Summer General Meeting
June 23-27, 1952
Minneapolis, Minn.

Headquarters
Hotel Nicollet

Skyline of Minneapolis as seen from Loring Lake

CELEBRATING THE 50th ANNIVERSARY OF THE MINNESOTA SECTION

Minneapolis, the Gateway of the Northwest, the host city of the vacation land, the city surrounded by the land of the 10,000 lakes, will be the location of the 1952 Summer General Meeting to be held June 23-27. Members and their families will remember the beauty of crystal-clear lakes, the excellent fishing, the numerous industries, and the western hospitality during the meeting. Arrangements have been made for an excellent technical program, many interesting inspection trips, and an unusual coverage of social events, entertainment and sports, and luncheons and a fashion show for the ladies. Thursday evening will be highlighted by a dinner dance for all. Headquarters for the meeting will be in the Nicollet Hotel.

GENERAL SESSION AND LUNCHEONS: The program for the week will open with the annual meeting at 10:00 a.m. Monday in the Main Ballroom of Hotel Nicollet, where the election of officers will be announced and President F. O. McMillan will deliver an address.

A feature of the session will be the presentation of the Lamme Medal to Mr. Arthur E. Silver of Upper Montclair, N. J. The medal is being presented to Mr. Silver “for his pioneering of rural electrification by designing the simplified farm-type transformer combined with high-voltage, long span, and common neutral line construction.”

Dr. Lawrence R. Halstad, of the Atomic Energy Commission, will speak at the Wednesday luncheon. Dr. Halstad, a native of Minneapolis, is director of the Division of Reactor Development, a post he has held since its establishment in 1948. This division has charge of the practical application of atomic energy for generation of power for propulsion of ships and aircraft. Dr. Halstad’s subject will be “The Reactor Development Program of the Atomic Energy Commission.”

On Monday, Dr. James L. Morrill, President of the University of Minnesota, will talk on “Industry, Ideas, and Ideals.” Dr. Morrill, an outstanding public speaker, has been President of the University of Minnesota since July, 1945. Previously he was President of the University of Wyoming and Vice President of Ohio State University.

Institute prizes for the best technical papers in the Great Lakes District will be presented to the winners at the luncheon Tuesday noon. As chairman of the Prize Awards Committee, Mr. J. R. North, District Vice-President, will make the presentations.

An interesting discourse on “American Engineering—Its Centennial and Future” will be given Thursday noon by Mr. Titus G. LeClair, Past President of the American Institute of Electrical Engineers. The talk will cover some of the things that engineering has done to make America great. It will give a few of the reasons why the United States, with only small proportions of the world’s area and population, has about half of the world’s automobiles, refrigerators, and other labor-reducing and comfort-giving products. It will conclude with some of the newer problems that challenge the younger men entering the profession.

Trophies and prizes won in the various sports and prize meet contests during the week of the meeting will be awarded at the Friday luncheon. Mr. Richard C. Lynn, Chairman of the Sports and Prize Meets Committee, will present the prizes.

INSPECTION TRIPS: Sixteen inspection trips have been arranged to industries and points of interest in and around the Twin Cities. In several plants to be visited security regulations are in force, and persons expecting to take these trips should come prepared with passports, copies of birth certificates, naturalization papers, or similar evidence of citizenship. Tickets will be available at the ticket desk, and should be purchased early, as some of the trips are for limited numbers.

General Mills, Minneapolis (Monday, June 23, 2:00 to 4:00 p.m., Tickets 75 cents). One of Minneapolis’ largest flour mill groups will be visited. The tour includes milling, research, and packaging facilities and a pilot plant. Products manufactured include flour, well-known breakfast cereals and baking products, animal feeds, and electrical appliances. The firm engineers and develops the packaging of its products. Using one tenth of the farm wheat crop annually, this is the largest flour milling organization in the world.

Minnesota Mining & Mfg. Co., St. Paul (Tuesday, June 24, 8:30 a.m. to 1:30 p.m., including luncheon. Restricted to citizens. Tickets $1.25). Members will see the steps in the manufacture of tapes, from the handling and processing of raw rubber into solution through calendaring, coating, and slitting operations, yielding the finished tape products. A wide variety of tapes and abrasive papers is manufactured. Familiar ones are “Scotch” cellulose tape, and
Visitors will see a variety of machines in operation, printing by offset, gravure, and by letter press. Many are equipped to handle large press runs.

One of these, a giant Talon-Crane press over 100 feet long and weighing 85 tons, is seen at work, demonstrating the careful control that register to one thousandth of an inch is maintained. The press uses a new motor driven by a generator and it has a maximum power rating of 750 horsepower. The total tonnage capacity of this press is nearly a million pounds.

