



# Railroad Safety Advisory Committee

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## **FRA Crude Oil Update**

### **52<sup>nd</sup> Meeting of the Railroad Safety Advisory Committee**

December 4, 2014  
Washington, DC

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# Crude Oil Update



## Overview

U.S. DOT, including FRA and the Pipeline and Hazardous Materials Safety Administration (PHMSA), have taken action on multiple fronts to mitigate risks and ensure the safe transportation of crude oil, ethanol, and other flammable hazardous materials by rail.



# Crude Oil and Ethanol Derailments

There have been many:

- Casselton, ND
- York, ND
- Albany, NY
- LaSalle, CO
- Brownwood, TX
- Vandergrift, PA
- New Augusta, MS
- Plaster Rock, Ontario
- Casselton, ND
- Aliceville, AL
- Lac-Megantic, QC
- Plevna, MT
- Columbus, OH
- Tiskilwa, IL
- Arcadia, OH
- Rockford, IL
- Plainesville, OH
- NewBrighton, PA



# Response

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The Department of Transportation, the Federal Railroad Administration, and the railroad industry came together to respond quickly and decisively to the crude oil and ethanol derailments.

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# Emergency Orders & Safety Advisories

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August 7, 2013

- **Emergency Order No. 28:** Emergency Order establishing additional requirements for attendance and securement of certain freight trains and vehicles on mainline track or mainline siding outside of a yard or terminal.
  - **Safety Advisory 2013-06:** Addresses preventing unintended movement of freight trains and vehicles on mainline track or mainline siding outside of a yard or terminal.
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# Emergency Orders & Safety Advisories

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November 20, 2013:

- Safety Advisory 2013-07:  
Safety and security plans for Class 3 hazardous materials transported by rail.



# Emergency Orders & Safety Advisories

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May 7, 2014

- **Emergency Order DOT-OST-2014-0067:**  
Requires Railroads to notify state emergency response commissions regarding the operation of crude oil trains passing through their state.
  - **Safety Advisory 2014-01:**  
Recommends that crude oil be transported in the safest tank cars possible (when practical).
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# Safety Initiatives



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.... and there have been other initiatives

- Railroad Safety Advisory Committee (RSAC) Emergency Meeting – August 29, 2013
  - “Call to Action” Meeting with Industry and voluntary initiatives
  - RSAC Working Group Meetings
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# Regulatory Initiatives - RSAC

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- Securement Working Group
    - Work completed
    - RSAC Committee approved consensus regulatory text recommendations on April 1, 2014
  
  - Hazmat Issues Working Group
    - Consensus reached on four items
    - RSAC Committee approved consensus recommendations on April 8, 2014
    - Letter from ROA to PHMSA in development
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# Regulatory Initiative - RSAC

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- Train Crew Size
  - Consensus not reached
  - Input from stakeholders will inform the proposed rule
  - Developing Rule Text to be issued as an NPRM



# Regulatory Initiatives

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**August 1, 2014**

- PHMSA issued NPRM on Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains.
  - PHMSA issued Oil Spill Response Planning ANPRM.
  - Comment period for both proposed rules closed September 30, 2014
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# Current Environment

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This has all occurred in an environment where the industry has enjoyed continuous safety improvement with 2013 being the safest year ever!

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# Statistics



## Safety is our Number 1 Priority

### Rail Has Never Been Safer

Every regulation and enforcement action we issue is based on facts and sound research. New records in safety have been achieved four of the past five years.

