U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

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

APR 2 2 2014

Ms. Kathy Harris
Safety Director
Eastex Crude Company
10907 Ste Hwy 11 W
Leesburg, TX 75451

Ref. No.: 13-0108R

Dear Ms. Harris:

This is a revised response to your letter requesting clarification of certain requirements under the Hazardous Materials Regulations (HMR; 49 CFR Part 171-180) applicable to the highway transportation of "High Gravity Condensate," in a cargo tank, classified as either "UN1267, Petroleum crude oil, Class 3, Packing Group I/II" or "UN1268, Petroleum Products, n.o.s (condensate), Class 3, Packing Group I/II."

In your letter you indicate that this is a Flammable liquid in Packing Group I or II. We would like to ensure that you are familiar with § 173.22 of the HMR and corresponding requirement for the shipper to properly classify a hazardous material. In addition, we would like to raise your awareness to a January 2, 2014 safety alert issued by PHMSA. The alert warns of crude oil variability and emphasizes proper and sufficient testing to ensure accurate characterization and classification. The alert expressed PHMSA's concern that unprocessed crude oil may affect the integrity of the packaging or present additional hazards, related to corrosivity, sulfur content, and dissolved gas content. Further, on February 25, 2014, DOT issued an Emergency Order requiring those who offer "UN1267, Petroleum crude oil" for transportation by rail to ensure that the product is properly tested and classified in accordance with Federal safety regulations, which was superseded by a revised Amended Emergency Order on March 6, 2014, clarifying the requirement. The March 6 Amended Emergency Order requires that all rail shipments of crude oil that is properly classed as a flammable liquid in Packing Group (PG) III be treated as a PG I or II material, until further notice. The Amended Emergency Order also authorized PG III materials to be described as PG III for the purposes of hazard communication. Copies of the safety alert and emergency order enclosed for your convenience.

Your questions are paraphrased and answered below:

Q1. What are the requirements to transport "High Gravity Condensate" in a cargo tank in TX, LA, OK, and NM?

A1. The HMR apply to any person that transports or causes to be transported or shipped hazardous materials in interstate, intrastate, and foreign commerce, by all modes of transportation (i.e., highway, rail, air, and vessel). The HMR include requirements for classification, packaging, marking, labeling, shipping paper documentation, emergency response information, placarding, and training.

Q2. What placard is required for "High Gravity Consendate"?

A2. A cargo tank containing a class 3, packing group I or II material, must display a FLAMMABLE placard as described in § 172.542. In addition, bulk packagings (e.g., cargo tanks) must display identification numbers on the placard in accordance with § 172.332(c) or on orange panels in accordance with § 172.332(b).

Q3. What are the driver training requirements to transport "High Gravity Condensate"?

A3. The HMR require that the driver must receive hazardous materials training (see §§ 177.800(c) and 177.816). This training must include general awareness, function-specific, safety, and security awareness training as specified in § 172.704(a) of the HMR, as well as driver training in the applicable requirements of Federal Motor Carrier Safety Regulations (FMCSR; 49 CFR parts 390 through 397) and the procedures necessary for the safe operation of that motor vehicle. Training conducted to satisfy compliance with the current Federal Motor Carrier Safety Administration (FMCSA) requirements for a Commercial Driver's License (CDL) with a tank vehicle or hazardous materials endorsement may be used to satisfy the training requirements set forth in § 172.704 to the extent that such training addresses the training components specified in § 172.704(a). Where this training does not satisfy the HMR, the employer or self-employed person performing these tasks must provide additional training that satisfies these requirements (see § 177.816(c) and (d)). In addition, CDLs and hazardous materials endorsements are regulated by FMCSA in accordance with 49 CFR Part 383. Questions regarding FMCSA regulations should be directed to the appropriate FMCSA field office. A list of FMCSA field offices and contact information is available at "http://www.fmcsa.dot.gov/about/contact/offices /displayfieldroster.aspx," or you may contact FMCSA at their headquarters offices in Washington, D.C., at (202) 366-6121.

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

Sincerely,

Charles Betts
Director
Standards and Rulemaking Division

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

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

JUL 18 2013

Ms. Kathy Harris
Safety Director
Eastex Crude Company
10907 Ste Hwy 11 W
Leesburg, TX 75451

Ref. No.: 13-0108

Dear Ms. Harris:

This is in response to your letter requesting clarification of certain requirements under the Hazardous Materials Regulations (HMR; 49 CFR Part 171-180) applicable to the highway transportation of "High Gravity Condensate," in a cargo tank, classified as either "UN1267, Petroleum Crude Oil, Class 3, Packing Group I/II" or "UN1268, Petroleum Products, n.o.s (condensate), Class 3, Packing Group I/II." Your questions are paraphrased and answered below:

Q1. What are the requirements to transport "High Gravity Condensate" in a cargo tank in TX, LA, OK, and NM?

A1. The HMR apply to any person that transports or causes to be transported or shipped hazardous materials in interstate, intrastate, and foreign commerce, by all modes of transportation (i.e., highway, rail, air, and vessel). The HMR include requirements for packaging, marking, labeling, shipping paper documentation, emergency response information, placarding, and training.

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A3. The HMR require that the driver must receive hazardous materials training (see §§ 177.800(c) and 177.816). This training must include general awareness, function-specific, safety, and security awareness training as specified in § 172.704(a) of the HMR, as well as driver training in the applicable requirements of Federal Motor Carrier Safety

Regulations (FMCSR; 49 CFR parts 390 through 397) and the procedures necessary for the safe operation of that motor vehicle. Training conducted to satisfy compliance with the current Federal Motor Carrier Safety Administration (FMCSA) requirements for a Commercial Driver's License (CDL) with a tank vehicle or hazardous materials endorsement may be used to satisfy the training requirements set forth in § 172.704 to the extent that such training addresses the training components specified in § 172.704(a). Where this training does not satisfy the HMR, the employer or self-employed person performing these tasks must provide additional training that satisfies these requirements (see § 177.816(c) and (d)). In addition, CDLs and hazardous materials endorsements are regulated by FMCSA in accordance with 49 CFR Part 383. Questions regarding FMCSA regulations should be directed to the appropriate FMCSA field office. A list of FMCSA field offices and contact information is available at "http://www.fmcsa.dot.gov/about/contact/offices /displayfieldroster.aspx," or you may contact FMCSA at their headquarters offices in Washington, D.C., at (202) 366-6121.

