



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 26, 2020

Mr. Daylen Borders
Sales Engineer
Smart-Hose Technologies
701 Ashland Avenue
Folcroft, PA 19032

Reference No. 19-0122

Dear Mr. Borders:

This letter is in response to your October 16, 2019, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to hoses equipped with safety devices that permit a cargo tank motor vehicle (CTMV) to be loaded and unloaded without full time attendance by a qualified person during loading operations. You explain that your company engineers and manufactures specialized hoses, such as those described in Department of Transportation Special Permits (DOT-SPs) 13484 and 14447. Specifically, you ask whether the final rule issued under Docket No. PHMSA-2013-0042 (01/21/2016, 81 FR 3636) (HM-233F), “Hazardous Materials: Adoption of Special Permits,” eliminates the need for these special permits by adopting the language they contain into the HMR.

The answer is yes. The HM-233F final rule amended § 177.834(i)(3) and (i)(4) of the HMR to permit loading or unloading “attendance” of a CTMV through the use of hoses equipped with cable connected wedges, plungers, or flapper valves located at each end of the hose that can stop the flow of product from both the source and the receiving tank within one second without human intervention in the event of a hose rupture, disconnection, or separation. These amended paragraphs also prescribe inspection requirements and operational controls for use of these hoses.

The amendments to § 177.834(i)(3) and (i)(4) do not affect the requirements in § 176.76(i) for cargo transport units packed or loaded with Division 2.1 (flammable) gas or Class 3 (flammable) liquid having a flashpoint below + 23 °C transported on deck. Additionally, § 177.840(p) prescribes the requirements to unload liquefied petroleum gas and anhydrous ammonia in metered delivery service and does not include a reference to the type of hoses in DOT-SPs 13484 and 14447. The description in § 177.834(i)(3)(i) of a qualified person attending a cargo tank loading or unloading operation does not apply to cargo tank loading or unloading requirements in §§ 177.840(p) or (q) or 177.837(d).

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

Sincerely,

A handwritten signature in blue ink that reads "T. Glenn Foster". The signature is written in a cursive style with a long, sweeping underline.

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

Dodd, Alice (PHMSA)

From: INFOCNTR (PHMSA)
Sent: Wednesday, October 16, 2019 2:56 PM
To: Hazmat Interps
Subject: FW: Request for Letter of Interpretation (LOI) regarding 49 CFR 176.67(i), 49 CFR 177.834(i) and 49 CFR 177.840(p) and HM-233F
Attachments: DB Smart-Hose Technologies Product Overview.pdf

Hello Alice and Ikeya,

Please see below for letter of interpretation request. The requester spoke with Sarah in the HMIC. We informed him that the special permits he was looking at were being included in the NPRM HM-233F that was recently published and that the final rule has not come out yet. He wanted to move forward with this LOI request for his specific technology that he uses. Also, please note, I got in contact with him, he cited 176.67(i) but actually meant to type 176.76(i).

Please contact our office with any questions.

Thanks,
Kathryn, HMIC

From: Daylen Borders [mailto:dborders@smarthose.com]
Sent: Wednesday, October 16, 2019 2:04 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Cc: sales <sales@smarthose.com>; Bill Horan <bhoran@smarthose.com>
Subject: Request for Letter of Interpretation (LOI) regarding 49 CFR 176.67(i), 49 CFR 177.834(i) and 49 CFR 177.840(p) and HM-233F

To Whom it may concern:

I am writing on behalf of my employer, Smart-Hose Technologies (Zena Associates LLC) to request a Letter of Interpretation concerning 49 CFR 176.67(i), 49 CFR 177.834(i) and 49 CFR 177.840(p) and the recent proposed ruling HM-233F.

Smart-Hose Technologies engineers and manufacturers specialized hoses of the type referenced in Special Permits 13484 and 14447 (hoses with cable connected flappers on each end to stop flow in the event of hose failure). It is our understanding that the recent ruling "HM-233F Hazardous Materials: Adoption of Special Permits" will in the near future obviate the need for the special permits above, as there will be language incorporated into the DOT regulations that will allow the use of hoses equipped with safety devices described in those permits. I specifically reference the following excerpt from the ruling:

SPs 13484 and 14447 authorize "attendance" of the loading or unloading of a cargo tank through the use of hoses equipped with cable connected wedges, plungers, or flapper valves located at each end of the hose, able to stop the flow of product from both the source and the receiving tank

within one second without human intervention in the event of a hose rupture, disconnection, or separation. The SPs prescribe inspection requirements and operational controls for use of the hoses. In the NPRM, we proposed to revise paragraphs (i)(3) and (i)(4) of § 177.834 to adopt the provisions of SPs 13484 and 14447 in their entirety. Because we did not receive public comment on the proposal, adverse or otherwise, in this final rule, we are adopting the amendments as proposed.

