

Regulatory Guide Number: 1.35, Revision 3

Title: "Inservice Inspection of UngROUTED Tendons in Concrete Containments"

Office/division/branch: RES/DE/SGSEB

Technical Lead: Thomas Herrity

SUBJECT: Bases for Withdrawal

(1) What regulation(s) did the Regulatory Guide (RG) support?

RG 1.35 provides guidance on meeting the requirements of 10 CFR 50 Appendix A, "General Design Criteria for Nuclear Power Plants," General Design Criterion 53, "Provisions for Containment Testing and Inspection."

(2) What was the purpose of the Regulatory Guide?

RG 1.35 provides guidance to licensees on developing an inspection and testing program for the tendons in the concrete containments of nuclear power plants during the service life of the plant.

(3) How was the Regulatory Guide used?

RG 1.35 was used to assist licensees in meeting the requirements in Appendix A to 10 CFR Part 50, in regards to setting the frequency of inspection, the choice of the sample to be tested, the process of testing tendons and sheathing filler grease, and the acceptable results. NRC had worked with industry and the American Society of Mechanical Engineers (ASME) to develop the guidance.

(4) Why is the Regulatory Guide no longer needed?

Since RG 1.35 was last revised in 1990, ASME Boiler and Pressure Vessel Code Section XI, Subsection IWL was issued. This Subsection addresses the examination and repair/replacement of the reinforced concrete and the post-tensioning systems of concrete containments. NRC incorporated the requirements of the 1992 Edition of the ASME Boiler and Pressure Vessel Code with the 1992 Addenda of Subsection IWL into the Code of Federal Regulations (CFR), with specified modifications and limitations, in an amendment of Title 10, part 50.55a "Codes and standards" (10 CFR 50.55a) that was published in the Federal Register on August 8, 1996 (61 FR 41303). The rulemaking also required that all nuclear power plants in the United States develop and implement a containment inspection program in accordance with Section XI, Subsection IWL (as applicable for the type of containment) by September 9, 2001. Subsequent NRC amendments of 10 CFR 50.55a have incorporated by reference later editions of Subsection IWL, with modifications and limitations. The guidance provided in RG 1.35 has been incorporated into later revisions of Subsection IWL, or preserved in 10 CFR 50.55a. As a result, RG 1.35 has become redundant and no longer needed.

(5) What guidance is available once the Regulatory Guide is withdrawn?

The NRC revised 10 CFR 50.55a, "Codes and standards," to incorporate portions of the ASME Boiler and Pressure Vessel Code (BPVC), Section XI. Subsection IWL directs the development and implementation of an inspection and testing program that NRC finds to be an acceptable method of meeting the Commission's regulations. The ASME Code is more detailed and current regarding the inspection and testing of tendons in concrete containments than RG 1.35.

(6) Is the Regulatory Guide referenced in other documents and what are the "ripple effects" on these documents if it is withdrawn?

The ASME code was incorporated by reference into 10 CFR 50.55a. Therefore, any conflicts with existing guidance or references to the RG are superseded by the 10 CFR 50.55a requirements. NRC's Standard Review Plan for Light Water Reactors, NUREG-0800, Section 3.8.1, "Concrete Containment," refers to the outdated guidance of RG 1.35 in several places along with the more current ASME guidance. Following withdrawal of RG 1.35, NUREG-0800 needs to be revised to remove references to RG 1.35.

(7) What is the basis for believing that no guidance similar to that in the Regulatory Guide will ever be needed?

The guidance in RG 1.35 remains generally valid. However, the ASME Code Subsection incorporated by reference into regulation provides more current methods and addresses current materials. Any updates to the ASME guidance would be evaluated as needed, particularly any changes to the BPVC Section XI that warrant limitations or conditions in future revisions to 10 CFR 50.55a.

(8) Will generic guidance still be needed?

Guidance for complying with GDC 53, "Provisions for Containment Testing and Inspection," is provided by ASME BPVC Section XI. The Commission has incorporated Subsection IWL in 10 CFR 50.55a, and that provides acceptable generic guidance. In addition, the NRC staff continues to participate in revisions of the consensus standard, improving the likelihood that future editions of this Subsection will remain acceptable for use in NRC guidance.

(9) What is the rationale for withdrawing this Regulatory Guide instead of revising it?

RG 1.35 was rendered superfluous when the Commission issued the rule incorporating the guidance into the 10 CFR 50.55a.

(10) Do other agencies rely upon the Regulatory Guide, e.g., the Agreement States, National Aeronautical and Space Administration, Department of Energy?

The staff is unaware of any other agency that uses or relies on the guidance in RG 1.35.