

FILE

PUCO EXHIBIT FILING

39

Date of Hearing: 5/21/14

Case No. 14-331-TH-EUF

PUCO Case Caption: Wooden Cartage Company

PUCO

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2014 JUN 20 PM 4:21

List of exhibits being filed:

STAFF Exhibits 1, 2, 3, 4, 5

Respondent Exhibits 1, 2, 3, 4, 5, 6

Reporter's Signature: Michael D. Appender
Date Submitted: _____

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Technician Jim Date Processed JUN 23 2014

BEFORE THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In Re: Roeder Cartage Company : Case No.
Incorporated. : 14-331-TR-CVF

- - -

PROCEEDINGS

Before Kerry Sheets, Attorney Examiner, held at
the offices of the Public Utilities Commission
of Ohio, 180 East Broad Street, Hearing Room No.
11-C, Columbus, Ohio, on Tuesday, May 27, 2014,
at 10:00 A.M.

- - -

Armstrong & Okey, Inc.
222 East Town Street, 2nd Floor
Columbus, Ohio 43215
(614) 224-9481 - (800) 223-9481
Fax - (614) 224-5724

- - -

APPEARANCES:

Armstrong & Okey, Inc., Columbus, Ohio (614) 224-9481

DRIVER/VEHICLE EXAMINATION REPORT

Ohio

Report Number: OH3214301526

Inspection Date: 8/14/2013 Certification Date: 08/20/2013

Time Started: 09:07 Time Ended: 09:55

Inspection Level: II - Walk-Around

HM Inspection Type: Bulk Inspection

ROEDER CARTAGE COMPANY INCORPORATED

1979 NORTH DIXIE HWY

LIMA, OH 45801-3253

USDOT #: 188304

Phone #: (419)221-1600

MC/MX #: 147949

Fax #:

State #:

Driver: ROYER, GUY E

License #: SW324814

State: OH

Date of Birth: 11/05/1968

Location: ROADSIDE WB REST AREA

MilePost:

Highway: US30

Origin: LIMA, OH

Bill of Lading: NONE

County: ALLEN

Destination: CAIRO, OH

Cargo: HAZ MAT (ALL)

Shipper: ROEDER CARTAGE

VEHICLE IDENTIFICATION:

Unit Type	Make	Year	State	License#	Equipment ID	Unit VIN	GVWR	CVSA #	CVSA Issued #	OOS Stkr.#
1	TT	FRHT	2012	OH	PVR1804	570	1FVXA7CG5CDBL5926	52,000	18470848	
2	ST	BREN	1995	ME	1949098	2145	10BGU521XSF0A5448	68,000		

BRAKE ADJUSTMENTS: No brake measurements recorded.

VIOLATIONS:

Vio Code	Section	Unit	OOS	Citation #	Verify*	Crash	Violation Description
177.817A	177.817(a)	2	Y		A	N	No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload
171.2F	171.2(f)	2	N		N	N	Transporting Hazardous Materials not in accordance with Special Permit 12930-not carried aboard vehicle as required.

* A - Repaired at Scene; N - Non-OOS or Driver OOS Violation

HazMat: 8 Corrosive Material,

Placard: Yes Cargo Tank: 312

Special Checks:

- ☐ Alcohol/Controlled Substance Check
☐ Conducted by Local Jurisdiction
☐ Size and Weight Enforcement

- ☐ Traffic Enforcement
☐ PASA Conducted Inspection
☐ Drug Interdiction Search

- ☐ Post Crash Inspection
☐ PBBT Inspection
 Arrests:

Inspection Notes: USSP HM #1

Driver stopped for inspection at WB RA on US 30 in Lima, OH. Driver just left yard on N. Dixie Hwy in Lima with a cargo tank (U-2145) that contained a residue shipment of UN1830 Sulfuric Acid, 8, II and was enroute to Chemtrade in Cairo, OH to reload. Cargo tank was displaying class 8 placards with 1830 markings on all four sides.

Driver was asked for bill of lading or shipping paper from last load. He stated that it was turned in at carrier and did not have it. He checked truck to see if he had an old shipping paper or something that met the requirements of 172.200. The only thing he could produce was a MSDS for Sulfuric Acid. Driver called carrier and an employee from Roeder brought to the inspection location a shipping paper with the proper shipping information. Driver was allowed to continue.

The cargo tank, a 1995 MC 312 Brenner is transported under SP-12930. The driver could not produce a copy of the special permit that is required to be carried under the modal requirement in section 10 of the permit. SP number shown on right side of cargo tank.

Photos taken.

Special Study Fields:

Special Study1: MUNI

Special Study6:

Special Study2:

Special Study7:

Special Study3:

Special Study8:

Special Study4:

Special Study9:

Special Study5:

Special Study10:

Locally Defined Fields:

Loaded by Carrier (Y/N): N

Loaded by Shipper (Y/N): N

Report Prepared By:

Badge #:

Copy Received By:

Page 1 of 2

K Hedglin

3214

ROYER, GUY E

1526"Ä

OH3214301526

DRIVER/VEHICLE EXAMINATION REPORT



Report Number: OH3214301526
 Inspection Date: 8/14/2013 Certification Date: 08/20/2013
 Time Started: 09:07 Time Ended: 09:55
 Inspection Level: II - Walk-Around
 HM Inspection Type: Bulk Inspection

ROEDER CARTAGE COMPANY INCORPORATED
 1979 NORTH DIXIE HWY
 LIMA, OH 45801-3253
 USDOT #: 188304 Phone #: (419)221-1600
 MC/MX #: 147949 Fax #:
 State #:

Driver: ROYER, GUY E
 License #: SW324814 State: OH
 Date of Birth: 11/05/1968

Ship Docs Prep by Carrier(Y/N): N	Ship Doc Prep by Shipper(Y/N): N
Haz Class A: 8	ID # A: UN1830
Packing Group A: II	Gross Weight A: RESIDUE
RQ (A): Y	For-Hire Carrier: Y
Driver Address: 814 BELLEFONTAINE ST	Driver City: WAPAKONETA
Driver State: OH	Driver Zip: 45895
Photos Taken (Y/N): Y	Reason Code: USSP
FMCSA Credentials Verified(Y/N): Y	CDL Verified (Y/N): Y
FMCSA OOS Order Issued(Y/N): N	HM Safety Permit Verified(Y/N): N

* Pursuant to authority contained in Title 49, Code of Federal Regulations, Section 396.9, I hereby declare vehicles with defects followed by an "Y" in the "Out of Service" column in the violations discovered section of this report OUT OF SERVICE. No person shall remove the out of service stickers applied to these vehicles, or operate such vehicles until the out of service defects have been repaired and the vehicles have been restored to safe operating condition.

All violations of the FHMR and FMCSR or Title 49 of the Ohio Revised Code will be reviewed by the PUCO's Transportation Department to determine whether civil forfeitures should be assessed against any responsible parties in accordance with the penalty provisions of Title 49 of the Ohio Revised Code. If civil forfeitures are assessed, you will receive a separate notice by mail. These penalties may be assessed to motor carriers, shippers, and/or drivers.

ATTENTION DRIVER: This report must be sent to the motor carrier whose name appears at the top of this inspection report within 24 hours. If the inspection report cannot be delivered within 24 hours the driver must mail or fax the inspection report to the motor carrier.

ATTENTION MOTOR CARRIER: The motor carrier must examine this report and repair all the vehicle defects/violations noted above -AND- The motor carrier must sign the Certification of Repairs below and return the signed form to: Public Utilities Commission of Ohio, T ASD - 4th floor, 180 E Broad St, Columbus, OH 43215-3793 -OR- Fax (614) 752-9274 within 15 days of the inspection. If "No Violations Were Discovered" then you do not need to return this report. Failure to return this report with the required certification can result in penalties up to \$1,000 per day for each day the violation continues, up to a total of \$10,000. If you have any questions, please contact (614) 466-0429.

MOTOR CARRIER CERTIFICATION OF COMPLETED REPAIRS: The undersigned certifies that all violations noted on this report have been corrected and action taken to assure compliance with the Federal Motor Carrier Safety & Hazardous Materials Regulations insofar as they are applicable to motor carriers and drivers. A false certification of repairs is required to be prosecuted with penalties up to \$10,000.

Signature of Carrier Official: X Title: _____ Date: _____

Failure to return this report with the required certification can result in penalties up to \$1,000 per day for each day the violation continues, up to a total of \$10,000.

