



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

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# **US DOT**

# **Pipeline and Hazardous**

# **Materials Safety**

# **PHMSA**

**Anthony Murray**

Eastern Region - Field Operations  
Trenton, NJ

November 4, 2015





# Hazardous Materials Regulations (HMR)

## Primary Goal

**SAFETY**  
**SECURITY**



*“protect against the risks to life, property, and the environment which are inherent in the transportation of hazardous materials in intrastate, interstate, and foreign commerce.”*





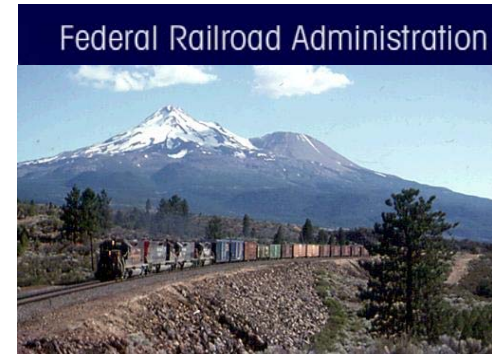
## PHMSA Responsibilities

- Formulate, issue, revise and enforce the Hazardous Materials Regulations (HMR)
- Issues special permits and approvals under the Federal Hazmat Law
- Enforces regulations emphasizing:
  - Packaging Manufacturers, Retesters and Reconditioners
  - Multimodal shippers of hazmat





# Hazardous Materials Regulations Responsibilities

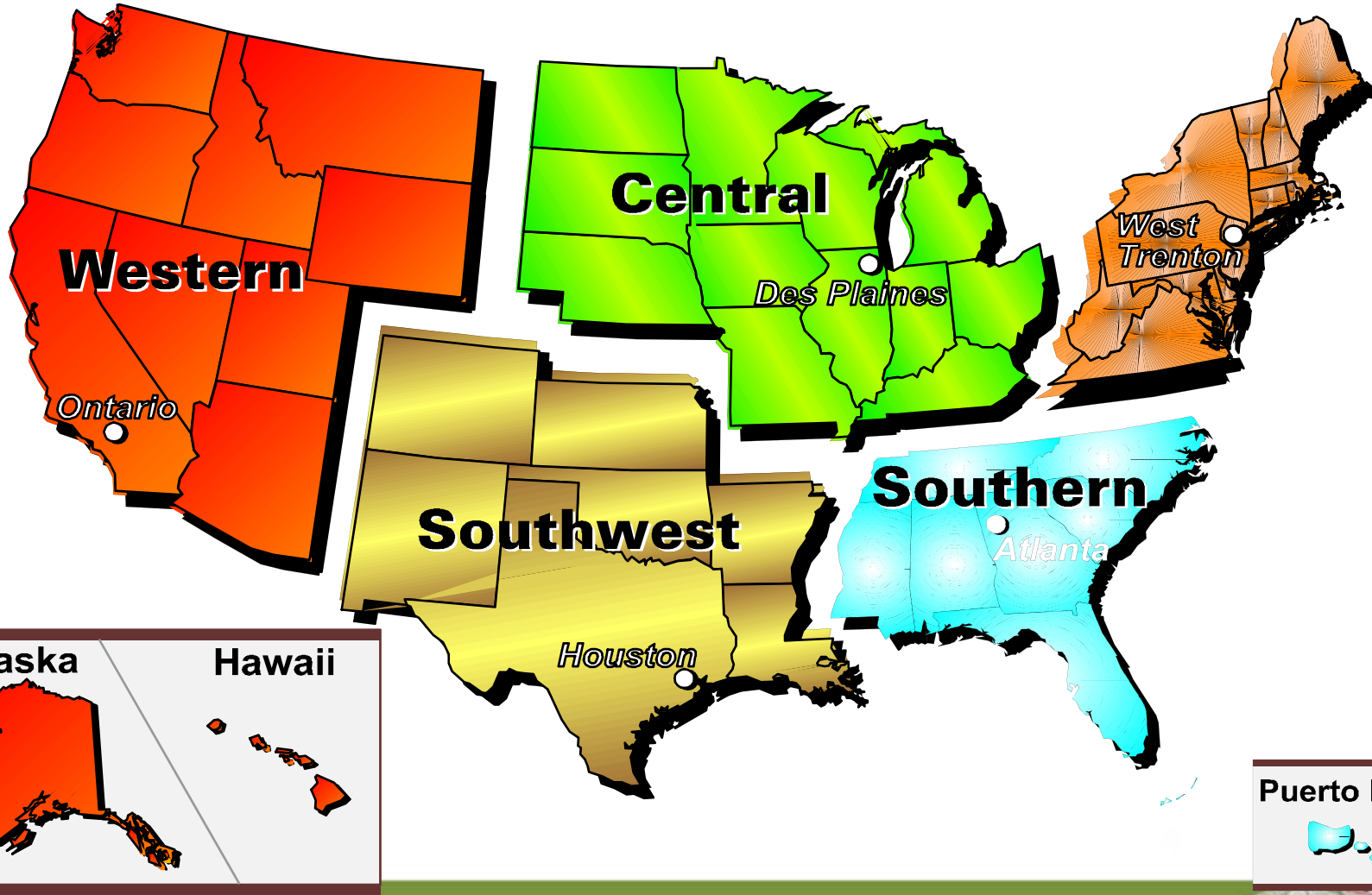


- Modal administrations (FAA, FMCSA, and FRA) enforce the HMR respective to their mode
- U.S. Coast Guard (Department of Homeland Security) enforces the HMR respective to maritime operations





# Regional Offices Offer PHMSA Coverage



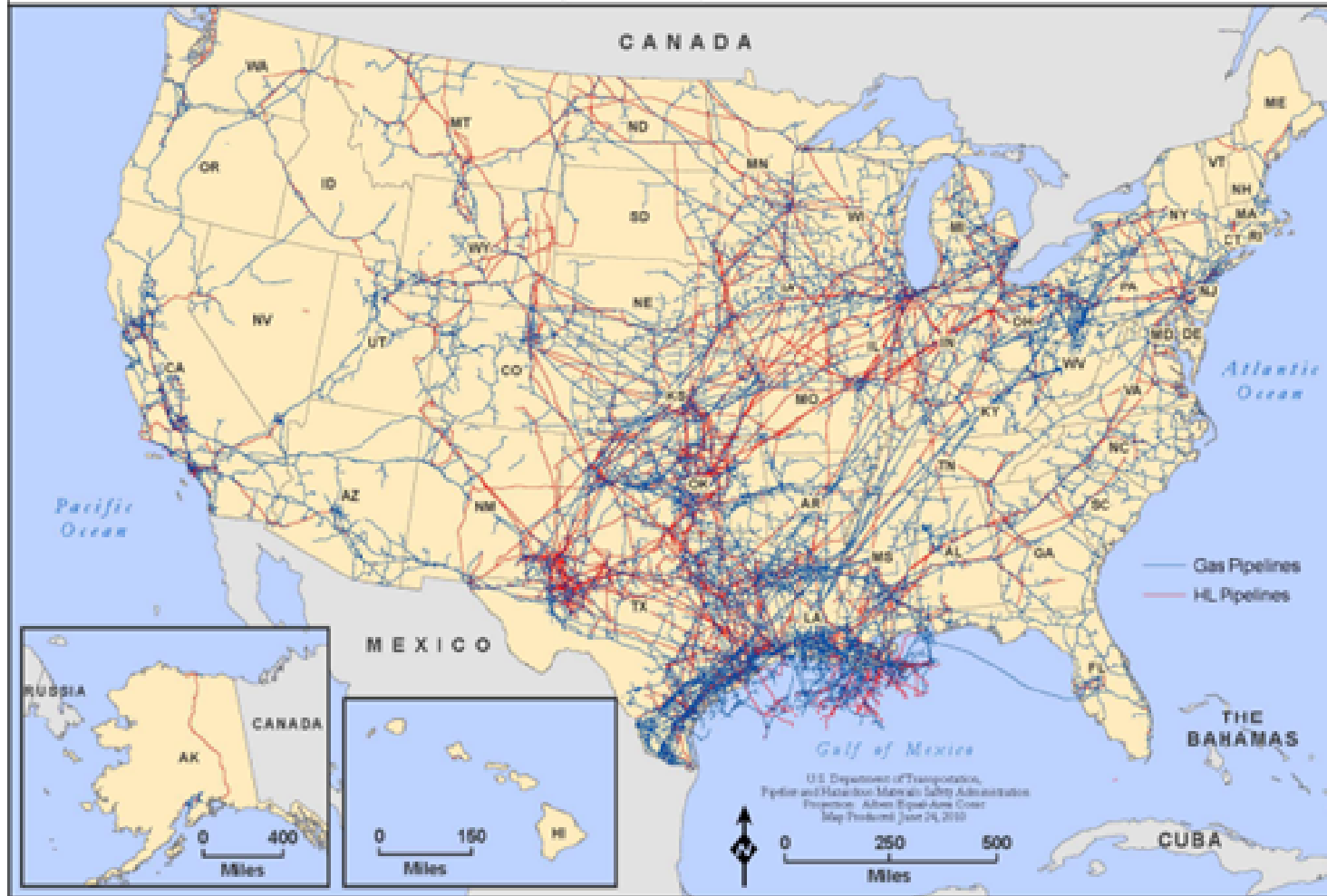


U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

# Office of Pipeline Safety



## Hazardous Liquid and Gas Transmission Pipelines Pipelines as of June 2010



**RED** = Petroleum Liquids

**BLUE** = Petroleum Gases



# Sissonville, WV

December 11, 2012

## 20-Inch Natural Gas Transmission Pipeline



One Nation...  
One Number...

Know what's below.  
Call before you dig.

U.S. Department of Transportation

The central graphic is a white map of the United States with a network of black lines representing utility lines. Overlaid on the map is a large, stylized number '811' in yellow and green. Below the number is a silver shovel icon. The text 'One Nation... One Number...' is at the top, and 'Know what's below. Call before you dig.' is at the bottom. A small logo for the U.S. Department of Transportation is in the bottom right corner.

