

STANDARD REVIEW PLAN OFFICE OF NUCLEAR REACTOR REGULATION

SECTION 5.2.1.2*

APPLICABLE CODE CASES

REVIEW RESPONSIBILITIES

Primary - Reactor Systems Branch (RSB)

Secondary - Mechanical Engineering Branch (MEB)
Materials Engineering Branch (MTEB)

AREAS OF REVIEW

The RSB determines the acceptability of American Society of Mechanical Engineers (ASME) and American National Standards Institute (ANSI) code case interpretations specified in the safety analysis report (SAR). These code cases must be approved before being applied to ASME Boiler and Pressure Vessel Code, Section III, Class 1 pressure-retaining components within the reactor coolant pressure boundary, as stated in the Codes and Standards Rule, Section 50.55a(a)(2)(ii) of 10 CFR Part 50. These code cases contain requirements or special rules which may be used for the construction of pressure-retaining components of Quality Group Classification A.

The MEB and MTEB, on a generic basis, determine the acceptability of ASME and ANSI code case interpretations that may be applied to ASME Code Section III, Class I pressure-retaining components within the reactor coolant pressure boundary (Quality Group Classification A). These branches review each revision to applicable code cases. Code cases pertaining to materials, fabrication, and nondestructive testing are evaluated by the MTEB. All other areas covered by ASME code cases are evaluated by the MEB.

II. ACCEPTANCE CRITERIA

- 10 CFR Part 50, Appendix A, General Design Criterion 1. This criterion requires that structures, systems, and components important to safety shall be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety function to be performed.
- 2. 10 CFR § 50.55a. This rule establishes minimum quality standards for the design, fabrication, erection, construction, testing, and inspection of certain components within the reactor coolant pressure boundary of boiling and pressurized water reactor nuclear power plants by requiring conformance with appropriate editions of specified published industry codes and standards.

*Formally 5.2.1.4

USNRC STANDARD REVIEW PLAN

Standard review plans are prepared for the guidence of the Offics of Nuclear Reactor Regulation staff responsible for the review of applications to construct and operate nuclear power plants. These documents are made evaluable to the public as part of the Commission's policy to inform the nuclear industry and the general public of regulatory procedures and policies. Standard review plans are not substitutes for regulatory guides or the Commission's regulations and compliance with them is not required. The standard review plan sactions are keyed to Revision 2 of the Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants. Not all sections of the Standard Format have a corresponding review plan.

Published standard review plans will be revised periodically, so appropriate, to accommodate comments and to reflect new information and experience

Comments and suggestions for improvement will be considered and should be sant to the U.S. Nuclear Regulatory Commission, Office of Nuclear Reactor Regulation, Washington, D.C. 20556.

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- 3. 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." This appendix establishes quality assurance requirements for the design, construction, and operation of those structures, systems, and components of nuclear power plants that prevent or mitigate the consequences of postulated accidents that could cause undue risk to the health and safety of the public.
- 4. Regulatory Guide 1.84, "Code Case Acceptability in ASME Section III Design and Fabrication." This guide lists those Section III ASME code cases oriented to design and fabrication which are acceptable to the staff for implementation in the licensing of nuclear power plants.
- 5. Regulatory Guide 1.85, "Code Case Acceptability in ASME Section III Materials." This guide lists those Section III ASME code cases oriented to materials and testing which are acceptable to the staff for implementation in the licensing of nuclear power plants.

III. REVIEW PROCEDURES

The table provided by the applicant identifying those ASME code cases applied to Class 1 pressure-retaining components within the reactor coolant pressure boundary is checked for compliance with the list of acceptable code cases identified in Regulatory Guides 1.84 and 1.85.

In the event an applicant should propose the use of a code case not previously reviewed by the staff, a review of the code case is requested of the MEB or MTEB, as appropriate.

IV. EVALUATION FINDINGS

The staff review should verify that only acceptable ASME and ANSI code cases are specified in the SAR in order to arrive at conclusions of the following type, which are to be included in the staff's safety evaluation report:

"The specified ASME and ANSI code cases whose requirements will be applied in the construction of pressure-retaining ASME Code Section III, Class 1 components within the reactor coolant pressure boundary (Quality Group Classification A), are acceptable to the staff. The staff concludes that compliance with the requirements of these code cases will result in a component quality level commensurate with the importance of the safety function of the reactor coolant pressure boundary and is acceptable."

V. REFERENCES

- 1. 10 CFR Part 50, Appendix A, General Design Criterion 1, "Quality Standards and Records."
- 2. 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants."
- 3. 10 CFR §50.55a, "Codes and Standards Rule"

- ASME Boiler and Pressure Vessel Code, 1974 Edition, Section III, "Nuclear Power Plant Components," American Society of Mechanical Engineers (1974).
- Regulatory Guide 1.84, "Code Case Acceptability in ASME Section III Design and Fabrication."
- 6. Regulatory Guide 1.85, "Code Case Acceptability in ASME Section III Materials."

SRP 5.4.2.1