

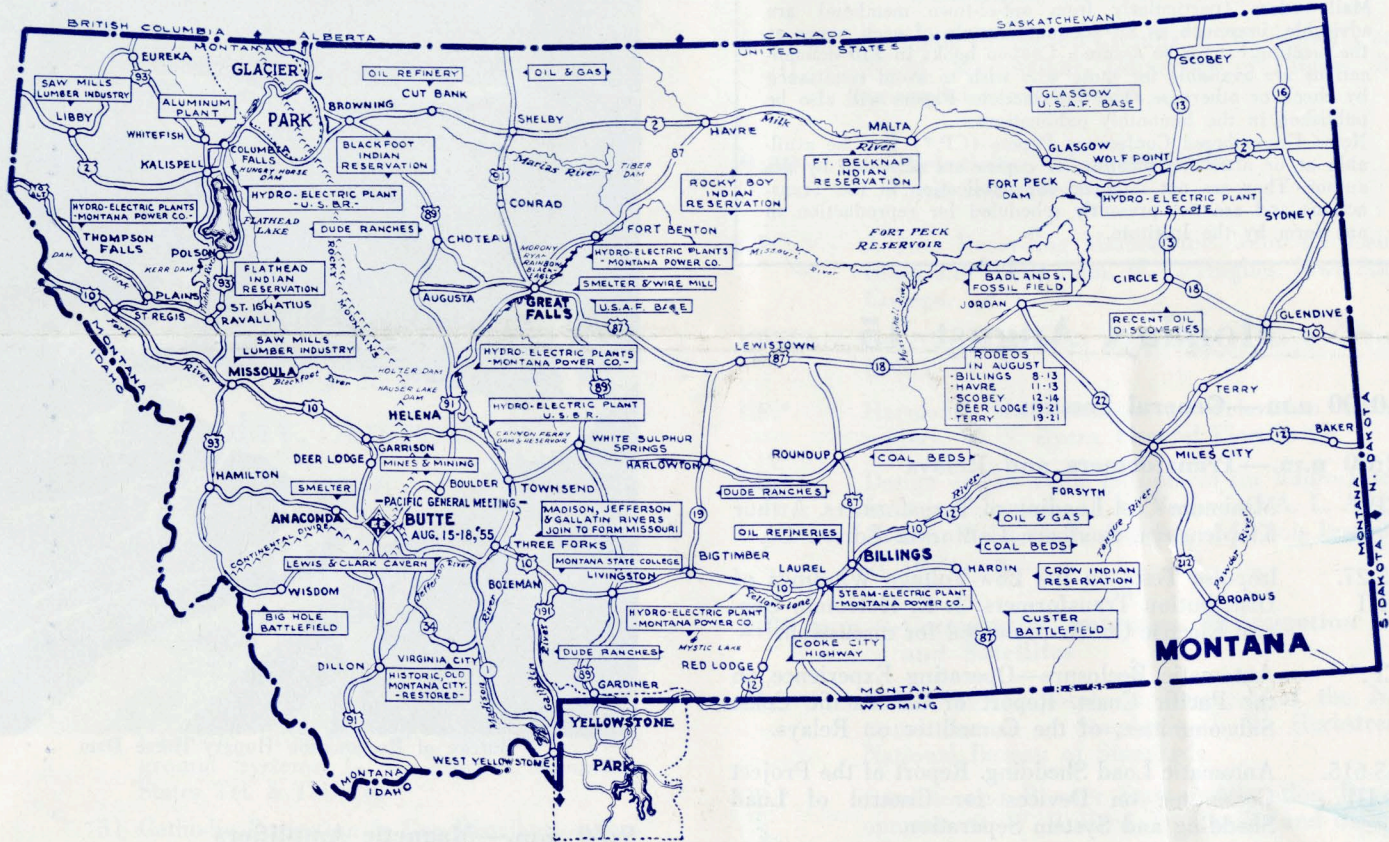


PACIFIC GENERAL MEETING

August 15-17, 1955

Butte, Montana

Headquarters: Finlen Hotel



Principal Highways Pointing to Butte, Montana

The Pacific General Meeting will be held in Butte, Montana, August 15-17, 1955, at the Finlen Hotel.

