

Safety Rules Revisions Impact on Safety Culture, Incident Rates, and Liability Claims in the U.S. Railroad Industry: A Summary of Lessons-Learned

Sponsored by the FRA
RDV-30

Volpe National Transportation Systems Center
Operator Performance and Safety Analysis
Joyce Ranney PhD
January 13, 2004



Outline

- Safety rules revision in railroad industry
- Safety rules revision description
- Description of FRA sponsored study
- Lessons-learned
- Future directions

Need for Safety Rules Revision in Railroads

- Many railroads have over 500 safety rules
- Safety rules – redundant, conflicting
- Several causes
 - Mergers
 - Concerned management
 - Federal Employer's Liability Act (FELA)
 - Historical safety focus

FRA interested in methods to improve safety culture, reduce injuries and related liability costs.

British Railway Workers Perception of Safety Rules (Elling, 1991)

80% - Concerned with pinning blame

79% - Too many rules, 12% - too few;
only 9% - no complaints

77% - Rules conflict

95% - Work could not be finished on time if followed

85% - Hard to find what they wanted

70% - Too complex and hard to read when found

71% - Little motivation to follow them

0% - Referred to the rules in a practical work
situation in the preceding six months

Description of Safety Rules Revision

(Hile Group, Inc. 2002)

- Shift responsibility for safety rules
- Involve management and labor
- Structure project for craft involvement
- Use new definition of a safety rule
- Involve rules revision consultant
- Communicate new rules

FRA Sponsored Study

- Volpe Center conduct lessons-learned study
- Four transportation carriers
- Interviews with labor and management
- Incident data examined

Lessons-learned

- Successful Implementation Strategies
- Impacts
 - Safety culture
 - Number of rules
 - Incident rates
 - Liability and Injury costs
- Challenges

Successful Implementation Strategies

- Senior management preparation
- Participation
- External help
- Involvement of unions

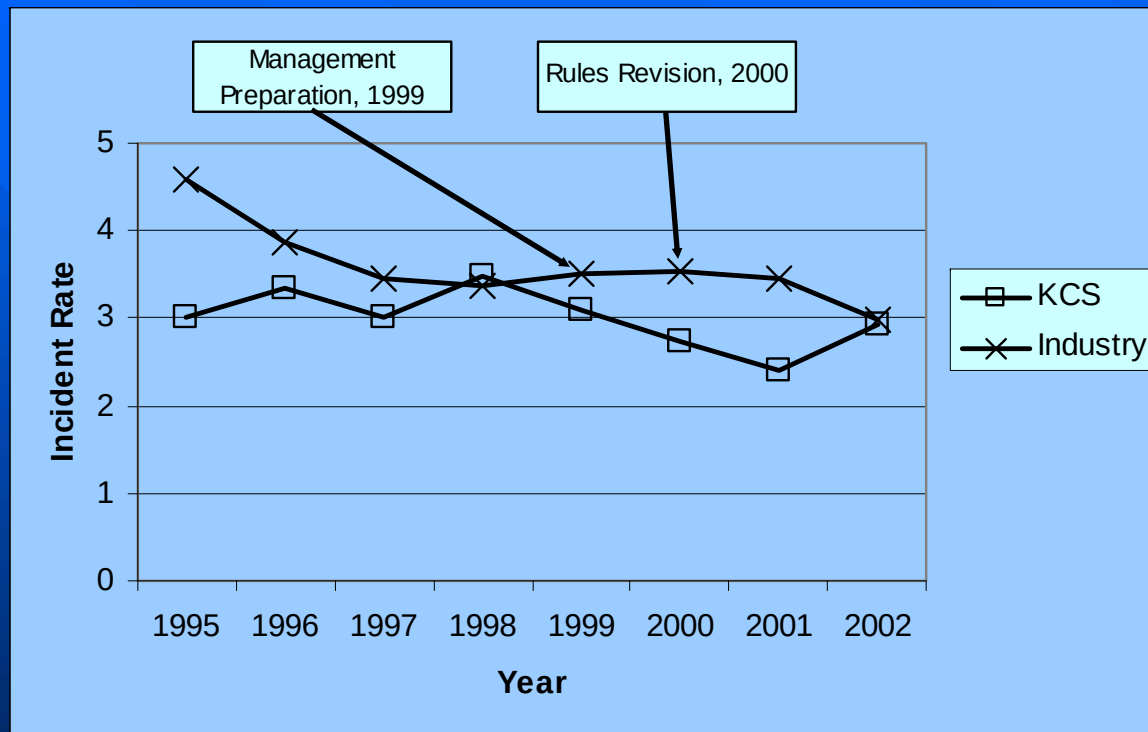
Impacts: Safety Culture

- Values, patterns of behavior
- Labor – management relations

Impacts: Safety Rules Reduction

<i>Company</i>	<i>Before Revision</i>	<i>After Revision</i>
American Commercial Barge Lines (ACBL)	400 safety rules, policy, job aids, training information (some craft specific and some for general use)	125 core and job specific safety rules and recommended safe work practices
CSXT Transportation (CSXT)	900 safety rules, policy, job aids, training information (some craft specific and some for general use)	222 core and craft specific safety rules
Kansas City Southern (KCS)	742 safety rules, policy, job aids, training information (some craft specific and some for general use)	678 core and craft specific safety rules (includes 98 for Clerical - no previous book)
Canadian National/ Illinois Central (CN-IC)	1,360 safety rules, policy, job aids, training information (some craft specific and some for general use)	686 core and craft specific safety rules

Impacts: Incident Rates Reduction Significant at One Railroad



*Management Preparation Phase
mentioned by all four carriers*

Challenges

- Significant time required
- Resistance from subgroups
- Turnover on committees

Future Directions

- Learn more about:
 - Implementation differences by department
 - Reduction in FELA claims
 - Role of union officials
 - Sustainability

Safety rules revision worthy of future study