



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

JUL 25 2016

Ms. Robyn Kinsley
Senior Director, Transportation
The Chlorine Institute
1300 Wilson Blvd., Suite 525
Arlington, VA 22209

Reference No. 15-0230

Dear Ms. Kinsley:

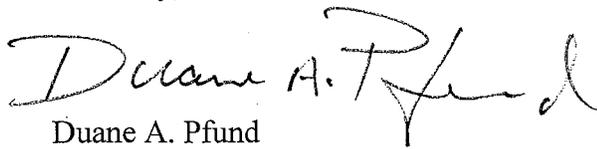
This is in response to your December 3, 2015 email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) relating to a tell-tale indicator on a combination pressure relief device (PRD) for a rail tank car. Specifically, you ask this office to reconsider the guidance provided in our April 16, 2015 (Ref. No. 14-0229) letter of interpretation issued to your organization because it is inconsistent with industry application and guidance for emergency responders.

In the previous letter of interpretation, this office advised that a tell-tale indicator having a threaded outlet must be closed with an approved screw plug. You state that PRDs with this particular design are installed in a way that the port on the tell-tale valve faces outward, perpendicular to the relief valve. In an incident where there is a release from the PRD which cannot be mitigated, the Chlorine Institute's recommendations are to cap the PRD with a CI Emergency Kit-C hood (C-kit hood). You state that implementation of the guidance in 14-0229 is problematic because the C-kit hood will not fit over the PRD when the tell-tale plug is installed. You note that the tell-tale valve does not serve the same purpose as the primary operating valve and is not exposed to the product in the tanks and as such, the industry understanding has been that tell-tale indicators are not required to have plugs installed. Because of this understanding, when the C-kit was designed, the tell-tale plug being installed was not a consideration.

Based on the request for reconsideration, we reviewed the letter of interpretation 14-0229, and the relevant requirements in the HMR. The tell-tale valves on the Midland 1400 series pressure relief valves were originally designed for a sample line. A configuration without the screw plug is not an approved design. In order to comply with the guidance in 14-0229 and accommodate a C-kit hood, the tell-tale valve may be rotated so that the screw plug is no longer outside its footprint. As a result, if the tell-tale valve is rotated, it must have a qualification of the threaded connection.

I trust this information is helpful. If you have further questions, please do not hesitate to contact this office.

Sincerely,

A handwritten signature in cursive script that reads "Duane A. Pfund". The signature is written in black ink and is positioned above the printed name.

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Wiener
179.15
Pressure Relief Devices
15-0236

Goodall, Shante CTR (PHMSA)

From: Nickels, Matthew (PHMSA)
Sent: Thursday, December 03, 2015 12:08 PM
To: Hazmat Interps
Cc: Betts, Charles (PHMSA); Foster, Glenn (PHMSA)
Subject: FW: CI Letter of Interpretation - Follow-Up Questions
Attachments: 2015-12-02 - PHMSA-FRA - CL2 TC PRD Tell-Tale Interpretation Follow-Up.pdf; 140229 LONGFILE.pdf

Importance: High

Shante/Alice, please assign as an Interp Letter request to a PHH-13 person. Duane signed the previous 14-0229 letter (Long File attached). It does not appear they had FRA concur on 14-0229, but they did have PHH-20 concur.

Please do this by 2pm today and enter it into Filemaker, I need to update FRA and Ms. Kinsley on this asap.

Thank you,

From: Robyn Kinsley <rkinsley@CL2.com>
Sent: Wednesday, December 2, 2015 9:46 AM
To: Betts, Charles (PHMSA); Alexy, Karl (FRA)
Subject: CI Letter of Interpretation - Follow-Up Questions

Charles/Karl,

Earlier this year we received a response from PHMSA on our interpretation request related to requirements for installing certain types of plugs on tank cars, specifically a plug on the tell-tale indicator valve of certain PRD designs. Our members have some concerns and questions about the interpretation, so we wanted to follow-up with the two of you to get additional guidance. Attached is a letter that explains our questions and concerns, which also includes the original interpretation request and PHMSA's response. Please let me know if you need further clarification.

Thanks!
Robyn

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December 2, 2015

Mr. Charles Betts
Director, Standards and Rulemaking Division
Pipeline and Hazardous Materials Safety Administration

Mr. Karl Alexy
Director, Hazardous Materials Division
Federal Railroad Administration

US Department of Transportation
1200 New Jersey Ave., SE
Washington, DC 20590

RE: Interpretation – Tell-Tale Indicator Securement on Pressure Relief Devices

Mr. Betts and Mr. Alexy,

I am writing you to follow up on an interpretation The Chlorine Institute ("CI") received from PHMSA, dated April 16, 2015 (attached), in response to CI's request, dated November 18, 2014 (attached), regarding regulatory requirements related to installing a plug on the tell-tale indicator of certain chlorine tank car pressure relief device designs. In PHMSA's response, the agency indicated that the plug is required to be installed during transportation. Upon discussing this interpretation with our members, we wanted to share some of our concerns about this requirement and confirm whether or not it is the true intent of the regulation.