Signature of Repairer: X Facility: _____ Date: _____

Report Prepared By:
K Hedglin

Badge #:
3214

Copy Received By:
ROYER, GUY E

Page 2 of 2

1526"Ä

OH3214301526

Hazmat Civil Forfeiture Violations Chart

Leaking Container Violations

10 points

- Package integrity failure
- Package valves and closures not securely closed

Packaging, Segregation, & Handling Violations

8 Points

- Segregation & Loading
- HM Vehicle attendance
- **Fail to Secure** HM package **WITH** motion/shifting
- Over 5% outage in propane home storage tank in transportation

6 Points

- **Specification/performance packaging** does not meet requirements
- **Bulk Package:** weight or temperature exceeds that allowed by specification
- **Cargo Tank/Bulk Package:** Test marking **not displayed** or tests **not completed**
 - **6 points for first test/inspection not Conducted OR Displayed;**
 - **+1 point for each additional cargo tank test/inspection**
- **Cargo Tank:** *manual* remote shutoff inoperable
- **LPG Cargo Tank:** *handheld* remote shutoff inoperable

4 Points

- Failure to **secure** HM packages with **NO** motion/shifting

3 Points

- **Cargo Tank/Bulk Package:** Double bulkhead **drain plugged**

Hazmat Civil Forfeiture Violations Chart

Non-Paperwork Hazard Communication Violations

6 Points

- Proper HM **PLACARDS** not offered/affixed-
 - Missing *2 of 4 sides* = **3 points**
 - Missing *1 of 4 sides* = **NAV**
 - **+6 points for each additional** hazard class missing
 - Displaying a sign (drive safely, ect.) that **could be confused with a Placard**, as per 172.502 = **2 Points**; If on *1 side* = **NAV**
- Proper HM **MARKINGS** not offered/affixed
 - Missing *2 of 4 sides* = **3 points**
 - Missing *1 of 4 sides* = **NAV**
 - **+6 points for each additional** hazard class missing
- Packages offered/accepted without proper HM **MARKINGS**
 - (+1 for required additional info: Examples: PIH, Hot, non-odorized, etc.)
- Packages offered/accepted without proper HM **LABELS**
 - (**+6 points** for subsidiary hazard class)
- **Misrepresenting hazmat** present on vehicle

3 Points

- **No emergency marking** on Cargo Tank emergency remote shutoff
- Package not marked with **special permit number** when required
- HM **MARKING** – no technical name

Paperwork Related Hazard Communication Violations

6 Points

- **No proper HM SHIPPING PAPER present** –
 - 172.202(a)(1) to (7): each **missing element** worth **1 point**
 - If **only 1** element missing = **NAV**
- **Hazardous waste manifest** not as required
- Fail to have a HM **Safety Permit** on file as required
- Violation of PHSM **Special Permit** requirements
- HM **Training** Not As Required
 - (-2 extent for each completed, ie. Awareness)

Hazmat Civil Forfeiture Violations Chart

3 Points

- **HM SHIPPING PAPERS** – no **technical names** per 172.203 (c) or (k)
 - (+1 point for Poison inhale haz, Dang. when wet 172.203 violations)
- **HM SHIPPING PAPERS not accessible-**
 - HM shipping papers **not tabbed or first** / HM entries **not distinguished**
- No 24 Hour Emergency Response **Phone Number** on Shipping Papers
- **NO EMERGENCY RESPONSE INFORMATION** (Subpart G) not as required
 - **No Written ER info/MSDS** (no book or sheet)
- **EMERGENCY RESPONSE INFORMATION: not easily accessible**
 - Not located instantly, within arms reach, etc.
 - **-1 Point** Extent
- Fail to **maintain a copy** of the **HM safety Permit** on the vehicle when required
- No **emergency discharge procedure** with LPG Cargo Tank

No Point Hazmat Violations

- **PLACARD/MARKING/LABELING: visibility & display** (faded/obscured)
- Cargo Tank Part 180 marking **not properly placed** (180.415(b)(2))
- No **ltd. Qty, RQ, DOT-SP** on SHIPPING PAPERS
- **Unauthorized abbreviation** used in proper shipping name
- Technical name **not in association** with proper shipping name
 - Examples: Out of sequence, not in parenthesis
- “UN” instead of “NA” on shipping papers
- Minor typographical errors on shipping papers
- No **current copy** of Federal or Uniform Hazmat Permit
- **Failing to register** for Federal Hazmat Permit

Hazmat Civil Forfeiture Violations Chart

Material Hazard Chart

POINTS

Hazard Classes/Divisions

1.5

1.1	6.1	Any PIH
2.3	7	

1.3

1.2	4.3
1.3	

1.1

2.1	4.1	4.2
3 (flammable)		

0.9

5.1	8
5.2	

0.7

1.4
1.5

0.5

1.6	3 (Combustible PGIII)	ORM-D	LTD-QTY
2.2	6.2	9	

Point Modifiers

+ or - all that apply	
PG I	+0.3
PG II	0.0
PG III	-0.3
Haz. Waste	+0.1
Haz. Substance	+0.1
MARPOL	+0.1

Hazardous Amount Chart

POINTS

AMOUNT

1.0

35,000+ LBS	15,876+ KGS	4,375+ Gallons
Any Cargo Tank w/ 2.1 & Class 3 Flammable		

0.6

10,000-34,999 LBS	4,546-15,875 KGS	1,250-4,374 Gallons
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0.4

1,000-9,999 LBS	454-4,535 KGS	125-1,249 Gallons
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0.2

Less than 1,000 LBS	Less than 454 KGS	Less than 124 Gallons
Any Cargo Tank-Non-Flammable Residue		

0.1

Less than 100 LBS	Less than 45 KGS	Less than 12.5 Gallons
-------------------	------------------	------------------------

0.0

Less than 5 LBS	Less than 2 KGS	Less than 0.625 Gallon
-----------------	-----------------	------------------------

Hazmat Assessment Worksheet

Assigned CO: Michael Hines

Case Summary

Case Number: OH3214301526C
 Respondent: ROEDER CARTAGE COMPANY INCORPORATED
 USDOT: 00188304
 Address: 1979 N. DIXIE HIGHWAY
 LIMA, OH 45801
 Inspection: Hazmat on 8/14/2013 (281 days ago)
 Status: Admin Hearing Saved
 Respondent Type: Carrier

Assessments Pending Review

Non-Hazmat: 0 Last Letter: NPD
 Hazmat: 0 Letter Sent: 2/12/2014
 Compliance Review: 0

Code	Violation	Total Points	Assessed	Post Conference Amount	Commission Ordered Forfeiture			
171.2F	Transporting Hazardous Materials not in accordance with Special Permit 12930-not carried aboard vehicle as required.	0	\$360.00	\$360.00				
177.817A	No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload	0	\$720.00	\$720.00				

Assessment DetailsEdit Violation Information

Respondent Type	Carrier	Code	171.2F
Violation	Transporting Hazardous Materials not in accordance with Special Permit 12930-not carried aboard vehicle as required.		
Gravity	3.00		
Extent	0.00	Material Hazard	1.00
Actual Harm	0.00	Other	0.00
Respondent History	1.00	Culpability	1.00
Amount of Material	0.20	Assessed	\$360.00
Conference Amount	360.00	Commission Ordered	
Notes			

Save Hazmat Assessment

Hazmat History Information

Initial History 1 Current History 1

Total Amounts

5/23/2014

Hazmat Assessment Worksheet

Assessed: \$1,080.00

Post Conference: \$1,080.00

Commission Ordered:

Total Fine: \$1,080.00

Save Fine

Hazmat Assessment Worksheet

Assigned CO: Michael Hines

Case Summary

Case Number: OH3214301526C
 Respondent: ROEDER CARTAGE COMPANY INCORPORATED
 USDOT: 00188304
 Address: 1979 N. DIXIE HIGHWAY
 LIMA, OH 45801
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177.817A	No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload	0	\$720.00	\$720.00				

Assessment Details

Edit Violation Information

Respondent Type: Code: 177.817A
 Violation: No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload
 Gravity: 6.00
 Extent: 0.00 Material Hazard 1.00
 Actual Harm: 0.00 Other 0.00
 Respondent History: 1.00 Culpability 1.00
 Amount of Material: 0.20 Assessed \$720.00
 Conference Amount: 720.00 Commission Ordered
 Notes:

Save Hazmat Assessment

Hazmat History Information

Initial History 1 Current History 1

Total Amounts

5/23/2014

Hazmat Assessment Worksheet

Assessed:	\$1,080.00	Post Conference:	\$1,080.00
Commission Ordered:		Total Fine:	\$1,080.00

Save Fine



Public Utilities Commission

John R. Kasich, Governor
Todd A. Snitchler, Chairman

Commissioners

Steven D. Lesser
Asim Z. Haque
Lynn Slaby
M. Beth Trombold

02/12/2014

OH3214301526C
ROBERT MITCHELL, ROEDER CARTAGE COMPANY
1979 N. DIXIE HIGHWAY
LIMA, OH 45801

RE: **NOTICE OF PRELIMINARY
DETERMINATION**
Case No. OH3214301526C

Dear Sir or Madam:

On 08/14/2013, a vehicle operated by ROEDER CARTAGE COMPANY INCORPORATED, and driven by GUY E ROYER, was inspected within the State of Ohio. As the result of discovery of the following violations of the Commission's rules, Staff of the Commission timely notified ROEDER CARTAGE COMPANY INCORPORATED (Respondent) pursuant to rule 4901:2-7-07, Ohio Administrative Code (O.A.C.), that it intended to assess a civil forfeiture against the Respondent in the following amount:

CODE	GROUP	VIOLATION	FORFEITURE
171.2F	-	Transporting Hazardous Materials not in accordance with Special Permit 12930-not carried aboard vehicle as required.	360.00
177.817A	-	No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload	720.00
		Total Hazmat	1080.00

TOTAL AMOUNT DUE: \$1,080.00

A conference was conducted pursuant to rule 4901:2-7-10, O.A.C., at which the Respondent had a full opportunity to present any reasons why the violation did not occur as alleged, mitigating circumstances regarding the amount of any forfeiture, and any other information relevant to the action proposed to be taken by Staff.

As a result of the conference, Staff has made a Preliminary Determination that the Commission should assess a civil forfeiture against ROEDER CARTAGE COMPANY INCORPORATED in the following amount:

CODE	GROUP	VIOLATION	FORFEITURE
------	-------	-----------	------------

180 East Broad Street
Columbus, Ohio 43215-3793

(614) 466-3018
www.PUCO.ohio.gov

An equal opportunity employer and service provider



Public Utilities Commission

John R. Kasich, Governor
Todd A. Snitchler, Chairman

Commissioners

Steven D. Lesser
Asim Z. Haque
Lynn Slaby
M. Beth Trombold

171.2F	-	Transporting Hazardous Materials not in accordance with Special Permit 12930-not carried aboard vehicle as required.	360.00
177.817A	-	No shipping papers (carrier), Driver transporting a cargo tank with a residue shipment of UN1830, Sulfuric Acid 8, II; enroute to reload	720.00
		Total Hazmat	1080.00

TOTAL AMOUNT DUE: \$1,080.00

Within 30 days of this notice, you must either: (1) pay the assessed civil forfeiture or (2) file a written request for an administrative hearing pursuant to rule 4901:2-7-13, O.A.C. Failure to file a written request for an administrative hearing within 30 days shall constitute a waiver of your right to further contest the violations and will conclusively establish the occurrence of the violations. Such failure shall also constitute a waiver of your right to further contest liability to the state of Ohio for the civil forfeiture described in the notice and will result in the forfeiture amount being referred to the Ohio Attorney General's office for collection.