15 Miles North on I-77  
from Charleston, WV





# Community Assistance and Technical Services



CATS

**PHMSA's CATS** Representatives within the  
**Office of Pipeline Safety**, focused on improving  
communications at the state and local levels, and  
coordinating permitting processes to enhance  
pipeline safety







# National Pipeline Mapping System

- The National Pipeline Mapping System (NPMS) is a Geographic Information System (GIS) containing locations of and information about Pipeline Assets and Liquefied Natural Gas plants under the jurisdiction of PHMSA
- For access to the Pipeline Operator and Government Official Version of NPMS please go to <http://npms.phmsa.dot.gov> and click “Apply for PIMMA Access”





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

# CATS meeting topics include: accessing pipeline maps

<http://www.npms.phmsa.dot.gov/>

**PIMMA**  
Pipeline Integrity Management  
Mapping Application

Click Here to Apply  
for PIMMA Access

Already have a Username?  
Log on here:

- PIPELINE OPERATOR
- FEDERAL GOVERNMENT
- STATE & LOCAL GOVERNMENT

The banner features a background image of a pipeline running through a forested area with mountains in the distance. A yellow call-to-action button is positioned in the upper right, and three white buttons with black text are stacked in the lower left. A red diamond-shaped sign with a flame icon and the number '1993' is visible in the bottom right corner of the banner area.





# Facility Response Plan Sharing

- Pipeline operators Facility Response Plans (FRPs) will be shared with Federal partners
  - When responding to an oil spill from a pipeline or
  - To assist regional and area planning committees
- Please Email PHMSA FRP Team Contacts for information sharing Standard Operating Procedures
- FRPs will be shared through a Secure File Transfer Protocol Site

**\*For emergency after hours requests please call Nathan Schoenkin at 202-740-1978**





# Facility Response Plan Team

## Team Contact Information

David K. Lehman  
Director of Emergency Support  
and Security Division

[David.Lehman@dot.gov](mailto:David.Lehman@dot.gov)  
(202)366-4439

Eddie Murphy  
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Specialist

[Eddie.Murphy@dot.gov](mailto:Eddie.Murphy@dot.gov)  
(202)366-7043

Nathan A. Schoenkin,  
Compliance Specialist

[Nathan.Schoenkin@dot.gov](mailto:Nathan.Schoenkin@dot.gov)  
(202)366-4774

For emergency after hours requests please call Nathan Schoenkin  
at 202-740-1978





# Comprehensive Regulatory Safety System

- **Classify** the risk
- **Contain** the risk
- **Communicate** the risk
- **Certify and Comply**





## Hazard Classes Classify The Risk



**Explosives**



**Gases**



**Flammable  
Liquids**



**Flammable  
Solids**



**Oxidizers and  
Organic Peroxides**



**Poison and  
Infectious Substances**



**Radioactive**



**Corrosive**



**Miscellaneous**





# Hazmat Classes

- **Class 1** – Explosives (Division 1.1 thru Division 1.6)
- **Class 2** – Flammable 2.1, non-flammable 2.2, toxic gases 2.3
- **Class 3** – Flammable liquids
- **Class 4** – Flammable solids 4.1, Spontaneously combustible 4.2  
Dangerous when wet / Water-reactive substances 4.3
- **Class 5** – Oxidizers 5.1 and Organic peroxides 5.2
- **Class 6** – Toxic 6.1 and Infectious substances 6.2
- **Class 7** – Radioactive materials
- **Class 8** – Corrosive materials
- **Class 9** – Miscellaneous hazardous materials





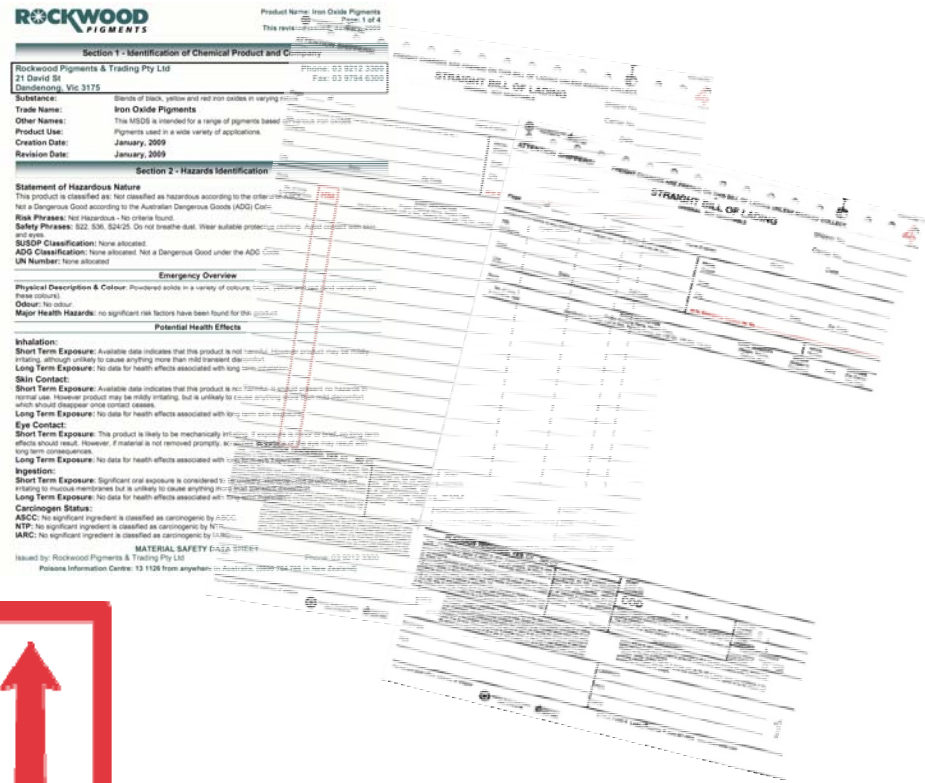
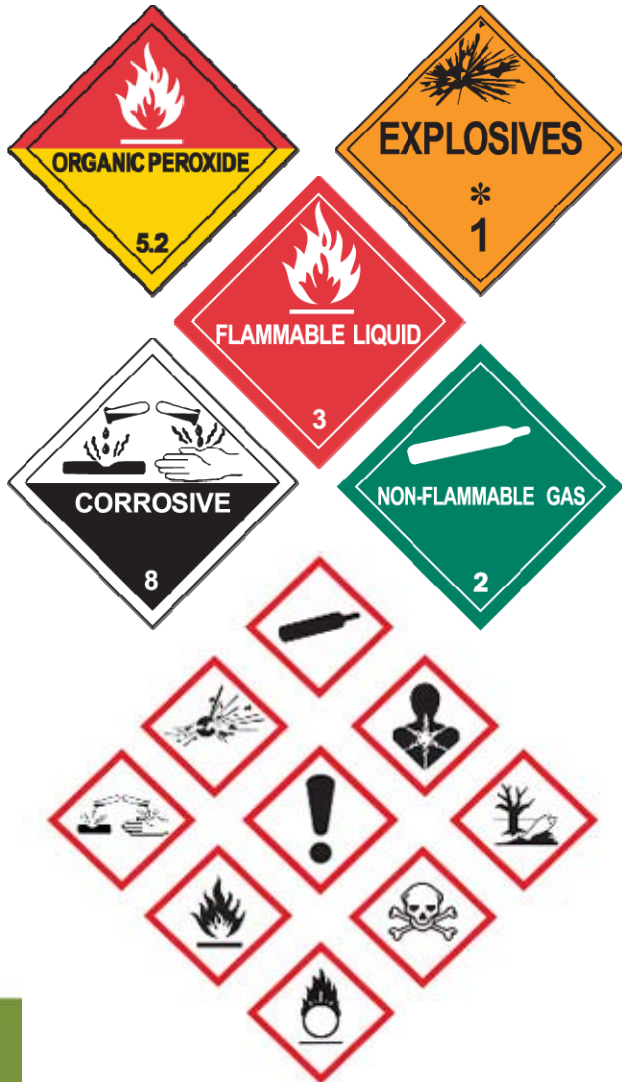
## Contain the Risk - Packaging







# Communicate the Risk – HazCom



**1090**





# Properly Marked and Labeled





# Hazardous Materials Basic Description

No. of Units & Container Type	<b>HM</b>	<b>BASIC DESCRIPTION</b> Identification Number [UN or NA], Proper Shipping Name, Hazard Class, Packing Group, per 172.101, 172.202, 172.203	<b>TOTAL QUANTITY</b> (Weight, Volume, Gallons, etc.)
8 Cylinders	X	UN1075, Liquefied petroleum gas, 2.1	8 Cylinders

**Mandatory January 1, 2013**

**I S H P**





# (Material) Safety Data Sheet (SDS)

- Section 1. Identification
- Section 2. Hazard(s) identification
- Section 3. Composition/information on ingredients
- Section 4. First-Aid measures
- Section 5. Fire-fighting measures
- Section 6. Accidental release measures
- Section 7. Handling and storage
- Section 8. Exposure controls/personal protection
- Section 9. Physical and chemical properties
- Section 10. Stability and reactivity
- Section 11. Toxicological information
- Section 12. Ecological information
- Section 13. Disposal considerations
- Section 14. Transport information**
- Section 15. Regulatory information
- Section 16. Other information, including date of preparation  
or last revision



Product Name: Iron Oxide Pigments  
Page: 1 of 4  
This revision issued: January, 2009

## Section 1 - Identification of Chemical Product and Company

Rockwood Pigments & Trading Pty Ltd  
21 David St  
Dandenong, Vic 3175

Phone: 03 9212 3300  
Fax: 03 9794 6300

**Substance:** Blends of black, yellow and red iron oxides in varying ratios.  
**Trade Name:** Iron Oxide Pigments  
**Other Names:** This MSDS is intended for a range of pigments based on various iron oxides.  
**Product Use:** Pigments used in a wide variety of applications.  
**Creation Date:** January, 2009  
**Revision Date:** January, 2009

## Section 2 - Hazards Identification

**Statement of Hazardous Nature**  
This product is classified as: Not classified as hazardous according to the criteria of ASCC.  
Not a Dangerous Good according to the Australian Dangerous Goods (ADG) Code.  
**Risk Phrases:** Not Hazardous - No criteria found.  
**Safety Phrases:** S22, S36, S24/25. Do not breathe dust. Wear suitable protective clothing. Avoid contact with skin and eyes.  
**SUSDP Classification:** None allocated.  
**ADG Classification:** None allocated. Not a Dangerous Good under the ADG Code.  
**UN Number:** None allocated.