Pressure relief devices (PRDs) with this particular design are installed in a way that the port on the tell-tale valve faces outward, perpendicular to the relief valve. In an incident where there is release from the PRD which cannot be mitigated, CI's recommendations are to cap the PRD with a Chlorine Institute Emergency Kit-C hood ("C-kit hood"). This creates a problem, because the C-kit hood will not fit over the PRD when the tell-tale plug is installed. When the C-kit hood was designed, the tell-tale plug being installed during an event was not a consideration. This was not taken into account, because shippers generally have not interpreted it as a regulatory requirement and, therefore, have not installed the tell-tale plugs. Shippers believed this not to be a requirement, because the tell-tale valve does not serve the same purpose as the primary operating valves and is not exposed to the product inside the tank (i.e. the needle valve itself serves as a closure secondary to the primary rupture disc seal of the PRD), as noted in CI's request.

Our members have concerns that an emergency responder might become confused and uncertain as to what to do if the C-kit hood does not fit during an emergency event. This

confusion could negatively impact the overall ability to mitigate the release. In light of this unintended consequence, we would like to confirm whether or not the true intent of the regulation is to require the tell-tale plug be installed during transport. **Please respond confirming the intent of the regulation.** If that is the true intent, CI will proceed with revising written guidance and training instructions for emergency responders, accordingly, to help alleviate confusion as much as possible.

Also, if the plug, in fact, must be installed on the PRD tell-tale during transport, CI is looking for guidance with regard to implementation. The effected valve manufacturer has indicated that future PRDs will be designed so that this is no longer a problem. Nonetheless, there are PRDs currently in service that need to be addressed. One simple solution is to rotate the tell-tale extension inward so that the port is parallel to the relief valve and does not interfere with C-kit application. However, if this is done, the PRD would then need to be re-qualified for service.

CI's members are looking for guidance from PHMSA/FRA on what is expected of them with regard to implementation and achieving compliance with this regulation. In order to avoid service disruption, would it be appropriate to wait until an impacted chlorine tank car goes in for its regularly scheduled inspection and/or qualification to rotate the tell-tale extension and install the required plug at that time? **If this modification is indeed required, please respond to let us know whether or not this is an acceptable plan.** Note that CI does not have any incidents on record that indicate a release has occurred due to the tell-tale plug not being installed on a chlorine tank car.

Our members are stewards of the safe handling of hazardous materials packages, and they strive to achieve compliance with the hazardous materials transportation regulations. Any additional guidance you can provide for CI's members would help ensure the safest and most appropriate path forward regarding this matter. Thank you in advance for your consideration and assistance.

Sincerely,



Robyn Kinsley
Senior Director, Transportation

Enc.: CI request for interpretation, dated 11/18/14
PHMSA interpretation response, dated 4/16/15



THE CHLORINE INSTITUTE
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Tel 703-894-4140 Fax 703-894-4130
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November 18, 2014

Office of Hazardous Materials Standards
Pipeline and Hazardous Materials Safety Administration
ATTN: PHH-10
US Department of Transportation
East Building
1200 New Jersey Ave., SE
Washington, DC 20590

RE: Request for Interpretation – Tell-Tale Indicator Securement on Pressure Relief Devices

The Chlorine Institute (“CI” or the “Institute”) is a 193 member, not-for-profit trade association of chlorine producers worldwide, as well as chlorine packagers, distributors, users, and suppliers. The Institute’s North American Producer members account for more than 93 percent of the total chlorine production capacity of the U.S., Canada, and Mexico. Chlorine, a Division 2.3 toxic-by-inhalation hazardous (TIH) material, is used throughout the U.S. economy and is key to the protection of public health.

Recently, a DOT site inspection at one of our members’ facilities prompted some questions related to combination pressure relief devices (PRDs) installed on chlorine tank cars. Specifically, our question is with regard to the tell-tale indicator and how the requirements of 49 CFR 179.15(e)(2) and 179.100-13(a) are specifically applicable to the tell-tale indicator.

49 CFR 179.15(e)(2) states:

*“...A device must be installed to detect any accumulation of pressure between the rupture disc and the reclosing pressure relief valve. The detection device must be a needle valve, trycock or tell-tale indicator. **The detection device must be closed during transportation.**” (emphasis added)*

49 CFR 179.100-13(a) states:

*“...**Valve outlets shall be closed with approved screw plugs or other closures** fastened to prevent misplacement.” (emphasis added)*

It is clear to industry that all valves used for venting, loading, unloading, measuring or sampling must be closed and all outlets should be closed with screw plugs or other closures for transport. However, tell-tale indicators do not serve the same purpose as the service equipment addressed by §179.100-13. Tell-tale indicators are typically very small needle valves, which may or may not have a threaded outlet, that are used as leak detection features but are not directly

exposed to the product in the tank. The requirement addressed in §179.15(e)(2) only generally notes that the device must be closed, and industry interprets this to mean that only the needle valve must be closed. Therefore, our question is:

For those combination PRDs having a tell-tale indicator installed which has a threaded outlet machined in the side, is the threaded outlet also required to be closed with a screw plug during transportation?

It is understood that the primary closure of the tell-tale indicator must be closed for transportation. Does that action alone achieve compliance with §179.15(e)(2)? Or must the secondary threaded outlet on the tell-tale, if one exists, also be closed by means of a screw plug or other closure? Please see the attached schematic for a sample of this type of tell-tale indicator.

Our members are stewards of the safe handling of hazardous materials packages, and they strive to achieve compliance with the hazardous materials transportation regulations. Further clarification on this particular issue would greatly help that effort.

Thank you for your time on this matter.

Sincerely,



Robyn Kinsley
Director, Transportation

CI Request for Interpretation – PRD Tell-Tale Requirements

November 18, 2014

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