Please consult the enclosed instruction sheet for additional information regarding this Notice of Preliminary Determination.

Sincerely,

Milan Orbovich, Director
Transportation Department

Compliance Officer: Michael Hines

November 9, 2012



U.S. Department
of Transportation

East Building, PHH-30
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 12930
(EIGHTH REVISION)

EXPIRATION DATE: October 31, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Roeder Cartage Company, Inc.
Lima, OH
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain lined DOT Specification MC312, DOT Specification 407, and DOT Specification 412 cargo tank motor vehicles which are not subject to the internal visual inspections required by § 180.407(c), (e) and (f). This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. Party status will not be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 180.407(c), (e) and (f) in that periodic internal visual inspection is not required.
5. BASIS: This special permit is based on the application of Roeder Cartage Company, Inc. dated February 4, 2011, submitted in accordance with § 107.105, the public

November 9, 2012

proceeding thereon and additional information dated
September 9, 2011 and October 12, 2012.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Hydrochloric acid, solution	8	UN1789	II
Hydrofluoric Acid, solution	8	UN1790	II
Sulfuric acid with more than 51% acid	8	UN1830	II
Nitric Acid	8	UN2031	II
Phosphoric acid, solution	8	UN1805	III

7. SAFETY CONTROL MEASURES:a. PACKAGING - Packagings prescribed are:

(1) Ten PTFE lined DOT Specification MC 312, DOT Specification 407, and DOT Specification 412 cargo tank motor vehicles identified as Owner Unit Numbers 2135, 5210, 5250, 5260, 2145, 5280, 2165, 2143, 5220, 5230, 5301, and 2171. Each cargo tank is 5000 gallons in capacity.

(2) Each cargo tank must be in dedicated service.

(3) Other cargo tank motor vehicles used under this special permit must be identified in writing to and acknowledged in writing by the Office of Hazardous Materials Special Permits and Approvals (OHMSPA), prior to the first use.

b. TESTING -

(1) Each cargo tank must be tested and inspected as specified for DOT Specification MC 312, DOT Specification 407, and DOT Specification 412 cargo tank motor vehicles in § 180.605(c) except that the internal

November 9, 2012

visual inspection is waived. In lieu of opening the tanks for internal inspection, the lining inspection procedure recommended by Nisshin Gulf Coast, Inc. or Nisshin Corporation (lining installers) on file with the OHMSPA must be followed. The procedure is summarized as follows:

(i) Collect analysis data for Fe contamination of the last five loadings of the cargo tank as measured by ICP-MS or GFAA.

(ii) Compare these values to the Fe contamination levels of the chemical before it was introduced to the cargo tank.

(iii) If the after-filling contamination levels are 50 ppb or greater than the corresponding values before filling, a defect in the tank lining is indicated. If the exterior valves, piping, etc. used to load the tank are free from defects, and any other possible sources of contamination have been eliminated, the tank lining must be inspected visually and by spark testing.

c. OPERATIONAL CONTROLS - The special permit holder must maintain records of product contamination for each shipment, as described above. The analysis of product contamination must be completed before the cargo tank is refilled and, in any case, within 15 days after the lading is unloaded. Records of contamination analysis must be retained for at least the five most recent shipments.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.

b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

c. Each cargo tank motor vehicle must be marked on the right-side near the front "DOT-SP 12930" in accordance with the provisions of § 172.302(b) and (c).

November 9, 2012

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo tank motor vehicle used to transport materials covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.


Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)-"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: LMajors/TG

EXHIBIT
Resident 2

RCC

ROEDER CARTAGE CO., INC.

2145

TEFLON LINING
NO HEAT OR WELDING
ON TRAILER

ROEDER
CO. INC.
OHIO

EXHIBIT

Revised 3

UP DOWN

VISION





CHEMTRADE

STRAIGHT BILL OF LADING - SHORT FORM

43474

SHIPPER: CHEMTRADE REFINERY SERVICES INC.		TIME IN	SHIPPING WEIGHTS * This shipment is correctly described. Weights recorded are correct subject to verification by governing inspection and weighing bureau.	GROSS: 77760	CARRIER MUST SHOW B/L NUMBER ON ALL FREIGHT BILLS
CONSIGNEE: KMG Electronic Chem. ECD LOCATION 250 WILLIAM WHITE BOULEVARD PUEBLO 81001 CO US		TIME OUT	NET: 32340	TARE: 45420	
			SEAL NO: 11616309		
POINT OF ORIGIN	CUSTOMER ORDER NUMBER	ORDER NUMBER	B/L NUMBER		
CAIRO SULPHUR PRODUCT, CAIRO, OH	232554	1010257	80612347		
CARRIER NAME	REQUIRED SHIP DATE	DATE SHIPPED	CONSOLIDATED B/L NO		
CUSTOMER PICKUP	Jul 25, 2012	7-25-12			
TRANSPORTATION MODE	INVOICE TO BUYER	VEHICLE TIC NUMBER			
Customer Pick-up	KMG Electronic Chemicals, Inc	2145			
ROUTING	PAGE NUMBER				
	1 of 1				

NO. AND DESCRIPTION OF PACKS	HM	DESCRIPTION OF ARTICLES AND SPECIAL MARKS	ACTUAL WEIGHT
1 TT 24.00 Ton	X	RQ, UN1830, SULFURIC ACID, 8, PG II ULTRA PURE SULFURIC ACID ER GUIDE #137 4 PLACARDS REQUIRED; CLASS 8, CORROSIVE Storage Tank Number : <u>L</u> NUMBER SEAL WITH CORRESPONDING SEAL NUMBER LISTED ON B/L DRIVER MUST HAVE PROPER PERSONAL SAFETY EQUIPMENT **7:00 A.M. DELIVERY** KMG #160-064860 LESS THAN 1 PPB	

COPY

For information pertaining to the safe handling of spills, leaks, fire or exposure of hazardous chemicals, CONTACT Chemical Transportation Emergency Center (CHEMTREC) 1-800-424-9300 or CHEMTRADE LOGISTICS (U.S.) INC. 1-866-416-4404. HAZARDOUS SUBSTANCE SPILLS must be reported to The National Response Centre: 1-800-424-6802 and appropriate local authorities.			
MAIL PREPAID FREIGHT BILLS TO PERMANENT ADDRESS OF SHIPPER FOR PAYMENT	IF CHARGES ARE TO BE PREPAID, WRITE OR STAMP HERE "PREPAID" N/A	Subject to Section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges. CHEMTRADE REFINERY SERVICES INC. (Signature of Consignor)	COLLECT ON DELIVERY C.O.D. CHARGE TO BE PAID BY: <input type="checkbox"/> SHIPPER <input type="checkbox"/> CONSIGNEE
		REMIT TO NAME _____ STREET _____ CITY, STATE, ZIP CODE _____	

Shipper
CHEMTRADE REFINERY SERVICES INC.
 155 Gordon Baker Road, Suite 300
 Toronto, Ontario M2H 3N5
 Canada

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

"SEE REVERSE SIDE FOR RELEASED VALUE STATEMENT" AND CONTACT INFORMATION.

PER _____ (PERMANENT POST OFFICE ADDRESS OF SHIPPER)

AGENT/CARRIER: RCC
 PER [Signature]
 CONSIGNEE: [Signature]
 PER _____



Responsible Care®
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THESE PRODUCTS ARE SOLD AND SHIPPED IN ACCORDANCE WITH TERMS AND CONDITIONS OF SALES ON THE REVERSE SIDE OF THIS DOCUMENT.

CARRIAGE NAME
ROEDER CARTAGE CO INC
TRANSPORTATION MODE
TRUCK

NO. AND DESCRIPTION OF PACKS HM		DESCRIPTION OF ARTICLES AND SPECIAL MARKS
1 TT	X	RQ, UN 1830, SULFURIC ACID ULTRA PURE 8, PG II
		SULFURIC ACID ULTRA PURE
		ER GUIDE # 137
		4 PLACARDS REQUIRED : CLASS 8
		CORROSIVE
		STCC 4930040
		FAX WEIGHTS TO:
		SPECIAL PERMIT DOT-SP 12930
RESIDUE ONLY		
For information pertaining to the safe handling of spills, leaks, fire or exposure of hazardous chemicals CONTACT Chemical Transportation Emergency Center (CHEMTREC) : 1-800-424-9300 OR CHEMTRADE LOGISTICS (US.) INC.: 1-866-416-4404. HAZARDOUS SUBSTANCE SPILLS must be reported to The National Response Center: 1-800-424-8802 and appropriate local authorities.		