Butte is the heart of a mile high community of about 55,000 people and located on what is commonly referred to as "the richest hill on earth." This name came from the huge mineral deposits, the mining of which is the major industry. Copper is the chief mineral, although other minerals are of importance, including manganese, which is mined three blocks from the business center. Butte was first activated as a placer gold mining area.

Much publicity has been given this mining community concerning the rough and ready "early days" but it has now settled down to a respectable routine industrial life, but with an unusual friendliness that impresses visitors and residents alike.

INSPECTION TRIPS

A trip to the famous **Anaconda Company Kelley Mine** is one of the feature trips and is less than a mile from the Finlen Hotel. Visitors will be taken underground to see the inside workings of this huge operation which produces 12,000 to 15,000 tons of copper ore daily. This ore is hoisted to the surface through the world's largest mine shaft. The hoisting is accomplished with a 3,000 H.P. and a 2,500 H.P. D.C. motor which will also be inspected. Trips will be arranged hourly at no cost. Transportation will be supplied. Trips will be arranged each day, Monday after-

noon, August 13th to Thursday morning, August 18th, at 9 a.m. and 1 p.m., and will be limited to persons 18 years of age or over. Visitors will be furnished slickers, hard hats, and lights by the Anaconda Company.

At the **Reduction Works at Anaconda**, the visitor will see the equipment for unloading, crushing and conveying not only the 15,000 tons daily from the Kelley Mine, but all of the rest of the ore produced on the Butte Hill, plus ore produced by the Anaconda Company at Yearington, Nevada. Not only thousands of tons of copper and zinc are reduced annually, but 90% of America's entire output of ferro-manganese is produced here. Sulphuric acid, phosphate and arsenic plants are also found in the operations here. The visitor will see rod mills, flotation plants, copper and zinc casting furnaces, electric ferro-manganese furnaces and all of the electrical distribution and utilization equipment necessary for operations here.

This trip will also be scheduled each day, Monday afternoon to Thursday morning at 8:45 a.m. and 1:15 p.m.

The Montana Power Company, Billings Steam Plant, can be visited by members. They should contact Mr. George Scotten, Montana Power Office, Billings, Montana.

The Montana Power Company, Great Falls Generating Plants can be visited. Visitors should contact Mr. Dix Shevalier, Montana Power Office, Great Falls, Montana.

The Montana Power Company, Kerr Hydro Plant can be visited.

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AIEE PACIFIC GENERAL MEETING — PROGRAM — Butte, Montana, August 15-17, 1955

ADVANCED COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 40c each (80c 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 Conference Papers (CP.*) 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.

Monday, August 15

10:00 a.m.—General Session

2:00 p.m.—Transformers and Relays

- CP.* Minimum Cost Loading of Transformers. Arthur Klopfenstein, Southern California Edison Co.
- 55-27. Impulse Tests on the Low-Voltage Windings of Distribution Transformers. J. E. Holcomb, General Electric Co. Re-presented for discussion.
- CP.* Automatic Reclosure—Operating Experience on the Pacific Coast. Report of the Pacific Coast Subcommittee, of the Committee on Relays.
- 55-615. Automatic Load Shedding. Report of the Project Committee on Devices for Control of Load Shedding and System Separation.
- CP55-621. The Design Testing and Application of High Voltage Condenser Bushings. E. J. Grimmer, Westinghouse Electric Corp.

2:00 p.m.—Instruments and Measurements

- CP55-616. A New Temperature Relay for Use with Resistance Temperature Detectors. M. E. Hodges, General Electric Co.
- CP55-617. Explosion Proofing Instrumentation Equipment for Flight Test Use. B. F. Hager, Boeing Airplane Co.
- CP55-628. A CRT Spot Size Measuring Instrument. R. B. Kuhn and D. Levine, Goodyear Aircraft Corp.

Tuesday, August 16

9:30 a.m.—Electric Space Heating and Heat Pumps

- CP.* Where Do We Go From Here? L. M. Peoples, Cowlitz County Public Utilities District.
- CP.* What Will We Use for Heat Tomorrow? L. N. Roberson, L. N. Roberson Co.
- CP55-626. Electricity in the Cannery. R. S. Wilson, Richmond, Calif.