In the paper machine area, visitors will see a variety of cutting, creasing and die-cutting equipment, and they will be able to observe the operation of the paper-making process close up.

At a later date, a demonstration will be given of the operation of a new printing press, one of the largest in the country. This press is capable of printing 25,000 copies per hour, and it will be used to print the daily newspaper of the city.

The trip will be open to all members of the public, and is free of charge. Visitors are asked to report at the entrance of the building at 10:00 a.m. to begin the tour. All visitors are encouraged to take advantage of this opportunity to see the workings of a modern printing press in action.
Monday, June 23

10:00 a.m.—Annual Meeting
1. Report of Board of Directors, H. H. Hurlburt, Secretary.
3. Report of Committee on Tolls on: (a) Rates for AIEE Officers.
(b) Proposed Constitutional amendments.
4. (a) Introduction of, and presentation of President’s badge to new members.
(b) Response by Mr. Quairles.
5. Presentation of Lamme Medal to Arthur E. Silver, Beloit, Illinois.
6. Presentation of the Medal to the following:
(a) The establishment of the Lamme Medal.
(b) The Lamme Medal Committee.
(c) The Council—Clay B. Russell, Vice-President and Assistant General Manager, Minnesota Power and Light Co.
8. Any other business that may be presented.

2:00 p.m.—Transmission and Distribution

2:00 p.m.—Computing Devices

2:00 p.m.—Relay

Tuesday, June 24

9:30 a.m.—Sections Forum on the Shortage of Engineers
Cary H. Brown, Chairman, Engineering Manpower Committee.
O. W. Ebbenbode, Dean, Northwestern University, Technological Institute.
J. H. Faust, President, Commonwealth Associates, Inc.

9:30 a.m.—Transmission and Distribution
527.188. Steel Melting Practices—Niagara Mohawk System. H. R. Smith and W. D. Wilder, Niagara Mohawk Power Corp.

9:30 a.m.—Transformers
527.182. Transformer Design in Range Adequate for the Platinum Resistors Thermometer. A. J. Williams, Jr., Leeds & Northrup Co. Presentation by title only for discussion.

9:30 a.m.—Instruments and Measurements

CP** Basic Theory and Experimental Verification of the Percent Limit Capacitance Bridge. T. J. Higgins and J. Jorgers, Ensign-Bickford.

CP** Complementary Calvanometer Deflection Constants and Conference Paper Discussion by T. J. Gordon. Theembro, Robbins Company.

** The Key to Quality—A Comprehensive Test Department. W. H. Clausen, Minneapolis-Honeywell Regulator Co.

9:30 a.m.—Communication Switching Systems
527.201. Automatic Switching for Nationwide Telephone Service. A. B. Clark, Bell Telephone Labs., Inc. and H. C. Osborn, American Tel. & Tel. Co.
527.204. Automatic Toll Switching Systems. F. P. Shipley, Bell Telephone Labs., Inc.

2:00 p.m.—Sections Delegates Conference

2:00 p.m.—Transmission and Distribution

2:00 p.m.—Transformers
527.198. Standard Basic Impulse Insulation Levels, 400 Kv to 1000 Kv. T. C. Eifert, Joint AIEE-IEEE-NEMA Committee on Coordination of Insulation.


2:00 p.m.—Instruments and Measurements
527.190. Electronic Recorder with Range and Precision Adequate for the Platinum Resistors Thermometer. A. J. Williams, Jr., Leeds & Northrup Co. Presentation by title only for discussion.


CP* Home Heating Control. John Wilson, Minneapolis-Honeywell Regulator Co.

2:00 p.m.—Nonlinearity in Feedback Control Systems

9:30 a.m.—Safety
527.190. The Use of Non-Linear Feedback to Improve the Transient ACO Response of a Servomechanism. J. B. Lewis, University of Tennessee.

Wednesday, June 25

9:30 a.m.—Safety


CP** Electrical Aspects of Mine Safety. V. M. Svorick, U. S. Steel Corp.


9:30 a.m.—Rotating Machinery
527.167. Torque of Reluctance Type Magnetic Couplings. F. W. Suh, General Electric Co. Presentation by title only for discussion.


9:30 a.m.—Insulated Conductors


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Talbot-Crider Press, Brown and Bigelow.
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Tuesday, June 26

2:00 p.m.—Industrial Power Systems

CP** Electric Power Relaying is Important in Industrial Plants, S. N. Paik, Rohm-Hass.

Industrial Power Systems

2:00 p.m.—District Branch Prize Papers

2:00 p.m.—Management of Engineering Activity Panel Discussion—W. R. Hough, Moderator

Work Simplification as Applied to Engineering Work, C. L. Bridley, Wolverine Tube Co.
Training for Engineering Supervisors, E. W. Seager, Caterpillar Harness Co.

