



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

JAN 13 2016

Mr. Brad Storm
Hazardous Materials Specialist
John Deere TCAO
3500 E Donald St
Waterloo, IA 50703
Bldg 6011 ESB-2 373

Ref. No. 15-0179

Dear Mr. Storm:

This responds to your August 24, 2015 request for clarification pertaining to accumulators under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether an accumulator in a “hydraulic system used to maintain constant pressure, build pressure gradually and store energy” is eligible for the exception in § 173.306(f)(4) provided the accumulators otherwise meet the requirements in § 173.306(f)(4)(i) to (iv) of the HMR.

The requirement in § 173.306(f)(4) applies to accumulators intended to function as shock absorbers, struts, gas springs, pneumatic springs or other impact or energy-absorbing devices. Based on the information contained in your letter, the accumulators are not intended to function in any of these capacities and would therefore not be eligible for this exception. However, it should be noted that other exceptions for accumulators are provided in § 173.306(f)(1), (2), (3), and (5).

I hope this satisfies your request.

Sincerely,

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Lehman
§173.306(f)
Limited Quantities
15-0179

Dodd, Alice (PHMSA)

From: Geller, Shelby CTR (PHMSA)
Sent: Monday, August 24, 2015 3:00 PM
To: Hazmat Interps
Subject: FW: Clairification on 49CFR 173.306(f)

Dear Shante and Alice,

Please see the below request for a formal letter of interpretation. I spoke with Mr. Storm.

Thanks,
Shelby

From: Storm Bradley B [mailto:StormBradleyB@JohnDeere.com]
Sent: Monday, August 24, 2015 9:57 AM
To: PHMSA HM InfoCenter
Subject: Clairification on 49CFR 173.306(f)

To: PHMSA Hazardous Materials Information Center

Accumulators are used in Deere equipment hydraulic systems to; absorb shock, maintain constant pressure, build pressure gradually and to store energy.

When an accumulator is manufactured to the safety requirements of 49CFR173.306(f)(i),(ii),(iii) and (iv), but is used in the hydraulic system to maintain constant pressure, build pressure gradually and store energy qualify for the 49CFR173.306(f)(4) exception?

(f)			Accumulators (Articles, pressurized pneumatic or hydraulic containing non-flammable gas. The following apply to accumulators, which are hydraulic accumulators containing nonliquefied, nonflammable gas, and nonflammable liquids or pneumatic accumulators containing nonliquefied, nonflammable gas, fabricated from materials which will not fragment upon rupture.
	(4)		Accumulators intended to function as shock absorbers, struts, gas springs, pneumatic springs or other impact or energy-absorbing devices are not subject to the requirements of this subchapter provided each
		(i)	Has a gas space capacity not exceeding 1.6 L and a charge pressure not exceeding 280 bar, where the product of the capacity expressed in liters and charge pressure expressed in bars does not exceed 80 (for example, 0.5 L gas space and 160 bar charge pressure);
		(ii)	Has a minimum burst pressure of 4 times the charge pressure at 20 °C for products not exceeding 0.5 L gas space capacity; 5 times the charge pressure for products greater than 0.5 L gas space capacity;
		(iii)	Design type has been subjected to a fire test demonstrating that the article relieves its pressure by means of a fire degradation seal or other pressure relief device, such that the article will not fragment and that the article does not rocket; and
		(iv)	Accumulators must be manufactured under a written quality assurance program which monitors parameters controlling burst strength, burst mode and performance in a fire situation as specified in paragraphs (f)(4)(i) through (f)(4)(iii) of this section. A copy of the quality assurance program must be maintained at each facility at which the accumulators are manufactured.

Regards,

Brad

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