



U.S. Department
of Transportation

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

**Pipeline and Hazardous
Materials Safety
Administration**

MAR 19 2014

Mr. Mike Alston
Owner/General Manager
Transportation Compliance Associates, Inc.
1340 RT 30
Clinton, PA 15026

Ref. No.: 14-0014

Dear Mr. Alston:

This is in response to your email dated January 16, 2014, requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) and the International Maritime Dangerous Goods (IMDG) Code applicable to shipments of polymeric beads, expandable and plastics molding compound in ventilated freight containers, and security concerns for shipments being transported in freight containers utilizing one door off operation. In your email you include an informal email correspondence from a member of my staff and ask for a more formal letter of interpretation from this office. Your questions are paraphrased and answered as follows:

Q1. Are the standard passive ventilation systems (two to four small vents along only the top side rails of a freight container) in freight containers considered ventilated containers as referenced in § 176.907(a) and special provision 965 of the IMDG Code.

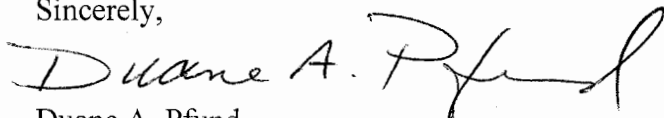
A1. The answer to your question is no. When transported in cargo transport units polymeric beads, expandable and plastics molding compounds are required by § 176.907(a) and special provision 965 of the IMDG Code to be transported in cargo transport units that provide an adequate exchange of air in the unit to prevent the build-up of an explosive atmosphere. One of the listed examples to achieve this adequate exchange of air is the use of a ventilated container. Unfortunately the term ventilated container is not a term defined in either 49 CFR or the IMDG Code. However, the ventilation that you are describing (2 or 4 passive vents at the top of the container) would not be considered an adequate exchange of air to prevent the build-up of an explosive atmosphere as required by both 49 CFR § 176.907(a) and SP 965 of the IMDG Code. The small passive vents you describe have little to no ventilation effect, and mainly equalize pressure differentials on opening and closing of containers. The pentane vapors potentially given off during transport are heavier than air. In our opinion, passive vents only along the top side rails are not sufficient to provide an adequate exchange of air in cargo transport units.

Q2. Section 176.907(a) lists a container in one door off operation as one of the methods of achieving an adequate exchange of air in the cargo transport unit. How is a freight container in one door off operation viewed and handled from a security standpoint?

A2. This office is unaware of any HMR security requirements that a cargo transport unit in one door off operation would be in conflict with. The United States Coast Guard Hazardous Materials Division notes that a freight container transported by vessel in one door off operation is viewed and handled, from a security standpoint, in compliance with the vessel's security plan requirements.

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 dark ink and is positioned above the typed name and title.

Duane A. Pfund
International Standards Coordinator
Standards and Rulemaking Division

Drakeford, Carolyn (PHMSA)

Webb
3176.907
§171.23

From: Lehman, Victoria CTR (PHMSA)
Sent: Friday, January 17, 2014 1:17 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: 49 CFR 176.907 Interpretation request
Attachments: 070155.pdf

Vessel → IMDG Code
14-0014

Hi Carolyn,

This caller requested we submit this e-mail as a formal letter of interpretation.

Thanks,
Victoria

From: Mike Alston [mailto:Mike.Alston@hazmat-1.com]
Sent: Thursday, January 16, 2014 9:06 PM
To: INFOCNTR (PHMSA)
Subject: 49 CFR 176.907 Interpretation request

Dear PHMSA:

Can you help interpret the regulations in 49 CFR 176.907 and the new IMDG SP965. I recently contacted the DOT hotline on behalf of my customer and asked if passive vents on a shipping container were considered adequate ventilation. I was directed to the attached interpretation letter #07-0155 dated October 16, 2007 which indicates that that "natural vents" or vents that are not power generated are adequate and may be used to vent a shipping container of dangerous gases.

I contacted my customer to provide them the information I received which appeared to clear up any doubts we may have had regarding ventilation. My customer then presented me with a unofficial but very credible note that they had received through one of their customers which states the following:

From: Webb, Steven (PHMSA)
Sent: Friday, January 03, 2014 10:30 AM
Subject: RE: Special Permits Feedback: Other Questions?

Thank you for the question. You correctly note that PHMSA harmonized the transport requirements for shipments of plastics molding compound and polymeric beads (UN 3314 and UN 2214) with the IMDG Code in a recent rulemaking (HM 215-L). This change was made to prevent the buildup of dangerous pentane gases in freight containers. PHMSA created § 176.907 to be consistent with IMDG Code special provision 965. The transport of plastics molding compounds and polymeric beads in cargo transport units require an adequate exchange of air in the unit. Multiple options for achieving this adequate exchange of air are given; ventilated container, open-top container, or a container in one door off operation. There are is also the option to offer these materials in refrigerated cargo transport units. Further, an exception from the adequate exchange of air within the cargo transport unit requirement is provided if the substances are; packed in hermetically sealed packages or IBC's conforming to the PG II performance level for liquid dangerous goods, and the marked hydraulic test pressure exceeds 1.5 times the total gauge pressure in the packagings or IBS's at 55 degrees C.

