

GREAT LAKES DISTRICT MEETING

Jackson, Michigan



May 11-12, 1950

Headquarters: Hotel Hayes



Hotel Hayes and Consumers Power Co., Jackson, Michigan

The AIEE Great Lakes District Meeting to be held at the Hotel Hayes in Jackson, Michigan, May 11 and 12, 1950, will cover the subject of motors, magnetic amplifiers, distribution, generation, transmission, metering, and student papers, both by graduates and undergraduates. Inspection trips for both days have been arranged and these inspection trips are closely allied with the subject matter on the technical program.

Arrangements for graduate students' technical papers and undergraduate students' technical papers have been made, so that there will be a complete program for students throughout the two days of the meeting.

On the social side, there will be an informal banquet the first evening for everyone and a students' luncheon and students' banquet will be held to complete the students' program. There will also be special entertainment for the ladies on both days.

The technical meetings will be held at the Hotel Hayes and the students' activities for the main part will be held at the Otsego Hotel, with one meeting being scheduled for the Public Library Auditorium. The subjects of the various sessions and the titles and authors of the papers to be presented at these meetings will be found in the program which is included.

SPORTS

Reservations have been made at the Jackson Country Club for the playing of golf on both days of the convention. The committee on entertainment would appreciate being advised on the registration card which is sent in as to whether the registrant desires to play golf.

LADIES ENTERTAINMENT

Arrangements have been made for a sight-seeing trip for the ladies which will take them as far as Battle Creek and on a tour through the W. K. Kellogg Company Food Plant there on May 12. A tour of the Gilbert Chocolate Factory in Jackson is scheduled for May 11. The complete program includes a luncheon, card games, golf, and other entertainment besides attendance at the main banquet on the evening of May 11.

ADVANCE REGISTRATION

Please register in advance by promptly filling in and mailing the advance registration card enclosed with this mailed announcement. Complete your registration at the Registration Desk on arrival at the meeting. Identification badges will be prepared for those who register in advance and these will be available at the Registration Desk. A registration fee of \$2.00 will be charged all members and \$3.00 for all nonmembers. No fee will be required of enrolled students and the immediate families of members.

AIEE GREAT LAKES DISTRICT MEETING—PROGRAM—Jackson, Michigan—May 11-12, 1950

ADVANCE COPIES OF PAPERS

Members may obtain preprints of technical papers at the uniform price of **30¢ each (60¢ each to nonmembers)** by sending remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. District papers denoted by DP** are intended for presentation only, and are not available. 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 \$9.00 denominations are available for those who wish to avoid remittance by check or otherwise. Most of the papers ultimately will be published as AIEE PROCEEDINGS and in the TRANSACTIONS.

Thursday, May 11

9:00 a.m.—Registration

10:30 a.m.—General Meeting

PRESIDENT J. F. FAIRMAN, Presiding

12:15 p.m.—Inspection Trip—B. E. Morrow Steam Plant

12:30 p.m.—Luncheon

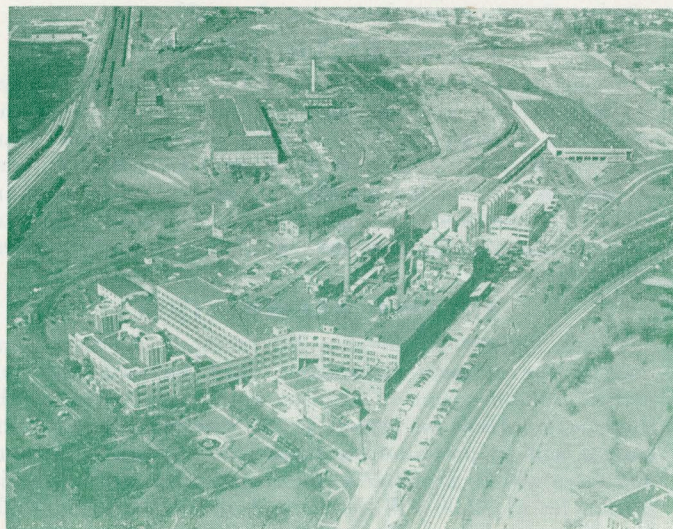
2:00 p.m.—Inspection Trip—Michigan State College

2:00 p.m.—Motors

Coral Room, Hotel Hayes
D. D. EWING, Presiding

DP.** The Goerges Phenomenon—Induction Motors with Unbalanced Rotor Impedances. H. L. Garbarino, General Electric Company; E. T. B. Gross, Illinois Institute of Technology.

