



Portland, Oregon Section AIEE
PROPOSES

FILE
FEB 13 1951
TRANSACTION



Fred O. McMillan

FELLOW • PAST VICE PRESIDENT
DIRECTOR

for

President AIEE 1951-52

Why Fred O. McMillan?

The Portland Section of the AIEE has proposed the nomination of Fred O. McMillan for president of the AIEE for the 1951-52 term.

Professor McMillan's record with the Institute shows a progression through a long series of technical and administrative committees over the years since he became a member in 1914. His participation in Committee work has been consistent and enthusiastic. Having been a member of the Board of Directors for the past several years, he is superbly qualified to carry on the progress that has been made in resolving some of the Institute's problems.

The Department of State of the United States Government recognized his abilities as an Electrical Engineer by appointing him as a consultant to the Chinese Government in 1943-44.

As an author of note Fred McMillan has written over thirty publications on electrical problems.

He has demonstrated executive ability in all his educational and business activities. He is a good speaker and can present an issue concisely and clearly. He has earned a reputation for initiative, leadership, sound judgment, and effective relationships with his associates in any field of endeavor.

Portland Section AIEE

Portland, Oregon

Practical Experience

- 1912-1914 General Electric. Testing Department.
- 1914-1920 General Electric. Design Engineering.
- 1925 Port of Portland, Consulting Electrical Engineer, acceptance tests on diesel-electric dredge *Clackamas*.
- 1925 Summer Pacific Power & Light. Research on electric screens to prevent fish entering turbines and canals.
- 1926 July-Aug. Pacific Power & Light. Research on electric screens to prevent fish entering turbines and canals.
- 1926 Northwestern Electric. Investigation of high-voltage cable failures.
- 1928 Research: gaseous conductor lamps.
- 1928-29 Lighting investigation conducted by U. S. Forest Service, Oregon Board of Forestry, Engineering Experiment Station, and private interests. Summers through 1931.
- 1928 Summer Visited manufacturers of high-voltage insulators to report research on radio interference from insulators. Plants visited in Baltimore, Schenectady, Pittsfield, Lima, LeRoy, Corning, and Barberton, Ohio.
- 1930-1942 Research: polarity influence on high-voltage discharges.
- 1929-1942 Research: radio interference from high-voltage lines.
- 1927-1932 Northwestern Electric. Consulting Electrical Engineer.
- 1933 Pacific Power & Light. Consulting Electrical Engineer.
- 1929-1933 Bureau of Fisheries. Consulting Electrical Engineer.
- 1936 Made electrical energy demand and use survey of State Institutions in and near Salem.
- 1936 Spring Survey of radio interference in Port Angeles, Wash.
- 1936 Fall
- 1939 Field intensity survey of KOAC 1 kw. transmitter. Presented to the FCC in KOAC-KOY interference case.
- 1940-1942 Coordination of design and supervision of construction on modern KOAC 5000-watt directional antenna and transmitting plant at Granger, Oregon.
- 1939-40-41-42 Cost and rate study for Portland General Electric by political subdivisions.
- 1941-42 Consultation on marine type D.C. generator for government service, Marine Electric, Portland.
- 1943-44 Specialist in Electrical Engineering to Chinese Government. Employed by the State Department.
- 1945-46 Designed directional antenna array for night operation of KOAC at 5 kw power. Appeared before the FCC for KOAC in the 550 kc hearings in which there were 12 applicants and 3 intervenors.

Service to AIEE

Associate 1914 - Member 1926 - Fellow 1932 - Life Member 1949

1926-1927 Counselor, Oregon State College Branch.
1927-1928 Counselor, Oregon State College Branch.
1928-1929 Counselor, Oregon State College Branch.
Chairman, Committee on Student Activities, District 9.
1929-1930 Counselor, Oregon State College Branch.
Committee on Student Branches.
1930-1931 Counselor, Oregon State College Branch.
Committee on Student Branches.
1931-1932 Counselor, Oregon State College Branch.
1932-1933 Committee on Student Branches.
1933-1934 Counselor, Oregon State College Branch.
Committee on Student Branches.
1934-1935 Vice President, District 9.
Committee on Student Branches.
Committee on Research.
Committee on Electrophysics.
1935-1936 Vice President, District 9.
Committee on Research.
Committee on Electrophysics.
Committee on Revision of Section Territories.

1936-1937 Committee on Transfers.
Committee on Revision of Section Territories.
1937-1938 Committee on Transfers.
1938-1939 Committee on Transfers.
1939-1940 Committee on Transfers.
1941-1942 Counselor, Oregon State College Branch.
1942-1943 Counselor, Oregon State College Branch.
1948-1949 Director.
1949-1950 Director.
Chairman, Nominating Committee.
Chairman, Committee on Student Branches.
Representative of the AIEE for Inter-Society
Conference of Engineering Student Chapters.
Executive Committee of the Technical Program
Committee.
Publications Committee.
Committee on Award of Institute Prizes.
1950-1951 Director
Chairman, Committee on Student Branches
Representative of AIEE for Inter-Society Conference on Engineering Student Chapters
Edison Medal Committee

Other Organizations

Registered Professional Engineer of Oregon.
Professional Engineers of Oregon, Member.
President 1949-50 Mid-Willamette Section.
Oregon Historical Society, Member.
American Association for the Advancement of Science, Fellow.
Society for the Promotion of Engineering Education, Member.
Institute of Radio Engineers, Senior Member.
National Electric Light Association:
Committee on Hydraulic Power Subcommittee on Fishways, 1926-1933.
Committee on Hydraulic Power on Fishways, 1929-1933.
Northwest Electric Light and Power Association:
Committee on Overhead System, 1926-1928, 1929-1933.
Committee on Foreign Systems Coordination, 1931-1932.