## Emergency Overview

**Physical Description & Colour:** Powdered solids in a variety of colours; black, yellow and red (and variations on these colours).  
**Odour:** No odour.  
**Major Health Hazards:** no significant risk factors have been found for this product.

## Potential Health Effects

**Inhalation:**  
**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.  
**Long Term Exposure:** No data for health effects associated with long term inhalation.  
**Skin Contact:**  
**Short Term Exposure:** Available data indicates that this product is not harmful. It should present no hazards in normal use. However product may be mildly irritating, but is unlikely to cause anything more than mild discomfort which should disappear once contact ceases.  
**Long Term Exposure:** No data for health effects associated with long term skin exposure.  
**Eye Contact:**  
**Short Term Exposure:** This product is likely to be mechanically irritating. If exposure is minor or brief, no long term effects should result. However, if material is not removed promptly, scratches to surface of the eye may result with long term consequences.  
**Long Term Exposure:** No data for health effects associated with long term eye exposure.  
**Ingestion:**  
**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product may be irritating to mucous membranes but is unlikely to cause anything more than transient discomfort.  
**Long Term Exposure:** No data for health effects associated with long term ingestion.  
**Carcinogen Status:**  
**ASCC:** No significant ingredient is classified as carcinogenic by ASCC.  
**NTP:** No significant ingredient is classified as carcinogenic by NTP.  
**IARC:** No significant ingredient is classified as carcinogenic by IARC.

MATERIAL SAFETY DATA SHEET  
Issued by: Rockwood Pigments & Trading Pty Ltd  
Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)





# General Placarding Requirements

Placard a container or vehicle:

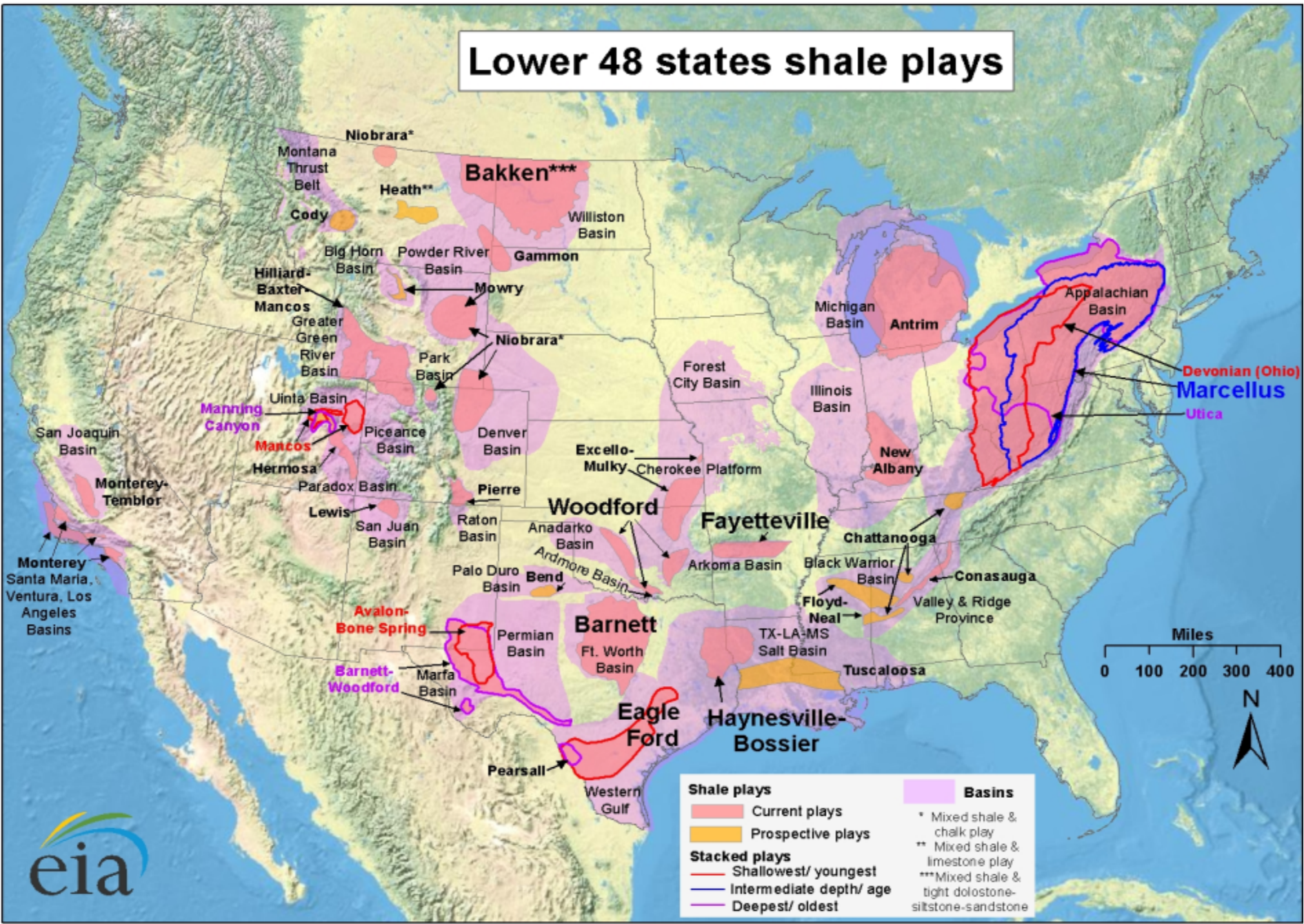
- on each side and each end
- for any quantity of hazardous material

Some exceptions exist based on:

- the hazard and quantity present



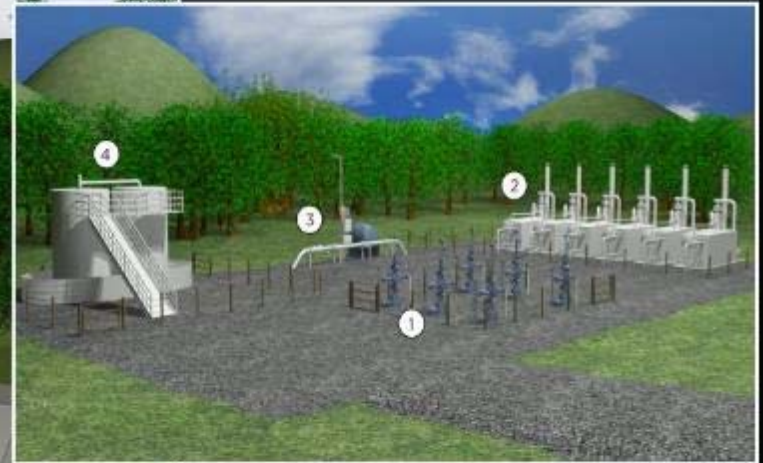
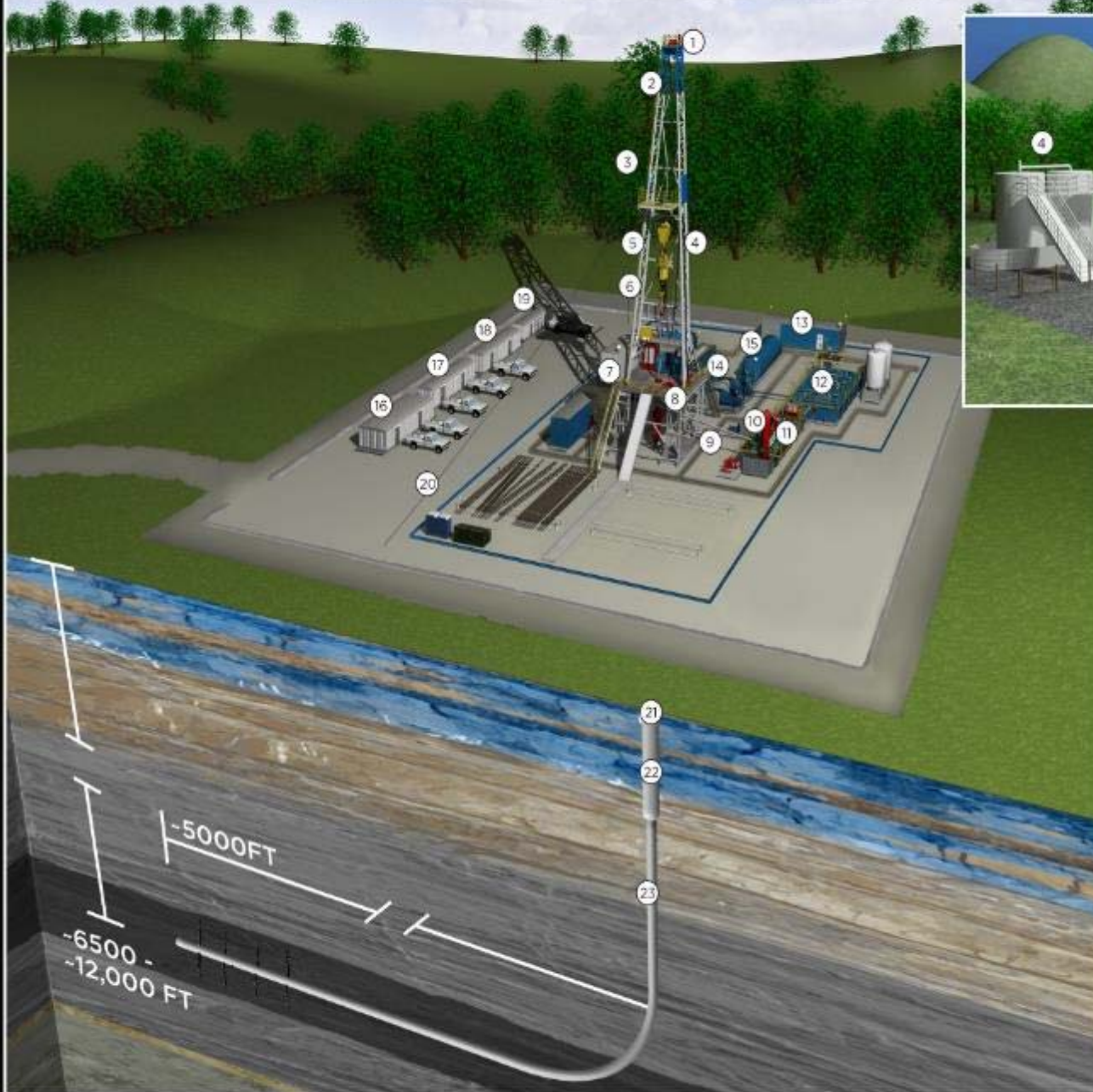
# Lower 48 states shale plays



