

RECORD #90

TITLE: Clarification of Several Aspects Relating to Use of NRC-Certified Transport Packages

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, D. C. 20555

March 11, 1983

IE INFORMATION NOTICE NO. 83-10: CLARIFICATION OF SEVERAL ASPECTS RELATING  
TO USE OF NRC-CERTIFIED TRANSPORT PACKAGES

Addressees:

All NRC-licensed reactor facilities and registered users of NRC-Certified transport packages.

Purpose:

The NRC's Office of Nuclear Materials Safety and Safeguards (NMSS) has identified a need to clarify certain matters relating to the use of NRC-Certified packages. These matters are discussed below.

Discussion:

Temporary Shielding--Pursuant to 10 CFR 71.22, an applicant for an NRC Certificate of Compliance for a Radioactive Materials Package must include with his application a "description of the proposed package in sufficient detail to identify the package accurately and to provide a sufficient basis for evaluation of the packaging." For some packages, it may be desirable to add temporary gamma shielding as an auxiliary component of the packaging. In these cases the additional inclusion of such shielding to the package must have been specifically addressed in the package application and thereby authorized in the Certificate of Compliance. In addressing such temporary shielding, the applicant must demonstrate that the shielding remains effective during the applicable normal and/or accident conditions of transport. In other words, the use of such temporary additional shielding (such as metal shoring or lead sheets), banded or attached to the package so as to conform to applicable regulatory limits for external radiation, would not be authorized unless it is specifically provided for in the Certificate of Compliance issued by NMSS. The above requirements would not, of course, apply to any temporary shielding which is not attached to the package, whose sole purpose is to reduce external radiation dose rates below regulatory requirements (e.g., additional shielding attached to the sides of the trailer or truck cab).

Preparation and Assembly--Pursuant to 10 CFR 71.54, a shipper/licensee must determine that a package satisfies the applicable package standards, and in addition, determine that among other things, for each shipment:

1. the packaging has not been significantly damaged;
2. the closure of the package and any sealing gaskets are present and free from defects; and

3. the package has been loaded and closed in accordance with written procedures.

In making the above determinations, several cautions should be observed:

1. The packaging should be considered significantly damaged if such damage would be likely to preclude the package from meeting the applicable requirements of 10 CFR 71.
2. Closures which involve attempts at sealing with gaskets having visible or obvious imperfections, such as cracked or missing pieces, field splices, or caulking and rusty or dirty sealing surfaces would not be considered to be free from defects; and
3. The loading and closing of packages in accordance with written procedures should include a determination that the packaging is authorized for the specific intended contents, and that any lid/closure to main body is properly aligned, with its bolts properly torqued to the specified values in the prescribed pattern.

Quality Assurance -- For all shipments under the general license provisions of 10 CFR 71.12, it is required that the shipper have a quality assurance program which has been approved by NRC as satisfying the provisions of 10 CFR 71.51. Frequent questions have arisen concerning the fulfillment of this requirement in those cases where there are multiple users, as in the case of leased casks. The NMSS position on this is as follows:

1. Each registered licensee-user should obtain a current certificate from the package owner attesting that the packaging was designed, procured, fabricated, assembled, tested, modified, repaired, and is maintained in accordance with an NRC-approved quality assurance program.
2. Each registered licensee-user should provide the owner with a copy of all quality assurance records concerning maintenance, repair, or modifications to the package which are conducted under the licensee-user's quality assurance program.
3. Each licensee-user should maintain its own quality assurance program and related records concerning its use/operation and maintenance of the package. The licensee-user is also encouraged to obtain from the package owner copies of those quality-related documents which may be useful and relevant to the licensee-user's own quality assurance program. (Note: This is not to imply necessarily that the package owner would be expected to provide each user, nor is each user expected to maintain all of the quality-related documents associated with all of the criteria of 10 CFR Part 71 Appendix E.)

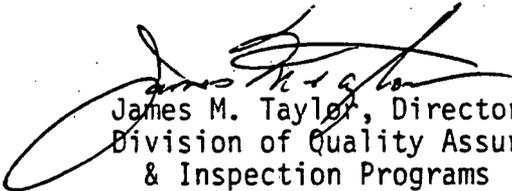
Recognizing the inherent difficulties in maintaining quality assurance records in cases of multi-user packages, it is important to bear in mind that the individual licensee-user is responsible for maintaining as complete a file as possible of

the quality assurance records pertaining to package use, and further, to establish mechanisms for exchange of pertinent quality assurance records with the package owner. It remains the responsibility of each licensee-user that its transportation activities meet the requirements of 10 CFR 71. As stated above, however, in fulfilling this responsibility the licensee-user has the prerogative to accept written certifications from package owners and suppliers that certain quality assurance activities, not under the licensee-user's immediate control, were conducted in accordance with an NRC-approved quality assurance program.

Further guidance on acceptable quality assurance programs is provided in NRC Regulatory Guide No. 7.10 which was issued in January 1983.

Contamination Surveys--A question sometimes arises concerning the performance of contamination surveys pursuant to 49 CFR 173.393(h), 173.393(n)(9), 173.397, and 10 CFR 20.205(b) in those cases where a package, such as a cask, is provided with an external heat barrier or screen to achieve compliance with the heat limits of 49 CFR 173.393(e). The question is whether the contamination limits, as measured by wipe tests, may be taken at the surface of the external barrier or at the surface of the cask within the barrier screen. It is the NMSS position that the contamination limits of 49 CFR 173.397 must be applied at the package surface (including the surfaces between the package and any removable impact limiter) even though the heat limit of 49 CFR 173.393(e) is applied at the barrier surface. Monitoring of contamination levels at the outer barrier screen might not disclose the existence of contamination from the package or on the package. Monitoring of the surface contamination of the cask inside the barrier is therefore a regulatory requirement, whereas monitoring of both the cask surface and the outer barrier would constitute a better health physics practice.

No written response to this notice is requested. If you need additional information, please contact the appropriate NRC Regional Office.

  
James M. Taylor, Director  
Division of Quality Assurance, Safeguards,  
& Inspection Programs  
Office of Inspection & Enforcement

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