

NUCLEAR REGULATORY COMMISSION
10 CFR Part 50
DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES
Primary Reactor Containment Leakage Testing for Water-Cooled
Power Reactors

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Final Rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending the portion of one of its regulations that provides requirements for leak testing of containment building air locks in order to permit greater flexibility for such testing in the case of frequent use of the air locks.

EFFECTIVE DATE:

FOR FURTHER INFORMATION CONTACT:

E. G. Arndt, Office of Standards Development
U.S. Nuclear Regulatory Commission
Washington, DC 20555 (301-443-5997)

SUPPLEMENTARY INFORMATION: On January 11, 1980, the Nuclear Regulatory Commission published in the FEDERAL REGISTER (45 FR 2330) a proposed amendment to its regulation 10 CFR Part 50, "Licensing of Production and Utilization Facilities" which would amend Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Reactors," with regard to Type B testing requirements. Interested persons were invited to submit written comments by February 25, 1980. Three sets of comments were received. After consideration of the comments received and other factors involved, the Commission has adopted the amendment to Appendix J, 10 CFR Part 50, as published for public comment.

Copies of the comments, an abstract of comments containing staff responses, and the value/impact analysis supporting the rule, are available for public inspection at the Commission's Public Document Room at 1717 H Street, NW., Washington, DC. Single copies may be obtained on request from the Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, DC 20555, Attention: E. G. Arndt.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and sections 552 and 553, title 5 of the United States Code, the following amendment to 10 CFR Part 50 is published as a document subject to codification.

Appendix J to 10 CFR Part 50 is amended by revising paragraph III.D.2 to read as follows:

III. LEAKAGE TESTING REQUIREMENTS

* * * * *

D. Periodic retest schedule -

* * * * *

2. Type B Tests.

(a) Type B tests, except tests for air locks, shall be performed during reactor shutdown for refueling, or other convenient intervals, but in no case at intervals greater than 2 years. If opened following a Type A or B test, containment penetrations subject to Type B testing shall be Type B tested prior to returning the reactor to an operating mode requiring containment integrity. For primary reactor containment penetrations employing a continuous leakage monitoring system, Type B tests, except for tests of air locks, may, notwithstanding the test schedule specified under III.D.1., be performed every other reactor shutdown for refueling but in no case at intervals greater than 3 years.

- (b)(i) Air locks shall be tested prior to initial fuel loading and at 6-month intervals thereafter at an internal pressure not less than P_a .
- (ii) Air locks opened during periods when containment integrity is not required by the plant's Technical Specifications shall be tested at the end of such periods at not less than P_a .
- (iii) Air locks opened during periods when containment integrity is required by the plant's Technical Specifications shall be tested within 3 days after being opened. For air lock doors opened more frequently than once every 3 days, the air lock shall be tested at least once every 3 days during the period of frequent openings. For air lock doors having testable seals, testing the seals fulfills the 3-day test requirements. In the event that the testing for this 3-day interval cannot be at P_a , the test pressure shall be as stated in the Technical Specifications. Air lock door seal testing shall not be substituted for the 6-month test of the entire air lock at not less than P_a .
- (iv) The acceptance criteria for air lock testing shall be stated in the Technical Specifications.

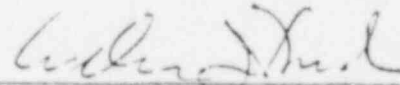
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(Secs. 103, 104, 161i, Pub. Law 83-703; 68 Stat. 936, 937, 948 (42 U.S.C. 2133, 2134, 2201(i)); Sec. 201, Pub. Law 93-438, 88 Stat. 1242, as amended (42 U.S.C. 5841)).

7500-01

Dated at Bethesda, Md. this 9th day of September 1980.

For the Nuclear Regulatory Commission.



William J. Dircks
Acting Executive Director
for Operations

The Honorable Gary Hart, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Enclosed for the information of the Subcommittee are copies of a Notice of Effective Rulemaking to be published in the FEDERAL REGISTER.

The amendment of 10 CFR Part 50 comprises a limited revision of Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Reactors." It provides greater flexibility in the testing of air locks where the requirements of the existing regulation have been proven to be impractical and unnecessary. Also, the regulation has been tightened for retesting of penetrations opened following a leakage test.