Source: Energy Information Administration based on data from various published studies.  
 Updated: May 9, 2011



# ROTARY RIG AND PRODUCTION SITE



## Rotary Rig Legend

- |                              |                                  |
|------------------------------|----------------------------------|
| 1 Crown Block Assembly       | 13 Mud House                     |
| 2 Crown Platform/Watertable  | 14 Mud Pumps                     |
| 3 Derrick Board/Monkey Board | 15 Diesel Tank                   |
| 4 Mast                       | 16 Company Man - Quarters        |
| 5 Traveling Block            | 17 Toolpusher - Quarters         |
| 6 Top Drive/Power Swivel     | 18 Direction Drillers - Quarters |
| 7 Mouse Hole                 | 19 Mud Workers - Quarters        |
| 8 Hydraulic/Air Hoists       | 20 Geronimo Line                 |
| 9 Mud Return Line            | 21 Conductor Casing              |
| 10 Mud-Gas Separator         | 22 Surface Casing                |
| 11 Shale Shakers             | 23 Production Casing             |
| 12 Mud Pits                  |                                  |

## Production Site Legend

- |  |  |
|--|--|
| 1 Production wellhead                    | 3 Departing Pipeline with chemical treatment tank        |
| 2 Gas Processing units, with line heater | 4 Brine water Production tanks, in secondary containment |

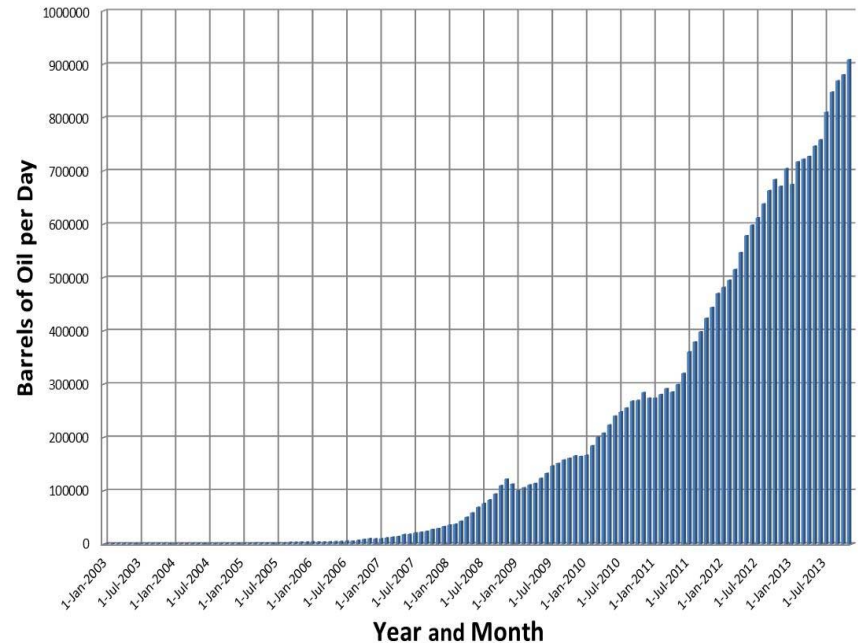
Typically housed on a 300' x 400' pad site, rotary rigs are common to the oil and natural gas industry and can be used to drill multiple wells from a single site. Standing up to 186 feet high, these rigs can drill to a variety of depths and are manned 24 hours a day by rotating five-man crews. Crews live off-site, but report to the rig manager or toolpusher who lives on-site. Chesapeake employs an on-site drilling supervisor, often referred to as a company man, to oversee the complete operation.



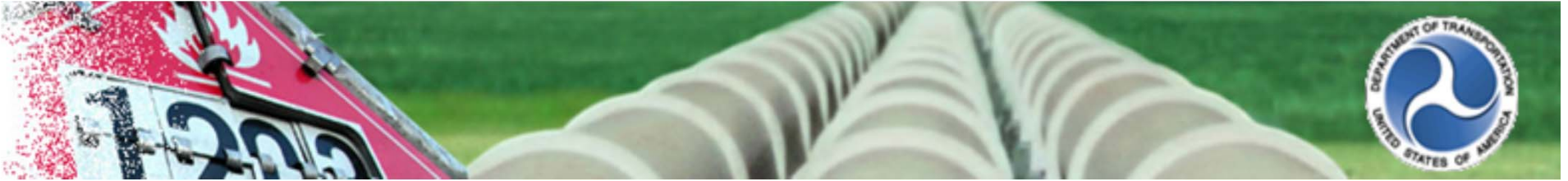
# US Energy Production

- Growth of domestic natural gas and crude oil production is revolutionizing the US energy economy.
- During December 2013, over 11 million barrels daily were produced.
- In 2013 the Bakken play produced over 10% of all US oil.
- In November 2013, over 10,022 Bakken wells produced 29 million barrels of oil, over 900,000 barrels of oil daily.

Table 1: Bakken Oil Production in North Dakota 2003-2013



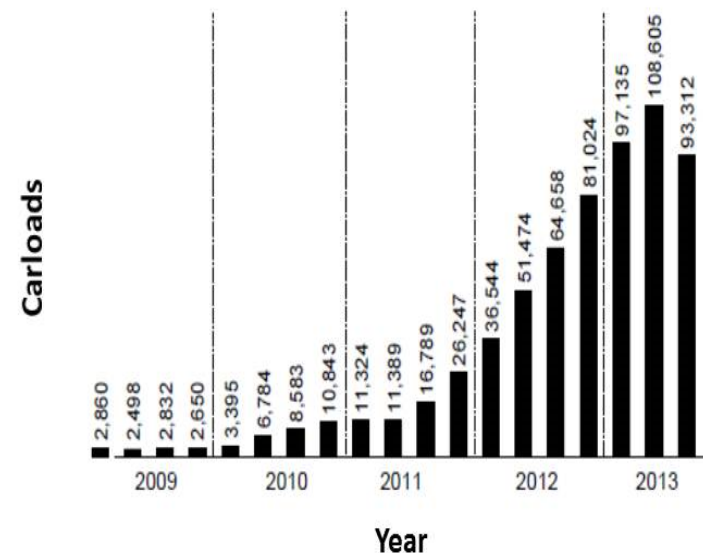




# Crude Oil Transport

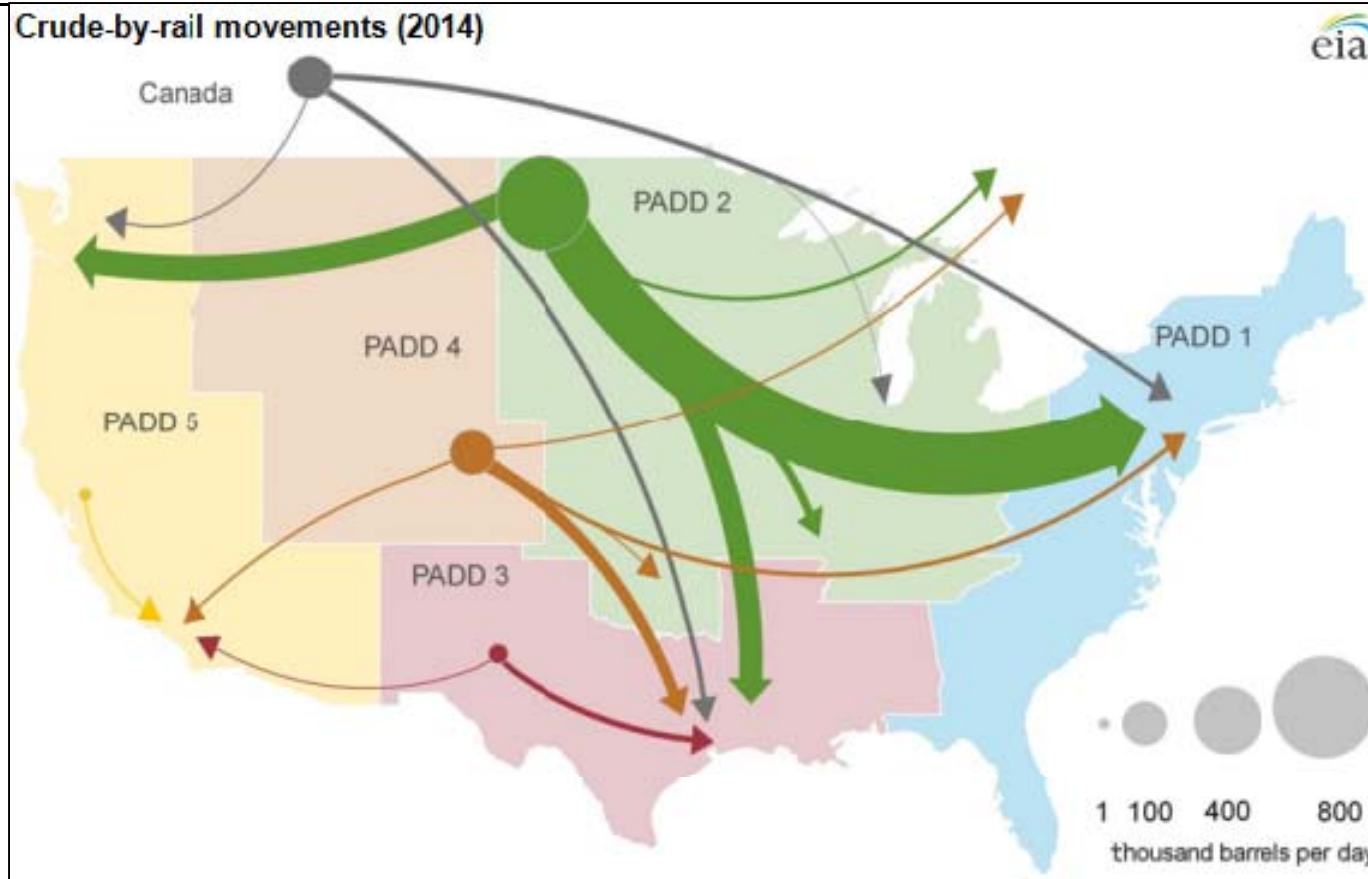
- Increased energy production results in increased transport by all modes.
- The volume of crude oil moving by rail has quadrupled in less than a decade due to increased production.
- Rail volume has increased, but accidents have declined by 43 %.
- Accidents involving hazmats are down 16 %.
- Increased use of unit trains of 100+ cars of a single commodity.

