

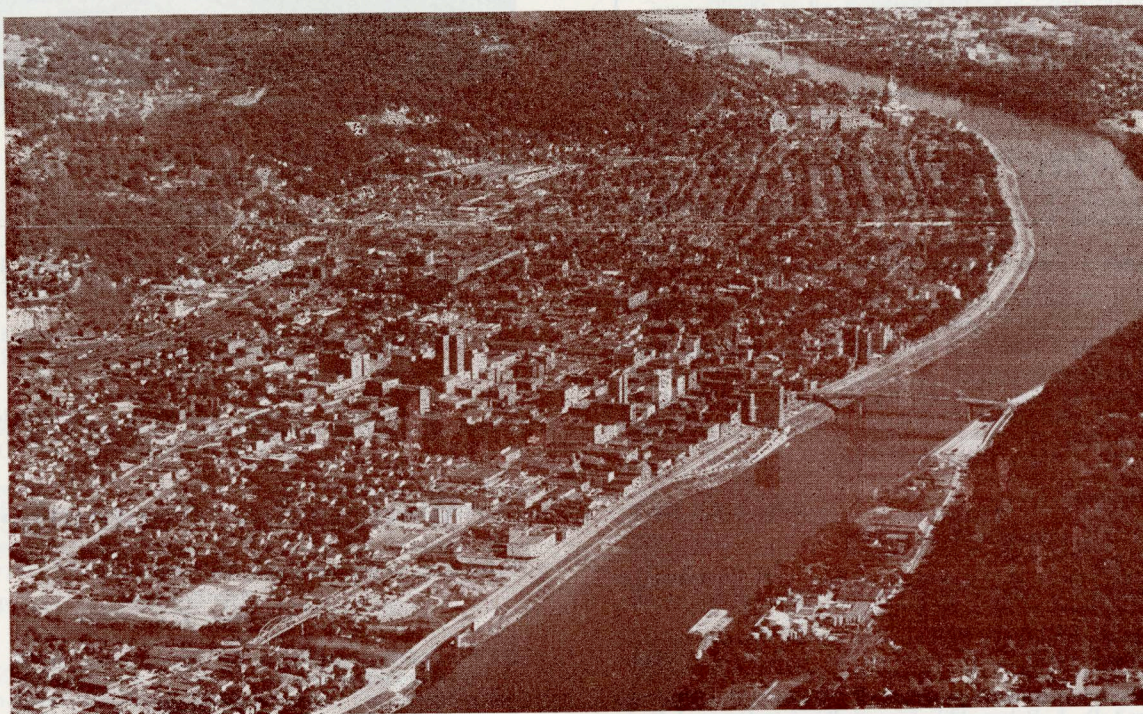


MIDDLE EASTERN DISTRICT MEETING

Sept. 29 to Oct. 1, 1953

Charleston, W. Va.

Headquarters:
Daniel Boone Hotel



City of Charleston, West Virginia

LOCATED IN THE MAGIC VALLEY OF THE WORLD

The Middle Eastern District Meeting, to be held in Charleston, W. Va. September 29, 30, October 1, 1953, holds a treat in store for every member of the Institute. Charleston has many attractions worth seeing, both from the technical and natural scenic viewpoint. In Charleston and the Kanawha Valley you will see a highly industrialized and growing area.

On Tuesday morning, September 29, the District Meeting will convene at 10:00 A.M. The address of welcome will be given by the Honorable William C. Marland, Governor of W. Va. The keynote address will be given by Miss Vivien Kellems, President of The Kellems Company.

The theme of the meeting is based on Coal, Chemicals, Power, and General Industry Applications of Electricity, and a full program of technical papers has been selected to cover the electrical aspects of these fields. In addition, two sessions of management papers have been included in the program, with emphasis on hiring and training the electrical engineer for management responsibilities.

Monday, September 28, at 9:30 A.M., the Middle Eastern District Executive Committee will convene for the annual business session. This meeting will be held at the Daniel Boone Hotel. This group will be served luncheon at 12:15, with the meeting reconvening at 1:30 P.M. Walter B. Morton, Vice-President District No. 2, will preside.

For members planning to enjoy some of the scenic beauty of West Virginia, and thus arrive early in Charleston, a Hospitality Room will be provided at the Daniel Boone Hotel. This room will be open Sunday evening, September 27. Local AIEE members will be on hand to welcome the early arrivals. As a further service to those arriving early, the Registration Desk will open at 8:30 A.M., Monday morning, in the Lobby of the Daniel Boone Hotel.