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

Sincerely,

for Delmer Billings
Senior Regulatory Advisor
Standards and Rulemaking Division

Wiener
§172.101
Applicability
13-0108

Drakeford, Carolyn (PHMSA)

From: Twitty, Gail (PHMSA)
Sent: Tuesday, May 21, 2013 3:02 PM
To: Drakeford, Carolyn (PHMSA)
Subject: FW: Question

From: Kathy Harris [mailto:kathy.harris@eastexcrude.com]
Sent: Tuesday, May 21, 2013 2:43 PM
To: Twitty, Gail (PHMSA)
Subject: Question

Ms. Gail,

I'm not sure if you can help me but hopefully you can point me in the right direction to get answers.

1) What are the requirements to haul High Gravity Condensate in a pressurized trailer in TX, LA, OK and NM?

2) What placard is for High Gravity Condensate?

3) Do Driver's have to complete a special class/have training to haul High Gravity Condensate in? If so, what is the name of the class and where are the classes located?

Thank you in advance for any help you can give me!

Kathy Harris
Safety Director
Eastex Crude Company
10907 State Hwy 11 W
Leesburg, TX 75451
Office: 903-856-2401 x 163
Cell: 903-285-2140
Fax: 903-856-5228
Email: kathy.harris@eastexcrude.com

SECTION 1 – MATERIAL IDENTIFICATION AND USE

Material Name: CONDENSATE (SWEET)
Use: Process stream, fuels production
WHMIS Classification: Class B, Div. 2; Class D, Div. 2, Sub-Div. A and B
Fire: 4 **Reactivity:** 0 **Health:** 3 **Inventory No.:**
TDG: **UN:** 1267 **Class:** 3
Packing Group: I (boiling point less than 35 deg. C)
II (boiling point 35 deg. C or above, and flash point less than 23 deg. C)
Shipping Name: PETROLEUM CRUDE OIL
Manufacturer/Supplier: ENCANA CORPORATION
#1800, 855 - 2nd Street S.W., P.O. BOX 2850
CALGARY, ALBERTA, T2P 2S5
Emergency Telephone: 403-645-3333
Chemical Family: C5+ aliphatic and aromatic hydrocarbons.

SECTION 2 – HAZARDOUS INGREDIENTS OF MATERIAL

Hazardous Ingredients	Approximate Concentrations (%)	C.A.S. Nos.	LD50/LC50 Specify Species & Route	Exposure Limits
Pentanes	50-60	109-66-0	LC50,rat,4 hr,364 g/m3	600 ppm (OEL,TLV)
n-Hexane	35-50	110-54-3	LD50,rat,oral,28.7 g/kg	50 ppm (OEL,TLV)
Butanes	<10	106-97-8	LC50,rat,4 hrs,658 g/m3	1000 ppm (OEL), 1000 ppm (TLV[1])
Benzene	0.1-1	71-43-2	LD50,rat,oral,930 mg/kg LC50,rat,4 hr,13200 ppm	0.5 ppm (OEL), 0.5 ppm (TLV)

OEL = 8 hr. Alberta Occupational Exposure Limit; TLV = Threshold Limit Value (8 hrs) [1] As Aliphatic hydrocarbon gases

SECTION 3 – PHYSICAL DATA FOR MATERIAL

Physical State: Liquid
Specific Gravity: 0.6-0.75
Vapour Density (air=1): 2.5-3.0
Percent Volatiles, by volume: 100
pH: N.Av.
Vapour Pressure (mmHg): 600 - 830 @ 20 deg. C.
Odour Threshold (ppm): N.Av.
Evaporation Rate: N.Av.
Boiling Pt. (deg.C): 40
Freezing Pt. (deg.C): -129 to -60
Coefficient of Water/Oil Distribution: <0.1
Odour & Appearance: colorless/straw coloured liquid, hydrocarbon odour
(N.AV. = not available N.App. = not applicable)

SECTION 4 – FIRE AND EXPLOSION

Flammability: Yes **Conditions:** Material will ignite at normal temperatures.
Means of Extinction: Foam, CO2, dry chemical. Explosive accumulations can build up in areas of poor ventilation.
Special Procedures: Use water spray to cool fire-exposed containers, and to disperse vapors if spill has not ignited. If safe, cut off fuel and allow flame to burn out.
Flash Point (deg.C) & Method: <-40 (TCC)
Upper Explosive Limit (% by vol.): 8
Lower Explosive Limit (% by vol.): 0.6
Auto-Ignition Temp. (deg.C): 223
Sensitivity to Impact: No
Sensitivity to Static Discharge: Yes, may ignite
TDG Flammability Classification: 3
Hazardous Combustion Products: Carbon monoxide, carbon dioxide

SECTION 5 – REACTIVITY DATA

Chemical Stability: Yes **Conditions:** Heat
Incompatibility: Yes **Substances:** Oxidizing agents (e.g. chlorine)
Reactivity: Yes **Conditions:** Heat, strong sunlight
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide

SECTION 6 – TOXICOLOGICAL PROPERTIES OF PRODUCT

Routes of Entry:
Skin Absorption Yes **Skin Contact**: Yes (liquid) **Eye Contact**: Yes
Inhalation: **Acute**: Yes **Chronic**: Yes **Ingestion**: Yes
Effects of Acute Exposure: Vapour may cause irritation of eyes, nose and throat., dizziness and drowsiness. Contact with skin may cause irritation and possibly dermatitis. Absorbed through intact skin. Contact of liquid with eyes may cause severe irritation and possible damage.
Effects of Chronic Exposure: Due to presence of benzene and n-hexane, long term exposure may increase the risk of anaemia, leukaemia and nervous system damage.
Sensitization to Product: No.
Exposure Limits of Product: 0.5 ppm (Alberta 8 hr OEL for benzene)
Irritancy: Yes
Synergistic Materials: None reported
Carcinogenicity: Yes **Reproductive Effects**: Possibly **Teratogenicity**: Possibly **Mutagenicity**: Possibly