§ 171.8

49 CFR Ch. I (10-1-11 Edition)

Source and name of material	49 CFR reference
<i>American Society for Testing and Materials</i> , 100 Barr Harbor Drive, West Conshohocken, PA 19428: Noncurrent ASTM Standards are available from: Engineering Societies Library, 354 East 47th Street, New York, NY 10017	
ASTM E 390-89 Standards for Metric Practice	171.10
<i>Association of American Railroads</i> , American Railroads Building, 50 F Street, NW., Washington, DC 20001	
AAR Catalog Nos. SE60CHT; SE60CC; SE60CHTE; SE60CE; SE60DC; SE60DE	179.14
AAR Catalog Nos. SE67CC; SE67CE; SE67BHT; SE67BC; SE67BHTE; SE67BE	179.14
AAR Catalog Nos. SE68BHT; SE68BC; SE68BHTE; SE68BE	179.14
AAR Catalog Nos. SE69AHT; SE69AE	179.14
AAR Catalog Nos. SF70CHT; SF70CC; SF70CHTE; SF70CE	179.14
AAR Catalog Nos. SF73AC; SF73AE; SF73AHT; SF73AHE	179.14
AAR Catalog Nos. SF79CHT; SF79CC; SF79CHTE; SF79CE	179.14
<i>Bureau of Explosives</i> , Hazardous Materials Systems (BOE), Association of American Railroads, American Railroads Building, 50 F Street, NW., Washington, DC 20001	
Fetterley's Formula (The Determination of the Relief Dimensions for Safety Valves on Containers in which Liquefied gas is charged and when the exterior surface of the container is exposed to a temperature of 1,200 °F.).	173.315
Intermodal Loading Guide for Products in Closed Trailers and Containers, issued June 2001	174.55; 174.101; 174.112; 174.115.
Pamphlet 6, Illustrating Methods for Loading and Bracing Carload and Less-Than-Carload Shipments of Explosives and Other Dangerous Articles, 1962.	174.55; 174.101; 174.112; 174.115; 174.290
Pamphlet 6A (includes appendix No. 1, October 1944 and appendix 2, December 1945), Illustrating Methods for Loading and Bracing Carload and Less-Than-Carload Shipments of Loaded Projectiles, Loaded Bombs, etc., 1943.	174.101; 174.290
Pamphlet 6C, Illustrating Methods for Loading and Bracing Trailers and Less-Than-Trailer Shipments of Explosives and Other Dangerous Articles Via Trailer-on-Flatcar (TOFC) or Container-on-Flatcar (COFC), 1985.	174.55; 174.63; 174.101; 174.112; 174.115
<i>Emergency Handling of Hazardous Materials in Surface Transportation</i> , 1989	171.7
<i>Centers for Disease Control and Prevention</i> 1600 Clifton Road, Atlanta, GA 30333	
Biosafety in Microbiological and Biomedical Laboratories, Fourth Edition, April 1999	173.134
Compressed Gas Association, Inc., 4221 Walney Road, 5th Floor, Chantilly, Virginia 20151	
CGA C-1.1, Personnel Training and Certification Guidelines for Cylinder Requalification By the Volumetric Expansion Method, 2004, First Edition.	180.209
<i>National Institutes of Health</i> Bethesda, MD 20892	
NIH Guidelines for Research Involving Recombinant DNA Molecules (NIH Guidelines), January 2001, Appendix B.	173.134
<i>Pantone Incorporated</i> 590 Commerce Boulevard, Carlstadt, New Jersey 07072-3088	
Pantone® Formula guide coated/uncoated, Second Edition 2004	172.407, 172.519
<i>Society of Plastics Industries, Inc.</i> , Organic Peroxide Producers Safety Division, 1275 K Street, NW., Suite 400, Washington, DC 20005	
Self Accelerating Decomposition Temperature Test, 1972	173.21
<i>Truck Trailer Manufacturers Association</i> , 1020 Princess Street, Alexandria, Virginia 22314, telephone (703) 549-3010, http://www.ttmanet.org ;	
TTMA RP No. 96-01, TTMA RP No. 96-01, Structural Integrity of DOT 406, DOT 407, and DOT 412 Cylindrical Cargo Tanks, January 2001 Edition.	178.345-3

[Amtd. 171-111, 55 FR 52466, Dec. 21, 1990]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 171.7, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and at www.fdsys.gov

EDITORIAL NOTE: At 68 FR 19273, Apr. 18, 2003, § 171.7(a)(3) was amended by removing the entry for "TTMA TB No. 81" under "Truck Trailer Manufacturers Association". The amendment could not be incorporated because that entry does not exist.

§ 171.8 Definitions and abbreviations.

In this subchapter,

Administrator means the Administrator, Pipeline and Hazardous Materials Safety Administration.

Aerosol means any non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-

closing release device allowing the contents to be ejected by the gas.

Aggregate lithium content means the sum of the grams of lithium content or equivalent lithium content contained by the cells comprising a battery.

Agricultural product means a hazardous material, other than a hazardous waste, whose end use directly supports the production of an agricultural commodity including, but not limited to a fertilizer, pesticide, soil amendment or fuel. An *agricultural product* is limited to a material in Class 3, 8 or 9, Division 2.1, 2.2, 5.1, or 6.1, or an ORM-D material.

Approval means a written authorization, including a competent authority approval, from the Associate Administrator or other designated Department official, to perform a function for which prior authorization by the Associate Administrator is required under subchapter C of this chapter (49 CFR parts 171 through 180.)

Approved means approval issued or recognized by the Department unless otherwise specifically indicated in this subchapter.

Asphyxiant gas means a gas which dilutes or replaces oxygen normally in the atmosphere.

Associate Administrator means the Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration.

Atmospheric gases means air, nitrogen, oxygen, argon, krypton, neon and xenon.

Authorized Inspection Agency means:
(1) A jurisdiction which has adopted and administers one or more sections of the ASME Boiler and Pressure Vessel Code as a legal requirement and has a representative serving as a member of the ASME Conference Committee; or
(2) an insurance company which has been licensed or registered by the appropriate authority of a State of the United States or a Province of Canada to underwrite boiler and pressure vessel insurance in such State or Province.

Authorized Inspector means an Inspector who is currently commissioned by the National Board of Boiler and Pressure Vessel Inspectors and employed as

an Inspector by an Authorized Inspection Agency.

Bag means a flexible packaging made of paper, plastic film, textiles, woven material or other similar materials.

Bar means 1 BAR = 100 kPa (14.5 psi).

Barge means a non-selfpropelled vessel.

Biological product. See § 173.134 of this subchapter.

Biological substances, Category B. See § 173.134 of this subchapter.

Bottle means an inner packaging having a neck of relatively smaller cross section than the body and an opening capable of holding a closure for retention of the contents.

Bottom shell means that portion of a tank car tank surface, excluding the head ends of the tank car tank, that lies within two feet, measured circumferentially, of the bottom longitudinal center line of the tank car tank.

Box means a packaging with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fiberboard, plastic, or other suitable material. Holes appropriate to the size and use of the packaging, for purposes such as ease of handling or opening, or to meet classification requirements, are permitted as long as they do not compromise the integrity of the packaging during transportation, and are not otherwise prohibited in this subchapter.

Break-bulk means packages of hazardous materials that are handled individually, palletized, or unitized for purposes of transportation as opposed to bulk and containerized freight.

Btu means British thermal unit.

Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment. A Large Packaging in which hazardous materials are loaded with an intermediate form of containment, such as one or more articles or inner packagings, is also a bulk packaging. Additionally, a bulk packaging has: * * *

(1) A maximum capacity greater than 450 L (119 gallons) as a receptacle for a liquid;

(2) A maximum net mass greater than 400 kg (882 pounds) and a maximum capacity greater than 450 L (119 gallons) as a receptacle for a solid; or

(3) A water capacity greater than 454 kg (1000 pounds) as a receptacle for a gas as defined in § 173.115 of this subchapter.

Bundle of cylinders means assemblies of UN cylinders fastened together and interconnected by a manifold and transported as a unit. The total water capacity for the bundle may not exceed 3,000 L, except that a bundle intended for the transport of gases in Division 2.3 is limited to a water capacity of 1,000 L.

Bureau of Explosives means the Bureau of Explosives (B of E) of the Association of American Railroads.

C means Celsius or Centigrade.

Captain of the Port (COTP) means the officer of the Coast Guard, under the command of a District Commander, so designated by the Commandant for the purpose of giving immediate direction to Coast Guard law enforcement activities within an assigned area. As used in this subchapter, the term *Captain of the Port* includes an authorized representative of the Captain of the Port.

Carfloat means a vessel that operates on a short run on an irregular basis and serves one or more points in a port area as an extension of a rail line or highway over water, and does not operate in ocean, coastwise, or ferry service.

Cargo aircraft only means an aircraft that is used to transport cargo and is not engaged in carrying passengers. For purposes of this subchapter, the terms *cargo aircraft only*, *cargo-only aircraft* and *cargo aircraft* have the same meaning.

Cargo tank means a bulk packaging that:

(1) Is a tank intended primarily for the carriage of liquids or gases and includes appurtenances, reinforcements, fittings, and closures (for the definition of a tank, see 49 CFR 178.320, 178.337-1, or 178.338-1, as applicable);

(2) Is permanently attached to or forms a part of a motor vehicle, or is not permanently attached to a motor vehicle but which, by reason of its size, construction or attachment to a motor vehicle is loaded or unloaded without

being removed from the motor vehicle; and

(3) Is not fabricated under a specification for cylinders, intermediate bulk containers, multi-unit tank car tanks, portable tanks, or tank cars.

Cargo tank motor vehicle means a motor vehicle with one or more cargo tanks permanently attached to or forming an integral part of the motor vehicle.

Cargo vessel means: (1) Any vessel other than a passenger vessel; and

(2) Any ferry being operated under authority of a change of character certificate issued by a Coast Guard Officer-in-Charge, Marine Inspection.

Carrier means a person who transports passengers or property in commerce by rail car, aircraft, motor vehicle, or vessel.

CC means closed-cup.

Character of vessel means the type of service in which the vessel is engaged at the time of carriage of a hazardous material.

Class means hazard class. See *hazard class*.

Class 1. See § 173.50 of this subchapter.

Class 2. See § 173.115 of this subchapter.

Class 3. See § 173.120 of this subchapter.

Class 4. See § 173.124 of this subchapter.

Class 5. See § 173.128 of this subchapter.

