register with their husbands before signing up for the program.
12:00 Noon — Buffet Luncheon and Fur Style Show & Lecture on Furs — Pompeian Court, Mayo Hotel.
6:00 P.M. — Informal Reception & Fellowship Hour — Crystal to 7:00 P.M. Ballroom, Mayo Hotel.

Continued on page 4
ADVANCE COPIES OF PAPERS
Members may obtain printed copies of numbered papers at the uniform price of 40c each (60c each to nonmembers), by sending enclosed order form and remittance to the AIEE Order Department, 31 West 39th Street, New York 18, N. Y. Mail orders, particularly from out-of-town members are ad-
viseable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Coupon books in 50 denominations are available for those who wish to avoid remittance by check or otherwise. The Transactions Papers will also be published in the January-February publications.
Note: Unnumbered District Papers (DP,*) may be avail-
able at or after the meeting, if copies are provided by the author. They are not intended for publication in the Trans-
actions and are not generally scheduled for reproduction in any form by the Institute.

Monday, March 31
7:45 A.M.—Registration
Minn Library, Merc Hotel

10:00 A.M.—General Session
Crystal Ballroom, Merc Hotel
President, SIRRAE RODEN, President,

WELCOME—The Honorable George E. Norvell, Mayor
City of Tulsa.

A WORD FROM THE PRESIDENT—
President, Walter J. Barrett

"THE ELECTRICAL INDUSTRY AND THE SOUTHWEST"
Mr. H. R. Lane, Chairman of the Board,
Public Service Company of Oklahoma,

12:00 Noon—Luncheon
Luncheon Room, Merc Hotel


ADDRESS—The Honorable Hugh M. Milton II
Assistant Secretary of the Army.

2:00 P.M.—Industrial Applications
Furniture Room, Merc Hotel
J. H. MILLER, Presiding.

DP.* “A Planned Large High Voltage Germanium Rectifier Instal-
lition,” George Choua, Diamond Airplane, Los Angeles.

DP.* “Electrical Installations in a Modern Cement Plant,” David Loehr, Ideal Cement Company.

DP.* “Comparative Economics of New Light Sources in Industrial Applications,” R. D. Bradley, Day-Brite Lighting, Inc.

2:00 P.M.—Systems Engineering
Suite C, Merc Hotel


DP.* “Southwestern Public Service Company’s Use of Digital Com-
puters in Generation Scheduling,” R. W. Thomas, Southwestern
Public Service Company, Oklahoma City.


2:00 P.M.—Engineering Education
Suite C, Merc Hotel


DP.* “Automation and Education,” William R. Jarzembski, Jarvis
Services, Inc.

Construction Work at Tulsa Power Plant

2:00 P.M.—Power Transmission
Suite C, Merc Hotel


DP.* “Requirements for Successful Applications of Data Systems in Power,” Henry S. Streit, Beckman Instruments Inc.

2:00 P.M.—Power Transmission
Suite C, Merc Hotel

DP.* “Insulator Research for Tomorrow’s Lines,” A. D. Lantz, Ohio Brass Company.

DP.* “Wood Structures for 230 Kv and 345 Kv Construction,”
R. G. Yerk, Hughes Brothers, Inc.

DP.* “High Strength Aluminum Alloy Conductors,” E. W. Greenfield, Kaiser Aluminum & Chemical Corp.

DP.* “Narrow Base Steel Towers for Transmission Lines on City Streets,” R. C. Hughes, San Antonio City Public Service Board.

Wednesday, April 2
9:30 A.M.—Industrial Applications
Furniture Room, Merc Hotel
R. E. THOMPSON, Presiding.

DP.* “Motor Operation and Protection on Unbalanced Voltages,”
R. S. Reid and G. W. Cunningham, General Electric Com-
pany.


9:30 A.M.—Communications
Furniture Room, Merc Hotel

DP.* “Transmitting Radio Equipment,” F. Vinton Long, Texas-
Eastern Transmission Corporation.

DP.* “Microwave Systems and Transmission,” A. R. Munson, South-
western Bell Telephone Company.

DP.* “Microwave Reflector Radiation Lobe Study,” Jointly by Motorola and R. E. Ballard, Sun Pipe Line Company, Bea-
umont, Texas.

9:30 A.M.—Power Systems
Furniture Room, Merc Hotel

DP.* “Radar Protection and Interlocking,” J. L. Barker, Okla-
ahoma Gas & Electric Company.

DP.* “The Electrical Industry in Mexico,” A. W. Gelike, Ebasco
International Company, Mexico City.

DP.* “The Pump Turbine Story,” F. E. Jaki, Allis-Chalmers
Mfg. Co.

