



Home > NRC Library > Document Collections > Generic Communications > Information Notices > 1997 > IN 97-47

Information Notice No. 97-47: Inadequate Puncture Tests for Type B Packages Under 10 CFR 71.73(c)(3)

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, D.C. 20555

June 27, 1997

NRC INFORMATION NOTICE 97-47: INADEQUATE PUNCTURE TESTS FOR TYPE B PACKAGES UNDER 10 CFR 71.73(c)(3)

Addressees

All "users and fabricators" of type B transportation packages (as defined in 10 CFR 171.16(10)(B)).

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to alert addressees to issues related to the performance of puncture tests as required in 10 CFR 71.73(c)(3). It is expected that recipients will review the information for applicability to their packages and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required by this notice.

Description of Circumstances

Recently, the NRC became aware of two "users and fabricators" holding Certificates of Compliance for packages under 10 CFR Part 71 that performed the hypothetical accident condition puncture tests utilizing a bar that was not "mounted" as required in 10 CFR 71.73(c)(3). The improper conduct of these tests resulted in issuance of NRC Confirmatory Action Letters which suspend fabrication of packagings until retesting is performed and that compliance with the requirements of 10 CFR Part 71 is verified.

Discussion

The testing requirements for type B packagings under 10 CFR 71.73 require that hypothetical accident condition tests be performed in the order specified in 10 CFR 71.73(c). The puncture test is to be performed following the free drop [10 CFR 71.73(c)(1)] and when required, following the crush test [10 CFR 71.73(c)(2)]. The puncture test consists of a free drop of the specimen through a distance of 1 meter (40 inches) in a position for which maximum

damage is expected, onto the upper end of a solid, vertical, cylindrical, mild steel bar mounted on an essentially unyielding horizontal surface. The bar must be fastened or attached such that it will not move during the test to ensure that maximum damage to the packaging would occur during the test. Failure to secure the pin during testing invalidates the tests and results.

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June 27
Page 2

Packaging "users and fabricators" should review their test program and procedures to assure that the puncture tests utilize a "mounted" bar and are consistent with the requirements of 10 CFR Part 71.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact one of the technical contacts listed below.

signed by

William F. Kane, Director
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Office of Nuclear Material Safety
and Safeguards

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