Other Public Service

Member Corvallis Board of Education 1945-50.
Chairman Corvallis Board of Education 1948-49.
Chairman Corvallis Board of Education 1949-50.

Teaching Experience

1920-1923 Assistant Professor of Electrical Engineering, Oregon State College.
1923-1930 Associate Professor of Electrical Engineering, Oregon State College.
1930-1937 Research Professor of Electrical Engineering, Oregon State College.
1937- Head, Professor, Electrical Engineering, Oregon State College.
1939- Supervising Engineering, KOAC.
1943-44 Lecturer in Chinese Universities.

Publications

McMillan, F. O.

- "Pin Type Insulator Testing," Proceedings of the 18th Annual Convention, Northwest Electric Light & Power Assn., June 12, pp. 242-249, 1925.
- "High Voltage Engineering and Northwest Power Development," O.A.C. Alumnus Vol. V, No. 7, pp. 154-155, March 1926.
- "Pin Type Insulator Tests," Proceedings of the Third Annual Meeting of the Technical Section of the Northwest Electric Light & Power Assn., 1926.
- "Method of Live Line Insulator Testing and Results of Tests with Different Instruments," Proceedings of the Fourth Annual Meeting of the Technical Section of the Northwest Electric Light and Power Assn., pp. 13-40, 1927.
- "Fishways," Serial Report of the Hydraulic Power Comm., 1926-27, Engr. National Section of the National Electric Light Assn., N.Y.C., 1927.
- "Electric Fish Screen," U. S. Bureau of Fisheries Document No. 1042, Bureau of Fisheries Bulletin, Vol. 44, pp. 97, 1928.
- "Methods of Live Line Insulator Testing and Results of Tests with Different Instruments," Reprint Series No. 1, Oregon State Engr. Exp. Sta., November 1927.
- "Corona Related to Failure of Cable Terminals," by S. B. Clark and F. O. McMillan, Electrical World, pp. 453-454, September 8, 1928.
- "High-Voltage Gaseous Conductor Lamps," by F. O. McMillan and E. C. Starr, Transactions of the American Institute of Electrical Engineers, Vol. 48, No. 1, pp. 11-18, Jan. 1929.
- "Radio Interference from High-Voltage Insulator," Transaction of the Seventh Annual General Meeting of the Engineering Section of the Northwest Electric Light and Power Assn., pp. 181-200, March 26, 27, 28, 1930.
- "The Influence of Polarity on High-Voltage Discharges," by F. O. McMillan and E. C. Starr, Transactions of the A.I.E.E., Vol. 50, No. 1, pp. 23-35, 1931.
- "Progress Report on Radio Interference from High-Voltage Transmission Lines—Pin and Pedestal Type Insulators," Transactions of the Eighth Annual General Meeting of the Engineering Section of the Northwest Electric Light and Power Assn., 1931.
- "Radio Interference from Insulator Corona," Electrical Engineering, January 1932, Transactions of the A.I.E.E., Vol. 51, No. 2, pp. 385-391, 1932.
- "The Coordination of High-Voltage Transmission Lines with Radio," Transactions of the Ninth Annual General Meeting of the Engineering Section of the Northwest Electric Light and Power Assn., 1932.

- "Asphalt Emulsion Reduces Insulator Radio Troubles," *Electrical World*, Vol. 102, No. 6, Aug. 5, 1933.
- "Instructions for Applying Asphalt Emulsion on High-Voltage Insulators to Prevent Radio Interference," Mimeographed at Oregon State College, Spring 1934.
- "Asphalt Emulsion Treatment Prevents Radio Interference," *Electrical West*, Vol. 74, No. 1, Jan. 1935; *Engr. Exp. Sta. Reprint* No. 3, Oct. 1935.
- "Some Characteristics of A-C Conductor Corona," *Electrical Engineering*, Vol. 54, pp. 282-292, March 1935; *Engr. Exp. Sta. Reprint* No. 4, Oct. 1935.
- "A Radio Interference Measuring Instrument," with H. G. Barnett, *Electrical Engineering*, Vol. 54, pp. 857-862, Aug. 1935; *Engr. Exp. Sta. Reprint* No. 5, Oct. 1935.
- "A Survey of the Demand and Use of Electrical Energy for all Oregon State Institutions in and near Salem," with B. H. Nichols, Mimeographed Report, July 31, 1936.
- "Polarity Limits of the Sphere Gap," *Transactions of the A.I.E.E.*, Vol. 58, pp. 56-61, March 1939; *Engr. Exp. Sta. Reprints* No. 13.
- "A Survey of Radio Reception and Interference in Port Angeles, Washington," Mimeographed Report, September 1936.
- "A Report on Electric Fish Screen Progress," with F. A. Everest, Mimeographed Report, 1937.
- "Corona and Radio Interference for Insulators and Conductors," with F. A. Everest and W. J. J. Walsh, Mimeographed Report, Jan. 1938.
- "What China Needs," *China Trade News*, November 1944.
- "Electric Power in China," *Elec. Engr.*, Vol. 66, No. 1, pp. 67-74, Jan. 1947.
- "Long-Range Planning for Power Supply," *Electrical Engineering*, Dec. 1948, pp. 1135-1141.