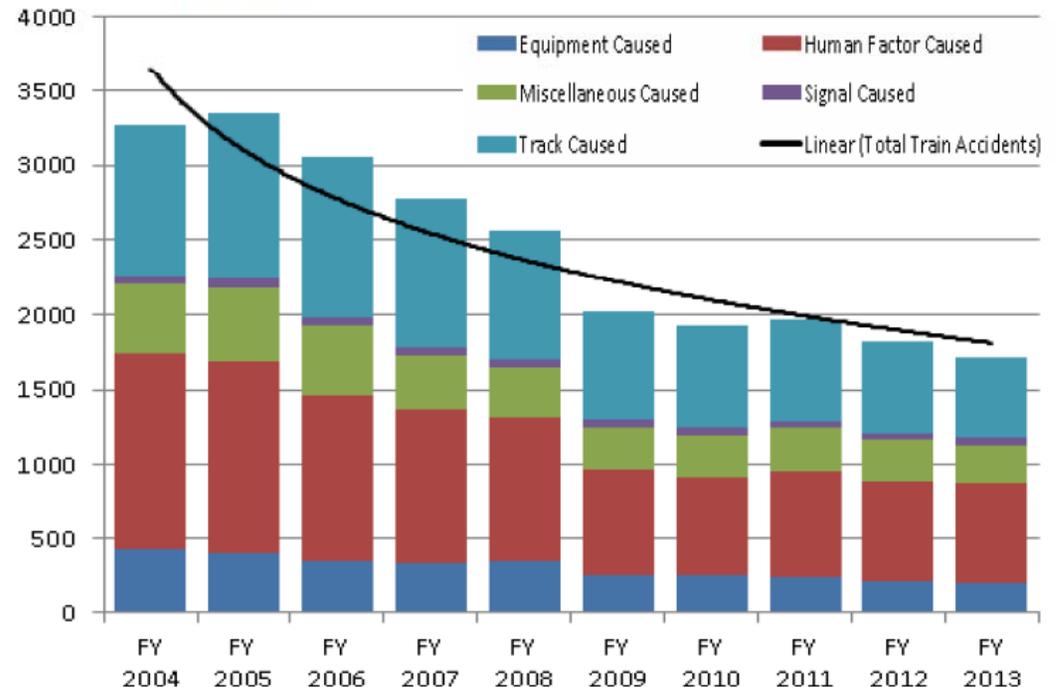
- Over the past decade, train accidents have declined 47 percent
- Highway-rail grade crossing accidents are down 35 percent
- Employee fatalities have been reduced by 59 percent