SECTION 7 – PREVENTIVE MEASURES

Personal Protective Equipment: Use positive pressure self-contained breathing apparatus, supplied air breathing apparatus or cartridge air purifying respirator approved for organic vapours where concentrations may exceed exposure limits (note: cartridge respirator not suitable for oxygen deficiency or IDLH situations).
Gloves: Viton (nitrile adequate for short exposure to liquid) **Respiratory**: SCBA, SABA or cartridge APR
Eye: Splash Goggles
Footwear: As per safety policy **Clothing**: As per fire protection policy
Engineering Controls: Use only in well ventilated areas. Mechanical ventilation required in confined areas. Equipment must be explosion proof.
Leaks & Spills: Stop leak if safe to do so. Use appropriate personal protective equipment. Use water spray to cool containers. Remove all ignition sources. Provide explosion-proof clearing ventilation, if possible. Prevent from entering confined spaces. Dyke and pump into containers for recycling or disposal. Notify appropriate regulatory authorities.
Waste Disposal: Contact regulatory authorities for disposal requirements.
Handling Procedures & Equipment: Avoid contact with liquid. Avoid inhalation. Bond and ground all transfers. Avoid sparking conditions.
Storage Requirements: Store in a cool, dry, well ventilated area away from heat, strong sunlight, and ignition sources.
Special Shipping Information: N.App.

SECTION 8 – FIRST AID MEASURES

Skin: Flush skin with water, removing contaminated clothing. Get medical attention if irritation persists or large area of contact. Decontaminate clothing before re-use.

Eye: Immediately flush with large amounts of luke warm water for 15 minutes, lifting upper and lower lids at intervals. Seek medical attention if irritation persists.

Inhalation: Ensure own safety. Remove victim to fresh air. Give oxygen, artificial respiration, or CPR if needed. Seek medical attention immediately.

Ingestion: Give 2-3 glasses of milk or water to drink. DO NOT INDUCE VOMITING. Keep warm and at rest. Get immediate medical attention.

SECTION 9 – PREPARATION DATE OF MSDS

Prepared By: EnCana Environment, Health and Safety (EHS)
Phone Number: (403) 645-2000 Preparation Date: July 1, 2011 Expiry Date: July 1, 2014

The Pipeline and Hazardous Materials Safety Administration
1200 New Jersey Avenue, SE
Washington, DC 20590
www.phmsa.dot.gov

Safety Alert -- January 2, 2014

Preliminary Guidance from OPERATION CLASSIFICATION

The Pipeline and Hazardous Materials Safety Administration (PHMSA) is issuing this safety alert to notify the general public, emergency responders and shippers and carriers that recent derailments and resulting fires indicate that the type of crude oil being transported from the Bakken region may be more flammable than traditional heavy crude oil.

Based upon preliminary inspections conducted after recent rail derailments in North Dakota, Alabama and Lac-Megantic, Quebec involving Bakken crude oil, PHMSA is reinforcing the requirement to properly test, characterize, classify, and where appropriate sufficiently degasify hazardous materials prior to and during transportation. This advisory is a follow-up to the PHMSA and Federal Railroad Administration (FRA) joint safety advisory published November 20, 2013 [78 FR 69745]. As stated in the November Safety Advisory, it is imperative that offerors properly classify and describe hazardous materials being offered for transportation. 49 CFR 173.22. As part of this process, offerors must ensure that all potential hazards of the materials are properly characterized.

Proper characterization will identify properties that could affect the integrity of the packaging or present additional hazards, such as corrosivity, sulfur content, and dissolved gas content. These characteristics may also affect classification. PHMSA stresses to offerors the importance of appropriate classification and packing group (PG) assignment of crude oil shipments, whether the shipment is in a cargo tank, rail tank car or other mode of transportation. Emergency responders should remember that light sweet crude oil, such as that coming from the Bakken region, is typically assigned a packing group I or II. The PGs mean that the material's flashpoint is below 73 degrees Fahrenheit and, for packing group I materials, the boiling point is below 95 degrees Fahrenheit. This means the materials pose significant fire risk if released from the package in an accident.

As part of ongoing investigative efforts, PHMSA and FRA initiated "Operation Classification," a compliance initiative involving unannounced inspections and testing of crude oil samples to verify that offerors of the materials have been properly classified and describe the hazardous materials. Preliminary testing has focused on the classification and packing group assignments that have been selected and certified by offerors of crude oil. These tests measure some of the inherent chemical properties of the crude oil collected. Nonetheless, the agencies have found it necessary to expand the scope of their testing to measure other factors that would affect the proper characterization and classification of the materials. PHMSA expects to have final test

results in the near future for the gas content, corrosivity, toxicity, flammability and certain other characteristics of the Bakken crude oil, which should more clearly inform the proper characterization of the material.

"Operation Classification" will be an ongoing effort, and PHMSA will continue to collect samples and measure the characteristics of Bakken crude as well as oil from other locations. Based on initial field observations, PHMSA expanded the scope of lab testing to include other factors that affect proper characterization and classification such as Reid Vapor Pressure, corrosivity, hydrogen sulfide content and composition/concentration of the entrained gases in the material. The results of this expanded testing will further inform shippers and carriers about how to ensure that the materials are known and are properly described, classified, and characterized when being shipped. In addition, understanding any unique hazards of the materials will enable offerors, carriers, first responders, as well as PHMSA and FRA to identify any appropriate mitigating measures that need to be taken to ensure the continued safe transportation of these materials.

PHMSA will share the results of these additional tests with interested parties as they become available. PHMSA also reminds offerors that the hazardous materials regulations require offerors of hazardous materials to properly classify and describe the hazardous materials being offered for transportation. 49 CFR 173.22. Accordingly, offerors should not delay completing their own tests while PHMSA collects additional information.