Table 2: Originated Carloads of Crude Oil on Class 1 Railroads





# Crude Oil Movements 2014



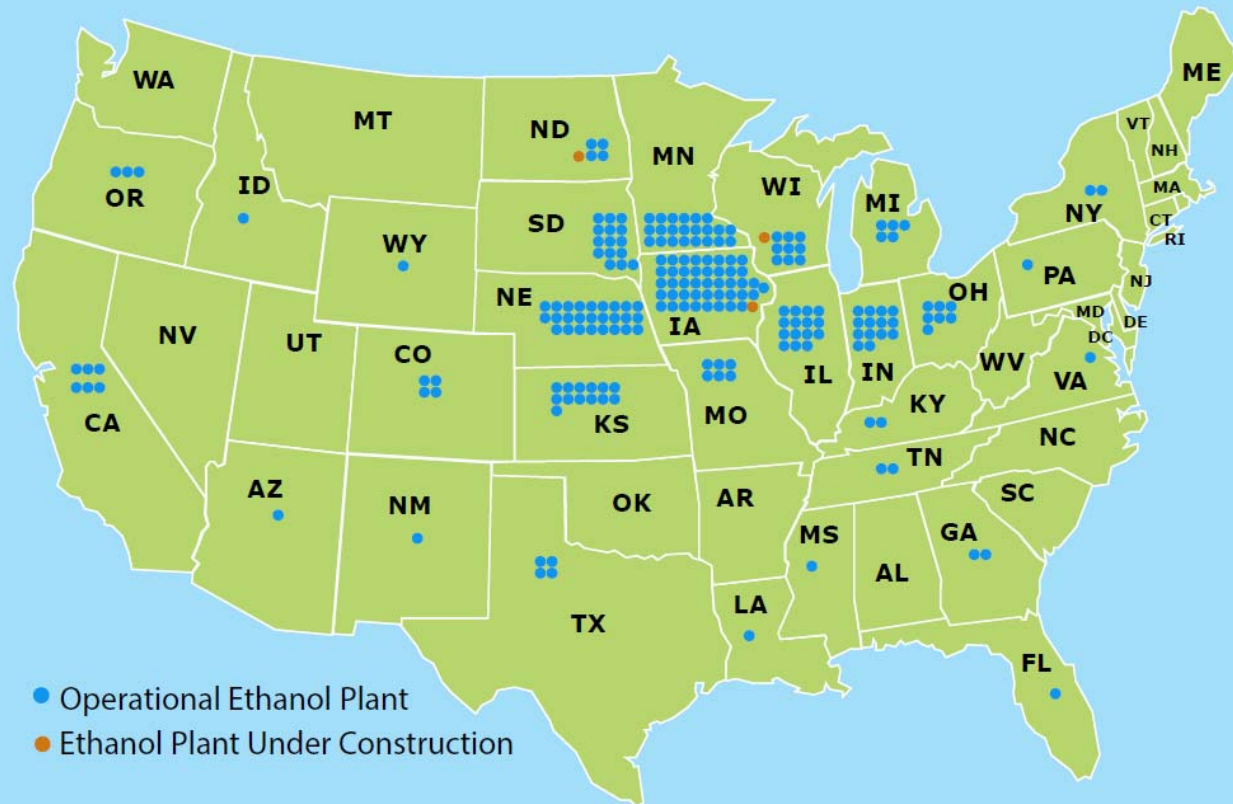
Crude-by-rail movements greater than 1,000 barrels per day are represented on the map; short-distance movements between rail yards within a region are excluded.



# ETHANOL PRODUCTION FACILITIES



## U.S. ETHANOL BIOREFINERIES BY STATE





## Safe Transportation of Energy Products – The Next Step

**Crude Oil**-Growing domestic production of crude oil continues to reshape the U.S. energy economy, with crude oil production approaching the historical high .

**Natural Gas**- Hydraulic Fracturing and horizontal drilling have led to an increase in production in the United States. The U.S. is forecast to become a net exporter by 2017. Globally, more than 40% of natural gas is consumed in the generation of power and heat (US approximately 50%).

**Liquefied Natural Gas**-Liquefying natural gas reduces volume **600x** for easier transport & store. However transportation of LNG provides challenges.



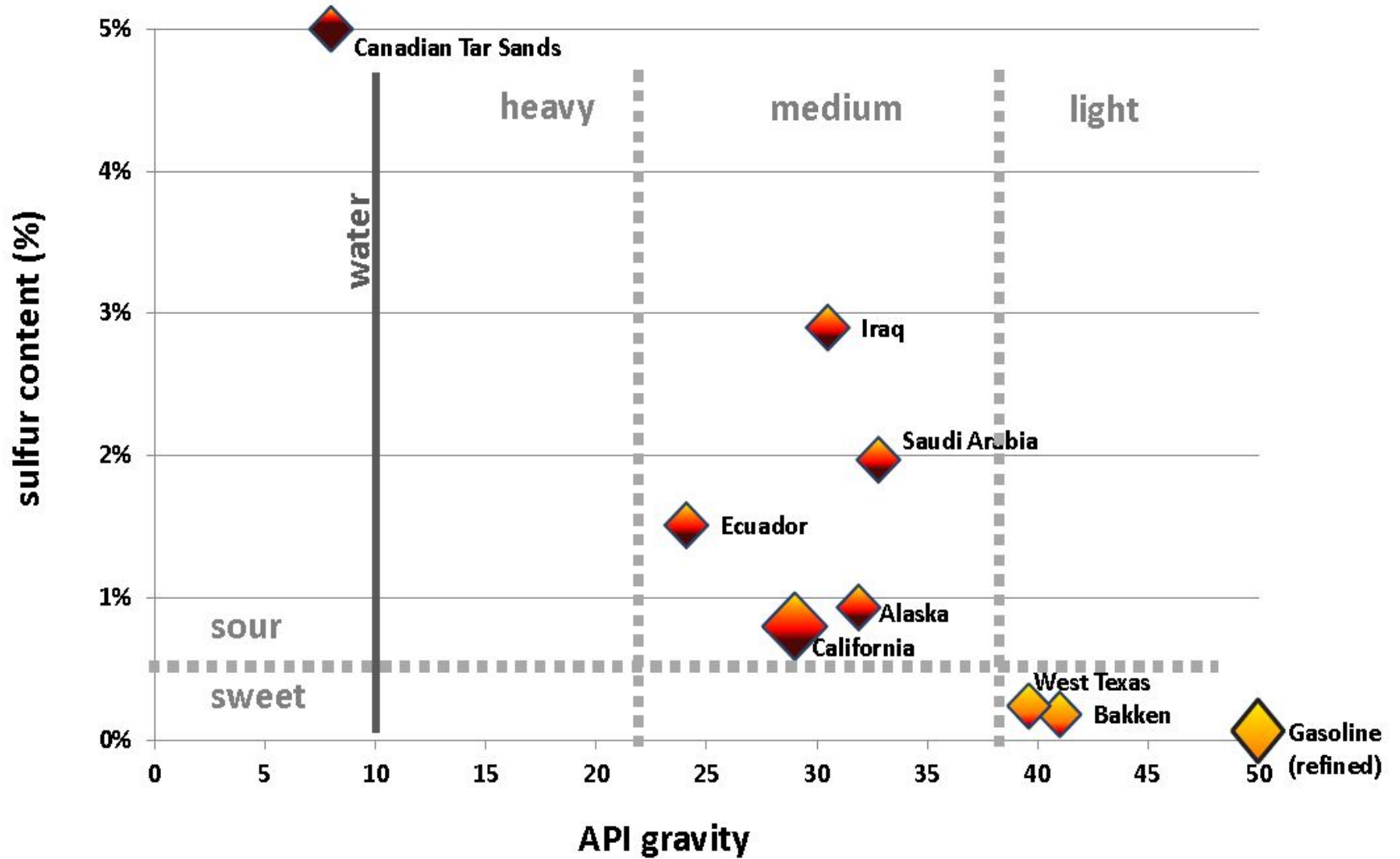


# Recent Bakken Crude Oil Derailments

- **Mount Carbon, WV**  
February 16, 2015, 28 cars derailed
- **Lynchburg, VA**  
April 30, 2014, 15 tank cars derailed
- **Plaster Rock, NB**  
January 7, 2014, 16 cars derailed, 8 hazmat
- **Casselton, ND**  
December 20, 2013, 20 of 106 tankers derailed
- **Aliceville, AL**  
November 8, 2013, 25 of 90 cars derailed
- **Lac-Megantic, QE**  
July 6, 2013, 74 cars derailed, 47 fatalities



# crude oil characteristics





# Petroleum Crude Oil Hazards

- Petroleum crude oil poses a unique risk to transportation. Viscosity, specific gravity, Hydrogen Sulfide (H<sub>2</sub>S), flammable dissolved gases, corrosive materials and flammable liquids are just a few examples of variations that may be experienced from one well to another or even day to day.