From looking at your question below it appears you would not like to utilize the packaging methods outlined above (which would provide an exception from the requirement to transport in a ventilated or refrigerated transport unit), and request clarification as to if a freight container with two (or 4) small passive vents would qualify as a ventilated container under the provisions of 49 CFR § 176.907 and or SP 965 of the IMDG Code. Unfortunately the term ventilated container is not a

term defined in either 49 CFR or the IMDG Code. However, the ventilation that you are describing (2 or 4 passive vents at the top of the container) would not be considered an adequate exchange of air to prevent the build-up of an explosive atmosphere as required by both 49 CFR § 176.907 and SP 965 of the IMDG Code. My personal experience with these small vents is that they have little to no ventilation effect, and mainly equalize pressure differentials on opening and closing of the containers. I do not have access to the ISO standard that you reference below to find the code number for this particular container, but an acceptable ventilated container would be something along the lines of a container commonly referred to as a "coffee container". These containers have ventilation openings over the entire length of their side walls in the floor and roof areas. This ventilation is passive, but allows for air flow into and out of the container. There are pictures of such a container under the heading of "passively ventilated containers" at the link below.

http://www.containerhandbuch.de/chb_e/stra/index.html?chb_e/stra/stra_03_01_01_01.html

Hopefully the above is helpful. Please feel free to reach out to me with additional questions or concerns. It is worth noting that this office provides formal interpretations of regulations, and answers questions via a mailed letter response. If you would like to submit a formal request for interpretation you may do so by submitting a specific question (with as much detail as possible) and your contact information (name, company name, business title, mailing address) via email to infocntr@dot.gov. If this is desired it is recommended you submit your question in the form of a letter (as the incoming letters and responses are posted on our website) which you can then scan or attach to an email.

Very Respectfully

Steve Webb

Transportation Specialist- International Standards Pipeline & Hazardous Materials Safety Administration (PHMSA) -U.S.
DOT Office of Hazardous Materials Standards
1200 New Jersey Avenue S.E., E24-422, Washington D.C. 20590
E24-422

steven.webb@dot.gov

Mr. Webb provides a very good explanation as to why passive ventilation systems are not adequate but is this the official interpretation of the regulation. Some steam ship lines will accept the natural ventilation while others will not and I feel everyone is confused by the regulation.

My second part of this question is in reference to the 49 CFR176.907 (a) When transported in cargo transport units, the cargo transport units must provide an adequate exchange of air in the unit. This adequate exchange of air may be accomplished by utilizing a ventilated container, an open-top container, or a container in one door off operation.

In a one door off operation how is this viewed and handled from a security standpoint?

Regards

Mike Alston, CHMM

Owner/General Manager

Transportation Compliance Associates, Inc.

1340 RT 30

Clinton, PA 15026

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Transportation Compliance Associates Inc. 

We are your Hazmat Compliance Partner for Rail, Truck, Air, Vessel, and Database Management

Webb, Steven (PHMSA)

From: Tiffany.A.Duffy@uscg.mil on behalf of Duffy, Tiffany A LT <Tiffany.A.Duffy@uscg.mil>
Sent: Monday, February 24, 2014 10:28 AM
To: Webb, Steven (PHMSA)
Cc: Parker, Amy
Subject: RE: Ventilated Contianer Interp

Follow Up Flag: Follow up
Flag Status: Flagged

Q2/A2: I would like to add that the security constraints/requirements may be detailed in each vessel's security plan (ISPS and MTSA), so we would like to add to your answer that they must consult with the vessel owners about such requirements.

Might I suggest the following text:

A door off operation is viewed and handled, from a security standpoint, in compliance with the vessel's security plan requirements.

Thanks for letting us take the opportunity to review this.

Sincerely,

LT Tiffany Duffy
United States Coast Guard Headquarters
Stop 7509
2703 Martin Luther King JR. AVE SE
Washington D.C. 20593-7509
Hazardous Materials Division (CG-ENG-5)
Phone: (202) 372-1403
Fax: (202) 372-8380
tiffany.a.duffy@uscg.mil

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

From: prvs=12274779d=steven.webb@dot.gov [mailto:prvs=12274779d=steven.webb@dot.gov] On Behalf Of steven.webb@dot.gov
Sent: Friday, February 21, 2014 4:46 PM
To: Parker, Amy; Duffy, Tiffany A LT
Subject: Ventilated Contianer Interp

Hello,

Please see the attached incoming interp and draft response for your comments/concurrence. Please let me know if you have any questions.

Steve Webb
Transportation Specialist- International Standards Pipeline & Hazardous Materials Safety Administration (PHMSA) -U.S.
DOT Office of Hazardous Materials Safety
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