2:00 p.m.—Rotating Machinery

CP** A New Magnetic Field Control for Magnetic Drives, D. W. Schlicker.
CP** Kicky-Crane, a Rolling Drive on the Longest Cement Kiln in the Western Hemispheres, H. E. Frederick.

2:00 p.m.—Basic Sciences

2:12 p.m.—Design of Double-Tuned Transformers, Sid Duebel, Polytechnic Research & Development Co., Inc.
CP** Analysis of a Comb Filter Using Simultaneously Commmuted Capacitors, W. R. LePage, C. R. Gahn and J. S. Browne, Syracuse University.
CP** Solution of Electrical Engineering Problems by Southwell's Relaxation Method, E. M. Grad, Associated Electrical Industries, Ltd.
CP** Notes on the Design of Aci-Jordan Flip-Flops, Morris Rubenstein, University of Pennsylvania. Presentation by title only for discussion.

2:00 p.m.—Insulation

2:09 p.m.—Insulation

2:09 p.m.—System Engineering

CP** Synchronous Condenser Operation, C. R. Gandy and J. H. Drake, Southern California Edison Co.
CP** Collaps Stability Tests. Motion picture film by DSP Equipment Co.

2:00 p.m.—Mining Industry

CP** Iron Ore for the Future, E. W. Davis, Representing AIME.
CP** A Power Plant Stable for a 20,000 HP Project, H. H. Mosquera, N. A. Miller, Sargent & Lundy.

2:00 p.m.—Electrical Techniques in Medicine

CP** Factors Concerned with the Medical Application of Ultra Sound, R. E. De Forest, M.D., American Medical Association.
CP** Electrical Stimulation of Human Muscle, H. D. Bowman, M.D. and Kathryn J. Snuffer, University of Wisconsin.
CP** Quantitative Electrokymograph, D. A. Kibb, University of Minnesota.
CP** Past and Present Forms of Apparatus for Physical Medicine, F. T. Jong, M.D., American Medical Association.

2:30 p.m.—Electrical Processes

CP** Comparison Between European and American Electric Furnace Equipment, J. R. Lee, Pittsburgh Locomotive Furnace Co.
CP** Melting and Refining of Modern Steels. A Sound Film, Allegheny-Ludlum Steel Corporation.

2:30 p.m.—Mineralogy

CP** The Elisha Olympic Process, Irving Roberts, H. K. Ferguson, Pittsburgh Plate Glass Co.
CP** Application of Electrical Controls and Machinery to Power Standards, W. J. Chalmers, Harshbarger Corporation.

2:30 p.m.—Diedrichs

CP** Fluidics Containing Gaseous Drieducts, G. Camilli and R. F. Plump, General Electric Co.
CP** Power Supply Units for Drieduct Use, N. M. Baburath, Minnesota Mining & Mfg. Co.
CP** The Variation at Constant Density of the Drieduct Breakdown of Paper with Air Resistance, Paul Clark, University of Minnesota.

2:30 p.m.—Storage Batteries

CP** Motive Power Batteries, H. C. Rigs, The Electric Storage Battery Co.
CP** Lead Calcium Cells, J. H. Rittenhouse and E. H. Jensen, Johnson Fractional D. C. Electric, Inc.
CP** Control of Dry Disc Rectifiers for Battery Charging, C. E. Hansel, General Electric Co.

Thursday, June 26

2:00 p.m.—Mining Industry

CP** Iron Ore for the Future, E. W. Davis, Representing AIME.
CP** A Power Plant Stable for a 20,000 HP Project, H. H. Mosquera, N. A. Miller, Sargent & Lundy.

Friday, June 27

9:30 a.m.—Exhibition Systems

2:20 p.m.—New Electronic Devices and Applications

CP** A Ten-Stage Cold-Cathode Stepping Tube. D. S. Peck, Bell Telephone Labs, Inc.
CP** Recent Advances in Industrial Electronics. E. D. Cook, General Electric Co.

10:30 a.m.—Land Transportation

2:30 a.m.—New Electronic Devices and Applications

CP** Magneto-Ampere Amplifiers

2:20 p.m.—New Electronic Devices and Applications

CP** The Figure of Merit of Magneto-Ampere Amplifiers. J. T. Carlson, The Design Group.

TV Test Panel, Northwestern Bell Telephone Co.
AIEE Summer General Meeting


CP.** A New Magnetic Amplifier. José Moraes, Lisboa, Portugal.


