



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

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

APR 5 2004

Ms. Mary Roberts
Technical Services
Estes-Cox Corporation
P. O. Box 227
Penrose, CO 81240-0227

Reference No.: 04-0035

Dear Miss Roberts:

This responds to your letter inquiring whether a very small fiberboard box can be tested and certified as a UN standard packaging under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Estes-Cox Corporation manufactures Model rocket motors (NA 0323) and Igniters (UN 0454) which are shipped in performance oriented packagings to wholesalers and distribution centers where they are repackaged for shipment in smaller quantities to retailers and individuals throughout the United States. Your company wants to eliminate the need for repackaging these items, and would like to test and certify a 3" x 1-3/4" x 7/8" fiberboard box to the UN 4G standard. You enclosed a fiberboard box with two empty model rocket motor casings to illustrate the size of the proposed box. Each UN 4G fiberboard box would be properly marked and labeled. Several UN 4G fiberboard boxes would be placed inside an overpack for transportation.

The information provided to you by Ms. G. Corbin of this office that the fiberboard box specifications in § 178.516 do not specify a minimum size, but prescribe a maximum net mass for fiberboard boxes, was correct. Section 178.516 does not prescribe a minimum size for fiberboard boxes. Additionally, the UN Recommendations on the Transport of Dangerous Goods, Volume II, in 5.2.2.2 state: "Labels shall be in the form of a square set at an angle of 45° (diamond-shaped) with minimum dimensions of 100 mm by 100 mm, except in the case of packages of such dimensions that they can only bear smaller labels." Section 172.401(c) of the HMR permits use of those modified labels on small packages of hazardous materials.

In addition, when an overpack is used, it must be marked with the proper shipping name and identification number, and labeled for each hazardous material it contains unless the markings



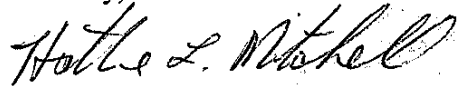
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§ 178.516
§ 178.601

and labels representative of each hazardous material in the overpack are visible. The overpack must also be marked with a statement indicating that inside (inner) packages comply with prescribed specifications when specification packagings are required.

I trust this satisfied your inquiry.

Sincerely,

A handwritten signature in cursive script that reads "Hattie L. Mitchell". The signature is written in dark ink and is positioned below the word "Sincerely,".

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards



Estes-Cox



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Corbin
§ 178-516
§ 178601
&
§ 172#06(b)
Labeling & Packagings
04-0035

February 24, 2004

Edward Mazzullo, Director
Office of HazMat Standards
US DOT/RSPA/DHM-10
400 7th Street SW
Washington, DC 20590

RE: UN 4G Packaging

Dear Director Mazzullo:

We are a manufacturer of model rocket motors (NA 0323) and Igniters (UN 0454) and ship these products in master pack quantities in performance tested fiberboard boxes (UN 4G). We ship to wholesalers and distribution centers. They open the boxes and repack the motors and igniters for shipment in smaller quantities to retailers and individuals throughout the US. They also use performance tested fiberboard boxes (UN 4G) for their shipments.

To eliminate the need for our wholesalers and distributors to open and repackage these items, we are investigating the possibility of packaging quantities as small as one or two model rocket motors in UN 4G boxes. These small UN 4G boxes bearing the required UN markings would then be packed inside overpacks in larger quantities. The overpacks would bear all of the required marking and labeling. The wholesalers and retailers would then need only to open the overpacks and to use new overpacks. They would not need to open the individual UN 4G boxes.

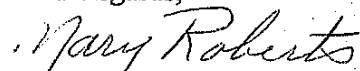
The approximate size of one of the smaller boxes that we hope to use is 3 inches x 1 3/4 inches x 1 inch. This would be large enough for two of our model rocket engines and two igniters. An example of the proposed box size with two empty model rocket motor casings is enclosed. The example represents only the size of the box and not the final material, style or construction.

However, the box manufacturers and testers with whom we have been working have never made or tested a UN 4G box this small and have concerns about whether it is acceptable. I called the US DOT Information Hotline this morning and spoke to Gigi about this issue. Her quick research of the subject indicated that a box of that size appeared to be acceptable and she recommended that if we wanted something in writing that we should write to you and request it. Therefore, we are writing to ask if you can

provide us with something in writing to share with our box manufacturers and testers to allay their concerns about the size of the proposed UN 4G box.

Thank you in advance. We eagerly await any information that may be provided.

Kind Regards,



Mary Roberts
Technical Services

Enclosure: