



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

APR -3 2003

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

Mr. Robert Beck
Director of Quality and Technical Services
Structural Composites Industries (SCI)
325 Enterprise Place
Pomona, CA 91768

RefNo. 02-0295

Dear Mr. Beck:


This is in response to your November 13, 2002, letter requesting clarification of the marking requirements of cylinders manufactured to the Carbon-Fiber Reinforced Aluminum Lined Cylinders (DOT-CFFC) standard. You stated that most carbon composite cylinders manufactured by SCI have an outside layer of a resin-based material (FlowCoat) added to the cylinder. Specifically, you asked if it is permissible to place the cylinder label containing the manufacturing standard information under this FlowCoat.

The answer is no. The marking requirements in DOT-CFFC Standard, Section CFFC-14, state that cylinders made in conformance with this standard and the applicable DOT exemption must be permanently marked (other than stamping) in the composite overwrap on the sidewall. Therefore, your proposed label application does not meet the requirements of the DOT-CFFC standard.

You may submit a request to modify the terms of the applicable exemption by providing supporting information to demonstrate that your proposed modification will achieve a level of safety at least equal to that established by the current standard and current exemption.

If we can be of further assistance, please contact us.

Sincerely,


Delmer F. Billings
Chief, Regulations Development
Office of Hazardous Materials Standards



020295

178.35

Structural Composites Industries

Harsco



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Fax: 909.594.3939

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November 13, 2002

Via Federal Express

Mr. Ed Mazullo
U. S. Department of Transportation
Office of Hazardous Materials
Standards Section
400 South Seventh Street S.W.
Washington, D.C. 20590

Webb
\$179.35
Cylinders
02 - 0295

Subject: Request for Interpretation of CFFC-14 MARKING

Dear Mr. Mazullo:

CFFC Specification, section CFFC-14 Marking (a) reads; "Each cylinder that is made in conformance with this standard and the applicable DOT exemption must be permanently marked (other than stamping) in the composite over wrap on the sidewall. The marking must be easily visible and must be protected from external damage due to the environment and handling."

Most carbon composite cylinders manufactured by Structural Composites Industries have an outside layer of a resin-based material (FlowCoat) added to the cylinder. In the case where the cylinder has FlowCoat as the exterior coating, SCI wants to put the cylinder label under this coating. In the case where there is no FlowCoat as the exterior coating, SCI will continue to put the label under a layer of fiberglass.

It is our position that both of the above cases of label application meet the intent of the specification; i.e. "must be easily visible and protected from external damage due to the environment and handling." Please issue a formal written interpretation on our position.

Sincerely,

Robert L. Beck
Director of Quality and Technical Services

and operated so as to obtain accurate data. The pressure reading must be accurate within one percent in the range of 80 percent to 120 percent of the test pressure, and the volumetric expansion measurement must be accurate to within one percent of the total expansion established when in system calibration, or 0.1 cubic centimeter. Records must be maintained as evidence of the equipment calibration.

*(ii) The hydrostatic test system must be calibrated at the beginning of each day prior to testing using a Calibrated Cylinder following procedures specified in CGA pamphlet C-1 "Methods of Hydrostatic Testing of Compressed Gas Cylinders."

(b) **Visual inspection and marking:** All cylinders in each lot must be subjected to a thorough visual inspection for quality and for conformance with the marking requirements.

CFFC-14 **MARKING:**

(a) Each cylinder that is made in conformance with this standard and the applicable DOT exemption must be permanently marked (other than stamping) in the composite overwrap on the sidewall. The marking must be easily visible and must be protected from external damage due to the environment and handling.

(b) The details of the marking must conform to the requirements of this standard and the DOT exemption under which the cylinders are manufactured. The marking must contain the following:

(i) DOT Exemption number (DOT E-XXXXX) followed by service pressure expressed in pounds per square inch gauge (psig).

(ii) A serial number and the manufacturer's identification number or a symbol as obtained from the Associate Administrator for Hazardous Materials safety, located just below or immediately following the DOT marking above.

(iii) The DOT inspector's official mark must be placed near the serial number. The marking must contain date (month and year) of the initial hydrostatic test for that cylinder.

* (iv) Rejection elastic expansion (REE) marking in cubic centimeters. The REE for each design type cylinder is obtained as follows: