



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

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

NOV 3 2010

Ms. Andrea Guevara  
Smart-Hose Technologies  
P.O. Box 16828  
Philadelphia, PA 19142

Ref. No.: 10-0198

Dear Mr. Guevara:

This responds to your September 3, 2010 letter requesting clarification of the emergency discharge control requirements for cargo tank motor vehicles (CTMVs) under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). You have attached a guidance document intended to be distributed to your clients for compliance assistance. The guidance document summarizes the passive shut-down requirements in § 173.315(n) and includes a list of materials that would require passive shut-down capability under the HMR. Specifically, you ask confirmation that the list of proper shipping names in your guidance document accurately identifies materials that would require passive shut-down capability under § 173.315(n).

The table in § 173.315(n)(1) specifies emergency discharge control requirements for CTMVs in liquefied compressed gas service. The requirements are specific to the type of material being transported, the type of service (i.e., metered delivery or unmetered delivery), and whether the person attending the unloading operation has an unobstructed view of the cargo tank and delivery hose. PHMSA is supportive of your efforts to list all of the materials and the circumstances that would require a passive shut-down capability in accordance with §§ 173.315(n)(1) and (n)(2) in a single guidance document to assist your clients with compliance. However, it is not PHMSA's policy to review, approve, or endorse specific guidance documents developed and published by non-government entities.

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

Sincerely,

Ben Supko  
Acting Chief, Standards Development  
Office of Hazardous Materials Standards

Eichenlaub  
§ 173.315(n)(2)  
Cargo Tank  
10-0198

September 3, 2010

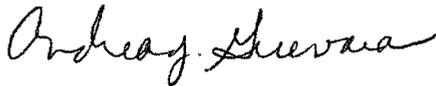
Charles E. Betts  
Chief, Standards Development  
U.S. DOT  
PHMSA Office of Hazardous Materials Standards  
1200 New Jersey Avenue, SE.  
Washington, DC 20590-0001

**RE: Request for Letter of Interpretation**

Dear Mr. Betts;

As a manufacturer of an approved passive shutoff device hose assembly we would like to assist our customers with their regulatory compliance activities. We have conducted a review of 49 CFR 173.315 (n)(2), specifically regarding which chemicals are included in the mandate for a passive shutoff device. Our review has resulted in the attached list of materials. We would like to receive confirmation that our list is correct before we begin using the list to assist our customers. Your review and comments would be greatly appreciated. Thank you.

Sincerely,



Andrea Guevara  
President

**Table from 49 CFR 173.315: Highlighted areas of the table indicate passive shutoff device requirement.**

§173.315(n)(1)(*)	Material	Delivery service	Required emergency discharge control capability
(i)	Division 2.2 materials with no subsidiary hazard, excluding anhydrous ammonia.	All	None
(ii)	Division 2.3 materials	All	Paragraph (n)(2) of this section.
(iii)	Division 2.2 materials with a subsidiary hazard, Division 2.1 materials, and anhydrous ammonia.	Other than metered delivery service.	Paragraph (n)(2) of this section.
(iv)	Division 2.2 materials with a subsidiary hazard, Division 2.1 materials, and anhydrous ammonia in a cargo tank motor vehicle with a capacity of 13,247.5 L (3,500 water gallons) or less.	Other than metered delivery service.	Paragraph (n)(3) of this section.
(v)	Division 2.2 materials with a subsidiary hazard, Division 2.1 materials, and anhydrous ammonia in a cargo tank motor vehicle with a capacity greater than 13,247.5L (3,500 water gallons).	Other than metered delivery service.	Paragraph (n)(3) of this section, and, for obstructed view deliveries where permitted by § 177.840(p) of this subchapter, paragraph (n)(2) or (n)(4) of this section.
(vi)	Division 2.2 materials with a subsidiary hazard, Division 2.1 materials, and anhydrous ammonia in a cargo tank with a capacity of greater than 13,247.5 L (3,500 water gallons).	Both metered delivery and other than metered delivery service.	Paragraph (n)(2) of this section, provided the system operates for both metered and other than metered deliveries; otherwise, paragraphs (n)(2) and (n)(3) of this section.