### Ten-Year Trend for Accident Reductions

\*Fiscal Year Representing Absolute Numbers

Source: FRA

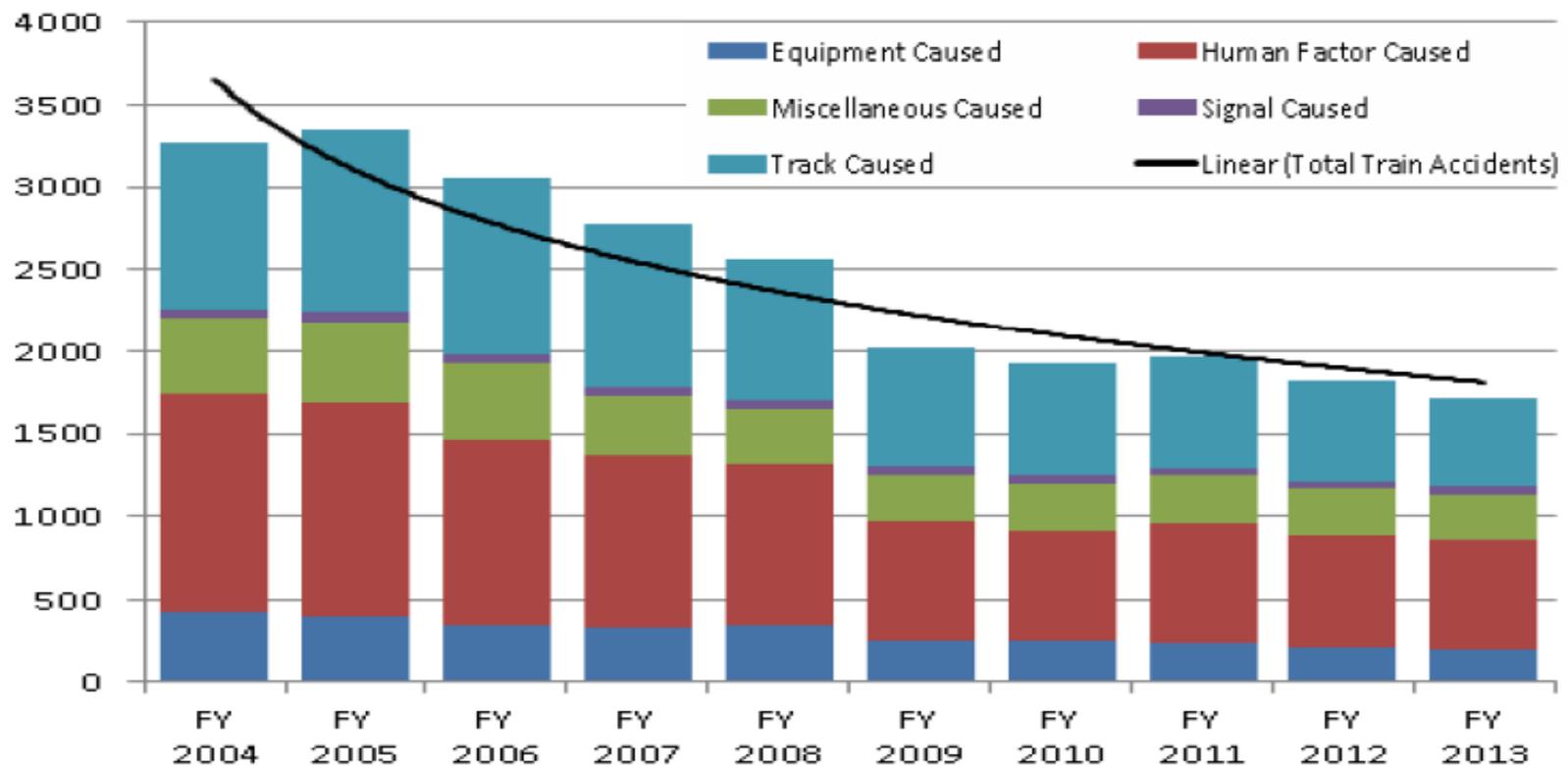




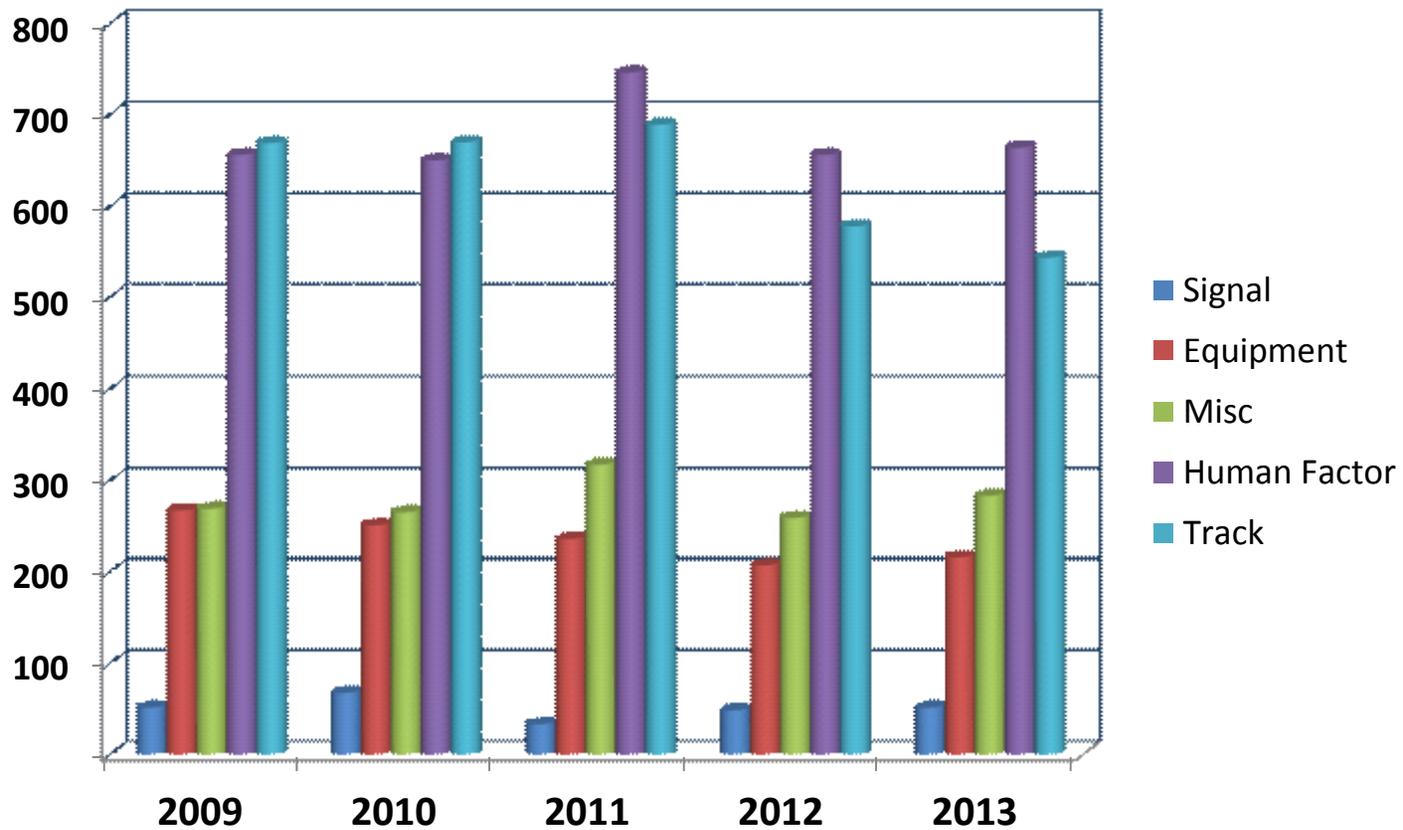
## Ten-Year Trend for Accident Reductions

