



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

December 22, 2025

Robbie Dunn, P.E.
Westmor Industries, LLC
3 Development Drive
Morris, MN 56267

Reference No. 19-0025R

Dear Mr. Dunn:

This letter is in response to your March 4, 2019 email and a meeting on May 19, 2025, with members of the Standards and Rulemaking Division, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transportation of propane in a specification MC 331 cargo tank motor vehicle (bobtail). After further review, Reference No. 19-0025 has been superseded by this revised letter.

You describe a scenario where propane deliveries require drivers to reverse into unfamiliar locations to complete the delivery of propane to customers. This presents safety concerns due to limited visibility and blind spots. As such, you are considering mounting a reel to the front of the bobtail chassis. Furthermore, you state that due to variations in chassis design or lack of structural support at the front of the bobtail chassis, you want to avoid installing a protection device. Based on the design drawing that was submitted, is the proposed configuration allowed by the HMR?

No. While there is not a restriction against mounting the hose reel and piping to the front of the MC 331 chassis, § 178.337-10(a) requires “[a]ll valves, fittings, pressure relief devices, and other accessories to the tank proper shall be protected in accordance with paragraph (b) of this section against such damage as could be caused by collision with other vehicles or objects. . .” Furthermore, in accordance with § 178.337-10(f)(2), each internal self-closing stop valve, excess flow valve, and check valve must be shielded by a shear section or other sacrificial device.

This protection device must be placed in the piping system outboard of the stop valve and within the accident damage protection device to prevent any accidental loss of lading. Based on the information and attachments provided, your design would not meet the accident damage protection requirements prescribed in § 178.337-10.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Dirk DerKinderen', written in a cursive style.

Dirk DerKinderen
Chief, Standards Development Branch
Standards and Rulemaking Division

From: [Andrews, Steven \(PHMSA\)](#)
To: [Christopher Wagner](#); [Benjamin Nussdorf](#)
Cc: [Baker, Yul \(PHMSA\)](#); [DerKinderen, Dirk \(PHMSA\)](#); [Nickels, Matthew \(PHMSA\)](#)
Subject: RE: Update on NPGA/PHMSA Questions
Date: Monday, May 12, 2025 18:10:25
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)

Chris/Ben,

I blocked off a 2pm on Thursday slot on teams to discuss this letter. Does that work for you all?

Thanks

Steven

From: Christopher Wagner <cwagner@npga.org>
Sent: Monday, May 5, 2025 5:23 PM
To: Andrews, Steven (PHMSA) <steven.andrews@dot.gov>; Benjamin Nussdorf <bnussdorf@npga.org>; Patrick, Eamonn (PHMSA) <eamonn.patrick@dot.gov>; Foster, Glenn (PHMSA) <Glenn.Foster@dot.gov>
Cc: DerKinderen, Dirk (PHMSA) <Dirk.DerKinderen@dot.gov>
Subject: RE: Update on NPGA/PHMSA Questions

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hi Steven,

Apologies for the delayed response. Below is the crux of the matter:

By our understanding the March 4, 2019 request for interpretation, submitted by Westmoor Industries, LLC that received a response on September 12, 2019 was seeking an understanding related to accident damage protection as specified in 49 CFR 178.337 (a), (b), (c), and (e) for the purposes of seeking an exclusion for front end protection when installing metered delivery plumbing. A standard configuration includes piping, valves, meter and permanently installed hose within a hose reel mounted on the tailboard of the vehicle. This tailboard is protected by a rear bumper designed to protect the cargo tank and all valves, piping and fittings located at the rear of the cargo tank. Vehicles in metered delivery service are not capable of removing residual propane from the hose and piping used for delivery. This is due to the method of sale of metered gallons to the consumer and the container filling process. A container in stationary service is filled by volume using the fixed maximum liquid level gage. This is an outage gage located on the container that emits liquid when filled. If the delivery hose continues to dispense following emission of liquid a container will by design be overfilled. If the remaining liquid is discharged to atmosphere, the consumer will be billed for 10 gallons they did not receive.

