

Safety Culture

Pennsylvania Freight Seminar

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Overview

- Discuss the Concept of Safety Culture
- Recent Metro-North Accidents
- How Safety Culture can be viewed

Rail Safety Improvement Act

§ 20156, Railroad safety risk reduction program

(c) RISK ANALYSIS.—In developing its railroad safety risk reduction program each railroad carrier required to submit such a program pursuant to subsection (a) shall identify and analyze the aspects of its railroad, including operating rules and practices, infrastructure, equipment, employee levels and schedules, **safety culture**, management structure, employee training, and other matters, including those not covered by railroad safety regulations or other Federal regulations, that impact railroad safety.



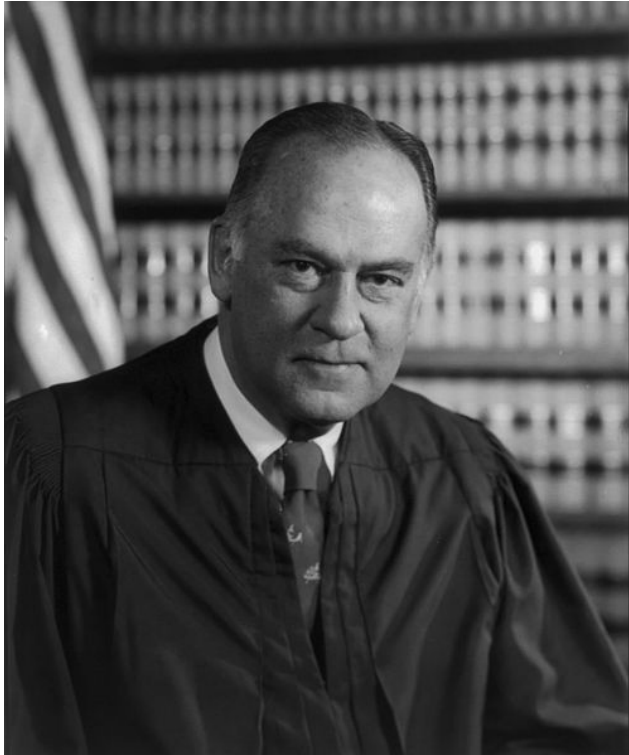
Definition of Safety Culture

System Safety Working Group definition

SAFETY CULTURE:

Safety culture means the shared values, actions, and behaviors that demonstrate a commitment to safety over competing goals and demands.

Potter Stewart



Potter Stewart Supreme Court Justice

“...pornography (is) hard to define, but I know it when I see it.”

Metro-North System



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6/13/2014

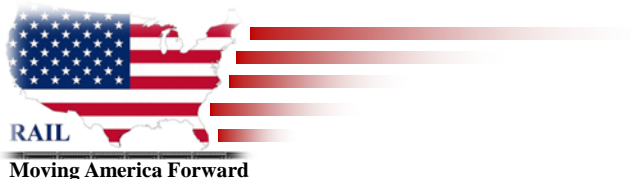


U.S. Department of Transportation
Federal Railroad Administration



Metro-North Statistics

- Second largest commuter railroad in the United States
- Annual ridership of 82.9 million
- Subsidiary of Metropolitan Transit Authority (MTA)
- Three main lines run from midtown Manhattan north up the Hudson River to suburban New York and east to Connecticut

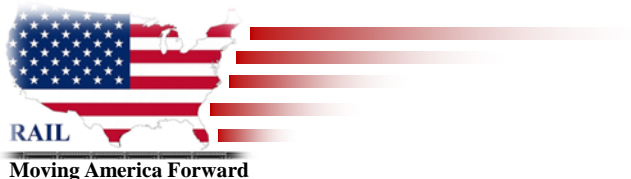




Before May 2013



- No passenger fatalities in 30 years of operations.
- No NTSB accident investigations.
- Good safety statistics that showed Metro-North's defect ratio was safer than the commuter railroad average.