For additional information regarding this safety alert, please contact Rick Raksnis, PHMSA Field Services Division, (202) 366-4455 or E-mail: Richard.Raksnis@dot.gov. For general information and assistance regarding the safe transport of hazardous materials, contact PHMSA's Information Center at 1-800-467-4922 or phmsa.hm-infocenter@dot.gov.

UNITED STATES DEPARTMENT OF TRANSPORTATION

Petroleum Crude Oil Offerors	)	
&	)	
Petroleum Crude Oil Rail Carriers	)	Docket No. DOT-OST-2014-0025

AMENDED AND RESTATED EMERGENCY RESTRICTION/PROHIBITION ORDER

On February 25, 2014, the Secretary of Transportation issued an Emergency Restriction/ Prohibition Order (Original Order) to all persons who offer for transportation, or transport, in tank cars by rail in commerce to, from and within the United States, a bulk quantity of petroleum crude oil (Petroleum Crude Oil Offerors and Rail Carriers).

This Amended and Restated Emergency Restriction and Prohibition Order (Amended Order) seeks to clarify the Original Order and supersedes and replaces in its entirety the Original Order. This Amended Order governs shipments of petroleum crude oil offered in transportation, in tank cars by rail, in commerce to, from and within the United States and does not cover other modes of transportation (*e.g.*, motor carrier transportation).

The legally binding requirements of this Amended Order are set forth under the "Effective Immediately" and "Remedial Action" sections. The remainder of this Amended Order provides background information and the rationale for the issuance of this Order.

This Amended Order constitutes an Emergency Restriction/Prohibition Order by the United States Department of Transportation (DOT) pursuant to 49 U.S.C. § 5121(d). The Amended Order is issued to all persons who offer for transportation, in tank cars by rail, in commerce to, from, and within the United States, UN 1267, Petroleum crude oil, Class 3, PG I, II,

or III, as described by 49 CFR § 172.101 of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171 to 180).

By this Amended Order, DOT is:

* requiring persons who offer bulk quantities of petroleum crude oil for transportation in commerce by rail in rail tank cars to ensure that the material is properly tested (conducted with sufficient frequency and quality) and classed in accordance with this Amended Order and the HMR;

* requiring persons who offer bulk quantities of petroleum crude oil for transportation in commerce by rail in rail tank cars to treat Class 3 petroleum crude oil as a Packing Group (PG) I or PG II hazardous material only; and

* prohibiting persons who ordinarily offer petroleum crude oil for shipment as UN 1267, petroleum crude oil, Class 3, PG I, II, or III from reclassifying such crude oil with the intent to circumvent the requirements of this Amended Order.

Upon information derived from recent railroad accidents and subsequent investigations and testing, the Secretary of Transportation has found that violations of the Federal Hazmat law (51 U.S.C. §§ 5101, *et seq.*) or the Hazardous Materials Regulations (HMR) (49 CFR Parts 171 to 180), and unsafe practices related to the classification and packaging of petroleum crude oil, are causing or otherwise constitute an imminent hazard to the safe transportation of UN 1267, Petroleum crude oil, Class 3, PG I, II, or III. For more detailed information, see "Background/Basis for Order" below.

EFFECTIVE IMMEDIATELY ANY PERSON IDENTIFIED BY THIS ORDER:

1) Shall ensure that prior to offering bulk quantities of UN 1267, petroleum crude oil, Class 3, into transportation in commerce by rail in tank cars, such petroleum crude oil is properly tested and classed in accordance with the requirements of 49 CFR parts 172 and 173. For purposes of this Amended Order, testing must have been conducted within the reasonable, recent past to determine flash point and boiling point in order to assign a proper PG.

2) Shall ensure that shipments by rail of UN 1267, petroleum crude oil, Class 3, PG III are transported according to the requirements for UN 1267, petroleum crude oil, Class 3, PG I or PG II. PG III materials may continue to be described as PG III for the purposes of hazard communication.

3) Persons who ordinarily offer petroleum crude oil for shipment as UN 1267, petroleum crude oil, Class 3, PG I, II, or III shall not reclassify such crude oil with the intent to circumvent the requirements of this Amended Order.

This Amended Order applies to all persons who offer for transportation or transport by rail in commerce to, from and within the United States, petroleum crude oil in tank cars by rail, and their officers, directors, employees, subcontractors, and agents.

This Amended Order is effective immediately and remains in effect unless withdrawn in writing by the Secretary, or until it otherwise expires by operation of regulation and/or law.

Jurisdiction

The Secretary of Transportation has the authority to regulate the transportation of petroleum crude oil in commerce. 49 U.S.C. § 5103(b). The Secretary of Transportation has designated UN 1267, petroleum crude oil, Class 3, Packing Group I, II, or III, as a hazardous material subject to the requirements of the HMR. 49 U.S.C. § 5121(d); 49 U.S.C. § 5103(a). Persons who offer for transportation, or transport, petroleum products (i.e., petroleum crude oil) in

commerce to, from and within the United States are "persons," as defined by 49 U.S.C. § 5102(9), in addition to being "persons" under 1 U.S.C. § 1 and 49 CFR § 171.8. "Commerce" is as defined by 49 U.S.C. § 5102(1) and 49 CFR § 171.8, and "transportation" or "transport" are as defined by 49 U.S.C. § 5102(13) and 49 CFR 171.8. A "railroad" is as defined by 49 CFR § 171.8. A "train" is as defined by 49 CFR § 171.8. Accordingly, persons who offer for transportation or transport petroleum crude oil in commerce, including by rail, are subject to the authority and jurisdiction of the Secretary, including the authority to impose emergency restrictions, prohibitions, recalls, or out-of-service orders, without notice or an opportunity for hearing, to the extent necessary to abate the imminent hazard. 49 U.S.C. § 5121(d).

Background/Basis for Order

An imminent hazard, as defined by 49 U.S.C. § 5102(5), constitutes the existence of a condition relating to hazardous materials that presents a substantial likelihood that death, serious illness, severe personal injury, or a substantial endangerment to health, property, or the environment may occur before the reasonably foreseeable completion date of a formal proceeding begun to lessen the risk that death, illness, injury or endangerment may occur.

