

# History of the Marine Transportation Committee

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**I**N 1913, due to the differences among the requirements of the various classification societies and the insurance companies regarding electrical installations on shipboard, and the lack of any accepted standard engineering practice for marine installations, the American Institute of Electrical Engineers (AIEE) appointed the Marine Committee (now called the Marine Transportation Committee) to take up the preparation of standard marine rules.

This committee worked diligently to prepare a publication that could be used as a guide to obtaining satisfactory electrical installations on shipboard. Experience had shown that commercial equipment, wiring, and installation methods had not produced trouble-free installations. In addition, a mechanical engineer with little electrical knowledge was always in complete charge of the installation. Thus there was very little incentive to work out or investigate the difficulties encountered intelligently. The electrical installation, no matter how good, was just one more headache to the mechanical engineer.

The first edition of the "Recommended Practices" was prepared covering two important divisions: namely, fire protection and marine construction requirements. In 1917 the results of the committee's deliberations were released to the marine industry.

The first edition of the rules did not cover the entire field of the use of electricity on shipboard, therefore, the Marine Committee of the institute was continued, and in 1920 a more extensive report was published under the heading of the "Recommended Practice for Electrical Installations on Shipboard." This title was selected because it described in a few words the purpose of the publication. This thought has been the intent of the committee ever since. This publication was so well received by the marine industry that when the next edition was ready for publication in 1927 the institute decided to designate it as Standard Number 45.

In April 1943, during World War II, a supplement to Standard Number 45 was issued. It was identified as Standard Number 45A. It was revised and reissued in January 1944. The supplement was issued to apply only during the National Emergency. It was prepared at the request of, and in cooperation with, the War Production Board. Its sole purpose was to conserve critical materials such as copper, rubber, tin, lead, etc. Some of the substitutes permitted were found to be of continuing value and were therefore included in later editions. The 1944 edition of Standard Number 45A was declared cancelled and obsolete in September 1945 since its use would have resulted, in general, in a shipboard electrical installation of a lower standard than was believed by the committee to be good engineering practice.

The Marine Transportation Committee, when the 1948

edition was issued, consisted of 26 members and was divided into eight technical subcommittees, each being responsible for certain designated sections of the standard. The work of each subcommittee was acted on by the Main Committee, which was comprised of the members of all subcommittees. This arrangement permitted each individual to express his views on every issue.

The membership of the committee was selected from the best qualified marine electrical personnel from the following types of organizations:

- 1) One from the United States Navy, Bureau of Ships;
- 2) One from the United States Coast Guard, Merchant Vessel Safety Division;
- 3) One from the United States Maritime Commission;
- 4) One from the American Bureau of Shipping;
- 5) One from Lloyd's Register of Shipping and also representing British Institute of Electrical Engineers (Marine Applications);
- 6) Five from the Marine Engineering Divisions of the three major manufacturers of electrical machinery, including switchboards;
- 7) Two from the manufacturers of communications equipment;
- 8) One from a manufacturer who specializes in control equipment;
- 9) One from a manufacturer of navigational equipment;
- 10) One from a manufacturer of fittings and lighting fixtures;
- 11) Four—one from each of the four ship design and building yards;
- 12) Two—one from each of the two major ship repair yards;
- 13) Four—one from each of the four ship operating companies;
- 14) One from a naval architects office;

It has been the intent of the committee from its inception to include as wide a technical representation from interested organizations as is possible to obtain, keeping in mind that a large committee is not workable, and a reasonable balance must be kept between the various classes of activities.

The committee has been extremely fortunate in having the close cooperation of the governmental regulatory agencies, classification societies, electrical equipment manufacturers, ship designers, builders, and operators. All the members of the committee have had many years experience with marine electrical installations. It is the policy of the committee to recommend for membership only personnel having considerable experience in marine electrical equipment and installations. In addition, they are expected to be ranking specialists for