I am unaware of any regulation that specifically prohibits retaining LP Gas in the metered service

delivery piping. For the actual rule prohibiting transportation of hazardous materials in loading or unloading lines located on the bottom portion of cargo tanks that are exposed to vehicle collision is listed in 49 CFR 173.33(e) but is limited to 5.1, 5.2, 6.1 and 8 hazardous materials without damage protection. In every case where a bobtail transports propane it is equipped with crash protection of the piping. This crash protection includes the frame rails of the vehicle, wheels and fenders, and the ICC bumper on the rear. All piping, hose and fittings are protected consistently with the 2004 and 2009 RSPA dockets.

For additional context as to the areas of potential conflicts generated by Paragraph Three of the Westmoor Interpretation, I cite the following:

- 49 CFR 173.33(e) states - DOT specification cargo tanks used for the transportation of any material that is a Division 6.1 (poisonous liquid) material, oxidizer liquid, liquid organic peroxide or corrosive liquid (corrosive to skin only) may not be transported with hazardous materials lading retained in the piping, unless the cargo tank motor vehicle is equipped with bottom damage protection devices meeting the requirements of § 178.337-10 or § 178.345-8(b) of this subchapter, or the accident damage protection requirements of the specification under which it was manufactured. This requirement does not apply to a residue which remains after the piping is drained. A sacrificial device (see § 178.345-1 of this subchapter) may not be used to satisfy the accident damage protection requirements of this paragraph.
 - MC-331 cargo tank motor vehicles in metered delivery service meet the aforementioned requirements as listed in § 178.337-10 and § 178.345-8(b)
- In 2004, Docket No. RSPA-99-6223 (HM-213B), while evaluating a proposed modification to existing wet line allowances for flammable liquid haulers established that the frame members on straight truck chassis carrying hazardous materials constituted bottom damage protection
- In 2009, Docket No. PHMSA-2009-0303 (HM-213D) admitted that loads that were in metered delivery should be excluded as there is no mechanism for recovery and reimbursement of gallons that flow through a meter leading to overcharging of consumers.
- Propane bobtails in metered delivery service have up to 150' of permanently attached hose connected to the rear of a vehicle stored within a hose reel above the vehicles frame and rear end protection. All additional piping associated with the transfer system is located between the frame rails of the vehicle terminating at an automatically reclosing internal valve.
- 49 CFR 173.315 (i)(11) creates specific obligations for each portion of connected liquid piping or hose for compressed gases that is shipped in cargo tanks and that can be closed at both ends trapping liquid, that hydrostatic pressure relief equipment be installed. This section further substantiates that liquid is expected to be transported in certain cargo tank piping such as that connected to the metered delivery piping and hose system on MC-331 cargo tanks transporting liquefied petroleum gas.

Please let us know how to proceed. Thanks.

CHRISTOPHER J WAGNER

Vice President of Codes, Standards, & Safety

NATIONAL PROPANE GAS ASSOCIATION

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202-466-7202 **DIRECT**

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www.NPGA.org



Baker

19-0025

Dodd, Alice (PHMSA)

From: Stevens, Michael (PHMSA)
Sent: Monday, March 04, 2019 9:53 AM
To: Robbie Dunn
Cc: Foster, Glenn (PHMSA); Hazmat Interps
Subject: RE: Code compliance for new product

Good Morning Mr. Dunn,

I will have your request for compliance verification entered into our system. It will be evaluated by our engineering department and a written response will be provided to you.

Sincerely,

Michael Stevens

From: Robbie Dunn [mailto:robbie.dunn@westmor-ind.com]
Sent: Monday, March 04, 2019 9:25 AM
To: Stevens, Michael (PHMSA) <michael.stevens@dot.gov>
Subject: Code compliance for new product

Michael, I'm looking for some guidance on a new product that we're developing to help our customers deliver Propane safer on an MC331 bobtail. I wanted to send you some background information and some diagrams to look at, then I was hoping to call you or if your not the correct contact that you could point me in the right direction. If it works better I'm willing to meet in person also.