Bureau of Reclamation Hungry Horse Dam

9:30 a.m.—Magnetic Amplifiers

- CP55-619. Magamp Regulating Systems for Synchronous Machines. J. V. Kresser, Westinghouse Electric Corp.
- 55-620. Magnetic Amplifier Sequential Circuits of the Assymetrical Type. A. S. Fitzgerald, A. S. Fitzgerald Electrical Research Labs.
- CP.* Application of New Static Control Elements to the Control of an Automatic Welding Machine. J. P. Connor, W. G. Evans, W. G. Hall and R. I. VanNice, Westinghouse Electric Corp.
- CP.* Transistorized Time Delays. R. L. Bright and A. P. Kruper, Westinghouse Electric Corp.
- CP.* An Excited Voltage Regulator for Environmental Free Aircraft Alternators. R. V. Evans, North American Aviation.

2:00 p.m.—Land Transportation

- 55-627. Harmonics from Railroad Rectifiers on Power System Reduced by Filters. S. J. Bozzella, Long Island Lighting Co., J. L. Kennedy, Long Island Railroad, M. Mahr, Jr., New York Telephone Co., and H. W. Wahlquist, Ebasco Services, Inc.
- CP.* Modern Electric Mine Haulage Equipment. J. W. Brauns, General Electric Co.

- CP.* The Growth of Safety Features in the Control of Electric Locomotives for Underground or Industrial Use. Allen McLanahan, Westinghouse Electric Corp.

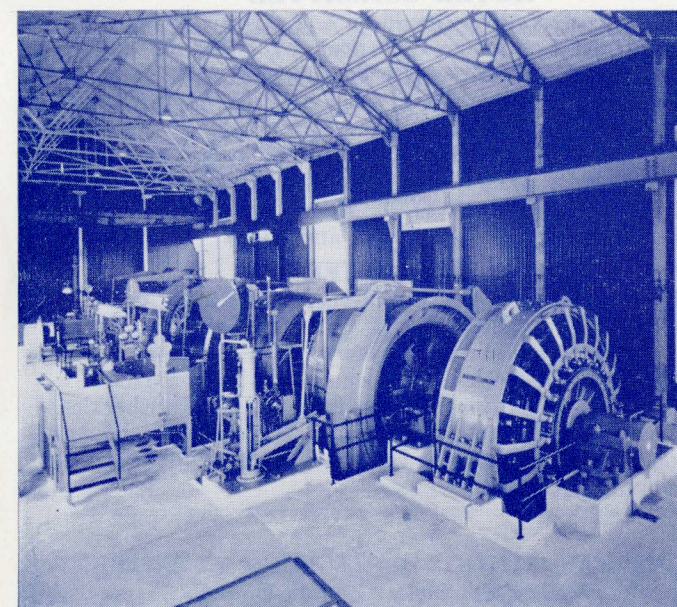
2:00 p.m.—Transmission and Distribution

- 55-622. Bureau of Reclamation 230-Kilovolt Transmission Lines in North Dakota. T. M. Austin, Bureau of Reclamation.
- 55-623. Power Autotransformer Current Interruption with an Air-Break Disconnect Switch. M. W. Anderson, Lighting Dept., City of Seattle.
- CP.* Microwave, a New and Powerful Tool for Electric Utility Operation. T. A. Combellick, Westinghouse Electric Corp.
- CP55-624. Limitations in the Regulation of Non-Infinite Bus Synchronous Systems. B. J. Wilson and W. K. Gardner, Naval Research Lab.

Wednesday, August 17

9:30 a.m.—Cathodic Protection

- CP.* The Galvanic Corrosion Characteristics of Aluminum. M. J. Pryor and D. S. Keir, Kaiser Aluminum & Chemical Corp.
- Panel Discussion on Cathodic Protection Practices:
- 1) Cathodic Protection in Electric Distribution Systems. O. W. Zastrow, REA.
 - 2) Cathodic Protection in Telephone Underground Systems. G. G. Thomas, Mountain States Tel. & Tel. Co.
 - 3) Cathodic Protection in Gas Distribution Systems (non-stray current areas). D. P. Price, Montana-Dakota Utilities Co.
 - 4) Cathodic Protection in Gas Distribution Systems (stray current areas). C. R. Davis, Montana Power Co.



Two Double Drum Hoists at the Anaconda Kelley Mine

- 5) Cathodic Protection of Buildings, Refineries, and Industrial Plants. H. J. Keeling, Consulting Engineer.
- 6) Instruments for Cathodic Protection. R. M. Wainwright, University of Illinois.