TABLE I  
CHAIRMEN OF THE IEEE COMMITTEE FROM 1925 TO PRESENT

1925-1926	Mr. L. C. Brooks
1926-1927	Mr. G. A. Pierce
1927-1928	Mr. W. E. Thau
1928-1929	Mr. W. E. Thau
1929-1930	Mr. E. E. Thau
1930-1931	Mr. R. A. Beekman
1931-1932	Mr. R. A. Beekman
1932-1933	Mr. R. A. Beekman
1933-1934	Mr. H. E. Coleman
1934-1935	Mr. H. E. Coleman
1935-1936	Mr. R. L. Wilson
1936-1937	Mr. A. Kennedy, Jr.
1937-1938	Mr. A. Kennedy, Jr.
1938-1939	Mr. A. Kennedy, Jr.
1939-1940	Mr. H. F. Harvey, Jr.
1940-1941	Mr. H. F. Harvey, Jr.
1941-1942	Mr. I. H. Osborne
1942-1943	Mr. I. H. Osborne
1943-1944	Mr. W. N. Zippler
1944-1945	Mr. W. N. Zippler
1945-1946	Mr. W. H. Reed
1946-1947	Mr. W. H. Reed
1947-1948	Mr. W. H. Reed
1948-1949	Mr. O. A. Wilde
1949-1950	Mr. O. A. Wilde
1950-1951	Mr. O. A. Wilde
1951-1952	Capt. J. B. Feder
1952-1953	Capt. J. B. Feder
1953-1954	Mr. W. E. Jacobsen
1954-1955	Mr. W. E. Jacobsen
1955-1956	Mr. J. E. Jones
1956-1957	Mr. J. E. Jones
1957-1958	Mr. J. D. Shuster
1958-1959	Mr. J. D. Shuster
1959-1960	Mr. S. A. Haverstick
1960-1961	Mr. S. A. Haverstick
1961-1962	Mr. J. M. Apple
1962-1963	Mr. J. M. Apple
1964	Mr. E. A. Geary
1965	Mr. E. A. Geary
1966	Mr. W. A. Hall
1967	Mr. W. A. Hall
1968	Mr. H. E. Senger
1969	Mr. H. E. Senger
1970	Mr. G. N. Hauver
1971	Mr. G. N. Hauver
1972	Mr. J. D. Westbrook
1973	Mr. J. D. Westbrook
1974	Mr. T. Demro
1975	Mr. T. Demro
1976	Mr. Arthur LeBrun
1977	Mr. Arthur LeBrun
1978	Mr. W. A. McCloy
1979	Mr. W. A. McCloy
1980	Mr. Stanley Owens
1981	Mr. Stanley Owens
1982	Mr. Harold J. Dalio
1983	Mr. Harold J. Dalio

From 1925 through 1963 the fiscal year ran from August 1 through July 31. At the meeting of October 1963 it was decided that the fiscal year would begin with January 1 through December 31.

electrical matters in their respective business organization. Adherence to this policy is extremely important in order that the recommendations as prepared by the committee will be

respected and promulgated by all types of organizations associated with the marine industry.

Over the years, the membership has varied but still abides by the above rules for selection of committee members. The rules have been revised and reissued in 1951, 1955, 1958, 1962, 1967, 1971, 1977, and 1983.

In 1963, as a result of the merger of the AIEE and the IRE the title of the standard was changed to the "IEEE Recommended Practice for Electric Installations on Shipboard." On June 16, 1972 the ANSI Standard Number C110.1-1972 was assigned to the IEEE Standard Number 45-1971. Beginning with the 1977 issue, the IEEE Standard Number 45 has been designated ANSI/IEEE Standard Number 45 followed by the date of issue.

The IEEE Standards Number 45 is presently used as a reference document for most shipboard specifications that are developed by design agents and naval architects in the United States for electrical installations on shipboard. With the support of the membership it should continue to represent the best criteria for shipboard construction.

The primary function of this committee is the furtherance of safe, reliable, and technically sound electrical and electronic installations on shipboard based on the present state of the art and giving consideration to equipment and systems under development. A history of the chairmen of this committee can be found in Table I.

## AWARDS

The Marine Transportation Committee presented the IEEE Standards Award to Mr. W. Norman Zippler at its second meeting of 1977 on October 26 at the United Engineering Center, in New York City. The award presented by Committee Chairman, Arthur A. LeBrun, is in recognition of Mr. Zippler's forty years of service on the Committee as Secretary.

Mr. Zippler also served a term as Committee Chairman and was Chairman of the Editing Subcommittee responsible for the publication of the IEEE's Standard Number 45, and IEEE "Recommended Practice for Electric Installations on Shipboard."



**Harold J. Dalio** (M'50-SM'61) received the B.S.E.E. degree in 1949 from Tulane University, New Orleans, LA.

He has been employed at Avondale Shipyards as a Chief Electrical Engineer since 1959 where he is responsible for the overall administration of the Electrical Engineering Department, including supervising the design of electrical and electronics systems for all types of commercial vessels and various naval ships, as well as supervising the electrical design of major conversions and repairs for all types

of marine structures and ships.

Mr. Dalio has been a member of the IEEE Marine Transportation Committee since 1968 and a Chairman since 1981, the American Society for Testing Materials Committee F-25 on shipbuilding, the Society of Naval Architects and Marine Engineers, and is a Registered Professional Engineer in the State of Louisiana.