This amendment will significantly reduce the number of exemptions to Appendix J in current applications for operating licenses, and thereby save considerable time and effort on the part of licensees as well as the NRC staff with little or no increased danger to the public health and safety.

Only three public comments were received. These comments have been considered and resolved. Resolution of the comments has not resulted in changes to the amendment as proposed.

Sincerely,

Robert B. Minogue, Director
Office of Standards Development

cc: Sen. Alan Simpson

Identical letters sent to the addressees on the attached mailing list.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SEP 5 1980

MEMORANDUM FOR: William J. Dircks, Acting Executive Director
for Operations

FROM: Robert B. Minogue, Director
Office of Standards Development

SUBJECT: 10 CFR PART 50 - LIMITED REVISION OF APPENDIX J, PRIMARY REACTOR
CONTAINMENT LEAKAGE TESTING FOR WATER-COOLED POWER REACTORS

Attached for your signature is a Federal Register Notice (Enclosure 1) to amend 10 CFR Part 50, Appendix J, paragraph III.D.2., which pertains to Type B (local) testing of containment penetrations and airlocks. On December 5, 1979, the Commission approved publication of this limited revision of Appendix J as a proposed rule for public comment. The Commission paper, SECY-79-590, gave the technical background and described the need for this revision.

The changes to this paragraph consist of:

1. Generalizing the requirement to perform Type B tests during reactor shutdown for refueling, or at other convenient intervals, but not necessarily at each such shutdown.
2. Adding a retest requirement when containment penetrations have been reopened after testing and before returning to an operating mode requiring containment integrity.
3. Retaining air lock leak testing at 6-month intervals, but revising the requirement for testing after each opening to within 3 days after being opened, which is currently acceptable.
4. For air locks with testable seals, permitting testing of the seals rather than the entire air lock--for the 3-day test only. The 6-month test must still be done on the entire air lock.
5. The 3-day test pressure may be less than P_a (calculated peak containment accident pressure) if so permitted in the Technical Specifications. The 6-month test must still be done at not less than P_a .

The Federal Register Notice for the rule change states that these changes will not present any undue risk to the public health and safety. Additional technical details and justification are provided in the value-impact statement that is available for inspection in the Public Document Room.

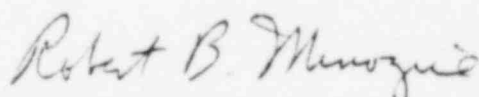
The public comment period ended February 25, 1980. There were three sets of public comments on the proposed rule change (Enclosure 2). Review of these comments has not resulted in any changes to the proposed rule as published on January 11, 1980. Copies of the public comments as well as an abstract containing staff responses are available for inspection in the Public Document Room. Copies of this abstract will be sent to all who provided comments.

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A note regarding issuance of the amendment will be included in the next Weekly Report to the Commission. The Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs, the Subcommittee on Nuclear Regulation of the Senate Committee on Environment and Public Works, the Subcommittee on Energy and Power of the House Committee on Interstate and Foreign Commerce, and the Subcommittee on Environment, Energy and Natural Resources of the House Committee on Government Operations will be informed of this. No public announcement will be issued.

Coordination: The Offices of Nuclear Reactor Regulation, Inspection and Enforcement, and Public Affairs concur in the amendment to 10 CFR Part 50, Appendix J. The Office of the Executive Legal Director has no legal objection to the amendment. The Office of Management and Program Analysis has reviewed for value-impact content.



Robert B. Minogue, Director
Office of Standards Development

Enclosures:

1. Federal Register Notice
2. Abstract of Comments and Staff Response
3. Draft Transmittal Letter to Congressional Committees

Approved for Publication:

The Executive Director for Operations has been delegated the authority to issue amendments of the regulations in final form if, after expiration of the comment period on notices of proposed rulemaking, no significant adverse comments or significant questions have been received and no substantial changes in the text are indicated. I have found that the enclosed amendment is in this category and am proceeding to issue it in effective form.

9/9/80

Date



William J. Dircks
Acting Executive Director
for Operations

ACTION: Proposed rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is considering amending the portion of one of its regulations that provides requirements for leak testing of containment building air locks in order to permit greater flexibility for such testing in the case of frequent use of the air locks.

DATE: February 25, 1980.

