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SAFETY GUIDE 30

QUALITY ASSURANCE REQUIREMENTS FOR THE INSTALLATION, INSPECTION, AND TESTING OF INSTRUMENTATION AND ELECTRIC EQUIPMENT

A. Introduction

Appendix B to 10 CFR Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," establishes quality assurance requirements for the design, construction, and operation of nuclear power plant structures, systems, and components. This safety guide describes an acceptable method of complying with the Commission's regulations with regard to the quality assurance requirements for the installation, inspection, and testing of nuclear power plant instrumentation and electric equipment.

B. Discussion

Working Group N45-3.4 (formerly ad hoc committee N45-3.4, also designated ad hoc committee JCNPS/AH3 by the IEEE) of the American National Standards Institute Standards Committee N45, Reactor Plants and Their Maintenance, has developed a standard which includes quality assurance requirements for the installation, inspection, and testing of nuclear power plant instrumentation and electric equipment. This standard was approved by subcommittee N45-3, Nuclear Quality Assurance Standards, of the American National Standards Committee N45, and the full committee and its Secretariat, and it was subsequently approved and designated N45.2.4-1972 by the American National Standards Institute on March 1, 1972.

This standard was also approved by the IEEE Standards Committee on September 16, 1971, and was designated IEEE Std 336-1971.

C. Regulatory Position

The requirements for the installation, inspection, and testing of nuclear power plant instrumentation and electric equipment which are included in ANSI N45.2.4-1972, "Installation, Inspection, and Testing Requirements for Instrumentation and Electric Equipment During the Construction of Nuclear Power Generating Stations" (also designated as IEEE Std 336-1971)[1] are generally acceptable and provide an adequate basis for complying with the pertinent quality assurance requirements of Appendix B to 10 CFR Part 50, subject to the following:

1. ANSI N45.2.4-1972 should be used in conjunction with ANSI N45.2-1971, "Quality Assurance Program Requirements for Nuclear Power Plants." (It is expected that future revisions of ANSI N45.2.4-1972 will include this provision.)

2. Section 9 of ANSI N45.2.4-1972 lists additional guides and standards made applicable by ANSI N45.2.4. The specific applicability or acceptability of these listed guides and standards has been or will be covered separately in other safety guides or in appropriate Commission regulations.

3. Although subdivision 1.1 of ANSI N45.2.4-1972 states that the requirements promulgated apply during the construction phase of a nuclear power plant, these requirements are also to be considered applicable for the installation, inspection, and testing of instrumentation and electric equipment during the operation phase of a nuclear power plant.

[1] Copies may be obtained from either the Institute of Electrical and Electronics Engineers or the American Society of Mechanical Engineers, United Engineering Center, 345 E. 47th Street, New York, N.Y. 10017