# Testing & Sampling Crude Oil







# Class 3 – Flammable Liquids

## FLAMMABLE liquids

- Flashpoint  $\leq 60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ )
- Incorporated flashpoint test procedures: §171.7  
“Reference Material”



Packing Group	Flash Point (closed cup)	Initial Boiling Point
I		$\leq 35^{\circ}\text{C}$ ( $95^{\circ}\text{F}$ )
II	$< 23^{\circ}\text{C}$ ( $73^{\circ}\text{F}$ )	$> 35^{\circ}\text{C}$ ( $95^{\circ}\text{F}$ )
III	$\geq 23^{\circ}\text{C}$ ( $73^{\circ}\text{F}$ ), $\leq 60^{\circ}\text{C}$ ( $140^{\circ}\text{F}$ )	$> 35^{\circ}\text{C}$ ( $95^{\circ}\text{F}$ )

§173.120:





# Petroleum Crude Oil Hazards

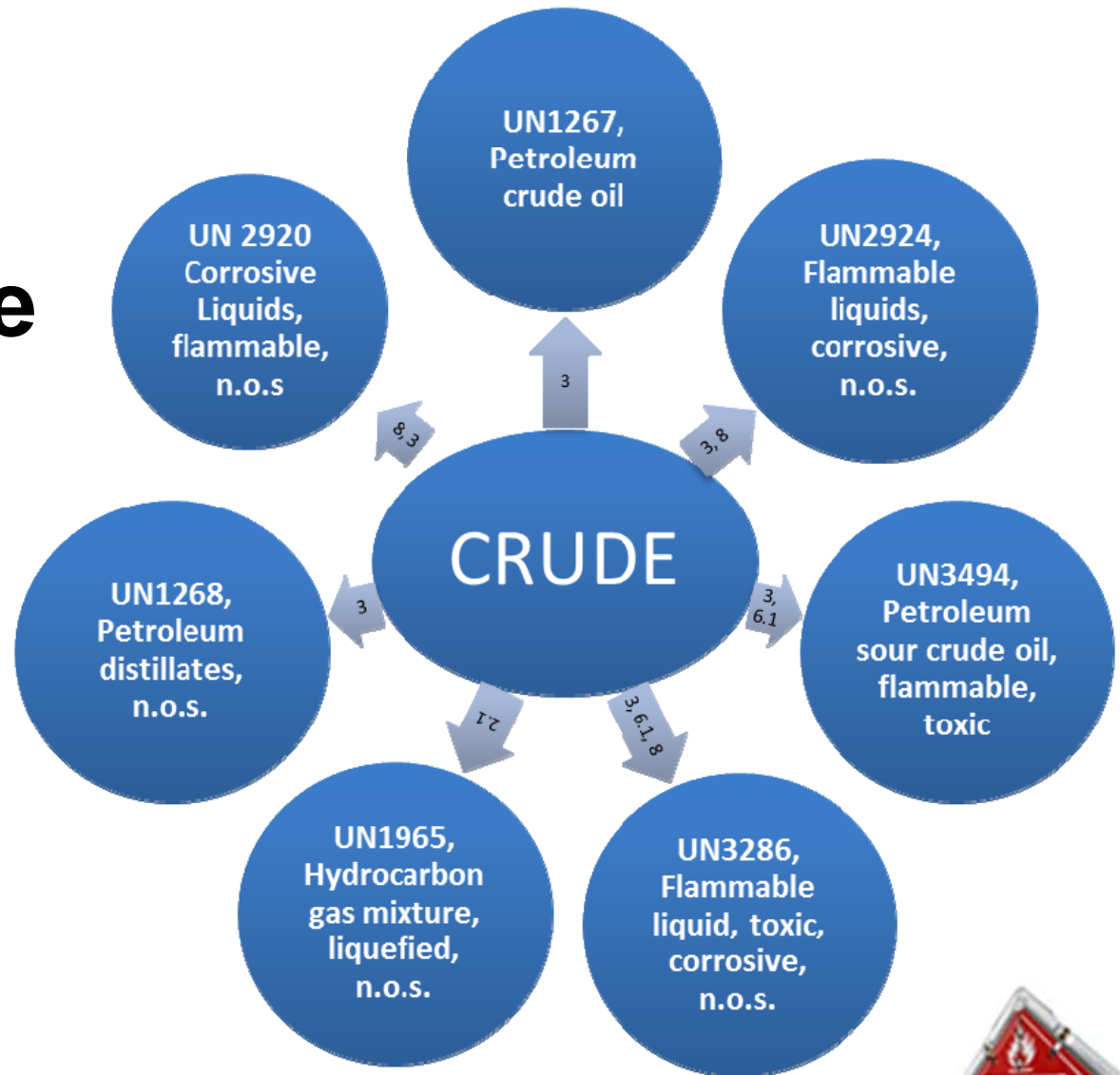
Class	Division	Name
2	2.1	Flammable gas
2	2.2	Non-Flammable Gas
2	2.3	Toxic Gas
3		Flammable and combustible liquids
6	6.1	Poisonous materials
8		Corrosive materials

An offeror must determine whether the particular shipment of crude oil contains additional hazards that require additional descriptions or changes in packing groups.





# Possible Examples include but are not limited to:





# Enhanced Tank Car Standards &

## Operational Controls for High-Hazard Flammable Trains – Final Rule

- Secretary Anthony Foxx and Canadian Transport Minister Lisa Raitt jointly announced publication of final rule HM-251 on May 1, 2015
- This rulemaking was published May 08, 2015 and is effective July 7, 2015
- Together they stressed the importance of a harmonized approach to rail safety





# Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains

- Over 3,200 public comments representing over 182,000 signatories in response to the NPRM.
- **Enhanced tank car standards** and an aggressive, risk-based retrofitting schedule for older tank cars transporting large volumes of flammable liquids;
- **New braking systems** for certain trains that will offer a superior level of safety by potentially reducing the severity of an accident, and the “pile-up effect”;
- **New operational protocols** for trains transporting large volumes of flammable liquids, such as routing requirements, speed restrictions, and information for local government agencies; and
- **Sampling and testing requirements** to improve classification of energy products placed into transport.





# Final Rule Applicability

- Unless stated otherwise, the rule applies to **“High-hazard flammable trains”** (HHFT).
- HHFT means a continuous block of 20 or more tank cars loaded with a flammable liquid or 35 or more tank cars loaded with a flammable liquid dispersed through a train.
- With regard to Electronically Controlled Pneumatic Braking (ECP), **High-hazard flammable unit train (HHFUT)** means a train comprised of 70 or more loaded tank cars containing Class 3 flammable liquids traveling over 30 mph.



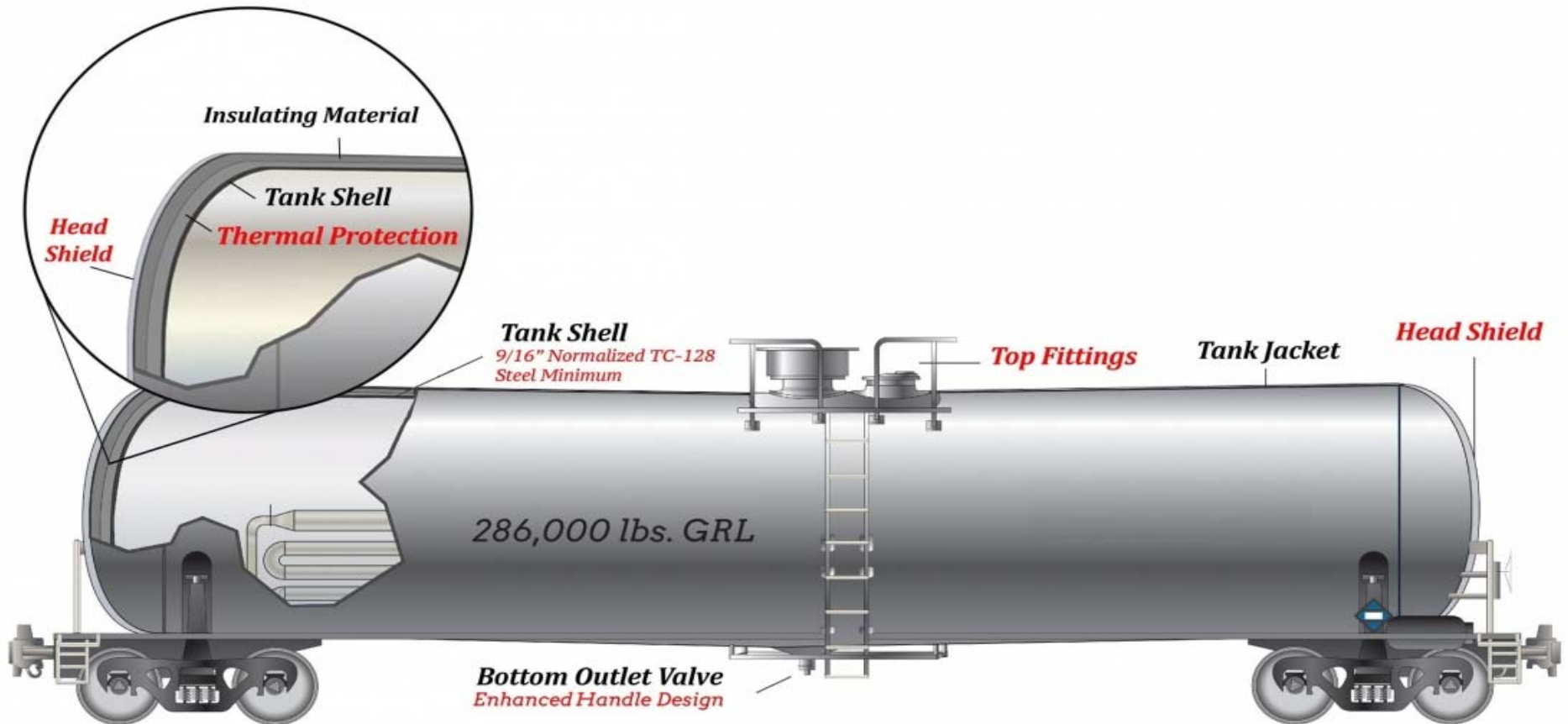


# Enhanced Standards for New Tank Cars Used in HHFTs

- New tank cars constructed after October 1, 2015 are required to meet enhanced DOT Specification 117 design or performance criteria for use in an HHFT.
- This standard includes enhancements designed to:
  - **Improve puncture resistance** (thicker shells and full-height head shielding)
  - **Improve thermal protection and survivability** (Thermal jacketing and Pressure relief devices)
  - **Protect equipment** (top fittings protection and bottom outlet protection / securement )



# DOT 117 Specification Car



## Safety enhancements of DOT Specification 117 Tank Car:

- Full-height ½ inch thick head shield
- Tank shell thickness increased to 9/16 inch minimum TC-128 Grade B, normalized steel
- Thermal protection
- Minimum 11-gauge jacket
- Top fittings protection
- Enhanced bottom outlet handle design to prevent unintended actuation during a train accident





# Retrofit Standard for Existing Tank Cars HHFTs

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- Existing tank cars must be retrofitted in accordance with the DOT-prescribed retrofit design or performance standard for use in an HHFT.
- Revision of retrofit schedule was based on considerable public comment and in-depth economic and safety analysis.
- Final rule adopts a **risk based approach** based on two variables:
  - (1) the packaging of the material and
  - (2) the characteristics of the material.





