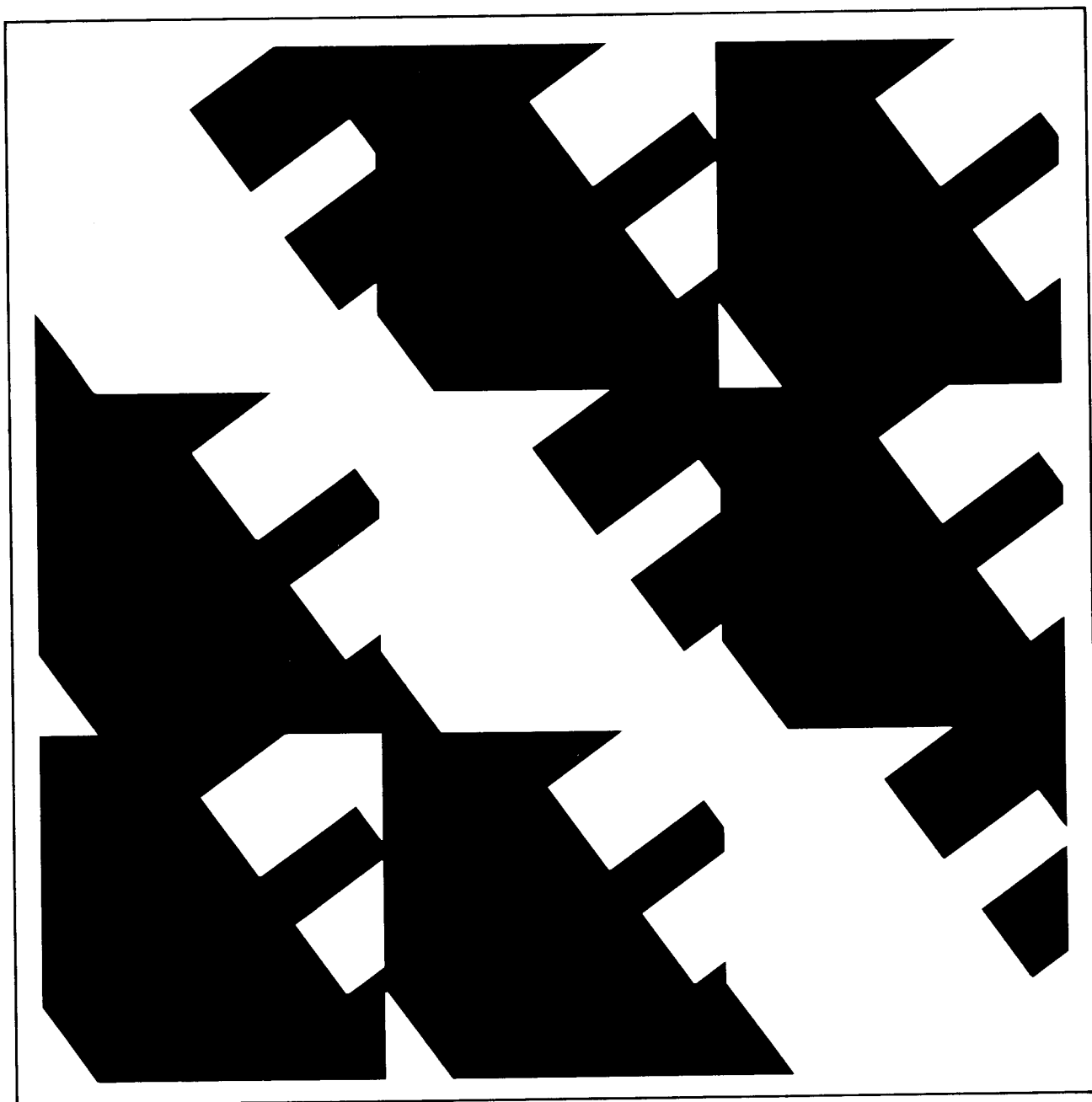


IEEE Standard for Electrical Safety Practices in Electrolytic Cell Line Working Zones