DP.** Application of Motors and Control to Air Compressor Drive. G. F. Johnson, Joy Manufacturing Company.



The Kellogg Co., Battle Creek, Michigan

DP.** Commutation in Universal Type Motors. L. C. Packer, Westinghouse Electric Corporation.

2:00 p.m. Magnetic Amplifiers

Crystal Room, Hotel Hayes
R. FOULKROD, Presiding

50-123. Series-Connected Saturable Reactor with Control Source of Comparatively Low Impedance. H. F. Storm, General Electric Company.

DP.** Application of Magnetic Amplifiers. F. N. McClure, Westinghouse Electric Corporation.

DP.** Comparison of Graphical Analysis of Magnetic and Vacuum Tube Amplifiers. R. E. Lee, Westinghouse Electric Corporation.

2:00 p.m.—Distribution

Ball Room, Hotel Hayes
H. E. STITES, Presiding

DP.** Design of Rural Electric System. C. M. Stanley, Stanley Engineering Company.

50-124. Future Planning for a 13,800 Volt Sub-Transmission System and Associated Rural Distribution Systems. R. W. Brown, Interstate Power Company.

DP.** Practical Experiences with Resonant Grounding in a Large 34.5 Kv System. H. H. Brown, Wisconsin-Michigan Power Company; E. T. B. Gross, Illinois Institute of Technology.

50-125. Effects of Supply Line Unbalance on the Filtered Output Ripple of Polyphase Rectifiers. C. K. Hooper, C. H. McAdie, Westinghouse Electric Corporation.

DP.** Voltage Regulation of Suburban and Rural Feeders. W. L. Peterson, Allis-Chalmers Manufacturing Company.

2:00 p.m.—Graduate Student Technical Papers

Public Library Auditorium

6:30 p.m.—Banquet—Informal

Ball Room, Hotel Hayes

Address—R. S. Peare, Vice-President, Advertising and Publicity Department, General Electric Company.

Friday, May 12

8:00 a.m.—Inspection Trip—W. K. Kellogg Co.

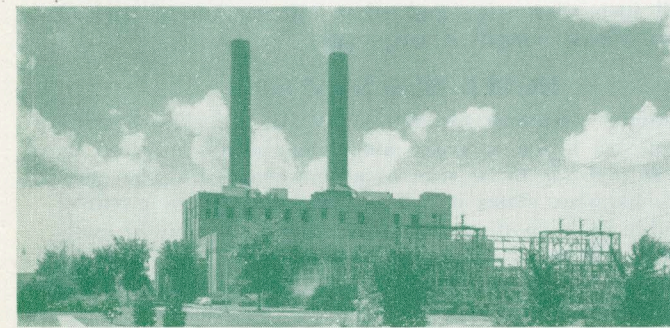
9:00 a.m.—Inspection Trip—Installation of Aerial Cable by the Spinning Method

9:30 a.m.—Generation

Ball Room, Hotel Hayes
F. WETMORE, Presiding

DP.** Modern Power Supply Facilities. J. H. Foote, Commonwealth Services, Inc.

DP.** Problems in the Design and Application of Large Turbine Generators. A. A. Johnson, M. D. Ross, Westinghouse Electric Corporation.



Bryce E. Morrow Plant — Consumers Power Company

DP.** Telephone Influence Factor in Synchronous Machines. I. C. Benson, G. L. Oscarson, Electric Machinery Manufacturing Company.

DP.** High Voltage Generator Insulation. G. L. Moses, Westinghouse Electric Corporation.

9:30 a.m.—Transmission

Coral Room, Hotel Hayes
E. R. HENDRICKSON, Presiding

DP.** Operating Experience with Resonant Grounding in Power Systems in the U. S. (A Survey Report). E. T. B. Gross, Illinois Institute of Technology; E. W. Atherton, Railway and Industrial Engineering Company.

DP.** Progress Report of Utilities Research Commission Investigation of Galloping Conductors. F. E. Andrews, E. L. Tornquist, Public Service Company of Northern Illinois.

DP.** Design and Construction of 69 Kv Transmission Structures. R. G. Yerk, Hughes Brothers.

