



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

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

OCT 31 2012

Mr. Paul Draper
Chief Inspector
Bureau of Explosives, TTC, Inc.
205 Kayla Lane
Longview, TX 75602

Ref. No.: 12-0183

Dear Mr. Draper:

This responds to your August 19, 2012 letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to petroleum sour crude oil in bulk packaging. You ask about a shipment of petroleum sour crude oil containing hydrogen sulfide (i.e., sour crude oil) in sufficient concentration that the vapors may present an inhalation hazard, thus requiring the material to be marked, labeled, tagged, or signed to warn of the toxic inhalation hazard as required by § 172.327. Specifically, you ask if the Pipeline and Hazardous Materials Administration (PHMSA) defines the term "sufficient concentration" for the purpose of determining whether the petroleum sour crude oil must be marked as an inhalation hazard.

The answer is no. PHMSA does not establish a concentration level for hydrogen sulfide in petroleum sour crude oil in order to determine if the vapors are an inhalation hazard. To determine whether petroleum sour crude oil presents an inhalation hazard, it must be tested to determine if the material meets division 2.3 (gas poisonous by inhalation) as defined in § 173.115(c) of the HMR. If the vapors in the petroleum sour crude oil meet the definition of a division 2.3 material, you must follow the marking and labeling requirements of § 172.327.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

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

Andrews
3172.327
Marking
12-0183

Drakeford, Carolyn (PHMSA)

From: Betts, Charles (PHMSA)
Sent: Sunday, August 19, 2012 8:22 PM
To: Drakeford, Carolyn (PHMSA)
Subject: Fw: "H2S" Concentration in Sour Crude Oil

Carolyn-

Please log and assign.

Thanks

----- Original Message -----

From: paul_draper@aar.com [mailto:paul_draper@aar.com]
Sent: Sunday, August 19, 2012 09:51 AM
To: Betts, Charles (PHMSA)
Subject: Fw: "H2S" Concentration in Sour Crude Oil

Good morning Mr. Betts, I hope all is well with you. As noted below, industry and the Bureau of Explosives Inspectors would like a better understanding in regards to the the new regulation stated in 49 CFR Section 172.327. We would appreciate an official letter of interpretation (in regards to the intent of this requirement) so we can pass this information along to our customers who do ship petroleum sour crude. We would rather be pro-active with this new marking requirement, rather than waiting on an individual to be harmed by vapors that do meet the criteria of a PIH and the tank car not marked as stated. Thanks for your time.

Paul Draper, Chief Inspector
Bureau of Explosives, TTC, Inc.
205 Kayla Lane
Longview, Texas 75602
Cell: 225-326-9065
paul_draper@aar.com

----- Forwarded by Paul Draper/TTC/AAR on 08/19/2012 08:40 AM -----

From: Sam Chapman/TTC/AAR
To: Paul Draper/TTC/AAR@AAR WASHINGTON
Date: 08/18/2012 08:44 PM
Subject:Fw: "H2S" Concentration in Sour Crude Oil

From: <cheryl.freeman@dot.gov>
To: <paul_draper@aar.com>
Date: 08/08/2012 03:45 PM
Subject:RE: "H2S" Concentration in Sour Crude Oil

Paul,
I apologize for the delay in getting back to you. Per your question below, the explanation that I have received from the chemists here in our office is that the vapors need to be tested in accordance with 49 CFR 173.115(c) in order to determine if the vapors meet the definition of poisonous by

inhalation. If the vapors meet this definition, then you must follow the requirements of 49 CFR 172.327. If you need an official letter of interpretation on DOT letterhead, please feel free to send a request to:

Mr. Charles Betts
Director, Office of Hazardous Materials Standards U.S. DOT/PHMSA (PHH-10)
1200 New Jersey Avenue
East Building, 2nd Floor
Washington, DC 20590

Thanks,
Cheryl

Cheryl West Freeman, P.E.
General Engineer
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration Office of Hazardous Materials Safety Engineering and Research
Division, PHH-20
1200 New Jersey Avenue, SE
Washington, DC 20590
(202)366-4545
Cheryl.freeman@dot.gov

-----Original Message-----

From: paul_draper@aar.com [mailto:paul_draper@aar.com]
Sent: Friday, July 20, 2012 9:06 PM
To: Freeman, Cheryl (PHMSA)
Cc: sam_chapman@aar.com; charles_hall@aar.com; paul_draper@aar.com
Subject: "H2S" Concentration in Sour Crude Oil

As we discussed at the Tank Car Committee meeting this week in Chicago, there is a concern in the chemical industry in regards to 49 CFR Section, which states;

172.327 Petroleum sour crude oil in bulk packaging. A bulk packaging used to transport petroleum crude oil containing hydrogen sulfide (i.e. sour crude oil) in sufficient concentration that vapors evolved from the crude oil may present an inhalation hazard must include a marking, label, tag, or sign to warn of the toxic hazard as follows: see (a), (b), & (c).

The question that industry and the BOE needs answered is What would be considered to be "sufficient concentration"?

We would appreciate your comments and advising of such. Thanks.

Paul Draper, Chief Inspector
Bureau of Explosives, TTC, Inc.
205 Kayla Lane
Longview, Texas 75602
Cell: 225-326-9065
paul_draper@aar.com