*\*Fiscal Year Representing Absolute Numbers*

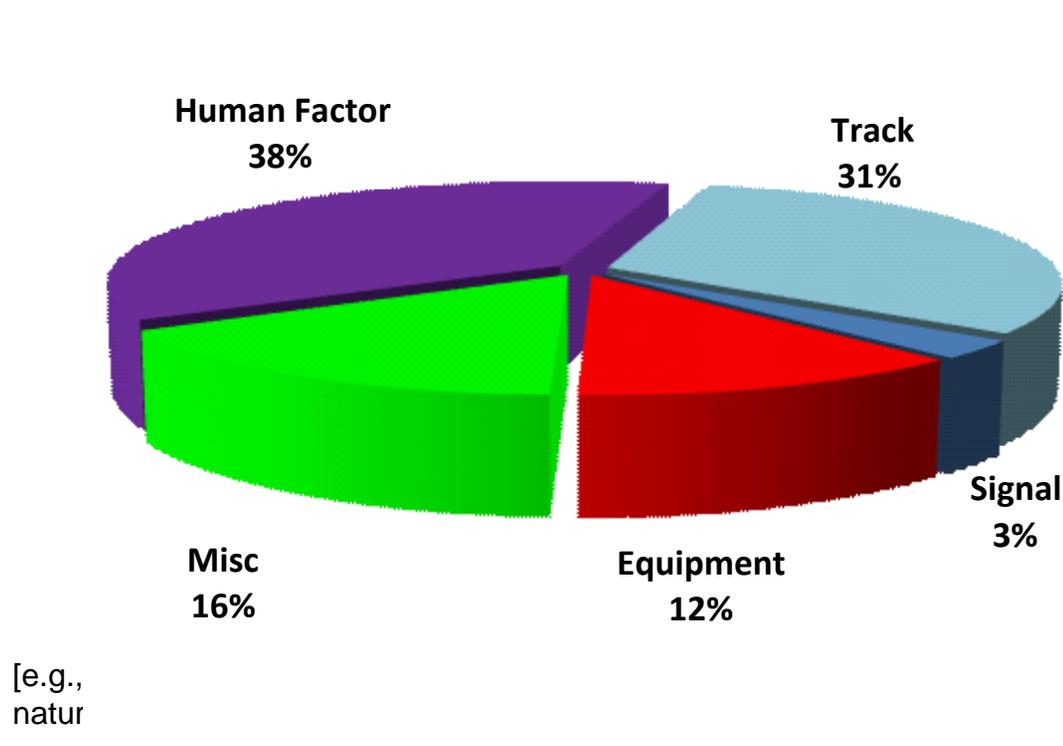
Source: FRA



# Train Accidents by Disciplines



# 2013 Train Accident by Disciplines



# Track Safety Strategy

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- Short-term Actions
- Mid-range Objectives
- Long-term Goals