Misclassification is one of the most dangerous mistakes to be made when dealing with hazardous materials because proper classification is the critical first step in determining how to package, handle, communicate about, and safely transport hazardous materials. Misclassification may indicate larger problems with company management, oversight, and quality control. Petroleum crude oil may contain dissolved gases or other unanticipated hazardous constituents, may exhibit corrosive properties and also may exhibit toxic properties. Additionally, the flammability of petroleum crude oil being shipped by bulk rail poses a significant risk of substantial endangerment to health, property, or the environment when an explosion occurs.

In light of continued dangers associated with petroleum crude oil shipments by rail, the actions described in this Amended Order are necessary to eliminate unsafe conditions and practices that create an imminent hazard to public health and safety and the environment.

A. Recent Crude Oil Incidents

The United States has experienced a dramatic growth in the quantity of petroleum crude oil being shipped by rail in recent years. The growth has largely been spurred by developments in North Dakota, where the Bakken formation in the Williston Basin has become a major source for oil production in the United States. Much of the Bakken petroleum crude oil is shipped via rail to refineries located near the U.S. Gulf Coast or to pipeline connections, primarily located in Oklahoma.[1] Shipping hazardous materials is inherently dangerous. Transporting petroleum crude oil can be problematic if released into the environment because it both is flammable and causes oil spills. This risk of flammability is compounded in the context of rail transportation because petroleum crude oil is commonly shipped in bulk quantities on large unit trains. With the rising demand for rail carriage of hazardous materials, occasioned by the current demand for petroleum crude oil[2] throughout the United States, the risk of rail incidents increases. Several accidents since last summer, which caused deaths, injuries and significant property damage, have demonstrated the need for emergency action to address unsafe practices in the shipment of petroleum crude oil by rail. The shipments are an imminent hazard when Packing Group I or Packing Group II petroleum crude oil is misclassified as Packing Group III, which could lead to an improper package being used to transport the misclassified hazardous material.

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[1] See AAR's December 2013 paper "Moving Petroleum crude oil by Rail", available online at: https://www.aar.org/keyissues/Documents/Background-Papers/Crude-oil-by-rail.pdf.

[2] In 2011 there were 65,751 originations of tank car loads of crude oil. In 2012, there were 233,811 originations. Association of American Railroads, *Moving Crude Petroleum by Rail*, https://www.aar.org/keyissues/Documents/Background-Papers/Moving%20Crude%20Petroleum%20by%20Rail%202012-12-10.pdf (December 2012).

Most recently, on December 30, 2013, a westbound grain train derailed 13 cars near Casselton, North Dakota,[3] fouling main track 2. Simultaneously, an eastbound petroleum crude oil unit train was operating on main track 2. The petroleum crude oil unit train reduced its speed and collided with the derailed car that was fouling main track 2, resulting in the derailment of the head-end locomotives and the first 21 cars of the petroleum crude oil unit train. Eighteen of the 21 derailed tank cars ruptured, and an estimated 400,000 gallons of crude was released. The ruptured tank cars ignited causing an explosion. Approximately 1,400 people were evacuated. Damages from the derailment have been estimated at $8 million.[4]

On November 8, 2013, a 90-car petroleum crude oil train derailed in a rural area near Aliceville, Alabama. The petroleum crude oil shipment had originated in North Dakota, and was bound for Walnut Hill, Florida, to be transported by a regional pipeline to a refinery in Saraland, Alabama. More than 20 cars derailed and the petroleum crude oil of at least 11 cars ignited resulting in an explosion and fire. Although there were no reported injuries, an undetermined amount of petroleum crude oil escaped from derailed cars fouling a wetlands area near the derailment site, and the costs are estimated at $3.9 million.

On July 6, 2013, a catastrophic railroad accident involving a U.S. railroad company occurred in Lac-Mégantic, Quebec, Canada, when an unattended freight train transporting crude oil rolled down a descending grade and subsequently derailed.[5] The derailment resulted in multiple explosions and subsequent fires, which caused the confirmed death of forty-two people and presumed death of five more, extensive damage to the town center and the evacuation of

[3] This derailment currently is being investigated by the National Transportation Safety Board (NTSB), and information regarding this incident can be found at the NTSB website. See http://www.ntsb.gov/doclib/reports/2014/Casselton_ND_Preliminary.pdf.

[4] Federal Rail Administration

[5] This derailment currently is being investigated by the Transportation Safety Board of Canada and information regarding this incident can be found at the TSB website. See http://www.bst-tsb.gc.ca/eng/enquetes-investigations/rail/2013/R13D0054/R13D0054.asp

approximately 2,000 people from the surrounding area. Preliminary estimates of costs exceed over $1 billion.

B. DOT Actions to Increase Safety of Petroleum Crude Oil Shipments

In the wake of these and other events, the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Federal Railroad Administration (FRA) have taken a number of steps to increase the safety of petroleum crude oil shipments by rail. Following the Lac-Mégantic derailment, on August 7, 2013, FRA issued Emergency Order No. 28 (EO 28), establishing securement requirements for certain unattended trains and rail equipment, including petroleum crude oil unit trains. EO 28 remains in effect until further notice by FRA. In addition, on August 7, 2013, PHMSA and FRA issued Safety Advisory 2013-06, which made a number of safety-related recommendations to railroads and hazardous materials offerors operating in the United States, including the recommendation that offerors evaluate their processes to ensure that hazardous materials are properly classed and described in accordance with the HMR, and the recommendation that offerors and carriers conduct reviews of their safety and security plans. On August 27-28, 2013, FRA and PHMSA held a public meeting with industry stakeholders to solicit input on a comprehensive review of safety regulations contained in 49 CFR Part 174 applicable to the safe transportation of hazardous materials by rail. PHMSA and FRA are collaborating to address comments received at the public meeting.

On August 29, 2013, FRA convened an emergency session of the Railroad Safety Advisory Committee (RSAC). RSAC is a group composed of railroad industry, labor, and governmental representatives who develop recommendations on new regulatory standards and other rail safety programs. During the emergency meeting, RSAC established three collaborative working groups to formulate new rulemaking recommendations regarding hazardous materials

transportation by rail, appropriate train crew sizes, and train securement procedures. Each of these working groups has been meeting on a regular basis and each working group is expected to produce formal recommendations for consideration on or before April 2014.