Class 6. See § 173.132 of this subchapter.

Class 7. See § 173.403 of this subchapter.

Class 8. See § 173.136 of this subchapter.

Class 9. See § 173.140 of this subchapter.

Closure means a device which closes an opening in a receptacle.

COFC means container-on-flat-car.

Combination packaging means a combination of packaging, for transport purposes, consisting of one or more inner packagings secured in a non-bulk outer packaging. It does not include a composite packaging.

Combustible liquid. See § 173.120 of this subchapter.

Commerce means trade or transportation in the jurisdiction of the United States within a single state; between a

place in a state and a place outside of the state; that affects trade or transportation between a place in a state and place outside of the state; or on a United States-registered aircraft.

Compatibility group letter means a designated alphabetical letter used to categorize different types of explosive substances and articles for purposes of stowage and segregation. See § 173.52 of this subchapter.

Competent Authority means a national agency responsible under its national law for the control or regulation of a particular aspect of the transportation of hazardous materials (dangerous goods). The term *Appropriate Authority*, as used in the ICAO Technical Instructions (IBR, see § 171.7), has the same meaning as *Competent Authority*. For purposes of this subchapter, the Associate Administrator is the Competent Authority for the United States.

Composite packaging means a packaging consisting of an outer packaging and an inner receptacle, so constructed that the inner receptacle and the outer packaging form an integral packaging. Once assembled it remains thereafter an integrated single unit; it is filled, stored, shipped and emptied as such.

Compressed gas. See § 173.115 of this subchapter.

Consignee means the person or place shown on a shipping document, package marking, or other media as the location to which a carrier is directed to transport a hazardous material.

Consumer commodity means a material that is packaged and distributed in a form intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use. This term also includes drugs and medicines.

Containership means a cargo vessel designed and constructed to transport, within specifically designed cells, portable tanks and freight containers which are lifted on and off with their contents intact.

Corrosive material. See § 173.136 of this subchapter.

Crate means an outer packaging with incomplete surfaces.

Crewmember means a person assigned to perform duty in an aircraft during flight time.

Cryogenic liquid. See § 173.115(g) of this subchapter.

Cultures and stocks. See § 173.134 of this subchapter.

Cylinder means a pressure vessel designed for pressures higher than 40 psia and having a circular cross section. It does not include a portable tank, multi-unit tank car tank, cargo tank, or tank car.

Dangerous when wet material. See § 173.124 of this subchapter.

Design Certifying Engineer means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to perform stress analysis of pressure vessels and otherwise determine whether a cargo tank design and construction meets the applicable DOT specification. A *Design Certifying Engineer* meets the knowledge and ability requirements of this section by meeting any one of the following requirements:

(1) Has an engineering degree and one year of work experience in cargo tank structural or mechanical design;

(2) Is currently registered as a professional engineer by appropriate authority of a state of the United States or a province of Canada; or

(3) Has at least three years' experience in performing the duties of a Design Certifying Engineer prior to September 1, 1991.

Designated facility means a hazardous waste treatment, storage, or disposal facility that has been designated on the manifest by the generator.

District Commander means the District Commander of the Coast Guard, or his authorized representative, who has jurisdiction in the particular geographical area.

Division means a subdivision of a hazard class.

DOD means the U.S. Department of Defense.

Domestic transportation means transportation between places within the United States other than through a foreign country.

DOT or Department means U.S. Department of Transportation.

Drum means a flat-ended or convex-ended cylindrical packaging made of metal, fiberboard, plastic, plywood, or

other suitable materials. This definition also includes packagings of other shapes made of metal or plastic (e.g., round taper-necked packagings or pail-shaped packagings) but does not include cylinders, jerricans, wooden barrels or bulk packagings.

Elevated temperature material means a material which, when offered for transportation or transported in a bulk packaging:

- (1) Is in a liquid phase and at a temperature at or above 100 °C (212 °F);
- (2) Is in a liquid phase with a flash point at or above 38 °C (100 °F) that is intentionally heated and offered for transportation or transported at or above its flash point; or
- (3) Is in a solid phase and at a temperature at or above 240 °C (464 °F).

Engine means a locomotive propelled by any form of energy and used by a railroad.

EPA means U.S. Environmental Protection Agency.

Equivalent lithium content means, for a lithium-ion cell, the product of the rated capacity, in ampere-hours, of a lithium-ion cell times 0.3, with the result expressed in grams. The equivalent lithium content of a battery equals the sum of the grams of equivalent lithium content contained in the component cells of the battery.

Etiologic agent. See § 173.134 of this subchapter.

EX number means a number preceded by the prefix "EX", assigned by the Associate Administrator, to an item that has been evaluated under the provisions of § 173.56 of this subchapter.

Explosive. See § 173.50 of this subchapter.

F means degree Fahrenheit.

Farmer means a person engaged in the production or raising of crops, poultry, or livestock.

Federal hazardous material transportation law means 49 U.S.C. 5101 *et seq.*

Ferry vessel means a vessel which is limited in its use to the carriage of deck passengers or vehicles or both, operates on a short run on a frequent schedule between two points over the most direct water route, other than in ocean or coastwise service, and is offered as a public service of a type normally attributed to a bridge or tunnel.

Filling density has the following meanings:

- (1) For compressed gases in cylinders, see § 173.304a(a)(2) table note 1.
- (2) For compressed gases in tank cars, see § 173.314(c) table note 1.
- (3) For compressed gases in cargo tanks and portable tanks, see § 173.315(a) table note 1.
- (4) For cryogenic liquids in cylinders, except hydrogen, see § 173.316(c)(1).
- (5) For hydrogen, cryogenic liquid in cylinders, see § 173.316(c)(3) table note 1.
- (6) For cryogenic liquids in cargo tanks, see § 173.318(f)(1).
- (7) For cryogenic liquids in tank cars, see § 173.319(d)(1).

Flammable gas. See § 173.115 of this subchapter.

Flammable liquid. See § 173.120 of this subchapter.

Flammable solid. See § 173.124 of this subchapter.

Flash point. See § 173.120 of this subchapter.

Freight container means a reusable container having a volume of 64 cubic feet or more, designed and constructed to permit being lifted with its contents intact and intended primarily for containment of packages (in unit form) during transportation.

Fuel cell means an electrochemical device that converts the energy of the chemical reaction between a fuel, such as hydrogen or hydrogen rich gases, alcohols, or hydrocarbons, and an oxidant, such as air or oxygen, to direct current (d.c.) power, heat, and other reaction products.

Fuel cell cartridge or fuel cartridge means an article that stores fuel for discharge into the fuel cell through a valve(s) that controls the discharge of fuel into the fuel cell.

Fuel cell system means a fuel cell with an installed fuel cell cartridge together with wiring, valves, and other attachments that connect the fuel cell or cartridge to the device it powers. The fuel cell or cartridge may be so constructed that it forms an integral part of the device or may be removed and connected manually to the device.

Fuel tank means a tank other than a cargo tank, used to transport flammable or combustible liquid, or compressed gas for the purpose of supplying fuel for propulsion of the transport vehicle to which it is attached, or for the operation of other equipment on the transport vehicle.

Fumigated lading. See §§ 172.302(g) and 173.9.

Gas means a material which has a vapor pressure greater than 300 kPa (43.5 psia) at 50 °C (122 °F) or is completely gaseous at 20 °C (68 °F) at a standard pressure of 101.3 kPa (14.7 psia).

Gross weight or Gross mass means the weight of a packaging plus the weight of its contents.

Hazard class means the category of hazard assigned to a hazardous material under the definitional criteria of part 173 of this subchapter and the provisions of the § 172.101 table. A material may meet the defining criteria for more than one hazard class but is assigned to only one hazard class.

Hazard zone means one of four levels of hazard (Hazard Zones A through D) assigned to gases, as specified in § 173.116(a) of this subchapter, and one of two levels of hazards (Hazard Zones A and B) assigned to liquids that are poisonous by inhalation, as specified in § 173.133(a) of this subchapter. A hazard zone is based on the LC50 value for acute inhalation toxicity of gases and vapors, as specified in § 173.133(a).

Hazardous material means a substance or material that the Secretary of Transportation has determined is capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and has designated as hazardous under section 5103 of Federal hazardous materials transportation law (49 U.S.C. 5103). The term includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (see 49 CFR 172.101), and materials that meet the defining criteria for hazard classes and divisions in part 173 of subchapter C of this chapter.

Hazardous substance for the purposes of this subchapter, means a material,

including its mixtures and solutions, that—

(1) Is listed in the appendix A to § 172.101 of this subchapter;

(2) Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in the appendix A to § 172.101 of this subchapter; and

(3) When in a mixture or solution—

(i) For radionuclides, conforms to paragraph 7 of the appendix A to § 172.101.

(ii) For other than radionuclides, is in a concentration by weight which equals or exceeds the concentration corresponding to the RQ of the material, as shown in the following table:

RQ pounds (kilograms)	Concentration by weight	
	Percent	PPM
5000 (2270)	10	100,000
1000 (454)	2	20,000
100 (45.4)	0.2	2,000
10 (4.54)	0.02	200
1 (0.454)	0.002	20

The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in appendix A to § 172.101 of this subchapter, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Hazardous waste, for the purposes of this chapter, means any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262.

Hazmat means a hazardous material.

Hazmat employee means: (1) A person who is:

(i) Employed on a full-time, part time, or temporary basis by a hazmat employer and who in the course of such full time, part time or temporary employment directly affects hazardous materials transportation safety;

(ii) Self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting hazardous materials in commerce who in the course of such self-employment directly affects hazardous materials transportation safety;

(iii) A railroad signalman; or
(iv) A railroad maintenance-of-way employee.

