

Best Practices for Improving Safety-Related Rule Compliance

Judith Gertler

APTA Rail Conference
Boston, MA

June 15, 2011

TCRP A-34 Objective and Scope

- Develop a resource for improving safety-related rule compliance in the public transportation industry
- Focus primarily on rules designed to prevent high consequence events
- Applies to all employees involved in operation and maintenance of a transit system

Resource Document Organization

1. Introduction
2. How to Use This Resource Document
3. Understanding Rules Compliance
4. Classifying Noncompliance
5. Best Practices You Can Use
6. Safety Reporting System Best Practices

References

Abbreviations

Appendices:

Rules Compliance Practices in Other Industries

Rules Compliance Practices in Transit

Safety Reporting Systems

Rules Compliance Program Success Stories

Effectiveness Metrics

Categories of Best Practices

Screening
and Selecting
Employees

Training
and
Testing

Communication

Monitoring
Rules
Compliance

Responding
to
Noncompliance

Safety
Management

Rules Compliance Checklist

Category	Example Questions
Screening and Selecting Employees	Do you screen for risk-taking behavior when you evaluate candidates?
Training and Testing	Does your rules training demonstrate the application of the rule? Do you give feedback to the trainee during and after practice?
Communication	Do you have communication strategies that reinforce the importance of adhering to rules?

Rules Compliance Checklist

Category	Example Questions
Monitoring Rules Compliance	Do you have an operational testing program?
Responding to Noncompliance	Do you identify the underlying causes of noncompliant events?
Safety Management	Does your process for evaluating your rules compliance program incorporate both leading and lagging indicators? Do you have a confidential, nonpunitive and voluntary means for employees to report near misses or unsafe conditions?

Metrics for Evaluating Effectiveness of Best Practices

- “You can’t improve what you don’t measure.”
- Must include a mix of *leading* and *lagging* indicators
 - *Leading indicators* focus on activities or conditions that will prevent or reduce risk of the lagging indicator
 - *Lagging indicators* measure undesirable outcomes that have occurred
- *Leading indicators* focus on process and achievement-oriented
- *Lagging indicators* are avoidance-oriented

Communication Best Practices

Purpose: Inform employees of new rules and encourage compliance

- Proactive Rules Communication
- Opportunities to Ask Questions
- Communicating Changes to Rules
- Positive Safety Language
- Customer Feedback

Proactive Rules Communication

- Posters
- Safety or training bulletins
- Rules of the day/week

✓% of crew reporting locations with bulletin boards or variable message signs

✓% of rule changes posted



Sample Safety Bulletin

ORANGE COUNTY TRANSPORTATION AUTHORITY

INCIDENT ALERT

Transit Operations

WHAT HAPPENED

Railroad Crossings – Two Coach Operators Fail to Take Correct Action

Incident #1 - April 2010, Santa Ana

Incident #2 - June 2010, Anaheim

After stopping at the limit line and then proceeding to cross the tracks, the railroad warning lights and bells activated. In each case, the operator stopped the bus, shifted into reverse, and backed up. Both buses were struck by the crossing arm.

LESSONS LEARNED

In each case, the operators endangered themselves, their passengers, and the train by not following procedure. Stopping and backing up increases the time the bus is in the danger zone. If anything goes wrong while shifting into reverse, or another vehicle pulls directly behind the bus – the bus will be hit by the train!

When you decide it is safe, proceed Full Throttle!

Always “Cross and Clear” – Do Not Stop!

Please take the time to review the Railroad Crossing Procedures.

For further information, please contact your base trainer or the Health, Safety, & Environmental Compliance Department.

Positive Safety Language

- Unanticipated or unusual occurrence vs. incident
- % passing vs. % failing

✓ Number or % of safety communications containing positive safety language

BAY AREA RAPID TRANSIT DISTRICT
UNUSUAL OCCURRENCE REPORT

This form to be used only for the reporting of UNUSUAL OCCURRENCES, INCIDENTS< IRREGULARITIES or PHYSICAL DAMAGE TO DISTRICT PROPERTY, including FIRE DAMAGE. In all cases of accident or personal injury, Accident/Injury Report, Form No. 0345 shall be used. The Supervisor's Report of Employee Injury, Form No. 0030 shall be used for employee injuries. See reverse side of this form or fill-in instructions and use it to record additional information.

2. DATE OF REPORT _____
Mo. Day Yr.

1. DEPT. _____ SECTION _____ 3. FILE NO. _____

4. DATE OF INCIDENT _____
Mo. Day Yr.

5. MILEPOST TRACK NO. STATION/YARD NAME _____
 GRADE SUBWAY AERIAL TUBE _____

6. RUN NO. _____ TRAIN NO. _____

7. IDENTIFY INDIVIDUALS INVOLVED OR WITNESSING THE INCIDENT
AFTER THE EMPLOYEE'S NAME):
NAME _____
NAME _____

783.11-1

Monitoring Rules Compliance

Purpose: Monitor employees for compliance with safety rules

- Operational testing
- Observational methods
- Automated methods

Operational Testing

Elements of operational testing program

- Organizational responsibility
- Employees covered
- Rules covered and testing methods
- Frequency of testing and number of tests
- Employee notification and record keeping
- Corrective action

- ✓ Number and types of tests
- ✓ % passing
- ✓ Number of major rule violations

Observational Methods

- Ride-along
- Mystery Rider
- Observation exterior to vehicle
- Speed monitoring with radar gun
- Video data recording systems

- ✓ Number and types of observations
- ✓ % and number in compliance



Observational Methods

- Safety audit

- ✓ Number of safety audits
- ✓ Number and types of problems observed and coached

Safety Management

- Assessing the Rules Compliance Program
- Encouraging Employee Involvement
- Incentivizing Rules Compliance
- Reporting Near-Misses and Other Safety Risks

Project Status

- Draft final report submitted
- Proposal for additional work to implement pilot reporting system at a transit agency