## **Chemicals required to have a passive shutoff device:**

Anhydrous Ammonia – other than metered delivery or metered delivery >3500 water gallons and, for obstructed view deliveries where permitted by § 177.840(p)

### **Division 2.3 materials – all types of delivery**

Organic phosphate, mixed with compressed gas or Organic phosphate compound, mixed with compressed gas or Organic phosphorus compound, mixed with compressed gas

Parathion and compressed gas mixture

Gas identification set

Carbon monoxide, refrigerated liquid (cryogenic liquid)

Ammonia, anhydrous

Boron trifluoride

Carbon monoxide, compressed

Chlorine

Coal gas, compressed

Cyanogen

Ethylene oxide or Ethylene oxide with nitrogen up to a total pressure of 1MPa (10 bar) at 50 degrees C

Fluorine, compressed

Hydrogen bromide, anhydrous

Hydrogen chloride, anhydrous

Hydrogen sulfide

Methyl bromide

Methyl mercaptan

Dinitrogen tetroxide

Nitrosyl chloride

Oil gas, compressed

Phosgene

Sulfur dioxide

Trifluorochloroethylene, stabilized

Chloropicrin and methyl bromide mixtures

Chloropicrin and methyl chloride mixtures

Cyanogen chloride, stabilized

Hexaethyl tetraphosphate and compressed gas mixtures

Nitric oxide, compressed  
Boron trichloride  
Chlorine trifluoride  
Silicon tetrafluoride  
Diborane  
Compressed gas, toxic, flammable, n.o.s. Inhalation Hazard Zone A  
Compressed gas, toxic, flammable, n.o.s. Inhalation Hazard Zone B  
Compressed gas, toxic, flammable, n.o.s. Inhalation Hazard Zone C  
Compressed gas, toxic, flammable, n.o.s. Inhalation Hazard Zone D  
Compressed gas, toxic, n.o.s. Inhalation Hazard Zone A  
Compressed gas, toxic, n.o.s. Inhalation Hazard Zone B  
Compressed gas, toxic, n.o.s. Inhalation Hazard Zone C  
Compressed gas, toxic, n.o.s. Inhalation Hazard Zone D  
Insecticide gases, toxic, n.o.s.  
Nitric oxide and dinitrogen tetroxide mixtures or Nitric oxide and nitrogen dioxide mixtures  
Hydrogen chloride, refrigerated liquid  
Arsine  
Dichlorosilane  
Oxygen difluoride, compressed  
Sulfuryl fluoride  
Germane  
Selenium hexafluoride  
Tellurium hexafluoride  
Tungsten hexafluoride  
Hydrogen iodide, anhydrous  
Phosphorus pentafluoride  
Phosphine  
Hydrogen selenide, anhydrous  
Carbonyl sulfide  
Carbonyl fluoride  
Sulfur tetrafluoride  
Hexafluoroacetone  
Nitrogen trioxide  
Methylchlorosilane  
Chlorine pentafluoride  
Stibine

Bromine chloride

Trifluoroacetyl chloride

Perchloryl fluoride

Liquefied gas, toxic, flammable, n.o.s. Inhalation Hazard Zone A

Liquefied gas, toxic, flammable, n.o.s. Inhalation Hazard Zone B

Liquefied gas, toxic, flammable, n.o.s. Inhalation Hazard Zone C

Liquefied gas, toxic, flammable, n.o.s. Inhalation Hazard Zone D

Liquefied gas, toxic, n.o.s. Inhalation Hazard Zone A

Liquefied gas, toxic, n.o.s. Inhalation Hazard Zone B

Liquefied gas, toxic, n.o.s. Inhalation Hazard Zone C

Liquefied gas, toxic, n.o.s. Inhalation Hazard Zone D

Gas sample, non-pressurized, toxic, flammable, n.o.s., not refrigerated liquid

Gas sample, non-pressurized, toxic, n.o.s., not refrigerated liquid

Ethylene oxide and carbon dioxide mixture with more than 87 percent ethylene oxide