(2) This term includes an individual, employed on a full time, part time, or temporary basis by a hazmat employer, or who is self-employed, who during the course of employment:

(i) Loads, unloads, or handles hazardous materials;

(ii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

(iii) Prepares hazardous materials for transportation;

(iv) Is responsible for safety of transporting hazardous materials;

(v) Operates a vehicle used to transport hazardous materials.

Hazmat employer means:

(1) A person who employs or uses at least one hazmat employee on a full-time, part time, or temporary basis; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce;

(2) A person who is self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting materials in commerce; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce; or

(3) A department, agency, or instrumentality of the United States Government, or an authority of a State, political subdivision of a State, or an Indian tribe; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce.

Hermetically sealed means closed by fusion, gasketing, crimping, or equivalent means so that no gas or vapor can enter or escape.

Household waste means any solid waste (including garbage, trash, and sanitary waste from septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). This term is not applicable to consolidated shipments of household hazardous materials transported from collection centers. A collection center is a central location where household waste is collected.

HMR means the Hazardous Materials Regulations, Parts 171 through 180 of this chapter.

IAEA means International Atomic Energy Agency.

IATA means International Air Transport Association.

ICAO means International Civil Aviation Organization.

IMO means International Maritime Organization.

Incorporated by reference or *IBR* means a publication or a portion of a publication that is made a part of the regulations of this subchapter. See § 171.7.

Infectious substance (etiologic agent). See § 173.134 of this subchapter.

Inner packaging means a packaging for which an outer packaging is required for transport. It does not include the inner receptacle of a composite packaging.

Inner receptacle means a receptacle which requires an outer packaging in order to perform its containment function. The inner receptacle may be an inner packaging of a combination packaging or the inner receptacle of a composite packaging.

Intermediate bulk container or *IBC* means a rigid or flexible portable packaging, other than a cylinder or portable tank, which is designed for mechanical handling. Standards for IBCs manufactured in the United States are set forth in subparts N and O of part 178 of this subchapter.

Intermediate packaging means a packaging which encloses an inner packaging or article and is itself enclosed in an outer packaging.

Intermodal container means a freight container designed and constructed to permit it to be used interchangeably in two or more modes of transport.

Intermodal portable tank or *IM portable tank* means a specific class of portable tanks designed primarily for international intermodal use.

International transportation means transportation—

(1) Between any place in the United States and any place in a foreign country;

(2) Between places in the United States through a foreign country; or

(3) Between places in one or more foreign countries through the United States.

Irritating material. See § 173.132(a)(2) of this subchapter.

Jerrican means a metal or plastic packaging of rectangular or polygonal cross-section.

Large packaging means a packaging that—

(1) Consists of an outer packaging that contains articles or inner packagings;

(2) Is designated for mechanical handling;

(3) Exceeds 400 kg net mass or 450 liters (118.9 gallons) capacity;

(4) Has a volume of not more than 3 cubic meters (m^3) (see § 178.801(i) of this subchapter); and

(5) Conforms to the requirements for the construction, testing and marking of Large Packagings as specified in subparts P and Q of part 178 of this subchapter.

Limited quantity, when specified as such in a section applicable to a particular material, means the maximum amount of a hazardous material for which there is a specific labeling or packaging exception.

Lighter means a mechanically operated flame-producing device employing an ignition device and containing a Class 3 or a Division 2.1 material. For design, capacity, and filling density requirements for lighters containing a Division 2.1 material, see § 173.308.

Lighter refill means a pressurized container that does not contain an ignition device but does contain a release device and is intended for use as a replacement cartridge in a lighter or to refill a lighter with a Division 2.1 flammable gas fuel. For capacity limits, see § 173.306(h) of this subchapter.

Liquid means a material, other than an elevated temperature material, with a melting point or initial melting point of 20 °C (68 °F) or lower at a standard pressure of 101.3 kPa (14.7 psia). A viscous material for which a specific melting point cannot be determined must be subjected to the procedures specified in ASTM D 4359 "Standard Test Method for Determining Whether a Material is Liquid or Solid" (IBR, see § 171.7).

Liquid phase means a material that meets the definition of liquid when evaluated at the higher of the temperature at which it is offered for transportation or at which it is transported, not at the 38 °C (100 °F) temperature specified in ASTM D 4359 (IBR, see § 171.7).

Lithium content means the mass of lithium in the anode of a lithium metal or lithium alloy cell. The lithium content of a battery equals the sum of the grams of lithium content contained in the component cells of the battery. For a lithium-ion cell see the definition for "equivalent lithium content".

Loading incidental to movement means loading by carrier personnel or in the presence of carrier personnel of packaged or containerized hazardous material onto a transport vehicle, aircraft, or vessel for the purpose of transporting it, including the loading, blocking and bracing a hazardous materials package in a freight container or transport vehicle, and segregating a

hazardous materials package in a freight container or transport vehicle from incompatible cargo. For a bulk packaging, *loading incidental to movement* means filling the packaging with a hazardous material for the purpose of transporting it. *Loading incidental to movement* includes transloading.

Magazine vessel means a vessel used for the receiving, storing, or dispensing of explosives.

Magnetic material. See §173.21(d) of this subchapter.

Marine pollutant, means a material which is listed in appendix B to §172.101 of this subchapter (also see §171.4) and, when in a solution or mixture of one or more marine pollutants, is packaged in a concentration which equals or exceeds:

(1) Ten percent by weight of the solution or mixture for materials listed in the appendix; or

(2) One percent by weight of the solution or mixture for materials that are identified as severe marine pollutants in the appendix.

Marking means a descriptive name, identification number, instructions, cautions, weight, specification, or UN marks, or combinations thereof, required by this subchapter on outer packagings of hazardous materials.

Material of trade means a hazardous material, other than a hazardous waste, that is carried on a motor vehicle—

(1) For the purpose of protecting the health and safety of the motor vehicle operator or passengers;

(2) For the purpose of supporting the operation or maintenance of a motor vehicle (including its auxiliary equipment); or

(3) By a private motor carrier (including vehicles operated by a rail carrier) in direct support of a principal business that is other than transportation by motor vehicle.

Material poisonous by inhalation or *Material toxic by inhalation* means:

(1) A gas meeting the defining criteria in §173.115(c) of this subchapter and assigned to Hazard Zone A, B, C, or D in accordance with §173.116(a) of this subchapter;

(2) A liquid (other than as a mist) meeting the defining criteria in §173.132(a)(1)(iii) of this subchapter and

assigned to Hazard Zone A or B in accordance with §173.133(a) of this subchapter; or

(3) Any material identified as an inhalation hazard by a special provision in column 7 of the §172.101 table.

Maximum allowable working pressure or *MAWP:* For DOT specification cargo tanks used to transport liquid hazardous materials, see §178.320(a) of this subchapter.

Maximum capacity means the maximum inner volume of receptacles or packagings.

Maximum net mass means the allowable maximum net mass of contents in a single packaging, or as used in subpart M of part 178 of this subchapter, the maximum combined mass of inner packaging, and the contents thereof.

Mechanical displacement meter prover means a mechanical device used in the oilfield service industry consisting of a pipe assembly that is used to calibrate the accuracy and performance of meters that measure the quantities of a product being pumped or transferred at facilities such as drilling locations, refineries, tank farms, and loading racks.

Metered delivery service means a cargo tank unloading operation conducted at a metered flow rate of 378.5 L (100 gallons) per minute or less through an attached delivery hose with a nominal inside diameter of 3.175 cm (1¼ inches) or less.

Metal hydride storage system means a single complete hydrogen storage system that includes a receptacle, metal hydride, pressure relief device, shut-off valve, service equipment and internal components used for the transportation of hydrogen only.

Miscellaneous hazardous material. See §173.140 of this subchapter.

Mixture means a material composed of more than one chemical compound or element.

Mode means any of the following transportation methods; rail, highway, air, or water.

Motor vehicle includes a vehicle, machine, tractor, trailer, or semitrailer, or any combination thereof, propelled or drawn by mechanical power and used upon the highways in the transportation of passengers or property. It does not include a vehicle, locomotive, or car operated exclusively on a rail or

rails, or a trolley bus operated by electric power derived from a fixed overhead wire, furnishing local passenger transportation similar to street-railway service.

Movement means the physical transfer of a hazardous material from one geographic location to another by rail car, aircraft, motor vehicle, or vessel.

Multiple-element gas container or MEGC means assemblies of UN cylinders, tubes, or bundles of cylinders interconnected by a manifold and assembled within a framework. The term includes all service equipment and structural equipment necessary for the transport of gases.

Name of contents means the proper shipping name as specified in §172.101 of this subchapter.

Navigable waters means, for the purposes of this subchapter, waters of the United States, including the territorial seas.

Non-bulk packaging means a packaging which has:

(1) A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid;

(2) A maximum net mass of 400 kg (882 pounds) or less and a maximum capacity of 450 L (119 gallons) or less as a receptacle for a solid; or

(3) A water capacity of 454 kg (1000 pounds) or less as a receptacle for a gas as defined in §173.115 of this subchapter.

Nonflammable gas. See §173.115 of this subchapter.

N.O.S. means not otherwise specified.

N.O.S. description means a shipping description from the §172.101 table which includes the abbreviation *n.o.s.*

NPT means an American Standard taper pipe thread conforming to the requirements of NBS Handbook H-28 (IBR, see §171.7).

NRC (non-reusable container) means a packaging (container) whose reuse is restricted in accordance with the provisions of §173.28 of this subchapter.

Occupied caboose means a rail car being used to transport non-passenger personnel.

Officer in Charge, Marine Inspection means a person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who under the supervision and di-

rection of the Coast Guard District Commander is in charge of a designated inspection zone for the performance of duties with respect to the enforcement and administration of title 52, Revised Statutes, acts amendatory thereof or supplemental thereto, rules and regulations thereunder, and the inspection required thereby.