Smart-Hose Technologies is encouraged by this ruling since the current language in the safety regulations does NOT allow use of additional new enhanced safety equipment of the type in the special permits. The current regulations actually PROHIBIT their use requiring operators to attend to load/unload processes. Doing so potentially places operators at risk of injury by being in such close proximity to a failure. Rules are meant to set a minimum safety standard, not a maximum level that prevents/prohibits the use of new and enhanced safety capabilities as they become available to the market through the innovation of manufacturers.

Therefore, we would like to request a letter of interpretation (LOI) relative to our specific products to confirm that the governing body would deem them sufficient in meeting the intent of these requirements thereby enabling end-users to be in compliance for unattended loading/unloading when using devices such as ours. I have attached a document that provides an overview of the products we supply and a video link here https://youtu.be/iWr_uzLcX44 that shows our solution in an actual real-world demo.

We respectfully request this LOI and will be happy to supply additional information or engineering data to support your analysis of our request. We thank you in advance for your consideration and look forward to your reply!

Sincerely,

Daylen Borders

Sales Engineer

Mobile: (903) 363-8504

Smart-Hose Technologies

701 Ashland Avenue

Folcroft, PA 19032

Office: (215) 730-9000



We are the *Smart* company securing your weak link to preserve the environment and prevent catastrophic hose failures!



Standard Smart-Hose Assembly (LL3)

- ✓ Available in 1" up to 8" Hose Assemblies (Ends Can Be Threaded or Welded Upon Request)
- ✓ Common Ends: MNPT, FNPT, ANSI Flanges, ACME, Hammer Unions, Elbows, Bushings, Cam & Groove, Dry-Breaks
- ✓ Protects Against Catastrophic Hose Failure; **Passively Shuts Down Flow!**
- ✓ Direct Replacement for Conventional Hoses; Can Be Configured for Most Any Application; Customized to FIT
- ✓ 5 to 1 Burst Pressure; Shock Proof; Ruggedized for Everyday Use; Factory Repairable
- ✓ Full Flow Design for Faster Product Loading / Unloading
- ✓ Adds an IPL (Independent Protection Layer) to Hazardous Processes
- ✓ Hose Types and End Materials: LPG Textile, NH3 Textile, CO2, SO2, CRYO GASES, FUELS, PETRO-CHEM, ACIDS, CAUSTICS, CHLORINE, UHMW, XLPE, EPDM, NBR, RUBBER COVERED TEFLON, 316-SS, HASTELLOY, MONEL & MORE!



Break-away Hose Assembly (LL3-B & LL3-BC)

- ✓ Available in 1 1/4", 2" and 3" Hose Assemblies; All the Same Benefits as Above Plus...
- ✓ Proven Integral Break-away Technology; Valves Automatically Close Before Separation
- ✓ Protects Against Catastrophic Hose Failures AND **Pull-away** Incidents
- ✓ High Value Over Other Conventional Break-away Products; Reduces Risk to Facility and Personnel
- ✓ 2" & 3" LL3-BC for Cryogenic Applications – Hermetic Seal at Break Joint for Extreme Temperatures



Break-away Coupler (LL3-BA)

- ✓ Available for 2" & 3" Applications
- ✓ MNPT, FNPT, Flanged and Other Common Ends
- ✓ Suitable for Use with 3rd Party Hoses
- ✓ Protects Facility and Personnel Against Pull-away Incidents
- ✓ Lower Cost Alternative to Conventional Break-away Valves

SUMMARY of BENEFITS	LL3-B(C)	LL3-BA	LL3
Shuts Off Failed Hose	✓		✓
Protects Facility from Pull-Away	✓	✓	
Used as IPL - Reduces Risk	✓	✓	✓
Compatible with Common Ends	✓	✓	✓
No Annual Maintenance	✓	✓	✓
Factory Repairable	✓	✓	✓

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