9:30 a.m.—Student Technical Papers

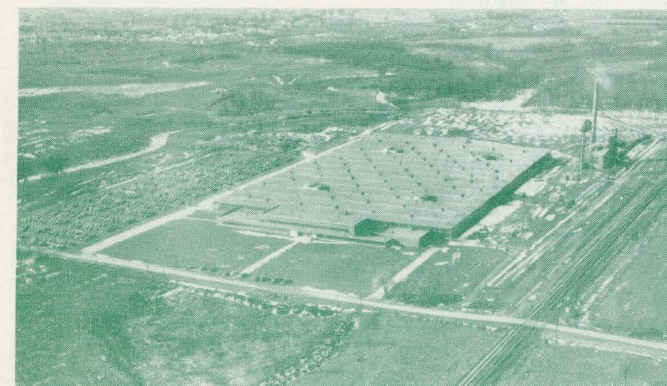
Ball Room, Otsego Hotel

12:30 p.m.—Student Luncheon

Otsego Hotel

12:30 p.m.—Inspection Trip—Goodyear Tire and Rubber Co.

1:30 p.m.—Inspection Trip—Clark Equipment Co.



Clark Equipment Co. Plant, Jackson, Michigan

2:00 p.m.—Transmission

Crystal Room, Hotel Hayes
H. COLE, Presiding

DP.** Transmission Substation Design—A Departure from the Usual. E. V. Sayles, Consumers Power Company.

DP.** Increasing the Voltage of a Sub-Transmission Network from 24 Kv to 40 Kv. Philip Holz, G. A. Strohmer, Detroit Edison Company.

DP.** Cathodic Protection of Buried Metal Structures. R. L. Featherly, Dowell, Inc.

2:00 p.m.—Distribution

Ball Room, Hotel Hayes
E. J. KALLEVANG, Presiding

50-126. Meter Operating Problems of a Public Utility. J. C. ACO.* Langdell, Commonwealth Services, Inc.

DP.** Banking of Transformer Secondaries. J. A. Strelzoff, Michigan State College.

50-127. A New High Interrupting Capacity Low Voltage Power Fuse. C. L. Schuck, General Electric Company.

DP.** Chemical Brush Control on Rural Power Systems. C. J. Waldron, Rural Electrification Administration.

DP.** Noise Evaluation of Fluorescent Lamp Ballasts. C. P. Hayes, H. R. Gould, General Electric Company.

2:00 p.m.—Inspection Trip—Jackson

2:00 p.m.—Student Technical Papers

Ball Room, Otsego Hotel

6:30 p.m.—Student Banquet

Ball Room, Otsego Hotel

Address—F. E. Sanford, Assistant Electrical Engineer of Commonwealth Services, Inc. and National Vice-President of Eta Kappa Nu.

ACO.* Advance copies only available; not intended for publication in TRANSACTIONS.

DP.** District paper; no advance copies are available; not intended for publication in TRANSACTIONS.

INSPECTION TRIPS

B. E. MORROW STEAM PLANT, COMSTOCK

Thursday, May 11, 1950—12:15 P.M.

This 180,000 kw plant of economical design and arranged for minimum operating personnel, is located on the Kalamazoo River near Comstock. It contains four turbine generators and four boilers operating at 900 pounds pressure and 900° temperature. Adjacent to the plant is located the substation which connects the plant to the 138 kv and 46 kv system.

MICHIGAN STATE COLLEGE, EAST LANSING

Thursday, May 11, 1950—2:00 P.M.

Michigan State College is about one hour's trip from Jackson by motor. In addition to seeing this greatly expanded campus at the height of its spring beauty, the new Electrical Engineering Building will be of special interest.

This \$1,000,000 building completed in 1948 is very functional in construction and includes ten or more spacious

classrooms, laboratories, or lecture halls on each of its five floors. Staffed by eighteen people, this building now provides the center for all Electrical Engineering instruction at this land grant college of 16,000 students.

W. K. KELLOGG CO., BATTLE CREEK, MICH.
Friday, May 12, 1950—8:00 A.M.

The Kellogg Graineries are skyscrapers in Battle Creek, a brick and steel factory building covering nearly 40 acres of floor space. Three thousand two hundred employees, operating the most modern machines, prepare and package two million packages of ready-to-eat cereal daily. This trip will show the processing of corn flakes from the time the car of grain arrives at the factory until the cereal is mechanically packaged and ready for shipment. The visitors will see the various sections such as the cooking room, where large stainless steel rotary cookers are in operation. Each cooker cooks and flavors 1,800 pounds of corn grits every two hours, producing approximately 3,000 pounds of Kellogg's Corn Flakes. Eighteen thousand bushels of corn are used each day in this division alone. Also the flaking mills where the corn grits are processed into corn flakes each will contain two steel shafts weighing $1\frac{1}{4}$ tons each and when rolling together, exert a pressure of 40 tons. There are 50 of these mills in the corn flakes division of the plant.