Offshore supply vessel means a cargo vessel of less than 500 gross tons that regularly transports goods, supplies or equipment in support of exploration or production of offshore mineral or energy resources.

Open cryogenic receptacle means a transportable thermally insulated receptacle for refrigerated liquefied gases maintained at atmospheric pressure by continuous venting of the refrigerated gas.

Operator means a person who controls the use of an aircraft, vessel, or vehicle.

Organic peroxide. See §173.128 of this subchapter.

ORM means other regulated material. See §173.144 of this subchapter.

Outage or ullage means the amount by which a packaging falls short of being liquid full, usually expressed in percent by volume.

Outer packaging means the outermost enclosure of a composite or combination packaging together with any absorbent materials, cushioning and any other components necessary to contain and protect inner receptacles or inner packagings.

Overpack, except as provided in subpart K of part 178 of this subchapter, means an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages. *Overpack* does not include a transport vehicle, freight container, or aircraft unit load device. Examples of overpacks are one or more packages:

(1) Placed or stacked onto a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or

(2) Placed in a protective outer packaging such as a box or crate.

Oxidizer. See §173.127 of this subchapter.

Oxidizing gas means a gas which may, generally by providing oxygen, cause

or contribute to the combustion of other material more than air does.

Oxidizing gas means a gas that may, generally by providing oxygen, cause or contribute to the combustion of other material more than air does. Specifically, this means a pure gas or gas mixture with an oxidizing power greater than 23.5% as determined by a method specified in ISO 10156: or 10156-2: (IBR, see § 171.7 of this subchapter) (see also § 173.115(k)).

Oxygen generator (chemical) means a device containing chemicals that upon activation release oxygen as a product of chemical reaction.

Package or Outside Package means a packaging plus its contents. For radioactive materials, see § 173.403 of this subchapter.

Packaging means a receptacle and any other components or materials necessary for the receptacle to perform its containment function in conformance with the minimum packing requirements of this subchapter. For radioactive materials packaging, see § 173.403 of this subchapter.

Packing group means a grouping according to the degree of danger presented by hazardous materials. Packing Group I indicates great danger; Packing Group II, medium danger; Packing Group III, minor danger. See § 172.101(f) of this subchapter.

Passenger (With respect to vessels and for the purposes of part 176 only) means a person being carried on a vessel other than:

- (1) The owner or his representative;
- (2) The operator;
- (3) A bona fide member of the crew engaged in the business of the vessel who has contributed no consideration for his carriage and who is paid for his services; or

- (4) A guest who has not contributed any consideration directly or indirectly for his carriage.

Passenger-carrying aircraft means an aircraft that carries any person other than a crewmember, company employee, an authorized representative of the United States, or a person accompanying the shipment.

Passenger vessel means—

- (1) A vessel subject to any of the requirements of the International Convention for the Safety of Life at Sea,

1974, which carries more than 12 passengers;

- (2) A cargo vessel documented under the laws of the United States and not subject to that Convention, which carries more than 16 passengers;

- (3) A cargo vessel of any foreign nation that extends reciprocal privileges and is not subject to that Convention and which carries more than 16 passengers; and

- (4) A vessel engaged in a ferry operation and which carries passengers.

Person means an individual, corporation, company, association, firm, partnership, society, joint stock company; or a government, Indian Tribe, or authority of a government or Tribe, that offers a hazardous material for transportation in commerce, transports a hazardous material to support a commercial enterprise, or designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce. This term does not include the United States Postal Service or, for purposes of 49 U.S.C. 5123 and 5124, a Department, agency, or instrumentality of the government.

Person who offers or offeror means:

- (1) Any person who does either or both of the following:

- (i) Performs, or is responsible for performing, any pre-transportation function required under this subchapter for transportation of the hazardous material in commerce.

- (ii) Tenders or makes the hazardous material available to a carrier for transportation in commerce.

- (2) A carrier is not an offeror when it performs a function required by this subchapter as a condition of acceptance of a hazardous material for transportation in commerce (e.g., reviewing shipping papers, examining packages to ensure that they are in conformance with this subchapter, or preparing shipping documentation for its own use) or when it transfers a hazardous material to another carrier for continued transportation in commerce without performing a pre-transportation function.

PHMSA means the Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington, DC 20590.

Placarded car means a rail car which is placarded in accordance with the requirements of part 172 of this subchapter.

Poisonous gas. See § 173.115 of this subchapter.

Poisonous materials. See § 173.132 of this subchapter.

Portable tank means a bulk packaging (except a cylinder having a water capacity of 1000 pounds or less) designed primarily to be loaded onto, or on, or temporarily attached to a transport vehicle or ship and equipped with skids, mountings, or accessories to facilitate handling of the tank by mechanical means. It does not include a cargo tank, tank car, multi-unit tank car tank, or trailer carrying 3AX, 3AAX, or 3T cylinders.

Preferred route or Preferred highway is a highway for shipment of *highway route controlled quantities* of radioactive materials so designated by a State routing agency, and any Interstate System highway for which an alternative highway has not been designated by such State agency as provided by § 397.103 of this title.

Pre-transportation function means a function specified in the HMR that is required to assure the safe transportation of a hazardous material in commerce, including—

- (1) Determining the hazard class of a hazardous material.
- (2) Selecting a hazardous materials packaging.
- (3) Filling a hazardous materials packaging, including a bulk packaging.
- (4) Securing a closure on a filled or partially filled hazardous materials package or container or on a package or container containing a residue of a hazardous material.
- (5) Marking a package to indicate that it contains a hazardous material.
- (6) Labeling a package to indicate that it contains a hazardous material.
- (7) Preparing a shipping paper.
- (8) Providing and maintaining emergency response information.
- (9) Reviewing a shipping paper to verify compliance with the HMR or international equivalents.

(10) For each person importing a hazardous material into the United States, providing the shipper with timely and complete information as to the HMR requirements that will apply to the transportation of the material within the United States.

(11) Certifying that a hazardous material is in proper condition for transportation in conformance with the requirements of the HMR.

(12) Loading, blocking, and bracing a hazardous materials package in a freight container or transport vehicle.

(13) Segregating a hazardous materials package in a freight container or transport vehicle from incompatible cargo.

(14) Selecting, providing, or affixing placards for a freight container or transport vehicle to indicate that it contains a hazardous material.

Primary hazard means the hazard class of a material as assigned in the § 172.101 table.

Private track or Private siding means:
(i) Track located outside of a carrier's right-of-way, yard, or terminals where the carrier does not own the rails, ties, roadbed, or right-of-way, or

(ii) Track leased by a railroad to a lessee, where the lease provides for, and actual practice entails, exclusive use of that trackage by the lessee and/or a general system railroad for purpose of moving only cars shipped to or by the lessee, and where the lessor otherwise exercises no control over or responsibility for the trackage or the cars on the trackage.

Proper shipping name means the name of the hazardous material shown in Roman print (not italics) in § 172.101 of this subchapter.

Psi means pounds per square inch.

Psia means pounds per square inch absolute.

Psig means pounds per square inch gauge.

Public vessel means a vessel owned by and being used in the public service of the United States. It does not include a vessel owned by the United States and engaged in a trade or commercial service or a vessel under contract or charter to the United States.

Pyrophoric liquid. See § 173.124(b) of this subchapter.

Radioactive materials. See §173.403 of this subchapter for definitions relating to radioactive materials.

Rail car means a car designed to carry freight or non-passenger personnel by rail, and includes a box car, flat car, gondola car, hopper car, tank car, and occupied caboose.

Railroad means a person engaged in transportation by rail.

Receptacle means a containment vessel for receiving and holding materials, including any means of closing.

U.N. Recommendations means the U.N. Recommendations on the Transport of Dangerous Goods, Model Regulations (IBR, see §171.7 of this subchapter).

Reconditioned packaging. See §173.28 of this subchapter.

Registered Inspector means a person registered with the Department in accordance with subpart F of part 107 of this chapter who has the knowledge and ability to determine whether a cargo tank conforms to the applicable DOT specification. A *Registered Inspector* meets the knowledge and ability requirements of this section by meeting any one of the following requirements:

- (1) Has an engineering degree and one year of work experience relating to the testing and inspection of cargo tanks;
- (2) Has an associate degree in engineering and two years of work experience relating to the testing and inspection of cargo tanks;
- (3) Has a high school diploma (or General Equivalency Diploma) and three years of work experience relating to the testing and inspection of cargo tanks; or
- (4) Has at least three years' experience performing the duties of a Registered Inspector prior to September 1, 1991.

Regulated medical waste. See §173.134 of this subchapter.

Remanufactured packagings. See §173.28 of this subchapter.

Reportable quantity (RQ) for the purposes of this subchapter means the quantity specified in column 2 of the appendix to §172.101 for any material identified in column 1 of the appendix.

Research means investigation or experimentation aimed at the discovery of new theories or laws and the discovery and interpretation of facts or revision of accepted theories or laws in

the light of new facts. Research does not include the application of existing technology to industrial endeavors.

Residue means the hazardous material remaining in a packaging, including a tank car, after its contents have been unloaded to the maximum extent practicable and before the packaging is either refilled or cleaned of hazardous material and purged to remove any hazardous vapors.

Reused packaging. See §173.28 of this subchapter.

SADT means self-accelerated decomposition temperature. See §173.21(f) of this subchapter.

Salvage packaging means a special packaging conforming to §173.3 of this subchapter into which damaged, defective, leaking, or non-conforming hazardous materials packages, or hazardous materials that have spilled or leaked, are placed for purposes of transport for recovery or disposal.

SCF (standard cubic foot) means one cubic foot of gas measured at 60 °F. and 14.7 psia.

Secretary means the Secretary of Transportation.