ANSI/IEEE Std 463-1977



Published by The Institute of Electrical and Electronics Engineers, Inc 345 East 47th Street, New York, NY 10017, USA
March 17, 1977

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**ANSI/IEEE
Std 463-1977
(Reaffirmed 1987)**

An American National Standard

**IEEE Standard for
Electrical Safety Practices in
Electrolytic Cell Line Working Zones**

Sponsor
**Petroleum and Chemical Industry Committee
of the
IEEE Industry Applications Society**

Approved June 3, 1976

IEEE Standards Board

Approved February 19, 1988

American National Standards Institute

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Foreword

(This foreword is not a part of IEEE Standard for Electrical Safety Practices in Electrolytic Cell Line Working Zones, IEEE Std 463-1977.)

In 1974 the Institute of Electrical and Electronics Engineers (IEEE) approved and published a Trial-Use Standard for Electrical Safety Practices in Electrolytic Cell Line Working Zones, IEEE Std 463-1974. Experience with that pioneering document and comments received from the public have made it possible for the responsible committee to revise that original document and for the IEEE Standards Board to approve that revision as a full-status IEEE standard.

This standard was developed to provide electrical safety practices for the unique conditions of the working areas of electrolytic cell installations. It defines the extent of the area covered and sets forth means for safeguarding personnel in the area. The means are based on many years of successful experience in the industry.

This document covers conditions that are different from those general requirements for safety in electrical installations stated in IEEE Recommended Practice for Electric Power Distribution in Industrial Plants, IEEE Std 141-1976; IEEE Recommended Practice for the Grounding of Industrial and Commercial Power Systems, IEEE Std 142-1972; and the National Electrical Code, ANSI C1-1976. To resolve these differences, a technical committee is developing a new section based upon this standard for the proposed 1978 National Electrical Code to cover the special requirements for electrical installations for electrolytic cells. The sponsoring committees of IEEE Std 141-1976 and IEEE Std 142-1972 will be notified to refer to this standard for the special requirements for safety in electrical installations for electrolytic cells.

This standard must be applied with judgment. The requirements are of necessity general to cover the widely varied conditions of electrolytic cell areas. The selection of safeguards must consider the nature and exposure of an electrical hazard as well as avoid unnecessary restriction of operation of the plant.

A second subject covered in this document concerns the basic concepts of electrical installations in special conditions of the cell areas which are not covered in other codes or standards. Those points relating to grounding, circuit protection, cranes receptacles, welding, wiring, etc, are important to safe working practices in electrolytic cell line working zones.

This document was prepared by the Electrolytic Cell Working Group of the Petroleum and Chemical Committee of the IEEE Industry Applications Society. Members of the working group at the time of developing the standard for trial use were:

J. A. Stewart, *Chairman*

R. B. Adams
T. L. Beatty
R. C. Beckstead
R. L. Bird
B. W. Burdett
C. N. Cahoon
W. D. Charles
J. G. Droubey
G. E. Eaton
D. Elliott
S. G. Epstein
A. G. Forster
F. A. Gerard
H. N. Hickok

R. S. Jones
J. C. LaCour
C. A. Langlois
J. Marshall
J. D. McIver
L. Metzger
J. L. Michaelis
W. S. Miller
E. Morrison
B. B. Pearlman
T. T. Pinder
C. L. Pittman
S. L. Ralston
R. L. Sandstedt
R. F. Schwab

F. D. Shaw
E. E. Smith
O. H. Smith
T. B. Smith
B. H. Spoon
D. J. Vacarro
A. F. Vieweg
F. Weldon
B. W. Whittington
C. F. Wollborg
R. G. Wood
D. E. Wray
D. Young
D. T. Young

The working group was reformed for the purposes of incorporating comments on the trial-use standard and for maintaining the standard. The members of the Electrolytic Cell Line Working Group at the time this standard was approved were:

J. A. Stewart, *Chairman*

R. B. Adams
C. N. Cahoon
A. G. Forster

C. A. Langlois
J. L. Michaelis
C. L. Pittman

F. D. Shaw
D. T. Young