- 55-625. Cathodic Protection Circuits. E. W. Schwarz and R. M. Wainwright, University of Illinois, Represented for discussion.

9:30 a.m.—Television, Measurements and Interference

- CP.* A New Recording Method for Color TV Using Black and White Film. W. L. Hughes, Iowa State College.
- CP55-618. Pacific Northwest Television. Dave Green, KXLY-TV.
- CP.* Harmonic Measurements on Television Transmitters. W. S. Byers, General Electric Co.
- CP.* Design of Electronic Equipment for Radio Interference Reduction. H. M. Sachs and A. L. Albin, Armour Research Foundation of Illinois Institute of Technology.

2:00 p.m.—Community Antennas, Propagation and Satellites

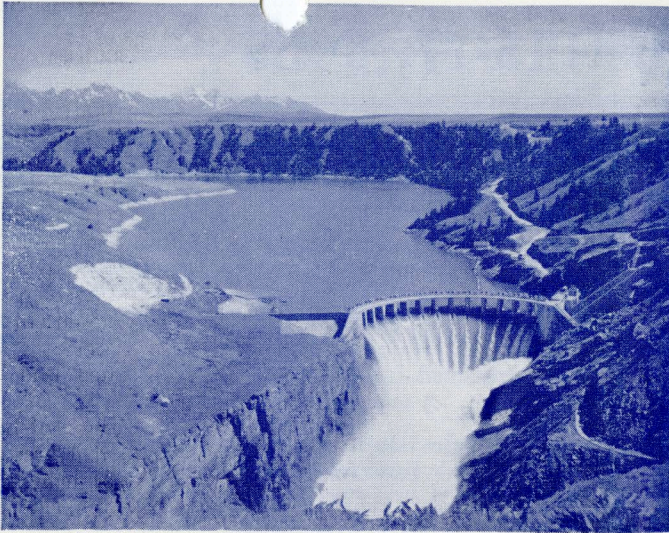
- CP.* VHF-UHF Tropospheric Research at the National Bureau of Standards. J. W. Herbstreit, National Bureau of Standards.
- CP.* Satellite and Booster Station Allocation Developments. O. W. B. Reed, Jr., Jansky and Bailey.
- CP.* Experience in Receiving and Rebroadcasting UHF Television Signals. J. B. Watkinson, KIMA. (presented by Verne Russell.)
- CP.* Community Television Antenna Systems. A. S. Taylor, Consulting Radio Engineer.

2:00 p.m.—Safety

- CP.* Electrical Installations and Safety Precautions Used in Underground Mining Operations. W. R. Duffy, Anaconda Copper Mining Co.
- CP.* Safety Problems on Diesel-Electric Locomotives. R. A. Hoelt, Chicago, Milwaukee, St. Paul and Pacific Railroad.
- CP.* Milliamperes Can Kill You! (A demonstration of low-voltage electric shock hazards). M. L. Bassett, B. A. Gurney and T. M. C. Martin, Bonneville Power Administration.

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



The Montana Power Co. Kerr Hydro Electric Plant

CONTINUED FROM PAGE ONE

The **Anaconda Company at Great Falls** have regular plant tours each week-day at 10 a.m. and 2 p.m. and at 10 a.m. only on Saturday. There are no regular Sunday tours for visitors. If the visitors are desirous of seeing only electrical installations they can contact Mr. F. S. Weimer, manager, and such tours can be arranged. The new Aluminum Rod Mill should be in operation here by August 15th. Many visitors would probably be interested in seeing this equipment which was manufactured in Sweden (both mechanical and electrical) and comparing it with our equipment. The Great Falls Wire and Cable Mill should also prove interesting to most of the delegates. There are also large electrolytic zinc and copper sections in this plant.

The **Anaconda Company extend a cordial invitation** to delegates to visit their new **Aluminum Plant at Columbia Falls, Montana**. Members desiring to visit this plant should contact Mr. Carl J. Lundborg, at 9 a.m., August 13th, or 9 a.m., August 20th.

The **U. S. Bureau of Reclamation** extend a cordial invitation to all delegates to visit either the Canyon Ferry project, near Helena, or the Hungry Horse project at Hungry Horse, Montana. The Canyon Ferry project does not have regularly conducted tours. They will make every effort to conduct tours of the plant during the 3 week period starting August 7, 1955. Visitors are to contact the Project Superintendent, Mr. R. L. Ashenbrenner.

