1 Scope

This standard identifies the criteria for certification of instrumentation and control technicians at nuclear facilities. These criteria address qualifications based on education, experience, training, and job performance. Many nuclear facilities maintain formally accredited training and qualification programs, as described in 10 CFR 50.120 (Training and Qualification of Nuclear Power Plant Personnel). Facilities maintaining such programs may be considered to fully meet the provisions of this standard.

2 Purpose

The purpose of this standard is to provide the nuclear industry with bases for certifying the qualifications of instrumentation and control technicians who work on equipment that is important to safety, where formally accredited programs, as described in 10 CFR 50.120, are not maintained.

3 Definitions

3.1 control loop:
two or more devices processing a single variable that may provide an input signal to a control system.

3.2 control system:
a system in which deliberate guidance or manipulation is used to achieve a prescribed value of a variable (see ANSI/ISA-S51.1-1979 (R1993)).

3.3 device:
an apparatus for performing a prescribed function (see ANSI/ISA-S51.1-1979 (R1993)).

3.4 direction:
having the person who is qualified to perform the task physically present when the task is performed or in continuous communication with the person performing the task.

3.5 experience:
applicable work in design, construction, pre-operational and start-up testing activities, operation, maintenance, on-site activities, or technical services. Observation of others performing work in the above areas is not experience. This experience can be obtained during start-up or operations in a nuclear facility, in fossil power plants, in other industries, or in the military.

3.6 group leader:
the person in the highest level of functional supervision whose responsibilities are oriented solely toward instrumentation and control.

3.7 important to safety:
those structures, systems, and components that provide reasonable assurance that the facility can be operated without undue risk to the health and safety of the public (see 10 CFR Part 50, Appendix A).

3.8 instrumentation:
a collection of instruments or their application for the purpose of observation, measurement, or control (see ANSI/ISA-S51.1-1979 (R1993)).

3.9 knowledge:
familiarity with theory and concepts, and detailed understanding of job-related topics.