Compressed gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone A

Compressed gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone B

Compressed gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone C

Compressed gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone D

Compressed gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone A

Compressed gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone B

Compressed gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone C

Compressed gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone D

Compressed gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone A

Compressed gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone B

Compressed gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone C

Compressed gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone D

Compressed gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone A

Compressed gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone B

Compressed gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone C

Compressed gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone D

Liquefied gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone A

Liquefied gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone B

Liquefied gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone C

Liquefied gas, toxic, oxidizing, n.o.s. Inhalation Hazard Zone D

Liquefied gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone A

Liquefied gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone B

Aerosols, flammable, (each not exceeding 1 L capacity)  
Aerosols, flammable, n.o.s. (engine starting fluid) (each not exceeding 1 L capacity)  
Compressed gas, flammable, n.o.s.  
Deuterium, compressed  
1,1-Difluoroethylene or Refrigerant gas R 1132a  
Ethane, refrigerated liquid  
Ethylene  
Hydrocarbon gas mixture, compressed, n.o.s.  
Hydrocarbon gas mixture, liquefied, n.o.s.  
Hydrogen, refrigerated liquid (cryogenic liquid)  
Isobutane see also Petroleum gases, liquefied  
Methane, compressed or Natural gas, compressed (with high methane content)  
Methane, refrigerated liquid (cryogenic liquid) or Natural gas, refrigerated liquid (cryogenic liquid), with high methane content)  
Propane see also Petroleum gases, liquefied  
Hydrogen and Methane mixtures, compressed  
1,1,1-Trifluoroethane, or Refrigerant gas R 143a  
Gas cartridges, (flammable) without a release device, non-refillable  
Receptacles, small, containing gas or gas cartridges (flammable), without release device, not refillable and not exceeding 1 L capacity  
2,2-Dimethylpropane  
Propadiene, stabilized  
Silane  
Bromotrifluoroethylene  
Ethylacetylene, stabilized  
Ethyl fluoride or Refrigerant gas R161  
Methyl fluoride, or Refrigerant gas R 41  
1-Chloro-1,1-difluoroethane or Refrigerant gas R 142b  
Cyclobutane  
Ethylene, acetylene and propylene in mixture, refrigerated liquid with at least 71.5 percent ethylene with not more than 22.5 percent acetylene and not more than 6 percent propylene  
Devices, small, hydrocarbon gas powered or Hydrocarbon gas refills for small devices with release device  
Perfluoro(methyl vinyl ether)  
Perfluoro(ethyl vinyl ether)  
Liquefied gas, flammable, n.o.s.  
Gas sample, non-pressurized, flammable, n.o.s., not refrigerated liquid

Liquefied gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone C  
Liquefied gas, toxic, corrosive, n.o.s. Inhalation Hazard Zone D  
Liquefied gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone A  
Liquefied gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone B  
Liquefied gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone C  
Liquefied gas, toxic, flammable, corrosive, n.o.s. Inhalation Hazard Zone D  
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone A  
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone B  
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone C  
Liquefied gas, toxic, oxidizing, corrosive, n.o.s. Inhalation Hazard Zone D  
Ammonia solution, relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia  
Insecticide gases, toxic, flammable, n.o.s. Inhalation Hazard Zone A  
Insecticide gases, toxic, flammable, n.o.s. Inhalation Hazard Zone B  
Insecticide gases, toxic, flammable, n.o.s. Inhalation Hazard Zone C  
Insecticide gases, toxic, flammable, n.o.s. Inhalation Hazard Zone D

**Division 2.2 materials with a subsidiary hazard – other than metered delivery or metered delivery >3500 water gallons and, for obstructed view deliveries where permitted by § 177.840(p)**

Gas, refrigerated liquid, oxidizing, n.o.s. (*cryogenic liquid*)  
Compressed gas, oxidizing, n.o.s.  
Liquefied gas, oxidizing, n.o.s.  
Nitrogen trifluoride  
Nitrous oxide, refrigerated liquid  
Receptacles, small, containing gas or gas cartridges (*oxidizing*), without release device, not refillable and not exceeding 1 L capacity  
Aerosols, *poison*, each not exceeding 1 L capacity  
Aerosols, *corrosive*, Packing Group II or III, (each not exceeding 1 L capacity)  
Oxygen, refrigerated liquid (*cryogenic liquid*)  
Nitrous oxide  
Oxygen, compressed  
Air, refrigerated liquid, (*cryogenic liquid*)  
Air, refrigerated liquid, (*cryogenic liquid*) non-pressurized

**Division 2.1 Materials – other than metered delivery or metered delivery >3500 water gallons and, for obstructed view deliveries where permitted by § 177.840(p)**

Diborane mixtures  
Refrigerant gases, n.o.s. or Dispersant gases, n.o.s.  
Ethane-Propane mixture, refrigerated liquid  
Acetylene, dissolved  
Butadienes, stabilized or Butadienes and Hydrocarbon mixture, stabilized, containing more than 40% butadienes  
Butane see also Petroleum gases, liquefied  
Butylene see also Petroleum gases, liquefied  
Cyclopropane  
1,1-Difluoroethane or Refrigerant gas R 152a  
Dimethylamine, anhydrous  
Dimethyl ether  
Ethane  
Ethylamine  
Ethyl chloride  
Ethylene, refrigerated liquid (cryogenic liquid)  
Ethyl methyl ether  
Ethylene oxide and carbon dioxide mixtures with more than 9 percent but not more than 87 percent ethylene oxide  
Hydrogen, compressed  
Isobutylene see also Petroleum gases, liquefied  
Lighter refills containing flammable gas not exceeding 4 fluid ounces (7.22 cubic inches) and 65 grams of flammable gas  
Lighters containing flammable gas  
Methyl acetylene and propadiene mixtures, stabilized  
Methylamine, anhydrous  
Methyl chloride, or Refrigerant gas R 40  
Petroleum gases, liquefied or Liquefied petroleum gas  
Propylene see also Petroleum gases, liquefied  
Tetrafluoroethylene, stabilized  
Trimethylamine, anhydrous  
Vinyl bromide, stabilized  
Vinyl chloride, stabilized  
Vinyl methyl ether, stabilized  
Vinyl fluoride, stabilized  
Methyl chloride and methylene chloride mixtures