On September 6, 2013, PHMSA issued an Advanced Notice of Proposed Rulemaking (ANPRM) ((HM-251); 78 Fed. Reg. 54849) to solicit comments on petitions for rulemaking and National Transportation Safety Board (NTSB) recommendations related to rail hazmat safety, including regulations regarding operational practices and DOT specification tank cars, most commonly used to move crude oil by rail. The comment period closed on December 5, 2013, and PHMSA received 135 comments representing over 150,000 stakeholders. The Department is actively working on developing a regulatory proposal.

PHMSA and FRA issued a supplementary safety advisory, Safety Advisory 2013-07, on November 20, 2013, to emphasize the importance of proper characterization, classification, and selection of a packing group for Class 3 materials (flammable liquids, including petroleum crude oil), and to reinforce the need to follow the Federal hazardous materials regulations for safety and security planning. On January 2, 2014, PHMSA issued a Safety Alert, which warned of crude oil variability and emphasized that unprocessed crude oil may affect the integrity of packaging or present additional hazards related to corrosivity, sulfur content, and dissolved gas content.

On January 16, 2014, the Secretary of Transportation met with members of the rail and the petroleum industries in a Call to Action to address the risks associated with the transportation of crude oil by rail. As a result, railroads recently committed to voluntary actions to enhance the safety of crude oil transportation by rail, including implementing speed restrictions, increasing rail and mechanical inspections, and other safety-enhancing measures.

Notwithstanding the above DOT actions, in light of continued risks associated with petroleum crude oil shipments by rail, the further action described in this Amended Order is necessary to eliminate unsafe conditions and practices related to the classification and packaging of petroleum crude oil that create an imminent hazard to public health and safety and the environment.

C. Classification and Packaging of Petroleum Crude Oil

The proper classification and characterization of a hazardous material is critical and required under the HMR by Parts 171, 172 and 173, as it dictates additional requirements, such as operational controls, emergency response, and proper packaging selection. The HMR is essential for safe transportation. The classification requirements in the HMR dictate the appropriate and authorized selection of packaging, fill densities and outage; accompanying hazard communications (markings, labels and placards); transportation safety and operational controls; and safety and security planning. Not only can properly classified shipments mitigate injury and damage when accidents occur, they are necessary to enable the most effective and informed emergency response. Indeed, the accurate classification of hazardous materials in transportation can protect the safety of emergency responders and others who may come into contact with the material.

Proper classification and characterization is especially important when dealing with an organic material such as mined liquids and gases, as these materials have variable characteristics, unlike manufactured products, which are generally consistent. Moreover, crude oil transported by rail often derives from different sources and is then blended, further enhancing the potential range of appropriate classifications.

It is the offeror's responsibility to properly classify and describe the hazardous material in accordance with parts 172 and 173 of the HMR. See §§ 171.1 and 171.2 and 173.22. When a

single material meets more than one hazard class, the shipper must select the proper shipping name based on the hazard precedence table in § 173.2a. Once an offeror has determined the hazard class of the material, the offeror must select the most appropriate proper shipping name from the HMR.

As with other hazardous materials, an offeror of petroleum crude oil must determine all hazardous constituents in order to properly classify and package the petroleum crude oil under the HMR. For offerors without sufficient knowledge to classify their petroleum crude oil, in addition to the tests required by this Amended Order, testing to characterize and classify the hazardous materials necessary to comply with the HMR may include, but is not limited to, percentage presence of flammable gases; vapor pressure; presence, concentration and content of compounds such as sulfur/hydrogen sulfide; and corrosivity.

With regard to package selection, the HMR requires at § 173.24(b) that each package used for the shipment of hazardous materials shall be designed, constructed, maintained, filled, its contents so limited, and closed, so that under conditions normally incident to transportation there will be no identifiable (without the use of instruments) release of hazardous materials to the environment, and further requires that the effectiveness of the package will not be substantially reduced. Under this requirement, offerors must consider how the properties of the material, including temperature and pressure, may affect the packaging.

PHMSA and FRA issued a supplementary safety advisory, Safety Advisory 2013-07, on November 20, 2013, to emphasize the importance of proper characterization, classification, and selection of a packing group for Class 3 materials, and to reinforce the need to follow the Federal hazardous materials regulations for safety and security planning.

In addition, PHMSA and FRA initiated Operation Classification in August 2013, which involves unannounced inspections requesting samples of the transported petroleum crude oil and

testing the oil samples to verify that offerors of the materials have properly classified and described the hazardous materials. Preliminary testing has focused on the classification and packing group assignments that had been selected. These tests measured some of the inherent chemical properties of the petroleum crude oil collected. PHMSA tested samples of petroleum crude oil, destined for transportation by rail, and determined that some of the samples had been erroneously assigned to a lower packing group by offerors than required under the HMR. As a result of Operation Classification, PHMSA has proposed $93,000 in civil penalties against petroleum crude oil offerors. PHMSA and FRA will continue to test the Bakken petroleum crude oil characteristics to gain information to verify whether the crude oil appears to be classified appropriately under the hazardous materials regulations.

FRA has also discovered incidents, and brought enforcement action, where petroleum crude oil was misclassified. FRA audits of crude oil loading facilities indicate that the classification of crude oil being transported by rail is often based solely on Materials Safety Data Sheet (MSDS) data that only provide a material classification and a range of material properties. This MSDS information is typically provided by the consignee to the shipper, and the shipper does not validate the values of the crude oil properties. FRA's audits indicate that MSDS information has been based upon old test data, and not from testing for the many different sources of the crude oil. At a petroleum crude oil rail trans-loading facility, the crude oil is collected and stored in an above-ground intermediate storage tank. The above ground intermediate storage tanks accumulate hundreds of cargo tank motor vehicle loads, which may also lead to classification issues. In a problematic example, a shipper provided information to FRA showing that crude oil being transported by rail had a flash point of 68°F, or a Packing Group I hazardous material. The crude oil had been improperly classified as a Packing Group III material, and was being transporting in

AAR Specification tank cars that were not equipped with the required design enhancements for DOT Specification 111 cars. This constituted a misuse of the crude oil HMR packaging exceptions, and subsequent violations of the HMR. Reliance upon MSDS information that is outdated and that does not accurately represent the hazardous material may also lead to the incorrect packing group being assigned to the hazardous material, which can lead to an unauthorized package being used.