The intent of the design is for public safety. When propane deliveries are made the operator has to back into an unknown location for the delivery. When backing up you have safety concerns with the limited visibility and blind spots. We've been selling backup camera's to help, but they get dirty and hard to see out of, and the screens are small. We're looking at mounting a reel to the front of the bobtail, in much the same manner as you might see on a fire truck. I've attached a few diagrams illustrating the concept. We've calculated less than 10 gallons of product in the piping and reel. Due to chassis variations, lack of chassis structure at the front we'd like to avoid putting a protection device around the reel. We believe it is acceptable to have up to 119 gallons of a hazmat product and not be considered bulk. We believe the question is what is needed to isolate the product remaining in the reel and piping from the rest of the bulk product, for it to be looked at on it's own. Would DOT consider the internal valve on the tank along with a secondary valve followed by a shear section be enough isolation to consider the 10 gallons independently? If not I wan't to explore other options.

I would like to talk to you or someone on this design idea, if you are the correct person to talk to what would be the best number to reach you at?

Regards,

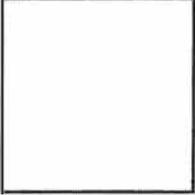
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Robbie Dunn, P.E.

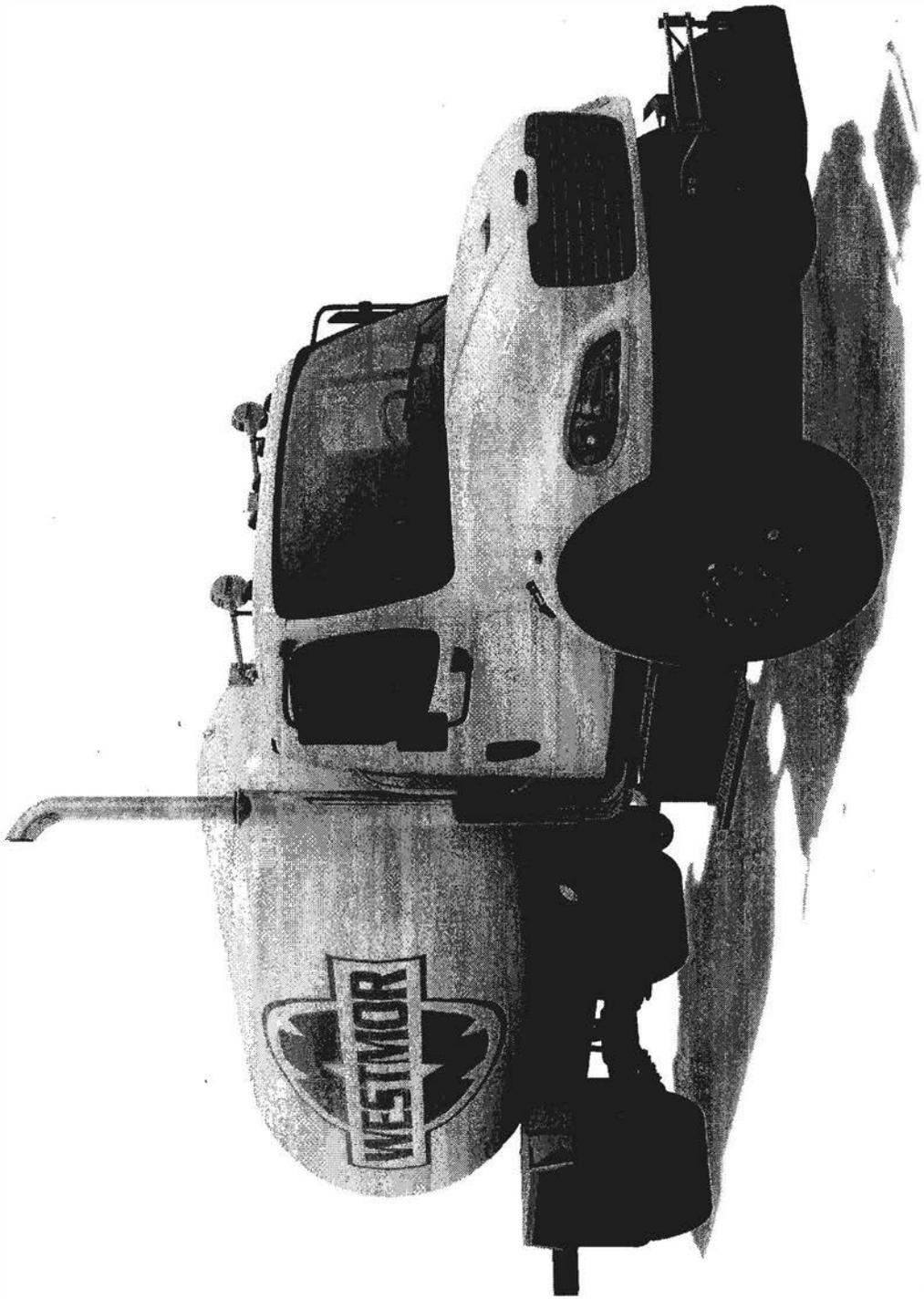
Chief Engineer

Westmor Industries, LLC
3 Development Drive
Morris, MN 56267
United States

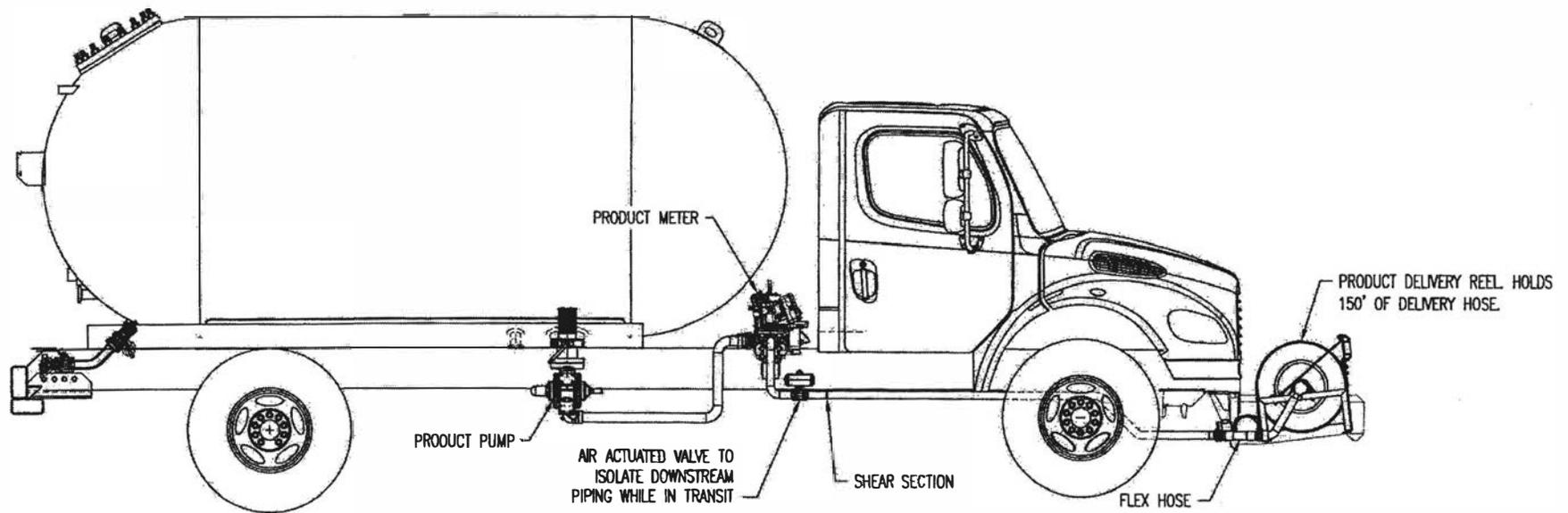
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E: robbie.dunn@westmor-ind.com



