Cardez, E.
26-0079

Fwd: Request for Interpretation – Regulatory Status of Pyromechanical Linear Actuator CM-20-725B under 49 CFR

1 message

INFOCNTR (PHMSA) <infocntr.infocntr@dot.gov> Wed, Jun 17, 2026 at 11:46 AM
To: "Baker, Yul (PHMSA)" <yul.baker@dot.gov>
Cc: Hazmat Interps <hazmatinterps@dot.gov>

Good Morning,

Please see the following letter of interpretation request.

Nick's Physical Mailing Address:

Amerex Corporation

7595 Gadsden Highway

Trussville, AL 35173

Let us know if you need anything else.

Best,

Aminah

---------- Forwarded message ---------
From: **Nick Denton** <nicholas.denton@amerex-fire.com>
Date: Tue, Jun 16, 2026 at 1:48 PM
Subject: RE: Request for Interpretation – Regulatory Status of Pyromechanical Linear Actuator CM-20-725B under 49 CFR
To: infocntr@dot.gov <infocntr@dot.gov>
Cc: Stephen Jones <stephen.jones@amerex-fire.com>, Garth Legvold <garth.legvold@amerex-fire.com>, Leland Jen <leland.jen@amerex-fire.com>, Kyle Clemons <kyle.clemons@amerex-fire.com>, Thomas Gillard <thomas.gillard@amerex-fire.com>

All,

Forgot the attachments. Please see attached.

Thanks,

Nick Denton
Engineering Manager - Electrical & Fire Test

Direct: 205.508.6312
amerex-fire.com

From: Nick Denton
Sent: Tuesday, June 16, 2026 12:46 PM
To: 'infocntr@dot.gov' <infocntr@dot.gov>
Cc: Stephen Jones <stephen.jones@amerex-fire.com>; Garth Legvold <garth.legvold@amerex-fire.com>; Leland Jen <leland.jen@amerex-fire.com>; Kyle Clemons <kyle.clemons@amerex-fire.com>; Thomas Gillard <thomas.gillard@amerex-fire.com>
Subject: Request for Interpretation – Regulatory Status of Pyromechanical Linear Actuator CM-20-725B under 49 CFR

Hello,

On behalf of Amerex Corporation, I am requesting a formal interpretation from PHMSA regarding the classification of a product identified as a **Pyromechanical Linear Actuator (Type CM-20-725B)** under the Hazardous Materials Regulations (49 CFR). We request PHMSA's confirmation that this article is **not** subject to regulation under 49 CFR for transport in commerce within the US.

The CM-20-725B is a Pyromechanical actuator with a piston, primarily used in safety systems such as fire extinguishing systems, where it functions as an activation device (Opening an extinguishing tank valve). The actuator consists of the following:

1. A glass-to-metal sealed squib (GTMS) with lead wires
2. Encapsulation in insulating plastic
3. A stainless-steel body with sealed piston (O-Ring + Laser Weld)
4. External insulation overmolding and mechanical mounting features

Upon activation, the CM-20-725B performs as follows:

1. CM-20-725B initiates a **controlled energy release to drive the piston** (~14mm stroke)
2. Combustion products are **substantially contained within the actuator housing**

3. The device **does not produce any external flame projection, fragmentation, or explosive effects**

Observed behavior:

1. **No flash, explosion, or violent pressure rupture**
2. **No hazardous fragments generated**
3. **Minimal acoustic output (No explosive report)**

Based on engineering review and available test/compliance data:

1. The actuator contains a very small quantity of energetic material within a sealed squib.
2. The design ensures that:
    a. **Any ignition during transport does not produce external effects**
    b. There is **no projection, fire, heat, or noise outside the device** that would constitute a transport hazard.

Accordingly, the article **does not meet the definition of a Class 1 explosive under 49 CFR §173.50**. Also, it **does not meet criteria for any other hazard class under 49 CFR §173**. It is not a forbidden material under 49 CFR §173.21.

The CM-20-725B has been evaluated under UN Recommendations on the Transport of Dangerous Goods (Model Regulations) and determined to meet the exemption criteria under Section 2.1.3.6.4 (See Below).

Section 2.1.3.6.4 – Articles containing explosive substances in such quantity or form that accidental initiation during transport will not cause any external hazardous effect

As such, it has been excluded from UN Class 1 (Explosive) and is considered **to not present a risk of explosion hazards during transport**. We recognize that UN classification does not automatically establish compliance with 49 CFR and therefore seek PHMSA's confirmation.

Based on our review of the following, we conclude that although the device contains a small internal pyrotechnic element, its design prevents any hazardous external effect during transport and therefore **does not meet the definition of a hazardous material under 49 CFR**.

1. 49 CFR §171.8
2. 49 CFR §172.101
3. 49 CFR §173.21
4. 49 CFR §173.50

We request that PHMSA's confirmation that:

1. The CM-20-725B Pyromechanical actuator is **not subject to regulation under 49 CFR for transportation in commerce**, as it does not meet the definition of a hazardous material.

Alternatively, if PHMSA determines additional classification or approval (EX approval) is required, we request guidance on the appropriate regulatory pathway.

I have attached the spec document for CM-20-725B and the manufacturer's exemption letter from UN Class 1 to this email. Please contact me if additional information is required. Thank you for your consideration.

2 attachments

CM-20-725B Specs and Product Desc.pdf
1009K

CM-20-725-B UN Exemption Letter.pdf
296K