# Retrofit Timeline

<b>Timeline for Continued Use of DOT Specification 111 Tanks for Use in United States</b>	
<b>Tank Car Type / Service</b>	<b>US Retrofit Deadline</b>
Non Jacketed DOT-111 tank cars in PG I service	<b><i>(January 1, 2017)* January 1, 2018</i></b>
Jacketed DOT-111 tank cars in PG I	<b><i>March 1, 2018</i></b>
Non Jacketed CPC-1232 tank cars in PG I service	<b><i>April 1, 2020</i></b>
Non Jacketed DOT-111 tank cars in PG II service	<b><i>May 1, 2023</i></b>
Jacketed DOT-111 tank cars in PG II service	<b><i>May 1, 2023</i></b>
Non Jacketed CPC-1232 tank cars in PG II service	<b><i>July 1, 2023</i></b>
Jacketed CPC-1232 tank cars in PG I and PG II service and all remaining tank cars carrying PG III materials in an HHFT (pressure relief valve and valve handles).	<b><i>May 1, 2025</i></b>

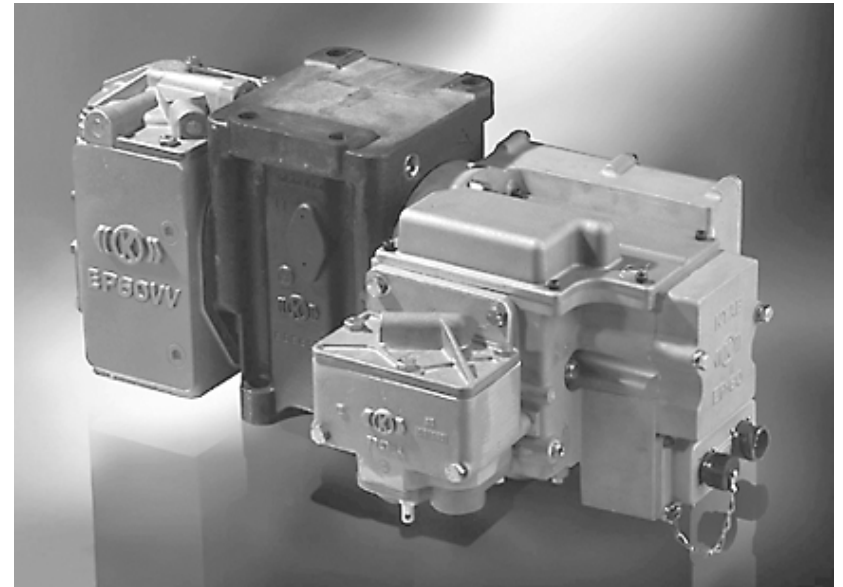
[1](#) The January 1, 2017 date would trigger a reporting requirement, and owners of Non Jacketed DOT-111 tank cars in PG I service would have to report to the DOT the number of tank cars that they own that have been retrofitted, and the number that have not yet been retrofitted.





# Enhanced Braking Systems

- Requires HHFTs to have in place a functioning two-way **End of Train** device or a **Distributive Power** braking system.
- Requires any High Hazard Flammable Unit Train (HHFUT) transporting at least one PG I flammable liquid be operated with an **Electronically Controlled Pneumatic (ECP)** braking system by **January 1, 2021**.
- Requires all other HHFUTs be operated with an **ECP** braking system by **May 1, 2023**.





# Speed Restrictions

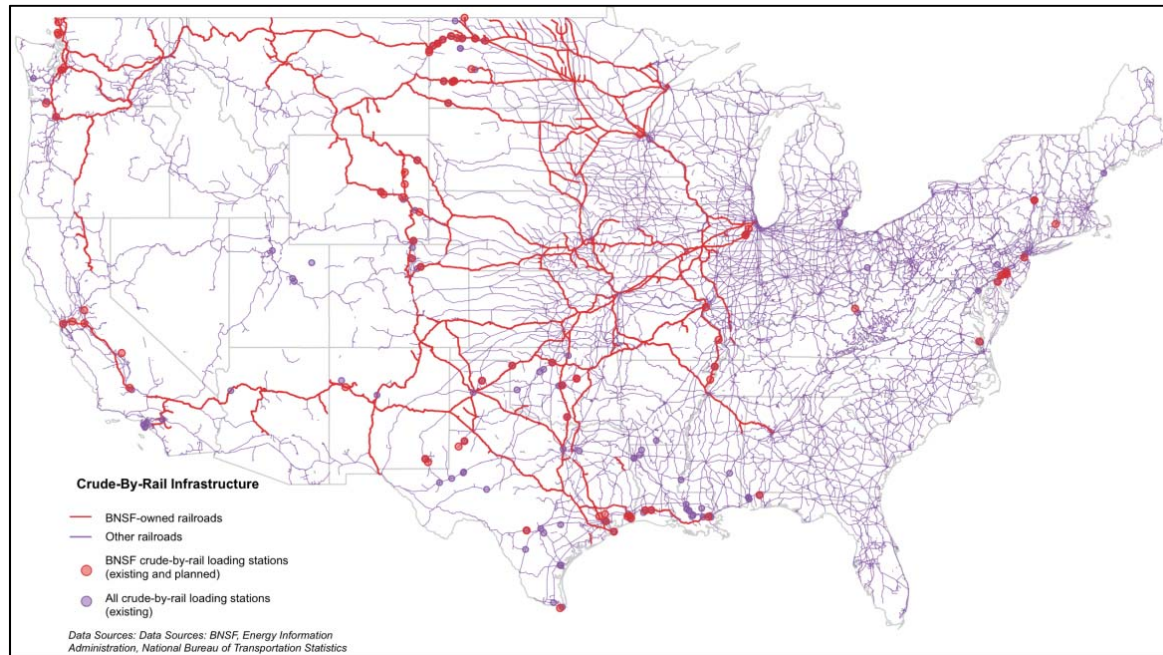
- Adopts a 50-mph restriction across the board for HHFTs.
- Adopts a 40-mph restriction in High Threat Urban Areas (HTUAs) for HHFTs containing one or more DOT 111 tank cars (including CPC-1232s).
- The 40-mph restriction for HHFTs operating in HTUAs without new or retrofitted tank cars is also currently required under FRA's April 24, 2015 Emergency Order No. 30.





# Rail Routing and Notification

- RRs operating HHFTs must perform routing analysis considering, at least, 27 factors and make routing decisions based on that analysis.
- Railroads operating HHFTs must provide contact information to state/regional fusion centers regarding routing information.
- Leverages current routing notification requirements to inform emergency responders of HHFT movement while addressing security issues.





# Sampling and Testing Program

- Under new § 173.41 shippers in all modes must develop and carry out a sampling and testing program for all unrefined petroleum-based products.
- In addition, shippers must certify that program is in place and make information available to DOT personnel upon request.
- Voluntary use of API RP 3000 may satisfy certain requirements of the new program.





# Sampling and Testing Program

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- More specifically, the plan must address:
  - **Frequency of sampling and testing**, including sampling prior to the initial offering and when changes that may affect the properties occur;
  - **Sampling methods** that ensures a representative sample of the entire mixture;
  - **Testing methods** that enable classification;
  - **Quality control measures** for sample frequencies;
  - **Duplicate samples** (or equivalent) for quality assurance;
  - **Criteria for modifying the program**; and
  - Testing (or other methods) to identify **properties relevant to packaging requirements**





# Harmonization with Canada

Issue	Status
Scope	Not Harmonized
New Tank Car Specification	<b>Fully Harmonized</b>
Existing Tank Car Specification	<b>Fully Harmonized</b>
Retrofit Timeline	<b>Harmonized except for first phase</b>
Braking	Will be Harmonized through separate action by Canada
Routing	<b>Harmonized to the extent needed</b>
Notification	<b>Harmonized to the extent needed</b>
Speed	<b>Harmonization not essential</b>
Classification	<b>Harmonized to extent needed</b>







# Harmonization with Canada

<b>Timeline for Continued Use of DOT Specification 111 Tanks for Use in North American HHFTs</b>			
<b>Tank Car Type / Service</b>	<b>US Retrofit Deadline</b>	<b>Tank Car Type / Service</b>	<b>TC Retrofit Deadline</b>
Non Jacketed DOT-111 tank cars in PG I service	<i>(January 1, 2017)</i> <i>January 1, 2018</i>	Non Jacketed DOT-111 tank cars in Crude Oil service	<i>May 1, 2017</i>
Jacketed DOT-111 tank cars in PG I	<i>March 1, 2018</i>	Jacketed DOT-111 tank cars in Crude Oil service	<i>March 1, 2018</i>
Non Jacketed CPC-1232 tank cars in PG I service	<i>April 1, 2020</i>	Non Jacketed CPC-1232 tank cars in Crude Oil service	<i>April 1, 2020</i>
Non Jacketed DOT-111 tank cars in PG II service	<i>May 1, 2023</i>	Non Jacketed DOT-111 tank cars in Ethanol service	<i>May 1, 2023</i>
Jacketed DOT-111 tank cars in PG II service	<i>May 1, 2023</i>	Jacketed DOT-111 tank cars in Ethanol service	<i>May 1, 2023</i>
Non Jacketed CPC-1232 tank cars in PG II service	<i>July 1, 2023</i>	Non Jacketed CPC-1232 tank cars in Ethanol service	<i>July 1, 2023</i>
Jacketed CPC-1232 tank cars in PG I and PG II service and all remaining tank cars carrying PG III materials in an HHFT (pressure relief valve and valve handles).	<i>May 1, 2025</i>	Jacketed CPC-1232 tank cars in in Crude and Ethanol service and all remaining tank cars carrying PG III materials in an HHFT (pressure relief valve and valve handles).	<i>May 1, 2025</i>