INSTALLATION OF AERIAL CABLE BY THE SPINNING METHOD

Friday, May 12, 1950—9:00 A.M.

An installation of 8320 volt wye aerial cable has recently been completed by Consumers Power Company at Manchester, about 25 miles from Jackson. This is a pioneer installation at this voltage and it is designed for construction, operation and maintenance by regular line crews. The individual insulated and shielded conductors are attached aerially to the bare messenger strand by the spinning method, the messenger serving as the grounded leg of the wye. The splices, terminals and taps are of new design and worthy of your attention.

CLARK EQUIPMENT COMPANY, JACKSON
Friday, May 12, 1950—1:30 P.M.

This modern industrial plant which was opened last October, has over 10 acres of floor space under one roof. The plant specializes in building complete transmissions for commercial trucks and farm tractors, and in addition builds differentials, gears and miscellaneous items. The trip will show the complete manufacture of gears from the rough forging, including the turning, cutting, heat treating and grinding.

The Erecticon Substation from which this plant is supplied, will also be inspected.

GOODYEAR TIRE AND RUBBER COMPANY,
JACKSON, MICH.

Friday, May 12, 1950—12:30 P.M.

Jackson boasts one of the most modern tire and tube manufacturing plants in the world in the local plant of the Goodyear Tire and Rubber Company. Established in Jackson in 1937 with an initial staff of 600 persons, this plant now has a roster of 1,170 people and a daily capacity of 10,000 automobile tires, 1,650 small truck tires and a tube for each tire produced.

A trip through this streamlined tire and tube plant will give you a complete picture of the manufacture of these products, beginning with the incoming raw materials through a modern production line to shipment of the finished product.

NOTE: Please indicate the inspection trips you plan to take on the attached advance registration card.

GENERAL INFORMATION

Information on all features may be obtained at the registration desk. The bulletin board near the registration desk will contain notices concerning time and point of departure for all inspection trips and other information of general interest. Please consult it frequently.

HOTEL RESERVATIONS

Members planning to attend the Great Lakes District Meeting are urged to make hotel reservations now, or as early as possible to be sure of accommodations. The committee, likewise, states it will be necessary where possible, to double up in rooms and that the reservation may be made that way. Blocks of rooms have been set aside at the Hotel Hayes and the Otsego Hotel. The Otsego Hotel is two and one-half blocks from meeting headquarters. However, some of the activities are scheduled for meetings in this hotel.

Reservations must be made before May 1, 1950 and request for reservations should be sent directly to the hotel of choice, but only to one hotel. A copy of the request should be sent to Mr. H. R. Wall, Chairman—Hotel Reservations, care of Commonwealth Associates Incorporated, Jackson, Michigan. If accommodations are not available at the hotel of choice, the Hotel Reservations Committee will arrange for transfer of the request to the other hotel. Room rate schedules for the two hotels are as follows:

Hotel Hayes

Single Room—	\$4.50
Double Room—	6.50
Twin—	7.50
Suite—	8.00 and 9.00

All with combination tub and shower.

Otsego Hotel

Single with bath	\$4.00, 4.50, 5.00
Double with bath	\$5.00, 5.50, 6.50
Twin with bath	\$6.50, 7.50, 8.00
Single without	\$2.75, 3.00
Double without	\$4.00, 4.50

DISTRICT MEETING COMMITTEE

C. D. Malloch, *General Chairman*
A. W. Rauth, *Vice Chairman*
F. E. Davis, *Secretary*

COMMITTEE AT LARGE

E. V. Sayles	J. H. Foote
J. R. North	F. G. Boyce

ADVISORY COMMITTEE

E. F. Dissmeyer J. B. Bachus O. E. Bowlus

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Entertainment and Sports—B. S. Moulton
Publicity—E. S. Jackson
Contact—H. W. Hartzell
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Finance—L. W. Robinson
Transportation—B. P. Carr
Information—F. Von Voightlander
Hotel—H. R. Wall
Ladies Activities—Mrs. E. V. Sayles
Student Activities—J. Strelzoff

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