

(17)

Subsection ISTC

Inservice Testing of Valves in Water-Cooled Reactor Nuclear Power Plants

ISTC-1000 INTRODUCTION

ISTC-1100 Applicability

The requirements of this Subsection apply to certain valves and pressure relief devices (and their actuating and position-indicating systems).

(17) ISTC-1200 Exclusions

The following components are excluded from the testing requirements of this Subsection:

(a) valves that are not required to perform a specific function as described in para. ISTA-1100

(1) valves used only for operating convenience such as vent, drain, instrument, and test valves

(2) valves used only for system control, such as pressure-regulating valves

(3) valves used only for system or component maintenance

(b) skid-mounted valves that are tested as part of the major component and are justified by the Owner to be adequately tested

(c) external control and protection systems responsible for sensing plant conditions and providing signals for valve operation

(d) Category A and Category B safety and relief valves that are excluded from the requirements of para. ISTC-3500, Valve Testing Requirements and para. ISTC-3700, Position Verification Testing

(e) nonreclosing pressure relief devices (rupture disks) used in BWR Scram Accumulators

ISTC-1300 Valve Categories

Valves within the scope of this Subsection shall be placed in one or more of the following categories. Where specified in Table ISTC-3500-1, when more than one distinguishing category characteristic is applicable, all requirements of each of the individual categories are applicable, although duplication or repetition of common testing requirements is not necessary.

(a) *Category A*: valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their required function(s), as specified in para. ISTA-1100.

(b) *Category B*: valves for which seat leakage in the closed position is inconsequential for fulfillment of the required function(s), as specified in para. ISTA-1100.

(c) *Category C*: valves that are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves) for fulfillment of the required function(s), as specified in para. ISTA-1100.

(d) *Category D*: valves that are actuated by an energy source capable of only one operation, such as rupture disks or explosively actuated valves.

ISTC-1400 Owner's Responsibility

In addition to the requirements of para. ISTA-1500, it is the Owner's responsibility to

(a) include in the plant design all necessary instrumentation, test connections, flow instruments, or any other provisions that are required to fully comply with the requirements of this Subsection.

(b) categorize (see para. ISTC-1300), and list in the plant records (see section ISTC-9000) each valve to be tested in accordance with the rules of this Subsection, including Owner-specified acceptance criteria. The Owner shall specify test conditions.

(c) ensure that the application, method, and capability of each nonintrusive technique is qualified.

ISTC-2000 SUPPLEMENTAL DEFINITIONS

The following are provided to ensure a uniform understanding of selected terms used in this Subsection:

full-stroke time: the time interval from initiation of the actuating signal to the indication of the end of the operating stroke.

power-operated relief valve (PORV): a power-operated valve that can perform a pressure-relieving function and is remotely actuated by either a signal from a pressure-sensing device or a control switch. A power-operated relief valve is not capacity certified under ASME Section III overpressure protection requirements.

reactor coolant system pressure isolation: that function that prevents intersystem overpressurization between the reactor coolant system and connected low pressure systems.

Delete the word "that"

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ISTC-1000 INTRODUCTION

ISTC-1100 Applicability

The requirements of this Subsection apply to certain valves and pressure relief devices (and their actuating and position-indicating systems).

(20) ISTC-1200 Exclusions

The following components are excluded from the testing requirements of this Subsection:

(a) valves that are not required to perform a specific function as described in [ISTA-1100](#)

(1) valves used only for operating convenience such as vent, drain, instrument, and test valves

(2) valves used only for system control, such as pressure-regulating valves

(3) valves used only for system or component maintenance

(b) skid-mounted valves that are tested as part of the major component and are justified by the Owner to be adequately tested

(c) external control and protection systems responsible for sensing plant conditions and providing signals for valve operation

(d) safety and relief valves that are excluded from the requirements of [ISTC-3500](#), Valve Testing Requirements, and [ISTC-3700](#), Position Verification Testing

(e) nonreclosing pressure relief devices (rupture disks) used in BWR Scram Accumulators

ISTC-1300 Valve Categories

Valves within the scope of this Subsection shall be placed in one or more of the following categories. Where specified in [Table ISTC-3500-1](#), when more than one distinguishing category characteristic is applicable, all requirements of each of the individual categories are applicable, although duplication or repetition of common testing requirements is not necessary.

(a) *Category A*: valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their required function(s), as specified in [ISTA-1100](#).

(b) *Category B*: valves for which seat leakage in the closed position is inconsequential for fulfillment of the required function(s), as specified in [ISTA-1100](#).

(c) *Category C*: valves that are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves) for fulfillment of the required function(s), as specified in [ISTA-1100](#).

(d) *Category D*: valves that are actuated by an energy source capable of only one operation, such as rupture disks or explosively actuated valves.

ISTC-1400 Owner's Responsibility

In addition to the requirements of [ISTA-1500](#), it is the Owner's responsibility to

(a) include in the plant design all necessary instrumentation, test connections, flow instruments, or any other provisions that are required to fully comply with the requirements of this Subsection.

(b) categorize (see [ISTC-1300](#)), and list in the plant records (see [ISTC-9000](#)) each valve to be tested in accordance with the rules of this Subsection, including Owner-specified acceptance criteria. The Owner shall specify test conditions.

(c) ensure that the application, method, and capability of each nonintrusive technique is qualified.

ISTC-2000 SUPPLEMENTAL DEFINITIONS

The following are provided to ensure a uniform understanding of selected terms used in this Subsection:

full-stroke time: the time interval from initiation of the actuating signal to the indication of the end of the operating stroke.

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reactor coolant system pressure isolation: that function that prevents intersystem overpressurization between the reactor coolant system and connected low pressure systems.

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