INSPECTION TRIPS: These trips have been planned to show a cross section of the industry in the Magic Valley. Please make reservations on the enclosed card, in order that adequate transportation can be provided.

1. Owens-Illinois Glass Company, Charleston, W. Va. Tuesday afternoon, September 29, 1953, 2:15 P.M. At this plant you will see one of the largest continuous production bottle plants in the United States. Here the dies, glassware, and cartons for many varieties of liquor, food and soft drink products are made in a modern, automatic operation. Seven furnaces, operating 24 hours per day, make this plant a tremendous producer of bottle glasswares.

2. True Temper Corporation Kelly Works, Charleston, W. Va. Wednesday morning, September 30, 1953, 10:00 A.M. The Kelly Works is the largest axe and hoe factory in the world. Here, finished axes, hoes, hammers, and numerous other small tools are made for the True Temper Corporation, and other large merchandising companies, such as Montgomery-Ward. You will see complete small tools manufactured in this plant from the raw steel, through the making of handles to the packing of the finished product.

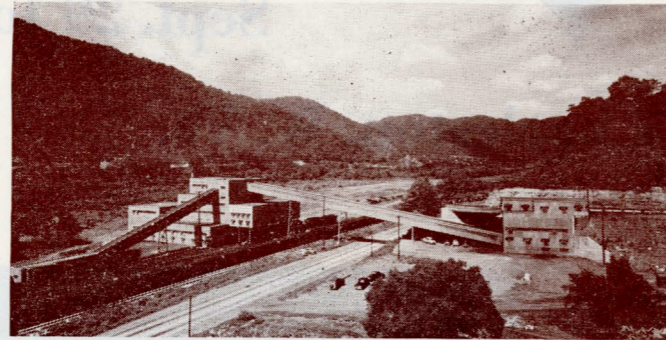
3. Kanawha Plant of the Appalachian Electric Power Company, Glasgow, W. Va. Wednesday afternoon, September 30, 1953, 2:00 P.M. The latest and most modern in the Appalachian System, having a capacity of two 200,000 kw units. This plant is the eastern terminus of the new 330 kv transmission system being inaugurated by the American Gas and Electric Company, Appalachian's parent company. Located about twenty miles up the Kanawha River from Charleston, it is situated in the heart of the vast West Virginia coal fields. Many new engineering features are incorporated in this plant, including a center-fed, high pressure turbine, operating at initial steam pressure of 2100 PSI and 1050 F.

Continued on page 4

AIEE MIDDLE EASTERN DISTRICT MEETING — PROGRAM — Charleston, W. Va., Sept. 29 to Oct. 1, 1953

ADVANCE COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 30c each (60c 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 \$9 denominations are available for those who wish to avoid remittance by check or otherwise. All of the numbered papers will be published in the Bimonthly Publications and in the Transactions. *District Papers* denoted by *DP.*** are intended for presentation only, and are not available.



Coal Preparation Plant — Cannelton Coal & Coke Co.

Tuesday, September 29

9:45 a.m.—General Session

Main Ball Room

JOHN C. FOX, Honorary Chairman Presiding

Address of Welcome: Honorable William C. Marland, Governor, State of West Virginia.

Address: "Toil, Taxes and Trouble," Vivien Kellems, President of Kellems Company.

Presentation of District Prize Paper Awards: Mr. Walter B. Morton, Vice-President, American Institute of Electrical Engineers.

2:15 p.m.—Mining

Parlor C

Chairman: R. B. MOORE

53-358. Technical Aspects of Application of Electrical Equipment in Coal Preparation Plants. W. R. Morton, General Electric Co.

53-359. The Effect of Reactive Components in the Measurement of Grounding Circuits. L. H. Harrison, U. S. Bureau of Mines.

DP.** What Overcurrent Settings for D-C Mining Feeder Circuit Breakers? D. J. Baker, ITE Circuit Breaker Co. and C. L. Brown, U. S. Bureau of Mines.

53-360. Characteristic Power Requirements for Performing Various Functions in Underground Coal Mines. H. P. Musser, West Virginia Engineering Co.