Misclassification can also lead to use of unauthorized containers that lack the required safety enhancements necessary to safely transport PG I and II materials, as well as insufficient development of safety and security plans and the communication of inaccurate information to emergency responders. As a result, these conditions pose an imminent hazard.

D. Investigations Conducted by Other Agencies Involving Petroleum Crude Oil

Several Government entities have conducted research on transporting petroleum crude oil on trains. These entities include: the United States Department of State, Transport Canada, the Transportation Safety Board of Canada, Congressional Research Service, and the National Transportation Safety Board.

While conducting its review of the National Interest Determination for the Keystone Pipeline, on January 31, 2014, the State Department released its Final Supplemental Environmental Impact Statement. This study reviewed the alternatives to building the Keystone Pipeline, which would service the Bakken formation of the Williston Basin. In determining the no-action alternative scenario, in which a pipeline is not built and unit trains continue to deliver the petroleum crude oil, the State Department determined that "a projection of injury and fatality frequencies onto the crude oil transport volume ... indicates a potential additional 49 injuries and

six fatalities for the rail alternative"[6] per year.

The Congressional Research Service (CRS), a nonpartisan research group for the United States Congress,[7] has analyzed the U.S. Rail Transportation of Crude Oil issue and on February 6, 2014, prepared a report for Congress.[8] In its Report, CRS determined that the increasing deployment of unit trains concentrates a large amount of potentially environmentally harmful and flammable material, increasing the probability that, should an accident occur, large fires and explosions could result. [9] Further, the increased use of rail for crude oil shipments is likely to increase the number of incidents, some of which may involve oil spills.[10]

Transport Canada (TC), the Canadian equivalent to the U.S. Department of Transportation, has implemented many changes as a result of the catastrophic accident in Lac-Mégantic on July 6, 2013. Most recently, TC has implemented Protective Direction No. 31.[11] This Directive requires that any person engaged in importing or offering crude oil for transport to immediately test the classification of crude oil being imported, handled, offered for transport or transported as UN 1267, or UN 1993, if the classification testing has not been conducted since July 7, 2013, and to provide those test results to TC upon request. Moreover, following testing, any person who imports or offers for transport UN 1267 or UN 1993 must immediately provide a MSDS for the tested product to TC, through the Canadian Transport Emergency Centre, also known as

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[6] Found at: http://keystonepipeline-xl.state.gov/finalseis/index.htm Chapter 5.1.1.4 p. 5.1-6. While the State Department's analysis did not take into account any measures that FRA and PHMSA have taken and are taking with respect to the safety of rail transport of crude oil (which would tend to decrease projected injuries and fatalities), they also did not consider the Lac-Mégantic accident, which was outside of the time frame that the State Department considered (and would tend to increase projected injuries and fatalities). Chapter 5.1.1.4 p. 5.1-6

[7] The Congressional Research Service (CRS) works exclusively for the United States Congress, providing policy and legal analysis to committees and Members of both the House and Senate, regardless of party affiliation. As a legislative branch agency within the Library of Congress, CRS has been a valued and respected resource on Capitol Hill for nearly a century.

[8] http://www.fas.org/sgp/crs/misc/R43390.pdf

[9] Id., at p. 10.

[10] Id., at p. 19.

[11] Found at: http://www.tc.gc.ca/eng/mediaroom/backgrounders-protective-direction-no31-7385.html

CANUTEC. Finally, until such time as the person importing or offering for transport has completed the testing, any person who imports, handles, offers for transport, or transports crude oil classified as UN 1267 or UN 1993 by rail must ship all such crude oil as a Class 3 Flammable Liquid PG I and meet the requirements established in the Transportation of Dangerous Goods Act ("Act"), regulations and standards regarding UN 1267 or UN 1993 classified as PG I. Classification testing must follow the requirements of the Act and its regulations.

Finally, the National Transportation Safety Board has made recommendations to PHMSA and FRA on January 23, 2014.[12] In its recommendations to PHMSA regarding the transportation of petroleum crude oil, the NTSB indicated Canadian authorities analyzed petroleum crude oil from nine undamaged tank cars in the train that caused the Lac-Mégantic accident.[13] Testing indicated that the crude oil being transported in those trains had been incorrectly assigned to Packing Group III rather than Packing Group II.[14] The crude oil on the Lac-Mégantic accident train was derived from wells in the Bakken.[15] The above information is clear evidence of an ongoing problem with classification of petroleum crude oil that is being shipped by rail. The continuing misclassification has consequences with regard to the type of packaging in which the petroleum crude oil is transported, the protections those packages provide if an accident occurs, and, notably with regard to emergency responders, sufficient knowledge about the hazards of the materials being transported so that if an accident occurs, they can respond appropriately. The Secretary finds that this misclassification of petroleum crude oil as a Packing Group III is an imminent hazard (as defined by § 109.1) that presents a substantial likelihood that death, serious

[12] Found at: http://www.ntsb.gov/doclib/recletters/2014/R-14-001-003.pdf and http://www.ntsb.gov/doclib/recletters/2014/R-14-004-006.pdf.
[13] http://www.ntsb.gov/doclib/recletters/2014/R-14-004-006.pdf. The Transportation Safety Board of Canada issued a press release relating to the misclassification on September 11, 2013, http://www.bst-tsb.gc.ca/eng/medias-media/communiques/rail/2013/r13d0054-20130911.asp.
[14] Id.
[15] Id.

illness, severe personal injury, or a substantial endangerment to health, property, or the environment may occur. The information conveyed to PHMSA by the NTSB in its recent recommendations regarding the misclassification of the petroleum crude oil in the Lac-Mégantic accident train provides evidence of this imminent hazard.