DP.* “Pump-Turbine Application in Northeast Oklahoma,” D. K.
Holway, W. R. Holway & Associates.

2:00 P.M.—Communications
Furniture Room, Merc Hotel
E. P. RASPAR, Presiding.

DP.* “Economics of Substation Standardization,” Tom R. Hake,
oklahoma Gas & Electric Company.


DP.* “Overload Capability of Modern Power Fuses,” C. H. Baker,

DP.* “Progress in Station Class and Intermediate Class Lighting
Arresters,” E. J. Allen, General Electric Company, Pittsfield,
Massachusetts.

2:00 P.M.—Communications
Furniture Room, Merc Hotel

DP.* “Guard and Testing Circuit Channel,” W. J. Bentos, Sinclair
Pipe Line Co., Independence, Kansas.

DP.* “Microwave Loop System for a Power Utility,” C. C. Anderson, City of Austin; E. T. Gray, G. A. Griffith, West-
inghouse Electric Corp.

DP.* “Microwave Station Emergency Power,” W. E. Freese, Sin-
cial Pipe Line Co., Independence, Kansas.

DP.* “Selecting Signaling and Control System,” H. J. Michael
and W. V. Large of Bell Telephone Laboratories, Inc.

New Long Distance Building, The Southwestern Bell Telephone Co.
Tuesday, April 1
9:30 A.M.—Load buses for tour of famous Frankoma Pottery Works. Buses then proceed to Oaks Country Club for buffet luncheon at 12:00 noon, with bridge, canasta and golf following in the afternoon. (Tickets for tour and luncheon $2.00—Green Fees not included.)
7:00 P.M.—Banquet.

Wednesday, April 2
9:30 A.M.—Load buses for tour of Philbrook Art Center and tour of Gilcrease Museum of Indian Art.
12:00 Noon—Buses return to hotel.

INSPECTION TRIPS

Five tours have been arranged for those registrants and ladies interested in visiting local installations of interest. Tickets will be available in the registration desk for each of these trips. Tickets should be obtained as soon as possible. A nominal charge will be made for tickets for those tours which require transportation.

Douglas Aircraft Co., Tulsa Division—The tour will be made of the main assembly building and will include the fabrication area, wiring development and sub-assembly area, and main assembly line. The main assembly building is over 5,000 feet long, Douglas Tulsa Division is a major contractor for the modification of the Air Force B-66 and B-47 Bombers. Wives of members are invited to make this tour.

Nelson Electric Manufacturing Company—Nelson Electric Manufacturing Company plant and offices. Located on a 58-acre tract southeast of Tulsa, a new million-dollar building houses the largest manufacturing facilities of electrical control equipment in the entire region. The 22,000 square feet of air-conditioned office space are combined with a plant 400 feet long by 180 feet wide. High and low voltage switchgear, motor starters, explosion proof equipment and oil field specialty items are the company's principal products. Application and Design Engineering, Production Control, Electrical, Sheet Metal, Welding, and Machine Shop will be included in the departments visited. Equipment in various stages of manufacture will be inspected.

Public Service Company of Oklahoma, Tulsa Power Station—A brief introductory talk illustrated with a number of slides will precede the tour. This station includes a 175,000-kilowatt turbo-generator unit that has been in operation for one year, a second 175,000-kilowatt unit in the final stages of construction, and a 45,000-kilowatt compound unit just completed.

In addition to the turbine-generator units, the electrical equipment that will be seen includes 3000 hp boiler feed motors, 1750 hp draft fan motors, 1500 hp circulating water pump motors, 1600 hp—1125 KW motor-generator exciters, 3000 amper generator bus duct, 450 volt sub-station, central control unit and other electrical and mechanical equipment of interest.

D-X Sunray Oil Company, West Tulsa Refinery—A guided tour is planned through Oklahoma's largest refinery where 75,000 barrels of crude oil are processed each day. Lubricating gasolines, motor oils and hundreds of other products derived from petroleum are produced at this refinery.

The planned stops during this tour include the main substation where two 300 MVA, 14.4 KV, outdoor circuit breakers have recently been installed, a catalytic cracking unit, the coking plant where 400 quarts of oil per minute are canned on one machine, a new H. F. Alkylation unit, a new platformer, a new unifier, a new isomerization unit, and the recently expanded and modernized laboratory.

The refinery is served by three 13,200 volt lines from the local utility system. The motor connected load is approximately 15,000 HP. The substation capacity is 15,150 KVA at 13,800 volts with a maximum demand of 11,000 KW when the new units are placed on stream.