2:15 p.m.—Railway Transportation

Club Room

Chairman: L. W. BIRCH

DP.** Operations of Substations for Heavy Duty Traction. J. C. Fox, Virginian Railway Co.

53-361. Wanted—A Modern Diesel-Electric Rail Car. K. O. Anderson, General Electric Co.

53-362. Split-Pole Exciters Their Design and Application on Diesel-Electric Locomotives. H. R. Stiger, General Electric Co.

DP.** Comparison of Gas Turbine, Steam, Diesel-Electric and Electric Locomotives. R. J. Cousins, Norfolk and Western Railway.

2:15 p.m.—Power

Parlor A

Chairman: R. D. BROWN

DP.** Interconnecting the Industrial Generating Plant with the Public Utility. G. E. Grosser, Westinghouse Electric Corp.

DP.** Development and Application of Power Center Transformers. H. S. Gates, Westinghouse Electric Corp.

DP.** A Quick Break Interrupter Switch. S. C. Killian and M. Stene, H. K. Porter Co.

DP.** Performance Characteristics and History of Low Voltage Current Limiting Fuses. P. C. Jacobs, Jr., Chase-Shawmut Co.

2:15 p.m.—Cable Protection

Parlor B

Chairman: T. R. WEICHEL

DP.** Protection of Underground Cable Sheath. R. F. Norwood, The Chesapeake and Potomac Telephone Co. of West Virginia.

DP.** Underground Corrosion. W. J. Kretschmer, Columbia Gas System Service Corp. and G. F. Orr, United Fuel Gas Co.

DP.** Accelerated Ageing Studies on Polyethylene for Cable Sheaths. B. S. Biggs, Bell Telephone Labs.

Wednesday, September 30

9:30 a.m.—Management Development

Main Ball Room

Chairman: E. C. JONES

DP.** Training Engineers for Management. R. B. Fetter, Indiana University.

DP.** Selling Your Company to the Colleges. F. G. Lippert, American Gas and Electric Corp.

9:30 a.m.—Power

Parlor A

Chairman: G. E. HERVEY

DP.** A. C. Network Calculator and Its Use by the Utility Engineer. L. L. Fountain, Westinghouse Electric Corp.

DP.** Recent Developments in Power House Motors. M. R. Lory, Westinghouse Electric Corp.

DP.** Voltage Regulation on Electric Distribution Systems in Residential Areas. Paul Reimar, Cincinnati Gas & Electric Co.

DP.** Application of Regulators. H. E. Lokay, Westinghouse Electric Corp.

9:30 a.m.—Mining

Parlor C

Chairman: R. B. MOORE

DP.** Power Supplies for Continuous Mining Machines and Associated Equipment. R. M. Hunter, Rochester and Pittsburgh Coal Co.

DP.** Performance of the Synchronous Motor—Eddy Current Coupling Drive for the Slope Belt Conveyor Lifting Coal 868 Feet at Orient Mine #3. R. R. Richart, Chicago, Wilmington and Franklin Coal Co.

DP.** Mining Transformers—Their Design and Application. R. L. Schwab, Westinghouse Electric Corp.

DP.** Electric Braking for AC Mine Hoist Drive. A. H. Huelsman, General Electric Co.

9:30 a.m.—Electrothermal

Parlor B

Chairman: EARL BROWNING

DP.** A New Type Arc Furnace Circuit Breaker. J. H. Schromeck, Westinghouse Electric Corp.

DP.** High Current Short Circuiting Switch for Electro-Chemical and Electrothermal Applications. H. W. Graybill, R. and I. E. Co.

DP.** Electrothermic Reduction of Ores. H. S. Newhall, Pittsburgh Lectromelt Furnace Corp.

2:00 p.m.—Mining

Parlor C

Chairman: C. O. WOOD

53-365. A Low-Height 15-Ton Mine Locomotive for Low Vein Haulage. J. W. Brauns, General Electric Co.

DP.** Conversion Substation Location and Equipment. J. A. Dunn, Island Creek Coal Co.

DP.** Parallel Operation of Conversion Apparatus. L. W. Scott, General Electric Co.

DP.** Mine Type Selenium Rectifiers. Herbert Lewis, Lewis Electrical Mfg. Co.

2:00 p.m.—Equipment Application in Chemical and Petroleum Industry

Parlor B

Chairman: G. O. WARDROP

DP.** Application of Motors in Petroleum and Chemical Industries. E. F. Greiwe, Allis-Chalmers Mfg. Co.

