

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

RIN: 3150-AC72

Flow Control Conditions for the Standby Liquid Control System
in Boiling Water Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The NRC is amending its regulations to set forth conditions and considerations for determining reactivity control capacity for boiling water reactor standby liquid control systems. The changes are necessary to clarify the existing regulation.

EFFECTIVE DATE: (Insert a date 30 days following publication in the Federal Register.)

FOR FURTHER INFORMATION CONTACT: William R. Pearson, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3764.

SUPPLEMENTARY INFORMATION: On Monday, October 24, 1988, the Commission published in the Federal Register (53 FR 41607) a proposed rule, entitled "Flow Control Conditions for the Standby Liquid Control System in Boiling Water Reactors," that proposed amendments to 10 CFR 50.62. Interested parties were invited to submit written comments within a 60-day comment period, which ended on December 23, 1988. One comment was received, which agreed with the proposed clarification.

No change to the proposed rule was suggested in the public comment received by the NRC. The Commission believes that the proposed rule adequately clarifies reactivity control conditions for boiling water reactor standby liquid control systems (SLCS), thus, a final rule is being issued adopting the proposed rule without modification.

Environmental Impact: Categorical Exclusion

The NRC has determined that this rule is the type of action described as a categorical exclusion in 10 CFR 51.22(c)(2). Thus, neither an environmental impact statement nor an environmental assessment has been prepared.

Paperwork Reduction Act Statement

This rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget under control number 3150-0011.

Regulatory Analysis

Because this rule is of a clarifying nature and does not substantially change existing regulatory requirements, the regulatory analysis prepared for the final rule entitled "Reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants," published June 26, 1984 (49 FR 26036) is still valid for

for this rule. The analysis is available for inspection in the Public Document Room, 2120 L Street NW., Washington, DC, Lower Level. Single copies of the analysis may be obtained from William R. Pearson, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301)492-3764.

Regulatory Flexibility Act Certification

In accordance with the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the Commission certifies that this rule will not have a significant economic impact on a substantial number of small entities and that therefore a regulatory flexibility analysis is not needed. This rule-making action affects only licensees that own and operate nuclear utilization facilities licensed under Sections 103 and 104 of the Atomic Energy Act of 1954, as amended. These licensees do not fall within the definition of small businesses set forth in Section 3 of the Small Business Act (15 U.S.C. 632) or within the Small Business Size Standards set forth in the regulations issued for the Small Business Administration at 13 CFR Part 121.

Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this rule, and therefore, that a backfit analysis is not required, because these amendments do not involve any provisions which impose backfits as defined in 10 CFR 50.109(a)(1).

List of Subjects in 10 CFR Part 50

Antitrust, Classified information, Fire protection, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting and recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following amendment to 10 CFR Part 50.

PART 50 - DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:
AUTHORITY: Secs. 102, 103, 104, 105, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 938, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C. 2132, 2133, 2134, 2135, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846).

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Section 50.10 also issued under secs. 101, 185, 68 Stat. 936, 955, as amended (42 U.S.C. 2131, 2235); sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.13 and 50.54(dd) also issued under sec. 108, 68 Stat. 939, as amended (42 U.S.C. 2138). Sections 50.23, 50.35, 50.55, and 50.56 also issued under sec. 185, 68 Stat. 955 (42 U.S.C. 2235). Sections 50.33a, 50.55a and Appendix Q also

issued under sec. 102, Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332). Sections 50.34 and 50.54 also issued under sec. 204, 88 Stat. 1245 (42 U.S.C. 5844). Sections 50.58, 50.91 and 50.92 also issued under Pub. L. 97-415, 96 Stat. 2073 (42 U.S.C. 2239). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50-81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Section 50.103 also issued under sec. 108, 68 Stat. 939, as amended (42 U.S.C. 2138). Appendix F also issued under sec. 187, 68 Stat 955 (42 U.S.C. 2237).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), §§50.46(a) and (b), and 50.44(c) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§50.7(a), 50.10 (a)-(c), 50.34(a) and (e), 50.44(a)-(c), 50.46(a) and (b), 50.47(b), 50.48(a), (c), (d), and (e), 50.49(a), 50.54(a),(f), (f)(1), (1)-(n), (p), (q), (t), (v), and (y), 50.55(f), 50.55a(a), (c)-(e), (g), and (h), 50.59(c), 50.60(a), 50.62(c), 50.64(b), and 50.80(a) and (b) are issued under sec. 161f, 68 Stat. 949, as amended (42 U.S.C. 2201 (f)); and §§50.49(d), (h), and (j), 50.54(w),(z),(bb),(cc), and (dd), 50.55(e), 50.59(b), 50.61(b), 50.62(b), 50.70(a), 50.71(a)-(c) and (e), 50.72(a), 50.73(a) and (b), 50.74, 50.78, and 50.90 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. In § 50.62, paragraph (c)(4) is revised to read as follows:

§ 50.62 Requirements for reduction of risk from anticipated transients without scram (ATWS) events for light-water-cooled nuclear power plants.

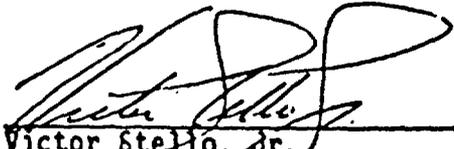
* * * * *

(c) * * *

(4) Each boiling water reactor must have a standby liquid control system (SLCS) with the capability of injecting into the reactor pressure vessel a borated water solution at such a flow rate, level of boron concentration and boron-10 isotope enrichment, and accounting for reactor pressure vessel volume, that the resulting reactivity control is at least equivalent to that resulting from injection of 86 gallons per minute of 13 weight percent sodium pentaborate decahydrate solution at the natural boron-10 isotope abundance into a 251-inch inside diameter reactor pressure vessel for a given core design. The SLCS and its injection location must be designed to perform its function in a reliable manner. The SLCS initiation must be automatic and must be designed to perform its function in a reliable manner for plants granted a construction permit after July 26, 1984, and for plants granted a construction permit prior to July 26, 1984, that have already been designed and built to include this feature.

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Dated at Rockville, Maryland, this 21st day of March, 1989.


Victor Stello, Jr.
Executive Director for Operations.