



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

OCT 4 2001

Mr. Dzintars Petersons
Project Engineer
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Ref. No: 01-0236

Dear Mr. Petersons:

This is in response to your September 18, 2001 letter requesting clarification on the requirements for flexible intermediate bulk containers (IBCs) under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Your questions are paraphrased and answered as follows:

1. How much variance is allowed in length, width and height of a flexible IBC when using the same design criteria, the same test data and the material and construction are the same? Does the maximum gross weight change in the UN specification marking when decreasing the size of a flexible IBC? Can you decrease the size of the flexible IBC more than 25% without further testing?

In accordance with § 178.801(c)(7)(iii), a flexible IBC is permitted to differ from a previously qualified design type by having lesser external dimensions provided the materials of construction and fabric weight remain the same. There is no limit on the reduction of external dimensions as long as the smaller FIBC still meets the requirements of subpart N regarding size. The weight of the FIBC does not need to be reduced when the dimensions of the flexible IBC are reduced.

2. What will it take to have the requirements for retesting changed from every 12 months to the same requirements for European manufacturers?

You may request an approval to change the periodic design requalification as provided by § 178.801(e)(2) or you may petition for rulemaking under the provisions of § 106.31.

3. Must flexible IBCs built outside of the USA be design qualified every 12 months? What if the competent authority authorizes a different retest period?

Under the UN recommendations, IBCs must be manufactured and tested under a quality assurance program that satisfies the competent authority, in order to assure that each IBC meets the specified test requirements. The USA competent authority, through the HMR, requires design requalification at 12-month intervals. If the competent authority for a country authorizes a different retest period, that packaging may still be used in the U.S.



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4. Do flexible IBCs produced in Mexico that are certified in Mexico and shipped to the USA, have a requalification date or are they good forever?

The Mexican competent authority establishes the requalification date for IBCs manufactured and certified in Mexico.

5. Does Mexico have a competent authority? If so, who? Does Turkey have a competent authority? If so who?

Both Mexico and Turkey have competent authorities. You may access a list of international competent authorities through our website at <http://hazmat.dot.gov> by clicking on "International Standards" then on "International List of Competent Authorities and/or Contacts for the Transport of Dangerous Goods."

6. If a country has no identifiable competent authority and manufactures IBCs what state do they identify in the certification marking?

If a country has no identifiable competent authority, it is only permitted to apply a UN certification to a packaging if it has an agreement with another country that has a competent authority and authorizes use of their mark.

7. Is the issue of reuse of flexible IBCs still under reconsideration at DOT?

Reuse of IBCs is authorized in § 173.35(b), which allows reuse of an IBC, other than a multi-wall paper IBC, subject to the conditions set forth therein.

8. Are flexible IBCs allowed to be reused without testing or showing in any way that the IBC is still as substantial as a new flexible IBC?

Flexible IBCs may be reused as permitted by § 173.35(b). In particular, § 173.35(b)(1) requires an external visual inspection to determine that the IBC is free from corrosion, contamination, cracks, cuts, or other damage which would render it unable to pass the prescribed design type test to which it is certified and marked. Also, § 180.352(c)(2) provides the minimum inspection requirements for the reuse of flexible IBCs. This requires that the lifting straps are securely fastened, the seams are free of defects, and the fabric is free of cuts, tears or punctures.

9. Have guidelines been set or proposed as to how many times a flexible IBC may be reused before it needs recertification?

There is no limit to the amount of times a flexible IBC may be reused as long as it meets the requirements of §§ 173.24, 173.24b, 173.35 and 180.352(c)(iii).

10. When a standard is adopted into ISO, does DOT adopt it as it applies to regulated materials and their certification?

When a standard is adopted into the UN Recommendations, DOT evaluates inclusion of the provisions into the HMR and, if desirable for U.S. transportation, proposes the changes in a notice of proposed rulemaking.

11. Has DOT granted exemptions for certain bags as far as reuse is concerned?

Certain flexible IBCs had been authorized for reuse under DOT exemptions; however, these exemptions are no longer required since reuse of flexible IBCs is now permitted under the regulations.

12. Do the UN guidelines recognize DOT exemptions?

Generally, DOT exemptions are applicable to use in the U.S. only. However, certain DOT exemptions also act as competent authority approvals, that are used in international transportation. An exemption that is also a competent authority approval will have a statement identifying it as such in the exemption.