DP.** Application of A. C. Controls for the Petroleum and Chemical Industries. Lewis Daughtrey, Jr., Rowan Controller Co.

DP.** Switchgear for Application in the Chemical Industry. Warren Birgel, Allis-Chalmers Mfg. Co.

2:00 p.m.—Power Distribution and Applications

Parlor A

Chairman: E. L. MUNDAY

53-72. 240/416-Volt, 3-Phase, 4-Wire Power and Lighting Supply for Modern Industrial Plants. William Shuler, The Dayton Power & Light Co.

DP.** System Neutral Grounding. L. J. Carpenter, General Electric Co.

DP.** Modernization of Industrial Plants. W. R. Crites, General Electric Co.

DP.** Dielectric Heating Applications for Sand Core Drying. Carl Loper, Allis-Chalmers Mfg. Co.

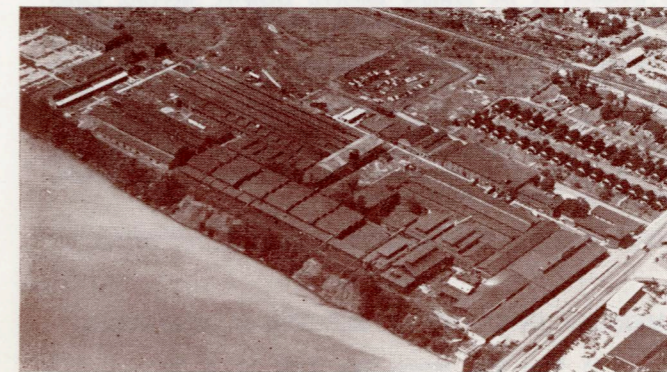
Thursday, October 1

9:30 a.m.—Management

Parlors B and C

Chairman: EDWARD KNIGHT

DP.** No Couches—Just Chairs. E. J. Ryan, E. I. DuPont De Nemours & Co.



True Temper Corp. — Kelly Works

DP.** Selection and Training of Key Men in a Large Industrial Organization. J. B. Parks, Westinghouse Electric Corp.

9:30 a.m.—Chemical

Parlor A

Chairman: J. Z. LINSEMEYER

DP.** Electric Heat in the Chemical Industry. W. S. Eyth, Edwin L. Wiegand Co.

DP.** Cost of Purchased Power VS Generated Power in Chemical Plants. H. C. Bauman, Chemical Construction Corp.

DP.** Application of Rectifiers in the Chemical Industry. W. E. Gutzwiller, Allis-Chalmers Mfg. Co.

2:00 p.m.—Mining

Parlor C

Chairman: L. H. HARRISON

53-366. A Track-Laying Shuttle Car. J. W. Brauns, General Electric Co.

DP.** A Continuous Miner. J. W. Heimaster, Carbide and Carbon Chemicals Co.

DP.** Recent Development in Two Motor A. C. Mine Hoist Control. A. H. Myles, Electric Controller and Mfg. Co.

DP.** Use and Application of Neoprene Sheathed Cables in Mines. Thomas Weichel, Okonite Co.

DP.** Mine Trailing Cables, Construction and Maintenance. Steve Bunish, Anaconda Wire & Cable Co.

2:00 p.m.—Power

Parlor A

Chairman: J. E. HOUSLEY

DP.** System Operation High Voltage Transmission—Generation System Appalachian System. H. E. McCormack, Appalachian Electric Power Co.

DP.** Modern Transmitters and Receivers for Power Line Carrier. J. B. Singel, Westinghouse Electric Corp.

DP.** Detecting and Melting Ice or Sleet on Lines. H. C. McCormack (Presented by J. W. Kepner) Appalachian Electric Power Co.

DP.** 330 KV Relaying. E. W. Woody, Appalachian Electric Power Co., and H. C. Barnes, American Gas & Electric Service Corp.

2:00 p.m.—Chemical

Parlor B

Chairman: J. VODAR, JR.

DP.** Magnetic Amplifiers in Metering DC Current on Electrolytic Cell Lines. Elwood Downing, Columbia Southern Chemical Corp.

DP.** Application of Large Turbine Generators in Chemical Industry. J. S. Williams, Westinghouse Electric Corp.

DP.** Switchgear Maintenance. H. B. Wortman, Westinghouse Electric Corp.

