



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

**MAR 19 2003**

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

Mr. David Gamlen  
Manager, Packaging Engineering  
Breed  
5300 Allen K. Breed Highway  
P.O. Box 33050  
Lakeland, FL 33807-3050

Ref. No.: 03-0062

Dear Mr. Gamlen:

This is in reference to your February 27, 2003 letter concerning the specification requirements in 49 CFR 178.65 for DOT 39 specification non-reusable cylinders and the exemption requirements in DOT-E 11993. Specifically, you inquired whether a proof pressure test (without determination of expansion) must be performed on the cylinder that is hydrostatically tested to destruction under § 178.65(f)(2). You expressed concern about interrupting the manufacturing line to vent the cylinder and prepare it for the hydrostatic test.

The answer is yes. Under § 178.65(f), both pressure tests must be performed. Paragraph (f)(1) requires that each cylinder must be given a proof pressure test; whereas, paragraph (f)(2) requires that one cylinder taken from each designated lot be tested to destruction.

The cylinder taken from the lot be burst tested may meet the leak test and burst test requirements during the same test. This can be done if the cylinder meets the requirement of § 178.65(f)(1) by being held at test pressure for at least 30 seconds without leaking, and then continues to be pressurized to destruction in accordance with the requirements of § 178.65(f)(2). For DOT-E 11993, the hold time would be 10 seconds instead of 30 seconds.

Most of the other low-pressure cylinder specifications have different requirements. As an example, the DOT 4B specification in § 178.50(i) requires that one cylinder taken from each designated lot must be given a hydrostatic test with determination of total and permanent volumetric expansions. All other cylinders must be given a proof pressure test.

I hope this satisfies your inquiry. Should you have any further questions, please contact this office.

Sincerely,

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



030062

178.65

# B R E E D

World Headquarters  
5300 Allen K. Breed Highway  
P.O. Box 33050  
Lakeland, Florida 33807-3050  
Telephone 863-668-6035  
Fax 863-668-6228

February 27, 2003

Hattie Mitchell  
Chief, Regulatory Review and Reinvention  
Office of Hazardous Materials Standards  
US Department of Transportation / DHM-12  
400 Seventh St., SW  
Washington, DC 20590-0001

Mitchell  
§178.65(f)  
Cylinders  
03-0062

**Subject: Request for Letter of Interpretation Concerning Pressure Tests of non-DOT Specification Cylinders, reference DOT-E 11993 and 49CFR178.65(f).**

Dear Ms. Mitchell:

BREED Technologies, Inc., at the above address, requests a letter of interpretation concerning pressure tests of non-DOT specification cylinders. BREED is manufacturing the non-DOT specification cylinders in accordance with exemption DOT-E 11993. Pressure tests are referenced in paragraph 7(b)(1) of the exemption. This paragraph requires testing per 49CFR178.65(f), except that the hold time at test pressure specified in 178.65(f)(1) must be no less than 10 seconds.

The issue that has been raised is whether or not proof testing is required to be performed on the vessel used for hydrostatic testing. BREED's manufacturing operations currently are and have always performed a proof test, prior to performing the hydrostatic test to destruction. A relatively new employee, who previously worked for one of our competitors, says that the competition is not performing the proof test prior to hydrostatic test. This employee claims that we are being held to a more stringent interpretation of the regulations.

This is an issue for operations because the proof test is performed on the manufacturing line and the hydrostatic test is performed off-line. The manufacturing line must be interrupted during production so that the gas in the proof tested vessel can be carefully vented prior to removal from the production line. This process results in down time and loss of productivity.

The independent inspection agencies differ in their interpretation of this issue. I spoke with a person in the Office of Hazardous Materials Technology who thought the regulation could be interpreted either way. The person commented that if a cylinder passed the hydrostatic test, it would certainly pass the proof test.

If you have any questions or require additional information or documentation to process this request, I can be reached by telephone at (863)668-6035, by fax at (863)668-6228 or by e-mail at [gamlend@breedtech.com](mailto:gamlend@breedtech.com).

Sincerely,



David Gamlen  
Manager, Packaging Engineering

\\Packaging Engineering\Dot\Hydro-Proof Interpretation Ltr.doc