The **Hungry Horse Project** have regular trips from 9:30 a.m. to 4 p.m. every day during the summer. These trips start from the top of the Dam, and if the delegates will indicate to the attendant that they are attending the convention, every effort will be made to give them the "Deluxe" tour. If the visitor desires more information he should contact Mr. E. L. Gochnauer, Project Superintendent.

The **U. S. Army Engineers installation at Fort Peck**, Montana, is open to the general public during the hours of 9:30 a.m. to 5:30 p.m. Information stations are located at the Fort Peck Glasgow and Fort Peck Nashua Highway entrances to the Fort Peck Project are also open daily during the above hours. General information on the Fort Peck Dam and Fort Peck Recreational Area may be obtained at these stations.

ENTERTAINMENT

Monday evening, August 15, an informal western outing will be staged at the scenic Columbia Gardens. After the hospitality hour, an outdoor dinner, featuring the famous Butte "pasty", will be held. Later in the evening there will be a western mixer dance with square dance exhibitions and other entertainment. Tickets will be \$4.00 per person.

Tuesday evening is held open for informal visiting of

Butte's famous steak houses or for visiting historical Virginia City and the Lewis and Clark Caverns.

Wednesday activity will center around the picturesque Butte Country Club for golf. Wednesday night is the Dinner-Dance at the Butte Country Club, featuring one of their prime rib dinners. Entertainment and dancing will follow. Formal dress is optional and tickets will be \$4.00 per person.

The Virginia City trip takes several hours for the 178 mile round trip jaunt. Virginia City was an early day center of gold mining with the rough and ready ways of the time. Road agents, Vigilantes and "neck-tie" parties seemed to make front page history and this atmosphere is provided today with much of the original furnishings and merchandise still in place.

In the evening, old time entertainment at its best can be enjoyed at the Virginia City Playhouse.

The Lewis and Clark Caverns can also be visited by anyone wishing to make arrangements. Dude ranches and fishing streams may hold the interest of others who wish to make the most of the entertainment resources.

LADIES EVENTS

Sunday, August 14

Registration, 3 p.m.—Finlen Hotel Lobby

Monday, August 15

Registration, 9 a.m.—Finlen Hotel Lobby

Coffee Hour, 9:30 a.m. to 11:00 a.m.—Finlen Hotel Roundup Room

Tea, 2:30 p.m. to 4:30 p.m.—Fez Club

(Program: Organ Music—Tickets: \$1.50)

Tuesday, August 16

Registration, 9 a.m.—Finlen Hotel Lobby

Coffee Hour, 9:30 a.m. to 11:00 a.m.—Finlen Hotel Roundup Room

Wednesday, August 17

Registration, 9 a.m.—Finlen Hotel Lobby

Coffee Hour, 9:30 a.m. to 11:00 a.m.—Finlen Hotel Roundup Room

Luncheon, 1 p.m.—Finlen Hotel Copper Bowl

(Program: Elizabeth Lochrie and her famous Indian paintings. Tickets: \$2.50 Ticket limit—200)

Ladies registration will be in charge of Evaline Ball and Marjorie German. Dorothy Blankmeyer and Betty Kampschorr are the hostesses at the Coffee Hour each morning. The Tea is being arranged by Dagmar Anderson and Priscilla Nealey, and the Luncheon will be in charge of Flo Lorimer and Myrtle Hofacker.

HOTEL COMMITTEE

All hotel reservations should be sent directly to Mr. R. J. Labrie, Hotel Committee Chairman, by means of the advance reservation card enclosed with this announcement. Please make your reservations early as accommodations are rather limited.

The Finlen Hotel rates start at \$4.75 for a single room and \$6.50 for a double room with bath. Motel units can be obtained from \$3.00 to \$7.00. Rooms in other hotels in Butte may be obtained for \$3.50 and \$4.00.

COMMITTEE

The members of the Pacific General Meeting Committee are: W. H. Mott, Chairman; R. C. Setterstrom, Vice-Chairman; D. E. Kampschorr, Secretary; R. J. Carlson, Entertainment; R. C. Nealey, Finance; R. J. Labrie, Hotels & Registration; W. H. Blankmeyer, Publicity; Dale Scheckles, Students; E. W. Schilling, Technical Program; N. V. Anderson, Transportation & Inspection Trips; Mrs. C. A. Champ, Ladies.

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