2:00 p.m.—General Industry Applications

Club Room

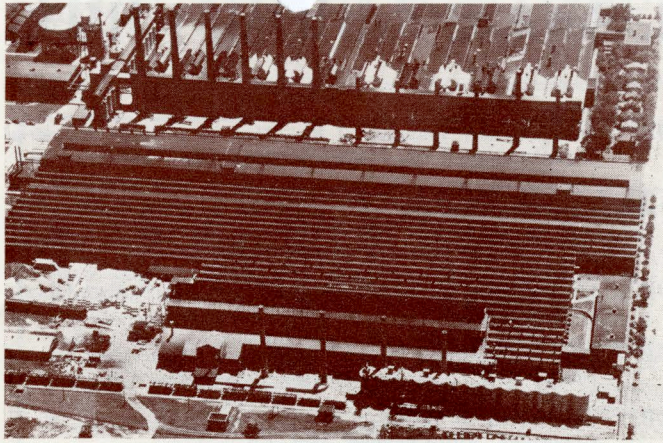
Chairman: JACK STEELMAN, JR.

DP.** Neoprene, the Versatile Rubber. P. P. Murawski, E. I. DuPont De Nemours & Co.

DP.** Audio Fault Finder for Cable. G. H. Knapp, Civil Aeronautic Administration.

DP.** Electricity Applied to Glass Melting. J. H. Glaser, Dunbar Glass Co.

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



Owens Illinois Glass Co.

4. Cannelton Coal & Coke Company, Cannelton, W. Va. Thursday morning, October 1, 1953, 9:00 A.M. This coal preparation plant is the newest in the Kanawha Valley area, and incorporates the latest in control facilities. It was particularly designed to permit accessibility to all parts of the plant and as such will lend itself to close inspection by a group. It has a capacity of 450 tons per hour of mine run coal, and also is equipped with rock handling facilities. The unit incorporates fluid coupling on the main belt conveyor drives and the latest in pushbutton panel control. This preparation plant utilizes 1060 HP in connected load to handle the necessary equipment.

5. U.S.S. LSSL-65 Land Ship Supply. Thursday afternoon, October 1, 1953, 2:00 P.M. The U. S. Navy, Fifth Naval District, will provide the U.S.S. LSSL-65 for an inspection trip and cruise. You will be afforded an opportunity to see the Navy in operation, as well as a "fish eye" view of some of the Chemical Industry in the Magic Valley. If time permits, the ship will pass through the Marmet Locks. This ship will handle a large group and there will be NO CHARGE for the cruise. Be sure to make your reservations early.

ENTERTAINMENT: Tuesday, September 29, 1953, 12:15 P.M.—General Meeting Luncheon. This luncheon will be open to all members, wives, and guests. Honorable John T. Copenhaver will give a brief message of welcome to Charleston. C. W. Schweers, Vice-President & Director of Sales, Allis-Chalmers Mfg. Company, Milwaukee, Wisconsin, will have an interesting message.

Tuesday, September 29, 1953, 6:30 P.M.—"Guys and Gals Party"—Shrine Mosque—(opposite the Daniel Boone Hotel). A delicious dinner will be served in the main dining room. Following the dinner a one and one-half hour show, featuring several acts, will be held in the Auditorium. Al Snyder, "Diplomat of Deception," will present the show, which will include a chorus, ventriloquist, novelty dancer, and John Gallus and his clarinet, of Columbia Pictures and TV fame. All members, wives, and guests are welcome. Dress is strictly informal.

Wednesday, September 30, 1953, 12:15 P.M.—Luncheon. Hubert Kelly, President, Kanawha County Court, Presiding. The Ohio Valley Section of AIEE will sponsor this luncheon at the Daniel Boone Hotel. Open to all members, wives, and guests. The Ohio Valley Section will present a short, interesting, non-technical program.

Wednesday, September 30, 1953, 5:45 P.M.—Cocktail Party and Banquet—Daniel Boone Hotel, Main Ballroom. Preceding the banquet, a cocktail party will be held. Following the dinner, General Motors will present Dr. John O. Christianson, of the University of Minnesota. Dr. Christianson, known widely throughout the U. S., will have a very entertaining presentation. All of you, who have heard Dr. Christianson, will agree that no one wants to miss this dinner. Open to members, ladies, and guests. Dress is strictly informal.