2:00 p.m.—Hydro-Electric Systems

Round Table Discussion on Power Generation — Any discussion pertaining to Power Generation will be welcomed at this session, particularly discussion pertaining to hydro-electric systems. Prepared answers will be given to questions sent in prior to the meeting, and there will be time for questions and answers from the floor. The following is a partial list of subjects to be discussed:

1. Financing Small Hydro-Electric Generating Stations for Heads Less Than 100 Feet.
2. Experience with Automatic and Supervisory Control for Hydro-Electric Plants and the Range of Plant Sizes to Which They Should Be Applied.
3. Extended Use of Vertical Impulse Water Turbines.
4. Use of Spherical Type Shut-off Valves and Their Advantages over Other Types.
5. Pipe and Tubing Used for Inhibited Oil in Hydro-Electric Stations.
6. Ball Bearings for Auxiliary Motors.
7. Operating Large Generators at Leading Power Factor Loads and Stability Problems Associated Therewith.
8. Operating Experience As to Life of Hydro-Electric Generator Stator Windings with Class B Insulation.
9. Experience As to Cost and Value of Protective Coatings on Internal Surfaces of Penstocks.
10. Auxiliary Power Requirements in Hydro-Electric Generating Stations.

CP.** Holcombe Hydro Plant. H. E. Rhoades, Northern States Power Co.


2:00 p.m.—Switchgear


52-239. Temperature Correlation in the Connection of Insulated Wires and Cable to Electrical Equipment. Project Committee on Temperature Correlation.

2:00 p.m.—Electrostatic Processes


CP.** Electrostatic Atomization and Precipitation of Coating Materials. E. P. Miller, Ransburg Electro-Coating Corp.


2:00 p.m.—Magnetic Amplifier Test Methods.


CP.** Production Test Experience on Air Craft Magamps. K. H. Sucker, Westinghouse Electric Corp.


Northwest Airlines Overhaul Base, Holman Field, St. Paul.

CP.** Conference paper: no advance copies are available; not intended for publication in Transactions.

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

MEETING FEATURES—Continued from page 3

REGISTRATION: The registration desk will be open Sunday afternoon, June 22, and daily thereafter from 9:00 a.m. to 5:00 p.m. for the duration of the meeting. Arrangements will be made to expedite registration of those who have sent in advance registration cards. A registration fee of three dollars will be charged all members and five dollars for non-members. Enrolled students and the immediate families of members will be registered without payment of any registration fee.

HOTEL RESERVATIONS: Hotel rooms may be reserved by writing directly to the Nicollet Hotel or to the hotel of your choice, and stating that the reservation is for the AIEE Summer General Meeting. Rooms with bath are available at the following rates:

Single:
Nicollet Hotel ....... $5.00-10.00
Andrews Hotel ....... 3.75-6.00
Dyckman Hotel ....... 3.25-6.00
Sheridan Hotel ....... 3.25-5.00
Curtis Hotel ....... 3.50-5.00
Leamington Hotel ....... 4.50-5.50

Double: Twin Beds
Nicollet Hotel ....... $7.50-12.50
Andrews Hotel ....... 5.25-7.50
Dyckman Hotel ....... 5.50-8.50
Sheridan Hotel ....... 4.50-6.00
Curtis Hotel ....... 4.50-6.00
Leamington Hotel ....... 6.50-7.50

Information relative to motels and maps for those who plan to drive may be obtained from the Tourist Information Bureau, Minneapolis Chamber of Commerce, 1750 Hennepin Avenue, Minneapolis 3, Minn. Specific resort information will be available at meeting headquarters.

GENERAL COMMITTEE: The members of the 1952 Summer General Meeting Committee are: R. F. Herrmann, General Chairman; H. E. Hartig, Vice Chairman; H. P. Bruncke, Secretary; A. J. Hendry, Treasurer; J. R. North, Vice President District 5; D. D. Fswing, Director; G. B. Germain, Chairman Minnesota Section; R. N. Faiman, Chairman Red River Valley Division; R. B. Wiprud, Chairman Arrowhead Section; E. H. Hagensiek, Entertainment; H. W. Meyer, Fifty-fifth Anniversary; R. H. Olson, Finance and Budget; W. H. Gilke, General Sessions; L. A. Rietow, Hotel Reservations; M. L. Risley, House and Equipment; P. C. Bowman, Inspection Trips; E. A. Wold, Printing; R. M. Kalb, Publicity; E. B. Doescher, Registration; R. C. Lynn, Sports and Prize Meets; J. H. Kohlmann, Students Activities; P. A. Cartwright, Technical Program; H. E. McWethy, Transportation; Mrs. H. E. Hartig, Ladies Activities.

Issued by
AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
33 West 39th Street, New York 18, N. Y.

PRINTED IN U.S.A.