Metro-North Statistics



Calendar Year	Type of Commuter Rail	Defect Rate
2005	All Commuter Rails	0.050818
2005	Metro North	0.031307
2006	All Commuter Rails	0.042161
2006	Metro North	0.030352
2007	All Commuter Rails	0.039601
2007	Metro North	0.026026
2008	All Commuter Rails	0.050037
2008	Metro North	0.024122
2009	All Commuter Rails	0.04651
2009	Metro North	0.035672
2010	All Commuter Rails	0.043845
2010	Metro North	0.036987
2011	All Commuter Rails	0.047762
2011	Metro North	0.04265
2012	All Commuter Rails	0.059568
2012	Metro North	0.043478
2013	All Commuter Rails	0.054268
2013	Metro North	0.064535
2014	All Commuter Rails	0.080371
2014	Metro North	0.110756

Metro-North defect ratio was lower than the commuter rail industry average from 2005 to 2012.



Dr. John K. Lauber



Dr. John K. Lauber NTSB Member

“...just because you don’t have an accident doesn’t mean you have a safe operation.”



Recent Accidents



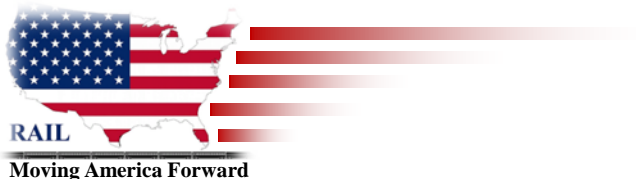
- Bridgeport, CT – May 17, 2013, Derailment and Train-to-Train Collision – 50 Injured
- West Haven, CT – May 28, 2013, Roadway Worker Employee Fatality
- Spuyten Duyvil, Bronx, NY – July 18, 2013, CSX Freight Train Derailment on Metro-North Track
- Spuyten Duyvil, Bronx, NY – December 1, 2013, Metro-North Passenger Train Derailment – 4 fatalities and 70 injuries
- Manhattan, NY – March 10, 2014, Roadway Worker Employee Fatality





After May 2013

- Passenger Fatalities: 4
- Employee Fatalities: 2
- Passenger and Employee Injuries: Over 120
- NTSB accident investigations: 5



Spuyten Duyvil

After Spuyten Duyvil, FRA initiated
Operation Deep Dive





Operation Deep Dive



- **IT WAS NOT:**

- An inspection blitz with dozens of inspectors conducting routine inspections.

- **IT WAS:**

- A new tool
- Designed to dig deeper – safety culture, processes, procedures, protocols, safety enhancements, best practices
- Designed to assist Metro-North, not to punish





Operation Deep Dive



FRA identified **three overarching safety concerns** that affect all facets of Metro-North as an organization and the safety of its rail operations:

- Metro-North's over emphasis of train operations and on-time performance over all other considerations.
- Metro-North's inadequate training and qualification program.
- Metro-North's ineffective safety department and **poor safety culture.**



Specific Findings

Train Operations, On-Time Performance

Symptoms:

- Inadequate time to inspect track
- Poor track condition
- MOW employees always feel rushed
- Signal maintainers hesitate to take tracks out of service
- 30% of signal tests conducted late
- Efficiency testing not focused on speed

Ineffective Training and Qualification Program

Symptoms:

- Poor track maintenance
- Efficiency testing officers not trained and qualified
- Training records not available
- Lack of knowledge on RWP
- Signal maintainer training inadequate
- Lack of knowledge on track inspection techniques
- Electric traction safety manuals not available

Specific Findings

Ineffective Safety Department and Poor Safety Culture

Symptoms:

- System Safety Plan not complete and not followed
- Safety Department has minimal safety qualifications
- Mileage sign posts missing
- Operational Testing program does not meet FRA requirements
- Operating rule training documentation missing
- Cell Phone usage on ROW
- No proactive safety advocacy – no efforts to identify safety shortfalls and no ownership
- Road Foremen not aware of MN efficiency testing program
- Engineer and conductor qualification records incomplete
- Safety representatives do not attend safety meetings
- Roadway worker Protection procedures do not meet FRA requirements





A Balanced Approach



- Safety and service must be balanced.
- Risk should be kept ALARP.
- Understand and acknowledge the role of safety to mitigate risk.

A Seat At The Table



Safety must **ALWAYS** have a seat at the table along with other considerations!

Safety Culture



That's how you build a positive **Safety Culture.**

Questions?



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6/13/2014



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of Transportation
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