ANS

Selection, Qualification, and Training of Personnel for Nuclear Power Plants

REAFFIRMED

February 4, 2020

ANSI/ANS-3.1-2014 (R2020)

ANSI/ANS-3.1-2014

An American National Standard

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Published by the
American Nuclear Society
555 N. Kensington Ave
La Grange Park, IL 60526

American National Standard Selection, Qualification, and Training of Personnel for Nuclear Power Plants

Secretariat
American Nuclear Society

Prepared by the
American Nuclear Society
Standards Committee
Working Group ANS-3.1

Published by the
American Nuclear Society
555 North Kensington Avenue
La Grange Park, Illinois 60525 USA

Approved November 20, 2014
by the
American National Standards Institute, Inc.

American National Standard

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Published by
American Nuclear Society
555 North Kensington Avenue
La Grange Park, Illinois 60526 USA

Printed in the United States of America

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(1) the name, company name if applicable, mailing address, and telephone number of the inquirer;

(2) reference to the applicable standard edition, section, paragraph, figure, and/or table;

(3) the purpose(s) of the inquiry;

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American Nuclear Society
ATTN: Standards Administrator
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Foreword

(This foreword is not a part of American National Standard "Selection, Qualification, and Training of Personnel for Nuclear Power Plants", ANSI/ANS-3.1-2014.)

Proper selection, qualification, and training of personnel are significant factors in ensuring the safe, reliable, and efficient operation of nuclear power plants. It is through these processes that personnel responsible for the various aspects of nuclear power plant operation can understand the complexities of the power plant and the impacts that their individual activities have on safe plant operation.

This standard contains criteria for the selection, qualification, and training of personnel for the operating organization of stationary nuclear power plants.

The criteria in the standard are organized by functional levels of responsibility that generally occur in nuclear power plant organizations. Specific education and experience criteria are presented based on a consensus of job requirements. Training requirements reflect the industry practice of training based on a systematic analysis of the training needs and on performance-based training. Each owner organization defines the power plant organization that meets its specific situation, and adapts training and other criteria to meet the specific situation.

This standard might reference documents and other standards that have been superseded or withdrawn at the time the standard is applied. A statement has been included in the references section that provides guidance on the use of references.

This standard does not incorporate the concepts of generating risk-informed insights, or a graded approach to quality assurance. The user is advised that one or more of these techniques could enhance the application of this standard.

This standard specifies minimum qualification for levels of management and individuals. For an organization to be effective, the collective qualifications of the plant staff should exceed the sum of the individual qualifications specified in the standard.

The purpose of the 2014 revision is to update the standard in the following areas:

- align the American Nuclear Society, the U.S. Nuclear Regulatory Commission, and the Institute of Nuclear Power Operations with industry training and standards;
- provide a common language across the industry;
- incorporate the past 20 years of learning and experience with nuclear power plant training program implementation and performance;
- better address supplemental training and qualification;
- update positions in light of new nuclear power plant construction, current position terminology, and evolving technology.

This standard was prepared by Working Group ANS-3.1 of the Standards Committee of the American Nuclear Society, whose membership was as follows:

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Selection, Qualification, and Training of Personnel for Nuclear Power Plants

1 Scope and purpose

1.1 Scope

This standard[1)] provides criteria for the selection, qualification, and training of personnel for nuclear power plants. The qualifications of personnel in the operating organizations appropriate to safe and efficient operation of a nuclear power plant are addressed in terms of the minimum education, experience, and training requirements.

Requirements of this standard do not apply to test, mobile, training, and research reactors.

1.2 Purpose

The purpose of this standard is to provide guidance for functional levels and job positions as they exist in the operating organization. Each owner organization defines its organizational structure, responsibilities of groups, and responsibilities of individuals within the operating organization. Qualification requirements include education, experience, and training.

This standard provides qualification guidance to meet the particular organizational needs that are derived from the requirements contained in this standard. This standard requires a training development process based on the performance requirements of the job (see Sec. 6.2), and, as such, does not prescribe specific training program content.

This standard is not intended to prescribe specific job titles or responsibilities of organizational positions. The education and experience requirements should be applied to the function and may not directly match the titles listed in this standard.

2 Acronyms and definitions

2.1 Acronyms

BWR: boiling water reactor
OJT: on-the-job training
PWR: pressurized water reactor
SAT: systematic approach to training
TPE: task performance evaluation

2.2 Shall, should, and may

The word “shall” is used to denote a requirement; the word “should” to denote a recommendation; and the word “may” to denote permission, neither a requirement nor a recommendation.

2.3 Definitions

The following definitions are of a restricted nature for the purpose of this standard.

active status: Actively perform the functions of a reactor operator or senior operator on a minimum of seven 8-hour or five 12-hour shifts per calendar quarter.

certification: Documented confirmation of the successful completion of a qualification program.

[1)] The current standard, ANSI/ANS-3.1-2014, is herein referred to as “this standard.”