NTSB also issued recommendation R-14-6 that PHMSA "require shippers [offerors] to sufficiently test and document the physical and chemical characteristics of hazardous materials to ensure the proper classification, packaging, and record-keeping of products offered in transportation."[16]

The testing required by this Amended Order helps ensure that petroleum crude oil offerors are testing the hazardous material regularly and verified that they have been classified, described and packaged the petroleum crude oil in accordance with the HMR. The testing will address, in part, the imminent hazard described above. Offerors' review of the testing data will help both offerors and DOT to ensure compliance with existing HMR requirements regarding the proper classification of petroleum crude oil and the subsequent selection of permissible packaging.

As discussed in PHMSA's January 2, 2014 safety alert, PHMSA is still investigating the variability and flammability of petroleum crude oil being produced in the Bakken. Because the evidence indicates that petroleum crude oil being produced in the Bakken is being misclassified and improperly packaged in non-DOT Specification tank cars, and because the properties and volatility of this petroleum crude oil are still unknown in certain regards, the Secretary finds that the Amended Order is necessary to prevent the imminent hazard that exists when petroleum crude oil being transported by railroad is misclassified.

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[16] Id.

Remedial Action

Effective immediately, to eliminate or abate the imminent hazard:

1) Persons covered by this Amended Order shall ensure that prior to offering bulk quantities of UN 1267, petroleum crude oil, Class 3, into transportation in commerce by rail in tank cars, such petroleum crude oil is properly tested and classed in accordance with the requirements of 49 CFR parts 172 and 173. For purposes of this Amended Order, testing must have been conducted within the reasonable, recent past to determine flash point and boiling point in order to assign a proper PG.
2) Persons covered by this Amended Order shall ensure that shipments by rail of UN 1267, petroleum crude oil, Class 3, PG III are transported according to the requirements for UN 1267, petroleum crude oil, Class 3, PG I or PG II. PG III materials may continue to be described as PG III for the purposes of hazard communication.
3) Persons covered by this Amended Order who ordinarily offer petroleum crude oil for shipment as UN 1267, petroleum crude oil, Class 3, PG I, II, or III shall not reclassify such petroleum crude oil with the intent to circumvent the requirements of this Amended Order.

In light of the above discussion, and to address the imminent hazard, this Amended Order requires that any person who offers petroleum crude oil into transportation in commerce by rail in tank cars to conduct tests and obtain results to determine the petroleum crude oil's flash point and boiling point prior to shipment. While this Amended Order specifically requires testing for flash point and boiling point, offerors of petroleum crude oil must continue to comply with the HMR with respect to all other hazardous characteristics exhibited by the petroleum crude oil they offer for shipment in commerce regardless of mode.

If an offeror has existing test data that the offeror knows to a reasonable degree of certainty is representative and continues to be representative of the petroleum crude oil to be offered for shipment by rail, the offeror may rely on that test data for purposes of satisfying the testing requirement of this Amended Order; provided, however, that the offeror must continue to test with sufficient frequency to ensure data regarding the characteristics of the petroleum crude oil subsequently offered for shipment remain accurate and current.

For purposes of this Amended Order, frequency of testing should account for variability of the material, including the time, temperature, and location of extraction. Sampling methods should ensure a representative sample of the entire mixture, as packaged, is collected. Testing methods should enable complete analysis, classification, and characterization of the material. This Amended Order does not specify how often testing should or must be performed, nor does it require testing to be performed for each and every shipment. Rather, an offeror must determine when it has sufficient data available to reliably classify the characteristics of petroleum crude oil that it intends to offer for bulk shipment by rail and must ensure that the data remains representative of the petroleum crude oil over time (i.e., testing should be done with sufficient frequency to ensure that it is representative of the petroleum crude oil being shipped at any given point in time). As stated above, the offeror must also have sufficient test data to properly classify the characteristics of petroleum crude oil prior to shipment by rail.

This Amended Order is effective immediately, but the requirements of the Amended Order (and the now superseded Original Order) do not apply to shipments of petroleum crude oil that were offered for transportation or transported by rail on or before February 25, 2014, the date of the Original Order.

Rescission of this Order

This Amended Order remains in effect until the Secretary determines that an imminent hazard no longer exists or a change in applicable statute or Federal regulation occurs that supersedes the requirements of the Amended Order, in which case the Secretary will issue a Rescission Order.

Failure to Comply

Any person failing to comply with this Emergency Order is subject to civil penalties of up to $175,000 for each violation or for each day they are found to be in violation (49 U.S.C. §5123). A person violating this Emergency Order is also subject to criminal prosecution, which may result in fines under title 18, imprisonment of up to ten years, or both (49 U.S.C. § 5124).

Right to Review

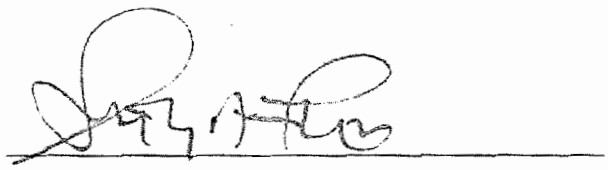
Pursuant to 49 U.S.C. § 5121(d)(3) and in accordance with section 554 of the Administrative Procedure Act (APA), 5 U.S.C. §§ 500 *et seq*, a review of this action may be filed. Any petition seeking relief must be filed within 20 calendar days of the date of this order (49 U.S.C. § 5121 (d)(3)), and addressed to U.S. DOT Dockets, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Room W12-140, Washington, DC 20590 (http://Regulations.gov). Furthermore, a petition for review must state the material facts at issue which the petitioner believes dispute the existence of an imminent hazard and must include all evidence and exhibits to be considered. The petition must also state the relief sought. Within 30 days from the date the petition for review is filed, the Secretary must approve or deny the relief in writing; or find that the imminent hazard continues to exist, and extend the original Emergency Order. In response to a petition for review, the Secretary may grant the requested relief in whole or in part; or may order other relief as justice may require (including the immediate assignment of

the case to the Office of Hearings for a formal hearing on the record).

Emergency Contact Officials

If you have any questions concerning this Emergency Order, you should contact 202-366-4400.

Dated: March 6, 2014



Anthony R. Foxx
Secretary of Transportation