# Track Safety Strategy

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## Short-term Actions

- Focused Audits of Track Maintenance practices
- Engagement with railroads and inspectors – minimum standards versus best practices.
- Safety Advisories to identify areas of risk and ways to mitigate.
- Better use of FRA enforcement tools – violations, fines, special notice of repair, other strategies.



# Track Safety Strategy

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## Mid-Range Objectives

- RSAC Rail Integrity Working Group
- Complete review of existing Track safety standards
- Removal of disincentives to test or inspect.
- Rewrite of the existing track safety standards to “raise the bar.”



# Track Safety Strategy

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## Long-Term Objectives

- Develop Autonomous track inspection technology
- Use revenue trains to conduct continuous testing.
- Perform trending analysis
- Support the technology roll out with appropriate regulations





# FRA Regulatory Summary



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## New Regulations that impact Crude Oil Transportation

- Tank Car Construction and Operational Requirements
- Securement Issues (with PHMSA)
- Hazardous Material Issues (with PHMSA)
- Train Crew Size
- Track Integrity Modifications
- Updated Track Safety Standards



# Future Actions

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Despite the good work of the Federal Government and Industry:



# Future Actions

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- Accidents continue to occur.
  - The public and public officials continue to be concerned.
  - Any event on a crude oil route becomes an automatic headline.
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# Future Actions

... the Public continues to react.



# Future Actions

... it no longer seems to matter how severe the accident may be or if a crude oil train is even involved in the accident.



If a crude oil route is involved  
– then any accident becomes a big problem!

# Recent Examples

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## April 30, 2014: Lynchburg, VA

- CSX Transportation
- 17cars carrying crude oil from North Dakota to Virginia derailed in Lynchburg, VA



# Derailment – Lynchburg, Virginia

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**April 30, 2014:  
Lynchburg, VA**

- 1 car breached
- No injuries reported
- Approximately 350 people forced to evacuate for 3.5 hours



# Derailment – Lynchburg, Virginia

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As a result of this accident, CSXT agreed to enhance its track repair program.





# Recent Examples



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## November 13, 2014 - Casselton, ND BNSF Railway:

- Eastbound BNSF Freight Train derailed 21 cars.
  - Derailed equipment impacted a westbound empty crude oil unit train and derailed a buffer car and 11 empty tank cars.
  - there was no release from any of the tank cars.
  - there were no injuries, no evacuations and no fires reported.
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# Derailment - Casselton, ND



Two separate detail fracture defect were recovered in the wreck. One 25% and one 20%. Rail was scheduled to be replaced 2015.



# Derailment - Casselton, ND

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As a result of this accident, BNSF conducted a review and analysis of BNSF rail operations and infrastructure in the vicinity of Casselton and develop an action plan to reassure the citizens of Casselton in BNSF's ability to safely operate.

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# Recent Examples



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## November 25, 2014 - Belden, CA Union Pacific Railroad:

- Derailment MP 264.9
- Derailment Cause – Broken rail
- Cars (corn) into Feather River
- Crude oil route

# Derailment

## Broken rail pieces - Belden, CA



Two separate detail fracture defect were recovered in the wreck. One 25% and one 10%. Rail was scheduled to be replaced 2015.



# Derailment – Belden, CA

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A cause for this accident has not yet been determined. However, the California legislature is again discussing steps that may effect crude oil transportation in California.

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# Crude Oil Initiatives Update



FRA and the Department of Transportation has **zero tolerance** for derailments on crude oil routes.

Derailments – especially on crude oil routes - can never be considered a cost of doing business.





# Crude Oil Initiatives Update



FRA will be doing everything it can to proactively address ongoing risk on crude oil routes.

... and Secretary Foxx and Administrator Szabo expect the railroads to do the same.