13. If a flexible IBC is manufactured in a foreign country and then shipped to the US where it is marked with a UN certification may it be marked "USA" as the state of manufacture?

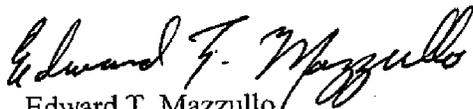
Yes, we consider marking of a UN packaging to be the final step of manufacture. A packaging marked in the U.S. may be considered as being manufactured in the U.S.

14. What testing is required for two flexible IBCs that are identical in materials of construction and design, except that one bag has a duffel top and one bag has a spout top? Do all the tests have to be performed on both bags or only the ones that might affect the top of the bag, such as the topple test in § 178.816? Would two top lift tests have to be performed?

Both flexible IBCs would require complete design qualification testing as different packagings. At this time the HMR do not address selective testing for IBCs.

I hope this information is helpful.

Sincerely,



Edward T. Mazzullo
Director, Office of Hazardous
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September 18, 2001

Donald Burger Gen. Engr.
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DOT/RSPA
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Re: Clarification and Interpretation of CFR 49 as it pertains to the Flexible Intermediate Bulk Bag Industry

Dear Mr. Burger:

I would like to introduce myself. I am a Mechanical Engineer at Advanced Packaging Technology Laboratories. My primary function is that of assuring the accuracy of the testing and compliance when conducting UN/DOT protocols, as they pertain to Hazardous Materials packaging. We are also a member of FIBCA Flexible Intermediate Bulk Container Association. FIBCA has a technical committee, which I am heading. The committee has determined that we should enlighten our members on the requirements of Flexible IBC's which will be transporting hazardous materials, their compliance issues and any gray areas.

The object of this correspondence is to present, in advance, any questions that our members have presented to me for clarification on a number of issues. These issues will be a topic of discussion at our October meeting in Monterey, California. I hope to meet your representative there.

1. How much variance is allowed in length, width and height of a flexible IBC when using the same design criteria and the same test data if the material and construction are the same? Does the weight in kgs change in the UN number when decreasing the size of the flexible IBC? Can you decrease the size of the flexible IBC more than 25% without further recertification testing?
2. What will it take to have the requirement for retesting changed from every 12 months to the same requirements as European manufacturers?
3. Are design requalification tests of at least 12 months applicable to flexible IBC's built outside the USA?
4. Are design requalification tests of at least 12 months applicable to flexible IBC's certified outside the USA where the competent authority authorizes a different retest period?
5. Flexible IBC's produced in Mexico, certified in Mexico and shipped to the USA: Do these flexible IBC's have a requalification date or is it good forever?
6. Does Mexico have a competent authority? If so, who? Does Turkey have a competent authority? If so, who?
7. When a country has no identifiable competent authority and these flexible IBC's are shipped into the USA, how is this handled?

8. Is the issue of reuse of flexible IBC's used in shipping regulate or hazardous materials still under reconsideration at DOT?
9. Are flexible IBC's allowed to be reused without retesting or showing in any way that the IBC is still as substantial as a new flexible IBC?
10. Have any guidelines been set or proposed as to how many times a flexible IBC can be reused, repaired or used before it needs recertification?
11. When the EN standard is adopted into ISO, does DOT have intention on adopting these standards, as they would apply to regulated materials and their certification? If these standards are adopted, will the reusable flexible IBC criteria be used? If these standards are adopted, will DOT eliminate the practice of self-certification by manufacturers of flexible IBC's? Any idea as to a timeline for these activities?
12. Has DOT granted special exemptions for certain bags as far as their reuse is concerned?
13. Do the UN guidelines recognize special exemptions?
14. Clarification on the issue of foreign produced bags being brought into the USA and then printed with a UN certification number. We have been told that DOT will consider this as a U.S. produced bag, based on the fact that printing on the bag is considered the final act of manufacturing.
15. When following the testing requirements called out in CFR 49 Part 178 Sub-part O "Testing of Intermediate Bulk Containers", what is required when there are two flexible IBC's that are identical in materials and design, except one bag has a duffel top and one bag has a spout top? Do all the tests have to be performed on both bags or only the ones that might impact the top of the bag, such as the Topple 178.816? Would two top lift tests have to be performed?

Your help in resolving these questions would be very helpful for our members in FIBCA.

Should you have any additional questions regarding the information provided, please do not hesitate to contact us.

Sincerely,



Dzintars Petersons
Project Engineer (U/N Testing)