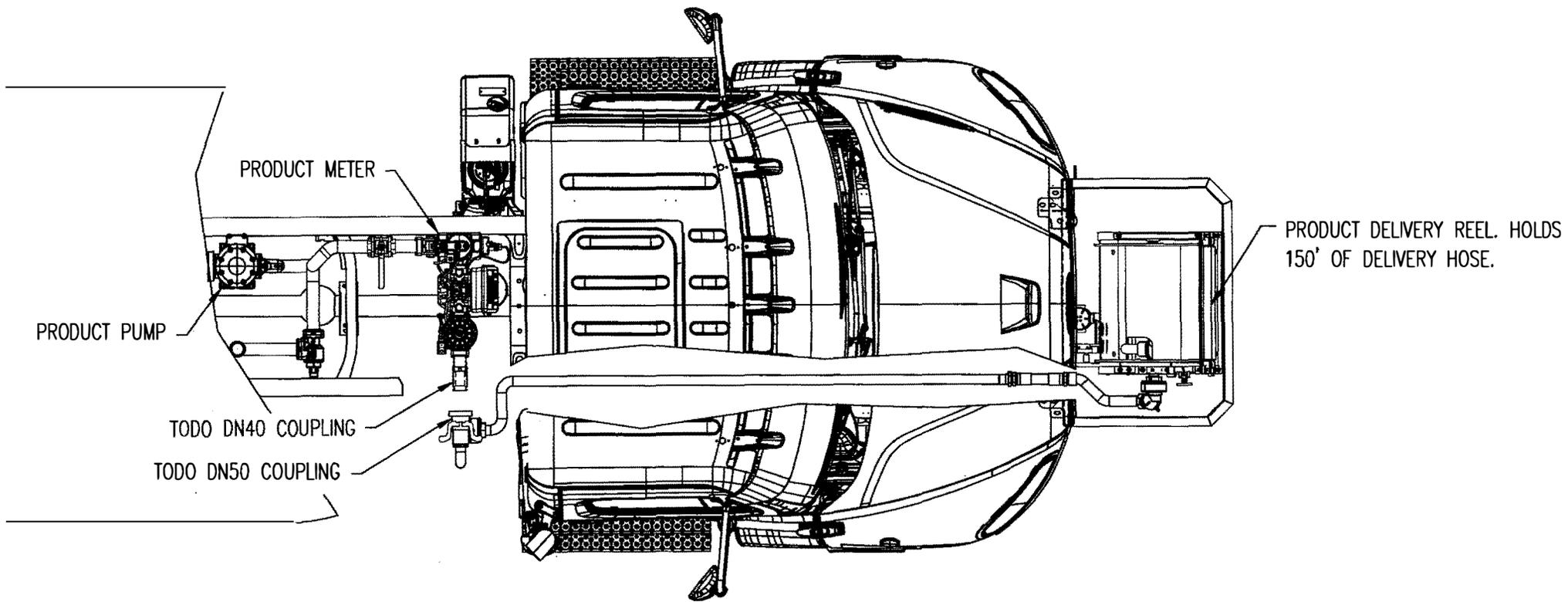


13' OF 1.5 PIPING = 1.37 GALLONS
150' OF 1" HOSE = 6.12 GALLONS
PRODUCT IN REEL = 1 GALLONS



THERE WILL BE UP TO 10 GALLONS OF LIQUID PETROLEUM DOWN STREAM OF THE ISOLATION VALVE IN THE PIPING AND DELIVERY HOSE

THE FRONT DELIVERY REEL WILL ALLOW DRIVERS TO SAFELY PULL INTO DRIVEWAYS RATHER THAN BACKING INTO DRIVEWAYS WITH LIMITED VISIBILITY.



THERE WILL BE UP TO 10 GALLONS OF LIQUID PETROLEUM DOWN STREAM OF THE DRY BREAK COUPLER IN THE PIPING AND DELIVERY HOSE

THE FRONT DELIVERY REEL WILL ALLOW DRIVERS TO SAFELY PULL INTO DRIVEWAYS RATHER THAN BACKING INTO DRIVEWAYS WITH LIMITED VISIBILITY.