Southwestern Bell Telephone Company, New Long Distance Telephone Building—This building represents three years of work by tens of thousands of man hours and an expenditure of 745 million dollars. The fantastic electronic long distance machine connects Tulsa with 44 similar machines in the United States and Canada. The Tulsa operator can dial more than 25,000,000 telephones direct.

The new "A4" switching machine—a superhuman telephone crossroads—automatically determines the best route for the calls and sends the electrical impulses along the proper set of wires into a telephone switching center miles away and rings the telephone as if the call has been dialed locally.

Other new equipment includes special billing machines designed for telephone use, a printing press which transforms a roll of blank paper into a telephone bill with the proper amount printed thereon, a centipede-like machine which picks up the bills by vacuum, opens the envelope, inserts the bill, moistens the flap, seals and stacks them in a neat bundle for mailing.

This tour will be held Monday and Tuesday afternoons at 2:00 P.M. and Tuesday mornings at 10:00 A.M. Each group of 10 will meet at the Long Distance Building and be conducted on the tour by a guide. If sufficient numbers sign up for this tour additional times will be scheduled. There is no transportation charge for this tour as it is located close to the hotels of the tour.

SCHEDULE OF INSPECTION TRIPS

Monday 2:00 P.M.—Public Service Company of Oklahoma, Tulsa Power Station.
Monday 2:00 P.M.—Southwestern Bell Telephone Company.
Tuesday 10:00 A.M.—Southwestern Bell Telephone Company.
Tuesday 2:00 P.M.—Nelson Electric Manufacturing Company.
Tuesday 2:00 P.M.—Douglas Aircraft Co., Tulsa Division.
Tuesday 2:00 P.M.—Southwestern Bell Telephone Company.

HOTEL RESERVATIONS

Arrangements have been made so that all hotel reservations can be made insofar as possible at the Headquarters Hotel, The Mayo. Reservations are to be made directly with the hotel, using the reservation cards, which will be included in the regular meeting notices. Rates, indicated on the cards, are as follows:

- Single Rooms for 1 . . . . . . . . $ 8.00 — $ 9.00 — $12.00
- Double Rooms for 2 (Double Bed) . . . . . . . . $11.00 — $12.00 — $15.00
- Double Rooms for 2 (Twin Beds) . . . . . . . . $12.00 — $14.00 — $16.00 — $18.00
- Parlor Suites (Parlor — 1 Bedroom) . . . $30.00 to $50.00
- Parlor Suites (Parlor — 2 Bedrooms) . . . $40.00 to $60.00

All Rooms have private baths

REGISTRATION

The registration desk will open at 7:45 A.M. on Monday, March 31, 1958, in the main lobby of the Headquarters Hotel, The Mayo. This desk will be staffed from 7:35 A.M. to 5:00 P.M. on Monday, March 31, from 8:00 A.M. to 5:00 P.M. on Tuesday, April 1, and from 8:00 A.M. to 12:00 Noon on Wednesday, April 2. Tickets to all events and information concerning the meeting will be available at this desk. Registration fees for members will be $3.00 per person. For non-members the fee will be $5.00 per person. Members are encouraged to take advantage of the pre-registration forms which will be sent with the meeting notice. AIEE Student Members and families of members no fee but registration required.

COMMITTEES

The Members of the District Meeting Committee are: R. K. Lane, General Chairman; Dwight W. Allison, Vice Chairman; John H. Heller, Secretary; F. N. Wightman, Program & Meeting Papers Chairman; G. R. Van Burkleo, Program and Meeting Papers Vice Chairman; B. F. Thompson, Meeting Papers Sub-Chairman, Industrial Applications; C. M. Gordon, Jr., Meeting Papers Sub-Chairman, Systems Engineering; Dr. R. J. W. Koopman, Meeting Papers Sub-Chairman, Engineering Education; H. E. Felix, Meeting Papers Sub-Chairman, Aircraft; Grafion A. Smith, Meeting Papers Sub-Chairman, Petroleum Production; C. A. Burgett, Meeting Papers Sub-Chairman, Power Transmission; F. J. Meyer, Jr., Meeting Papers Sub-Chairman, Power Distribution; Tom R. Shaw, Meeting Papers Sub-Chairman, Petroleum Manufacturing; C. L. Moon, Meeting Papers Sub-Chairman, Communications; D. K. Holway, Meeting Papers Sub-Chairman, Power Systems; J. L. Hixon, Finance & Budget; R. D. Bennett, Hotel Arrangements; H. A. Norberg, Inspection Trips Chairman; Charles W. Brown, Inspection Trips Vice Chairman; H. M. Furtney, Registration; D. L. McCauley, Publicity Chairman; Jack C. Wells, Entertainment.

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