ADDRESSES: All interested persons who wish to submit written comments or suggestions in connection with the proposed amendment and/or supporting value/impact analysis should send them to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Attention: Docketing and Service Branch by February 25, 1980. Copies of comments received may be examined in the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C.

FOR FURTHER INFORMATION CONTACT: E. G. Arndt, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, 301-443-5997.

SUPPLEMENTARY INFORMATION: In applying Appendix J, "Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors," to current licensing actions, the NRC has concluded that certain requirements on air lock testing are unnecessarily restrictive and may be relaxed, and thereby made more practical, without causing any undue risk to the public health and safety.

In Appendix J to 10 CFR Part 50, paragraph III.D.2 requires in part that primary containment air locks be tested after each opening. Paragraph III.B.2 requires that these tests be performed at a pressure not less than the calculated peak containment internal pressure related to the design basis accident (P_a).

Paragraph III.D.2 is being revised to require leakage testing of air locks at least once every 3 days during periods of frequent usage, and to permit such testing to be performed at a pressure lower than P_a if so specified in the plant's technical specifications. The revision to paragraph III.D.2 will also permit air locks with dual seals to be tested at the times of frequent usage by pressurizing between the seals, thereby eliminating the need to pressurize the entire air lock. Full air lock door sealing tests which occur every 6 months at P_a will not be affected by these revisions. In addition, a requirement is being added to retest, prior to returning the reactor to an operating mode requiring containment integrity, penetrations

which have been opened following a Type A or B test.

The Commission's Office of Standards Development has prepared a value-impact statement for the proposed amendment, which provides additional technical details and justification. This statement is available for inspection by the public in the Commission's Public Document Room at 1717 H Street, NW., Washington, D.C. Single copies of the value-impact statement may be obtained by request addressed to the Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: E. G. Arndt.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 553 title 5 of the United States Code, notice is hereby given that adoption of the following amendment to 10 CFR Part 50 is contemplated.

PART 50—DOMESTIC LICENSING OF PRODUCTION AND UTILIZATION FACILITIES

1. In Appendix J, 10 CFR Part 50, paragraph III.D.2 is revised to read as follows:

2. Type B Tests.

(a) Type B tests, except tests for air locks, shall be performed during reactor shutdown for refueling, or other convenient intervals, but in no case at intervals greater than 2 years, if opened following a Type A or B test, containment penetrations subject to Type B testing shall be locally leak tested prior to returning the reactor to an operating mode requiring containment integrity. For primary reactor containment penetrations employing a continuous leakage monitoring system, Type B tests, except for tests of air locks, may, notwithstanding the test schedule specified under III.D.1, be performed every other reactor shutdown for refueling but in no case at intervals greater than 3 years.

(b)(i) Air locks shall be tested prior to initial fuel loading and at 6-month intervals thereafter at an internal pressure not less than P_a .

(ii) Air locks opened during periods when containment integrity is not required shall be tested at the end of such periods at not less than P_a .

(iii) Air locks opened during periods when containment integrity is required shall be tested within 3 days after being opened. For air lock doors opened more frequently than once every 3 days, the air lock shall be tested at least once every 3 days during the period of frequent openings. For air lock doors having testable seals, testing the seals fulfills the 3-day requirements. In the event that the testing for this 3-day interval cannot be at P_a , the test pressure shall be as stated in the Technical Specifications. Air lock door seal testing shall not be substituted for the 6-month test of the entire air lock at not less than P_a .

(iv) The acceptance criteria for air lock testing shall be stated in the Technical Specifications.

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Domestic Licensing of Production and Utilization Facilities; Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors

AGENCY: U.S. Nuclear Regulatory Commission.

²Effective _____, 1980, this dollar limitation will automatically be adjusted, upward or downward, whenever the Consumer Price Index, published by the Bureau of Labor Statistics, Department of Labor, indicates a change in the price of this same volume of product which exceeds \$500.

[Secs. 103, 104, 181; Pub. L. 93-703, as amended; 88 Stat. 936, 937, 948 (42 U.S.C. 2133, 2134, 2201(i)); sec. 201; Pub. L. 93-438, as amended; 88 Stat. 1242 (42 U.S.C. 5841)]

Dated at Washington, D.C., this 7th day of January 1980.

For the Nuclear Regulatory Commission.

Samuel J. Chilk,

Secretary of the Commission.

(FR Doc. 80-450 Filed 1-10-80; 8:45 am)

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