Thursday, October 1, 1953, 12:15 P.M.—Luncheon—Daniel Boone Hotel. Open to members, wives, and guests. Roy Bird Cook, W. Va. Historian, will give "the under-cover story" of the Magic Valley and the Mountain State. Don't miss this.

ESPECIALLY FOR THE LADIES: Each morning the Sun Parlor of the Daniel Boone Hotel will be open for the ladies. Here, the ladies can get acquainted, and will be served coffee and rolls. Open Tuesday 8:30-9:30 a. m.—Wednesday and Thursday 10:00-11:30 a. m.

Tuesday, September 29, 1953, 2:00 P.M.—Visit to the W. Va. State Capitol, and Tea. Governor William C. Marland will welcome

the ladies in his office and arrange for a tour of the Capitol. After the tour, tea will be served. Miss Vivien Kelles will be present. Transportation will be provided to and from the Capitol. NO CHARGE.

Wednesday, September 30, 1953, 2:00 P.M.—Cruise—U. S. LSSL-65. A Cruise on the Kanawha River will afford a beautiful view of the State Buildings, Morris Harvey College, and other points of interest. Refreshments will be served. Low heel shoes required. Please make reservations early. Although this is primarily for the ladies, men are welcome.

The Electrothermal Processes Subcommittee has selected this District Meeting as the location of their annual meeting. Morning and/or afternoon sessions will be held on Wednesday, as the Committee desires. They also plan a technical session for 9:30 A.M., Wednesday morning. Mr. Earl Browning will preside at the Committee Meetings and technical sessions.

Mining Subcommittee: The Mining Subcommittee plans to hold their annual meeting at this District Meeting. Plans for the executive sessions are incomplete, however, arrangements have been made for this Committee to hold sessions Wednesday morning, September 30. R. B. Moore, Chairman, will be in charge of this meeting.

HOTEL RESERVATIONS: Rooms have been set aside at the Daniel Boone Hotel (Meeting Headquarters) and other nearby hotels for members and guests attending. Requests for reservations using the enclosed reservation card should be mailed prior to September 15. It may be necessary for the Hotel Committee to transfer some reservations to one of the other hotels on the list, in place of the hotel requested. Accommodations have been reserved at the following hotels:

DANIEL BOONE HOTEL (Hdqtrs.), Washington and Capitol Sts.

Single Room	\$ 5.00 and up
2 Person—Double	7.00 and up
2 Person—Twin	7.50 and up

RUFFNER HOTEL, Kanawha Blvd. and Hale St.

Single Room	\$ 3.50 and up
2 Person—Double	5.50 and up
2 Person—Twin	7.00 and up

KANAWHA HOTEL, Summers and Virginia Sts.

Single Room	\$ 4.00 and up
2 Person—Double	6.00 and up
2 Person—Twin	7.50 and up

GRAYSTONE HOTEL, 2630 Kanawha Blvd.

Single Room	\$ 6.00 and up
2 Person—Double	9.00 and up
2 Person—Twin	10.00 and up

HOLLEY HOTEL, 1008 Quarrier St.

Single Room	\$ 5.00 and up
2 Person—Double	7.00 and up
2 Person—Twin	7.00 and up

REGISTRATION: The Registration facilities, located in the Main Lobby of the Daniel Boone Hotel, will be open at 8:30 A.M., Monday morning, September 28, and will remain open daily through Thursday noon, October 1, 1953. Please register in advance, if possible, by returning the advance registration card properly filled out. Arrangements have been made to expedite the registration for those who register in advance, and promptly return the cards.

The members of the **Middle Eastern District Meeting Committee** are R. H. Greame, Chairman; H. K. Atkins, Secretary; R. H. Hively, Adm. & Coordination; F. A. Leinberger, Treasurer; C. R. Stouch, H. M. Richards, J. L. Simpson, G. C. Smith, Arrangements; G. W. Unangst, W. R. Thorson, R. G. McGinnis, George Zimmerman, C. C. Darrah, E. M. Hansford, Technical Program; W. J. Hess, B. W. Whittington, Publicity; P. M. Barlow, John Vodar, Jr., T. R. Cooper, J. H. Miller, Meetings and Inspection Trips; Mr. and Mrs. C. B. Talley, J. F. Fitzgerald, Entertainment; E. D. Knight, Finance; H. L. Lindsey, Advisory.

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