Self-defense spray means an aerosol or non-pressurized device that:

- (1) Is intended to have an irritating or incapacitating effect on a person or animal; and
- (2) Meets no hazard criteria other than for Class 9 (for example, a pepper spray; see §173.140(a) of this subchapter) and, for an aerosol, Division 2.1 or 2.2 (see §173.115 of this subchapter), except that it may contain not more than two percent by mass of a tear gas substance (e.g., chloroacetophenone (CN) or 0-chlorobenzylmalonitrile (CS); see §173.132(a)(2) of this subchapter.)

Settled pressure means the pressure exerted by the contents of a UN pressure receptacle in thermal and diffusive equilibrium.

Sharps. See §173.134 of this subchapter.

Shipping paper means a shipping order, bill of lading, manifest or other shipping document serving a similar purpose and prepared in accordance with subpart C of part 172 of this chapter.

Siftproof packaging means a packaging impermeable to dry contents, including fine solid material produced during transportation.

Single packaging means a non-bulk packaging other than a combination packaging.

Solid means a material which is not a gas or a liquid.

Solution means any homogeneous liquid mixture of two or more chemical compounds or elements that will not undergo any segregation under conditions normal to transportation.

Special permit means a document issued by the Associate Administrator, or other designated Department official, under the authority of 49 U.S.C. 5117 permitting a person to perform a function that is not otherwise permitted under subchapter A or C of this chapter, or other regulations issued under 49 U.S.C. 5101 *et seq.* (e.g., Federal Motor Carrier Safety routing requirements).

Specification packaging means a packaging conforming to one of the specifications or standards for packagings in part 178 or part 179 of this subchapter.

Spontaneously combustible material. See § 173.124(b) of this subchapter.

Stabilized means that the hazardous material is in a condition that precludes uncontrolled reaction. This may be achieved by methods such as adding an inhibiting chemical, degassing the hazardous material to remove dissolved oxygen and inerting the air space in the package, or maintaining the hazardous material under temperature control.

State means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

State-designated route means a preferred route selected in accordance with U.S. DOT "Guidelines for Selecting Preferred Highway Routes for Highway Route Controlled Quantities of Radioactive Materials" or an equivalent routing analysis which adequately considers overall risk to the public.

Storage incidental to movement means storage of a transport vehicle, freight container, or package containing a hazardous material by any person between the time that a carrier takes physical possession of the hazardous material for the purpose of transporting it in commerce until the package containing the hazardous material is physically delivered to the destination indicated on a shipping document, package marking, or other medium, or, in the case of a private motor carrier, between the time that a motor vehicle driver takes physical possession of the hazardous material for the purpose of transporting it in commerce until the driver relinquishes possession of the package at its destination and is no longer responsible for performing functions subject to the HMR with respect to that particular package.

(1) *Storage incidental to movement* includes—

(i) Storage at the destination shown on a shipping document, including storage at a transloading facility, provided the shipping documentation identifies the shipment as a through-shipment and identifies the final destination or destinations of the hazardous material; and

(ii) Rail cars containing hazardous materials that are stored on track that does not meet the definition of "private track or siding" in § 171.8, even if those cars have been delivered to the destination shown on the shipping document.

(2) Storage incidental to movement does not include storage of a hazardous material at its final destination as shown on a shipping document.

Stowage means the act of placing hazardous materials on board a vessel.

Strong outer packaging means the outermost enclosure that provides protection against the unintentional release of its contents. It is a packaging that is sturdy, durable, and constructed so that it will retain its contents under normal conditions of transportation. In addition, a strong outer packaging must meet the general packaging requirements of subpart B of part 173 of this subchapter but need not comply with the specification packaging requirements in part 178 of the subchapter. For transport by aircraft, a

strong outer packaging is subject to § 173.27 of this subchapter. The terms "strong outside container" and "strong outside packaging" are synonymous with "strong outer packaging."

Subsidiary hazard means a hazard of a material other than the primary hazard. (See *primary hazard*).

Table in § 172.101 or § 172.101 table means the Hazardous Materials Table in § 172.101 of this subchapter.

Technical name means a recognized chemical name or microbiological name currently used in scientific and technical handbooks, journals, and texts. Generic descriptions are authorized for use as technical names provided they readily identify the general chemical group, or microbiological group. Examples of acceptable generic chemical descriptions are organic phosphate compounds, petroleum aliphatic hydrocarbons and tertiary amines. For proficiency testing only, generic microbiological descriptions such as bacteria, mycobacteria, fungus, and viral samples may be used. Except for names which appear in subpart B of part 172 of this subchapter, trade names may not be used as technical names.

TOFC means trailer-on-flat-car.

Top shell means the tank car tank surface, excluding the head ends and bottom shell of the tank car tank.

Toxin. See § 173.134 of this subchapter.

Trailership means a vessel, other than a carfloat, specifically equipped to carry motor transport vehicles and fitted with installed securing devices to tie down each vehicle. The term *trailership* includes *Roll-on/Roll-off (RO/RO)* vessels.

Train means one or more engines coupled with one or more rail cars, except during switching operations or where the operation is that of classifying and assembling rail cars within a railroad yard for the purpose of making or breaking up trains.

Trainship means a vessel other than a rail car ferry or carfloat, specifically equipped to transport railroad vehicles, and fitted with installed securing devices to tie down each vehicle.

Transloading means the transfer of a hazardous material by any person from one bulk packaging to another bulk packaging, from a bulk packaging to a

non-bulk packaging, or from a non-bulk packaging to a bulk packaging for the purpose of continuing the movement of the hazardous material in commerce.

Transport vehicle means a cargo-carrying vehicle such as an automobile, van, tractor, truck, semitrailer, tank car or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, rail car, etc.) is a separate transport vehicle.

Transportation or transport means the movement of property and loading, unloading, or storage incidental to that movement.

UFC means Uniform Freight Classification.

UN means United Nations.

UN cylinder means a transportable pressure receptacle with a water capacity not exceeding 150 L that has been marked and certified as conforming to the applicable requirements in part 178 of this subchapter.

UN portable tank means an intermodal tank having a capacity of more than 450 liters (118.9 gallons). It includes a shell fitted with service equipment and structural equipment, including stabilizing members external to the shell and skids, mountings or accessories to facilitate mechanical handling. A UN portable tank must be capable of being filled and discharged without the removal of its structural equipment and must be capable of being lifted when full. Cargo tanks, rail tank car tanks, non-metallic tanks, non-specification tanks, bulk bins, and IBCs and packagings made to cylinder specifications are not UN portable tanks.

UN pressure receptacle means a UN cylinder or tube.

UN Recommendations means the UN Recommendations on the Transport of Dangerous Goods (IBR, see § 171.7).

UN standard packaging means a packaging conforming to standards in the UN Recommendations (IBR, see § 171.7).

UN tube means a seamless transportable pressure receptacle with a water capacity exceeding 150 L but not more than 3,000 L that has been marked and certified as conforming to the requirements in part 178 of this subchapter.

Undeclared hazardous material means a hazardous material that is: (1) Subject to any of the hazard communication requirements in subparts C (Shipping Papers), D (Marking), E (Labeling), and F (Placarding) of Part 172 of this subchapter, or an alternative marking requirement in Part 173 of this subchapter (such as §§ 173.4(a)(10) and 173.6(c)); and (2) offered for transportation in commerce without any visible indication to the person accepting the hazardous material for transportation that a hazardous material is present, on either an accompanying shipping document, or the outside of a transport vehicle, freight container, or package.

Unintentional release means the escape of a hazardous material from a package on an occasion not anticipated or planned. This includes releases resulting from collision, package failures, human error, criminal activity, negligence, improper packing, or unusual conditions such as the operation of pressure relief devices as a result of over-pressurization, overfill or fire exposure. It does not include releases, such as venting of packages, where allowed, and the operational discharge of contents from packages.

Unit load device means any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

United States means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the Virgin Islands, American Samoa, Guam, or any other territory or possession of the United States designated by the Secretary.

Unloading incidental to movement means removing a packaged or containerized hazardous material from a transport vehicle, aircraft, or vessel, or for a bulk packaging, emptying a hazardous material from the bulk packaging after the hazardous material has been delivered to the consignee when performed by carrier personnel or in the presence of carrier personnel or, in the case of a private motor carrier, while the driver of the motor vehicle from which the hazardous material is being unloaded immediately after movement is completed is present dur-

ing the unloading operation. (Emptying a hazardous material from a bulk packaging while the packaging is on board a vessel is subject to separate regulations as delegated by Department of Homeland Security Delegation No. 0170.1 at 2(103).) *Unloading incidental to movement* includes transloading.

Vessel includes every description of watercraft, used or capable of being used as a means of transportation on the water.

Viscous liquid means a liquid material which has a measured viscosity in excess of 2500 centistokes at 25 °C. (77 °F.) when determined in accordance with the procedures specified in ASTM Method D 445-72 "Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity)" or ASTM Method D 1200-70 "Viscosity of Paints, Varnishes, and Lacquers by Ford Viscosity Cup."

Volatility refers to the relative rate of evaporation of materials to assume the vapor state.

Water reactive material. See § 173.124(c) of this subchapter.

Water resistant means having a degree of resistance to permeability by and damage caused by water in liquid form.

Wooden barrel means a packaging made of natural wood, of round cross-section, having convex walls, consisting of staves and heads and fitted with hoops.

Working pressure for purposes of UN pressure receptacles, means the settled pressure of a compressed gas at a reference temperature of 15 °C (59 °F).

W.T. means watertight.

[Amdt. 171-32, 41 FR 15994, Apr. 15, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 171.8, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and at www.fdsys.gov.

§ 171.9 Rules of construction.

(a) In this subchapter, unless the context requires otherwise:

- (1) Words imparting the singular include the plural;
- (2) Words imparting the plural include the singular; and
- (3) Words imparting the masculine gender include the feminine;