# Additional Regulatory Efforts

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- **Advanced Notice of Proposed Rulemaking - Oil Spill Response Plans for High-Hazard Flammable Trains:** Sought comment on OSRPs:
  - Current thresholds
  - Costs of developing and implementing and submitting them for approval
  - Clarity of current requirements





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

# Transportation Rail Incident Preparedness & Response

<http://phmsa.dot.gov/hazmat/osd/emergencyresponse/TRIPR>



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Safety Administration



<http://dothazmat.vividlms.com/tools.asp>





# PHMSA's Outreach

## Crude Oil Transportation and Emergency Response

- Assistance for Local  
Emergency Response  
Training (**ALERT**) Grant
- Transportation Rail Incident  
Preparedness and Response  
Modules (**TRIPR**)





# Association of American Railroads

## ASKRAIL™

### First Responder APP Video

<https://www.aar.org/AskRail>

<http://bcove.me/xlu3f437>





## Why its important to have an operative vacuum relief valve





# Where to Find More Information...

**PHMSA**  
Pipeline and Hazardous Materials  
Safety Administration

U.S. Department of Transportation

Contact Us | FAQs | Site Map

PHMSA Home | Pipeline Safety | **Hazardous Materials Safety**

Go Advanced Search

**2012 EMERGENCY RESPONSE GUIDEBOOK**  
A Guidebook for First Responders During the Initial Phase of a Dangerous Goods, Hazardous Materials, Transportation Incident

DOT Distributes Over 2 Million New Hazardous Materials Emergency Guidebooks to Nation's First Responders

**Hazmat News** | **Most Viewed Info**

**Safety Advisories**

- PHMSA Continues Push to Clarify & Update Hazmat Rules
- 2011 Hazmat Penalty Action Report
- Hazmat Harmonization Rule on Air Packaging Issued
- PHMSA seeks comment on transportation of lithium batteries
- PHMSA Proposes Updating Hazmat Rules to Better Balance Safety Standards and Regulatory Requirements

**Find PHMSA Offices**

Key Officials  
Regional Offices

**PHMSA/Hazmat Resources**

- Regulations & Rulemakings**  
PHMSA regulates and ensures the safe movement of hazardous materials.
- Data & Reports**  
PHMSA tracks data on the frequency of failures, incidents and accidents.
- Permits & Approvals**

<http://hazmat.dot.gov>





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

A guidebook intended for use by first responders  
during the initial phase of a **transportation incident**  
involving **dangerous goods/hazardous materials**

# 2016

## EMERGENCY RESPONSE GUIDEBOOK



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



Transport  
Canada

Transports  
Canada

SCT  
SECRETARÍA DE  
COMUNICACIONES  
Y TRANSPORTES

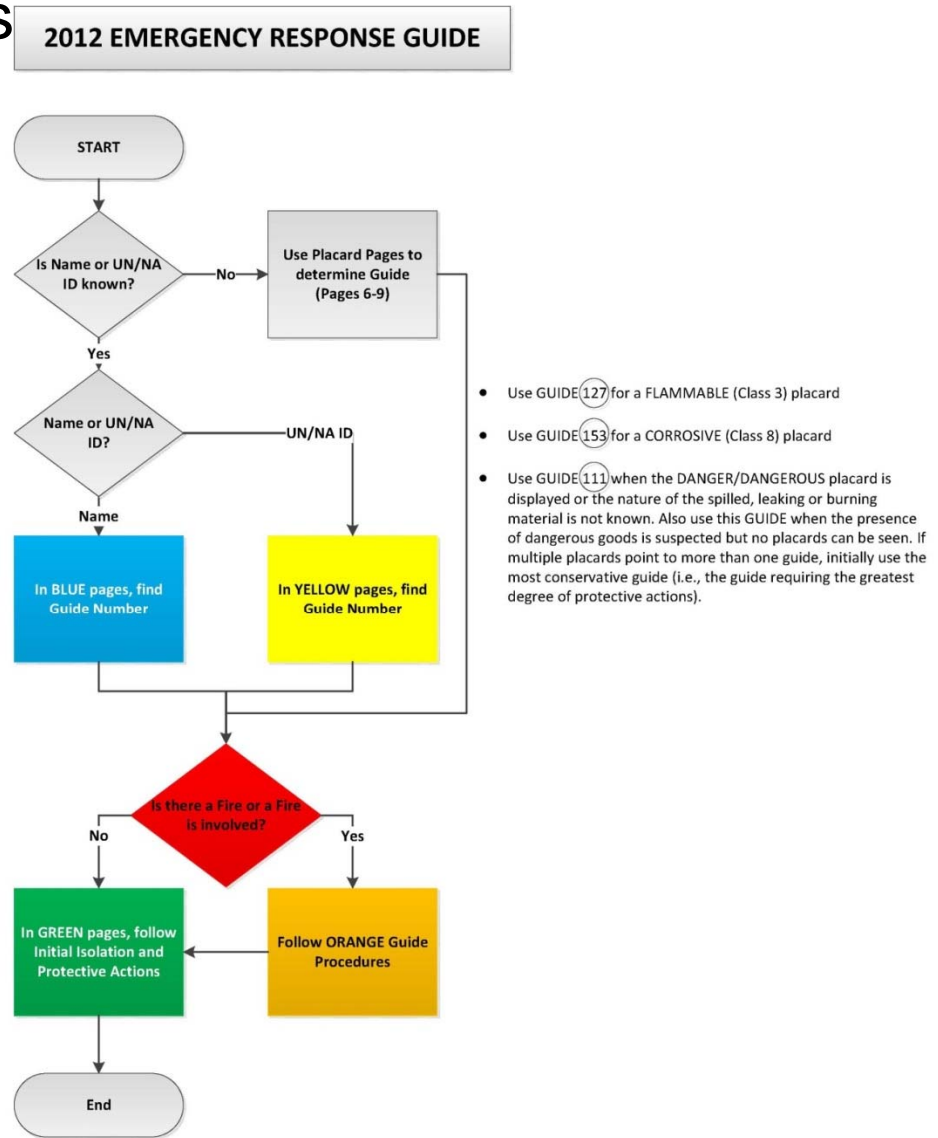






# Preview of Updates

- Replaced written instructions on page # 1 with a flow chart to show how to use the ERG2016.





# Preview of Updates

- Expanded Table of Placards and updated title to Table of Markings, Labels, and Placards and Initial Response Guide to Use on Scene.
- Expanded Rail Car Identification Chart and Road Trailer Identification Chart to two pages each.
- Updated Tables 1 and 3 based on new TIH data and reactivity research (**Argonne National Laboratory**)
- Updated pipeline emergency response information.
- Added information about Globally Harmonized System of Classification and Labeling of Chemicals (GHS) markings.
- Added all new dangerous goods / hazardous materials listed in UN Recommendations on the Transport of Dangerous Goods to 19th Revised Edition.
- Added information on Emergency Response Assistance Plans (ERAP) applicable in Canada.





# Emergency Response Guidebook

## ***2016 Coming Fairly Early 2016!***

<b>Development of the 2016 Emergency Response Guidebook (ERG)</b>	<ul style="list-style-type: none"><li>• Continued work on the R&amp;D project on Natural Mitigation of TIH materials with Argonne National Laboratory</li><li>• Continued monthly teleconferences with Canada and Argentina regarding development of white, blue, green, and green guide pages</li><li>• Coordinated and met with CANUTEC, representative from Columbia, the DHS and Industries to address stakeholders' concerns and to incorporate recent developments into the ERG</li></ul>
<b>ERG2016</b>	<ul style="list-style-type: none"><li>• Completed action items for ERG2016 Working Group</li><li>• Developed / funded enhancements requirements for ERG2016 mobile apps <b>(more than 400,000 ERG2012 downloads to date)</b></li><li>• Sent initial communications to State Coordinators requesting quantity of ERGs</li></ul>
<b>ERG2016</b>	<ul style="list-style-type: none"><li>• Initiate GPO Print and Distribution Contract (Solicitation for Proposals) – Q4, FY15</li><li>• Print and Distribute Through State Coordinators – Q2, 2016</li><li>• Rollout of Enhanced Mobile Applications – Q2, 2016</li></ul>





# ERG Print Production





## ERG Distribution – Print Version

- More than 13 Million Free Copies distributed to Date in the US
- Over Two Million Copies of 2012 Edition Through State Emergency Management Coordinators





# Distribution of ERGs

## New Jersey

Detective Ed Crowley  
New Jersey State  
Police HMRU  
1001 Fire Academy Dr.  
Sayreville, NJ 08872  
P: 732.721.4040  
F: 732.721.4672  
[lpp6259@gw.njsp.org](mailto:lpp6259@gw.njsp.org)

## New York

Kathy Shea New York State  
Emergency Management  
Office 1220 Washington  
Avenue Bldg. 22, Suite 101  
Albany, NY 12226  
P: 518.292.2302  
F: 518.322.4986  
[kshea@dhses.ny.gov](mailto:kshea@dhses.ny.gov)





# Hazardous Material Info-Center

1-800-HMR-4922

(1-800-467-4922)

**E-mail: [infocntr@dot.gov](mailto:infocntr@dot.gov)**

**Hours of Operation: 9 am – 5 pm ET**



- Obtain answers to HMR questions
- Request copies of Federal Register, special permits or training materials
- Report HMR violations
- Fax on Demand





*Thank You!*

**GOT A  
HAZMAT  
QUESTION?**

**<http://hazmat.dot.gov>**

**INFO-LINE  
1-800-467-4922**







# Hazardous Material Safety Assistance Team

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