

**IEEE Std 338-1971
ANSI N41.3**

***IEEE Trial-Use Criteria*
for the
Periodic Testing of Nuclear
Power Generating Station Protection Systems**

**Sponsor
Joint Committee on Nuclear Power Standards
of the
IEEE Nuclear Science Group
and the
IEEE Power Engineering Society**

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Foreword

(This foreword is not a part of the IEEE Trial-Use Criteria for the Periodic Testing of Nuclear Power Generating Station Protection Systems, IEEE Std 338-1971)

This document provides criteria and requirements supplementary to those in IEEE Std 279-1971, Criteria for Nuclear Power Generating Station Protection Systems, for the development of periodic testing programs for protection systems in commercial nuclear power generating stations. Development of these criteria and requirements is based on the prerequisite that the protection system is testable in accordance with IEEE Std 279-1971 and on the following:

- (1) Station protection systems must, during the life of the station, be repeatedly tested to assess the operational availability of the systems
- (2) Development and application of testing procedures and equipment must be consistent with protection system criteria IEEE Std 279-1971
- (3) Procedures for verification and documentation of failures should be such that reliability confidence levels for protection systems are enhanced

The Institute of Electrical and Electronics Engineers has developed these proposed criteria to provide guidance in the development of the procedures and equipment for, and documentation of, periodic testing of nuclear power generating station protection systems. Each applicant for a construction permit or an operating license for a nuclear facility is required to develop these items to comply with The Atomic Energy Commission's Code of Federal Regulations, Part 50.

Adherence to these proposed criteria will not of itself suffice for assuring the public health and safety because it is the integrated performance of the structures, the fluid systems, the instrumentation, and the electric systems of the station that limit the consequences of accidents. On the other hand, failure to meet these requirements may be an indication of system inadequacy. Each applicant has the responsibility to assure himself and others that this integrated performance is adequate.

The Joint Committee on Nuclear Power Standards is considering additions to this document which will provide guidance on the design of the protection system test circuitry.

The IEEE will maintain this document current with the state of the technology. Comments are invited on this document as are suggestions for additional material. These should be addressed to:

Secretary
IEEE Standards Committee
The Institute of Electrical and
Electronics Engineers, Inc.
345 East 47 Street
New York, N.Y. 10017

This document was prepared by Subcommittee 3, Periodic Testing, of the IEEE Joint Committee on Nuclear Power Standards. At the time of approval for ballot, the members of the Subcommittee were:

L. M. Johnson, *Chairman*

P. W. Kauppila
W. R. Klein
D. G. Pitcher

W. F. Schwarz
J. H. Smith
D. F. Sullivan

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